

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

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| <b>TAB</b> | <b>DESCRIPTION</b>   | <b>ACTION</b>     |
|------------|--|-------------------|
| 1          | BOARD POLICY III.L. CONTINUING EDUCATION AND CREDIT FOR PRIOR EXPERIENTIAL LEARNING – SECOND READING | Motion to Approve |
| 2          | BOARD POLICY III.N. GENERAL EDUCATION – SECOND READING   | Motion to Approve |
| 3          | BOARD POLICY III.W. HIGHER EDUCATION RESEARCH – SECOND READING                                       | Motion to Approve |
| 4          | BOISE STATE UNIVERSITY – ONLINE BACHELOR OF BUSINESS ADMINISTRATION IN MANAGEMENT                    | Motion to Approve |
| 5          | IDAHO STATE UNIVERSITY – MASTER OF HEALTHCARE ADMINISTRATION   | Motion to Approve |
| 6          | IDAHO STATE UNIVERSITY – MASTER OF TAXATION  | Motion to Approve |
| 7          | UNIVERSITY OF IDAHO – BACHELOR OF SCIENCE IN MEDICAL SCIENCES  | Motion to Approve |
| 8          | UNIVERSITY OF IDAHO – FIRST YEAR LAW CURRICULUM IN BOISE   | Motion to Approve |
| 9          | HIGHER EDUCATION RESEARCH COUNCIL – ANNUAL REPORT  | Information Item  |

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**SUBJECT**

Board Policy III.L, Continuing Education and Credit for Prior Learning – Second Reading

**REFERENCE**

|               |  |
|---------------|--|
| June 2013     | The Board received recommendation from the Educational Attainment Task Force including recommendations for a statewide portfolio approval process for credit for prior learning. |
| October 2013  | Board Approved first reading the Board Policy III.L.   |
| December 2013 | The Board approved second reading of proposed amendments to Board Policy III.L.  |
| October 2016  | The Board approved the first reading of proposed amendments to Board Policy III.L.   |
| December 2016 | The Board approved the corrected first reading of Board Policy III.L.  |

**APPLICABLE STATUTES, RULE OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III.L, Continuing Education and Credit for Prior Learning

**BACKGROUND/DISCUSSION**

At the June 2013 Board meeting the Workforce Development Council's Educational Attainment Task Force made three recommendations to the Board for reaching the Board's educational attainment goal. One of these recommendations was that the Board establish a statewide portfolio approval process for awarding credits based on prior learning and experience. The recommendation was forwarded to Board staff for further development.

The proposed changes to Board policy will provide for baseline expectations regarding the use of Prior Learning Assessments (PLAs) and granting of credit for prior learning in Idaho. The proposed amendments to policy provide a clear definition for PLA and the methods to be used for assessing learning. This update also introduces how credit is to be awarded for Prior Experiential Learning (CPEL), as well as clarifying that PLA fees are to be assessed based on administration cost as opposed to the number of credit hours awarded.

There were no changes between the first and second reading of this policy.

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**IMPACT**

The proposed amendments to Board Policy III.L will establish modernized expectations for how and when PLAs are to be administered and when credit may be awarded.

**ATTACHMENTS**

Attachment 1 – Board Policy III.L – Second Reading

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**STAFF COMMENTS AND RECOMMENDATIONS**

In 2014, the Board contracted with the Council for Adult and Experiential Learning (CAEL) to work with its institutions to strengthen the awareness of PLAs on the campuses, determine the scope and nature of PLA services best suited to each institution, and identify opportunities for partnerships between and among institutions.

The use of PLAs and granting of credit is ancillary to achieving the Board's 60% Goal. Current PLA efforts on the campuses are insufficiently employed by students or aspiring students. As a result, these opportunities are not effectively communicated which leads to underutilization. The proposed changes aim to create a set of shared expectations for the usage of PLA and granting of credit.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the second reading of amendments to Board Policy III.L, Continuing Education and Credit for Prior Learning as provided in Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

**Idaho State Board of Education**

**GOVERNING POLICIES AND PROCEDURES**

**SECTION: III. POSTSECONDARY AFFAIRS**

**SUBSECTION: L. Continuing Education and ~~Credit for Prior Learning~~—~~December 2013~~  
~~February 2017~~**

The purpose of this policy is to ensure access and opportunities for citizens to continue their education regardless of location, age, and job responsibilities. Colleges and Universities are charged with providing the Continuing Education Programs that address such needs. ~~Subsection L. shall apply~~This policy applies to the University of Idaho, Boise State University, Idaho State University, Lewis-Clark College, Eastern Idaho Technical College, College of Southern Idaho, College of Western Idaho, and North Idaho College (hereinafter "institutions"). Additionally, this policy establishes the foundation by which institutions shall provide students with opportunities to demonstrate competencies acquired through life experience by developing options for credit for prior learning.

**1. Definitions**

- a. Continuing Education: ~~shall include~~ Educational activities that extend postsecondary opportunities beyond ~~an institution's~~the traditional campus ~~experience~~ and ~~beyond~~ traditional students, through both credit and noncredit programs. The general purpose ~~of continuing education~~ is to provide access to degree programs for citizens who are place-bound and or working full-time; workforce training; certification programs; and professional development opportunities to enhance lifelong learning, personal development and cultural enrichment of the individual and community.

- b. Prior Learning Assessment (PLA): The following well established, researched, and validated methods for assessing learning allowing students to demonstrate knowledge, competencies and skills and habits of mind in a particular field and have that learning evaluated for college credit by appropriate faculty.

i. Standardized assessments, including but not limited to:

- a) College Level Examination Program (CLEP)
- b) DANTES Subject Standardized Test
- c) UExcel
- d) Advanced Placement (AP)
- e) International Baccalaureate (IB)
- f) Scholastic Aptitude Test (SAT)
- g) American College Testing (ACT)

ii. Credit recommenders, including but not limited to:

- a) American Council on Education (ACE)

iii. Faculty developed assessments, including but not limited to:

- a) Technical Competency Credit, consistent with Board Policy III.Y
- b) Course specific challenge exams

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- c) Locally-evaluated industry and workplace education/training programs
- d) Portfolio

i.v. Credit for Prior Experiential Learning (CPEL): Credit earned as a result of:

- 1) Course specific challenge exams
- 2) Portfolio assessments

- ~~b. shall include demonstration of learning outcomes for knowledge acquired from work and life experiences, independent reading and study, various tests like Advanced Placement (AP) and the College Level Examination (CLEP), and/or approved military education or experience~~
- ~~ii. Prior and College Level Examination Program DANTES Subject Standardize Test Advanced Placement~~

## 2. Minimum Standards

### a. Continuing Education Activities

- i. Institutions ~~are charged with providing~~must provide continuing education programs that are ~~conducive~~aligned with their mission and the needs of their service region(s) ~~as which is defined in Board Policy III.Z.~~
- ii. All continuing education activities must be accountable to and monitored by the appropriate undergraduate or graduate organization of the institution (i.e., the curriculum committee, respective administrators, graduate curriculum committee, and faculty council), and approved by the chief academic officer of the institution, or their designee, as meeting their standards.

a) All academic credit activities shall be equivalent in quality to comparable instructional courses and programs offered on the campuses of the institutions, especially with respect to:

- 1) The appointment, orientation, supervision, and evaluation of faculty members in the courses, programs, or activities;
- 2) Procedures for the approval of courses, programs, or activities;
- 3) The stature of the curriculum with respect to its organization, appropriateness, level, intellectual demands, instructional contact time, and out-of-class effort;
- 4) The admission of students, the advising process, and the evaluation of student performance in courses, programs, or activities;
- 5) The support offered by library, classroom, laboratory, and other resources; the detailed as well as general responsibility for the quality of

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courses, programs, and activities accepted by the appropriate academic and administrative units on the campus; and

6) The keeping of student records for such activities as admission, academic performance, and transfer credit.

b) Non-credit activities and other special programs shall abide by nationally accepted practices:

1) The granting of Continuing Education Units (C-E-U-) for courses and special learning activities is guided by generally accepted norms; based on institutional mission and policy; consistent across the institution, wherever offered and however delivered; appropriate to the objectives of the course; and determined by student achievement of identified learning outcomes.

2) The institution maintains records which describe the number of courses and nature of learning provided through noncredit instruction.

b. The Administration of Credit for Prior Learning Assessments

i. Prior learning shall be evaluated upon a student's request and be eligible for credit through a PLA if it is demonstrated by successfully passing an appropriately rigorous assessment. CPEL is only awardable to enrolled students.

ii. Institutions are responsible for determining how best to implement PLAs within the context of its mission, student needs and academic programs.

iii. Institutions shall ensure students have access to the most appropriate and current prior learning assessment methods.

iv. Each institution shall: (A) assign oversight of PLAs to its highest ranking Academic Officer or his/her designee; and (B) designate at least one liaison (person or place) to serve as a PLA resource for faculty, administrators, staff and students.

v. Idaho's PLA infrastructure shall ensure maximum transferability of credit among the institutions.

vi. Institutions shall ensure information technology systems can consistently record and track PLA data, as well as enable accurate reporting.

vii. When appropriate, and with approval from the faculty on campus, PLAs shall be made available for approved programs in a consistent, transferable and comparable manner.

viii. Institutions shall provide professional development for those faculty members, administrators, and staff working with PLA students to assure high quality, transparency, and consistency in evaluating and awarding credit.

ix. Institutions shall integrate the review of institutional PLA practices into existing curricular review cycles and NWCCU Accreditation reviews to maintain their currency and relevance.

~~x. Institutional policies and procedures must include the awarding of credit for education, training or service completed by an individual as a member of the armed forces or reserves pursuant to in Section 33-3727, Idaho Code. All credit for prior learning must be guided by approved institutional policies and procedures. These policies and procedures must include the awarding of credit for education, training or service completed by an individual as a member of the armed forces or reserves as outlined in Section 33-3727 Idaho Code. Institutions shall make no assurances regarding the number of credits to be awarded prior to the completion of the institution's review process. Institutional policies and procedures shall maintain the following minimum standards:~~

- ~~i. Credits shall be awarded only at the undergraduate level to enrolled students.~~
- ~~ii. Credits shall be awarded only for documented student achievement that is equivalent to expected learning outcomes for courses within the institution's regular curricular offerings.~~
- ~~iii. Credits shall be awarded based on the recommendation of appropriately qualified faculty.~~
- ~~iv. Credits shall be limited to a maximum of 25% of the credits required for a degree.~~
- ~~v. Credits shall be identified on students' transcripts as prior learning credits and may not duplicate other credit awarded to the student in fulfillment of degree requirements.~~

### ~~3. Service Regions and Inter-Institutional Collaboration~~

~~The Board has established primary service regions identified in Board Policy Section III.Z. for the college and universities and professional technical education based on the geography of the state. Service regions of North Idaho College, the College of Southern Idaho, and the College of Western Idaho have been established pursuant to Section 33-2101, Idaho Code. Institutional chief academic officers will develop Memorandums of Understanding to facilitate collaboration between the institutions consistent with Board Policy Section III.Z.b.ii.~~

### 3. Fees

Fees for continuing education and credit for prior learning shall be assessed consistent with Board Policy Section V.R. and must be based on and reflect the operational costs of administering a PLA. Fees may not be based on the number of credits awarded and shall be made publicly available in a single online location.

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**SUBJECT**

Board Policy III.N., General Education – Second Reading

**REFERENCE**

|                   |  |
|-------------------|--|
| February 27, 2014 | The Board approved the first reading of proposed new Policy III.N, General Education.  |
| April 17, 2014    | The Board approved the second reading of proposed new Policy III.N, General Education.   |
| January 22, 2015  | The Board approved a waiver to Board Policy III.N.4.a as it applies to Associate of Applied Science Degrees for the 2015-2016 academic year. |
| April 2015        | The Board approved the first reading of proposed amendments to Board Policy III.N.   |
| June 2015         | The Board approved the second reading of Board Policy III.N.   |
| December 2016     | The Board approved the first reading of proposed amendments to Board Policy III.N.   |

**APPLICABLE STATUTES, RULE OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III.N, General Education

**BACKGROUND / DISCUSSION**

Board Policy III.N provides that faculty will meet annually to ensure consistency and relevance of General Education competencies related to their discipline. At last year's General Education Summit held December 3-4, 2015, the Oral Communications discipline group identified a concern regarding a technical writing class that was identified as a GEM oral communication class. The Oral Communication discipline group believed the course did not align with the national discipline expected outcomes.

Proposed amendments would clarify that there is an expectation of "spoken" rather than written communication in the Oral Communication competency and will require students to meet all six competencies upon completion of a course.

There were no changes between the first and second reading of this policy.

**IMPACT**

Approval of the proposed amendments will provide increased uniformity to the general education framework bringing the outcomes rubric into alignment with the national discipline expected outcomes.

**ATTACHMENTS**

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**STAFF COMMENTS AND RECOMMENDATIONS**

The General Education Committee met with the Oral Communication discipline group on June 10, 2016 and during the October 2016 General Education Summit to discuss concerns regarding the oral communication GEM course competencies and amendments brought forward by the discipline group.

The Statewide General Education Committee reviewed and approved the recommended amendments at their October 5, 2016 meeting with minor changes. Council on Academic Affairs and Programs (CAAP) reviewed the proposed changes at its November 17, 2016 meeting and recommends approval.

Staff recommends approval.

**BOARD ACTION**

I move to approve the second reading of the proposed amendments to Board Policy III.N, General Education as presented in Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

**Idaho State Board of Education  
GOVERNING POLICIES AND PROCEDURES  
SECTION: III. POSTSECONDARY AFFAIRS  
SUBSECTION: N. Statewide General Education**

**February 2017**

In our rapidly-changing world, students need to understand how knowledge is generated and created. They need to adapt to new knowledge and opportunities as they arise, as well as effectively communicate and collaborate with increasing diverse communities and ways of knowing. In combination with a student's major, general education curriculum prepares students to use multiple strategies in an integrative manner, to explore, critically analyze, and creatively address real-world issues and challenges. General education course work provides graduates with an understanding of self, the physical world, the development and functioning of human society, and its cultural and artistic endeavors, as well as an understanding of the methodologies, value systems, and thought processes employed in human inquiries. General Education helps instill students with the personal and civic responsibilities of good citizenship. General Education prepares graduates as adaptive, life-long learners.

This subsection shall apply to the University of Idaho, Boise State University, Idaho State University, Lewis-Clark State College, Eastern Idaho Technical College, College of Southern Idaho, College of Western Idaho, and North Idaho College (hereinafter "institutions").

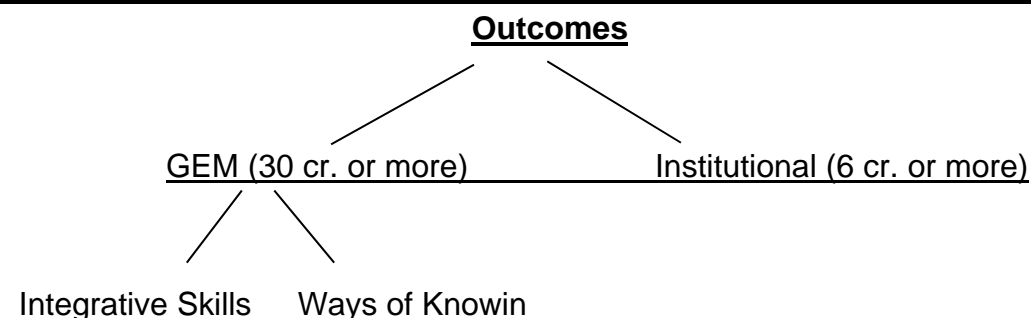
1. The state of Idaho's General Education framework for Associate of Arts, Associate of Science, and Baccalaureate degrees, outlined below in Figure 1, shall be:

The General Education curricula must be thirty-six (36) credits or more.

- a. Thirty (30) credits or more of the General Education curricula must fit within the General Education Matriculation (GEM) competency areas defined in subsection 4 of this policy.

Six (6) or more credits of the General Education curricula are reserved for institutions to address the specific mission and goals of the institution. For this purpose, institutions may create new competency areas or they may choose to count additional credits from GEM competencies. Regardless, these institutionally designated credits must have learning outcomes linked to Association of American Colleges and Universities (AAC&U) Essential Learning Outcomes.

**Fig. 1: General Education framework reflecting AAC&U Essential Learning**



2. The intent of the General Education framework is to:
  - a. Establish statewide competencies that guide institutions' determination of courses that will be designated as GEM courses;
  - b. Establish shared rubrics that guide course/general education program assessment; and
  - c. Create a transparent and seamless transfer experience for undergraduate students.
3. There are six (6) GEM competency areas. The first two (2) emphasize integrative skills intended to inform the learning process throughout General Education and major. The final four (4) represent ways of knowing and are intended to expose students to ideas and engage them in a broad range of active learning experiences. Those competencies are:
  - a. Written Communication
  - b. Oral Communication
  - c. Mathematical Ways of Knowing
  - d. Scientific Ways of Knowing
  - e. Humanistic and Artistic Ways of Knowing
  - f. Social and Behavioral Ways of Knowing
4. GEM courses in each area shall include the following competencies.
  - a. Written Communication: Upon completion of a course in this category, students are able to demonstrate the following competencies.
    - i. Use flexible writing process strategies to generate, develop, revise, edit, and proofread texts.
    - ii. Adopt strategies and genre appropriate to the rhetorical situation.
    - iii. Use inquiry-based strategies to conduct research that explores multiple and diverse ideas and perspectives, appropriate to the rhetorical context.
    - iv. Use rhetorically appropriate strategies to evaluate, represent, and respond to the ideas and research of others.

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- v. Address readers' biases and assumptions with well-developed evidence-based reasoning.
  - vi. Use appropriate conventions for integrating, citing, and documenting source material as well as for surface-level language and style.
  - vii. Read, interpret, and communicate key concepts in writing and rhetoric.
- b. Oral Communication: Upon completion of a course in this category, students are able to demonstrate ~~at least five (5) of~~ the following competencies.
- i. Research, discover, and develop information resources and structure ~~verbal spoken~~ messages to increase knowledge and understanding.
  - ii. Research, discover, and develop evidence-based reasoning and persuasive appeals for ~~ethically~~ influencing attitudes, values, beliefs, or behaviors.
  - ~~iii. Understand interpersonal rules, roles, and strategies in varied contexts.~~
  - ~~iv.iii. Effectively listen and adapt~~ ~~spoken verbal~~ messages to the ~~diverse~~ personal, ideological, and emotional ~~needs perspectives of the individuals, groups, or contexts audience.~~
  - ~~v.iv. Employ effective~~ ~~verbal spoken~~ and nonverbal behaviors that support communication goals ~~and illustrate self-efficacy.~~
  - ~~v. Listen in order to~~ ~~Effectively and critically recognize and critically~~ evaluate the reasoning, evidence, and communication strategies of self and others.
  - vi. Understand key theories, perspectives, principles, and concepts in the Communication discipline, as applied to oral communication.
- c. Mathematical Ways of Knowing: Upon completion of a course in this category, a student is able to demonstrate the following competencies.
- i. Read, interpret, and communicate mathematical concepts.
  - ii. Represent and interpret information/data.
  - iii. Select, execute and explain appropriate strategies/procedures when solving mathematical problems.
  - iv. Apply quantitative reasoning to draw and support appropriate conclusions.
- d. Scientific Ways of Knowing: Upon completion of a course in this category, a student is able to demonstrate at least four (4) of the following competencies.
- i. Apply foundational knowledge and models of a natural or physical science to analyze and/or predict phenomena.
  - ii. Understand the scientific method and apply scientific reasoning to critically evaluate arguments.
  - iii. Interpret and communicate scientific information via written, spoken and/or visual representations.
  - iv. Describe the relevance of specific scientific principles to the human experience.

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- v. Form and test a hypothesis in the laboratory or field using discipline-specific tools and techniques for data collection and/or analysis.
- e. Humanistic and Artistic Ways of Knowing: Upon completion of a course in this category, students are able to demonstrate at least five (5) of the following competencies.
  - i. Recognize and describe humanistic, historical, or artistic works within problems and patterns of the human experience.
  - ii. Distinguish and apply terminologies, methodologies, processes, epistemologies, and traditions specific to the discipline(s).
  - iii. Perceive and understand formal, conceptual, and technical elements specific to the discipline.
  - iv. Analyze, evaluate, and interpret texts, objects, events, or ideas in their cultural, intellectual or historical contexts.
  - v. Interpret artistic and/or humanistic works through the creation of art or performance.
  - vi. Develop critical perspectives or arguments about the subject matter, grounded in evidence-based analysis.
  - vii. Demonstrate self-reflection, intellectual elasticity, widened perspective, and respect for diverse viewpoints.
- f. Social and Behavioral Ways of Knowing: Upon completion of a course in this category, students are able to demonstrate at least four (4) of the following competencies.
  - i. Demonstrate knowledge of the theoretical and conceptual frameworks of a particular Social Science discipline.
  - ii. Develop an understanding of self and the world by examining the dynamic interaction of individuals, groups, and societies as they shape and are shaped by history, culture, institutions, and ideas.
  - iii. Utilize Social Science approaches, such as research methods, inquiry, or problem-solving, to examine the variety of perspectives about human experiences.
  - iv. Evaluate how reasoning, history, or culture informs and guides individual, civic, or global decisions.
  - v. Understand and appreciate similarities and differences among and between individuals, cultures, or societies across space and time.

**5. General Education Requirement**

- a. This subsection applies to Associate of Arts, Associate of Science, and Baccalaureate degrees. For the purpose of this policy, disciplines are indicated

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by courses prefixes.

General Education curricula must reflect the following credit distribution:

| Competency Area                         | Minimum Credits   |
|---|---|
| Written Communication                   | 6   |
| Oral Communication                      | 2   |
| Mathematical Ways of Knowing            | 3   |
| Scientific Ways of Knowing              | 7 (from two different disciplines with at least one laboratory or field experience) |
| Humanistic and Artistic Ways of Knowing | 6 (from two different disciplines)  |
| Social and Behavioral Ways of Knowing   | 6 (from two different disciplines)  |
| Institutionally-Designated Credits      | 6   |

- i. GEM courses are designed to be broadly accessible to students regardless of major, thus college-level and non-GEM pre-requisites to GEM courses should be avoided unless deemed necessary by the institution.
  - ii. Additional GEM courses, beyond the General Education curricula, may be required within the major for degree completion.
- b. This subsection pertains to Associate of Applied Science (AAS) degrees.
  - i. The General Education curricula for the AAS degree must contain a minimum of fifteen (15) credits, so distributed in the following areas:

| Competency Area                       | Minimum Credits |
|---------------------------------------|-----------------|
| Written Communication                 | 3               |
| Oral Communication                    | 3               |
| Mathematical Ways of Knowing          | 3               |
| Social and Behavioral Ways of Knowing | 3               |
| Any General Education course          | 3               |

- c. GEM courses are transferable as meeting the GEM requirement at any institution pursuant to Board policy Section III.V.
- 6. Governance of the General Education Program and Review of Courses
  - a. GEM courses are developed by faculty and approved via the curriculum approval process of the institution delivering the courses. Faculty discipline groups representing all institutions shall meet at least annually to ensure consistency

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and relevance of General Education competencies related to their discipline.

- b. The General Education Committee (GEM Committee): The GEM Committee, shall consist of a representative from each of the institutions appointed by the Board; a representative from the Division of Career-Technical Education; and, as an ex officio member, a representative from the Idaho Registrars Council. To ensure alignment with AAC&U Essential Learning Outcomes and subsection 1, the Committee shall meet at least annually to review the competencies and rubrics of the General Education framework for each institution. GEM Committee duties are prescribed by the Board.
- c. The institutions shall identify all General Education courses in their curricula and identify them on the state transfer web portal.

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**SUBJECT**

Proposed Amendments to Board Policy III.W., Higher Education Research,  
Second Reading

**REFERENCE**

|                   |   |
|-------------------|---|
| June 17, 2010     | Board approved a second reading to Board Policy III.W. Higher Education Research  |
| August 11, 2011   | Board approved first reading to Board Policy III.W. Higher Education Research   |
| October 20, 2011  | Board approved a second reading to Board Policy III.W. Higher Education Research  |
| March 23, 2012    | Board approved Higher Education Research Council IGEM Program Guidelines  |
| October 10, 2014  | Board approved an amendment to the Center for Advanced Energy Studies Tenant Use Agreement and Consortium Agreement, adding the University of Wyoming and directed BSU, ISU, and UI to report annual to Board on institution related CAES activities through the Higher Education Research Council. |
| December 15, 2016 | Board approved first reading of Board Policy III.W.   |

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies and Procedures, Section  
III.W., Higher Education Research Council Policy

**BACKGROUND/DISCUSSION**

The amendments to Board Policy III.W. include clarification on membership of the Higher Education Research Council (HERC) and the Center for Advanced Energy Studies (CAES), specifically for the Vice Presidents of Research at the universities. Other changes include clarification on the post-award reporting of research activities and incorporation of Board action from the October 10, 2014 Special Board meeting requiring Boise State University, Idaho State University, and the University of Idaho to report annually to the Board on institution related CAES activities through HERC.

**IMPACT**

Approval of the amendments to Board Policy III.W. will provide for more applicable minimum reporting requirements for all programs funded through HERC and incorporate past Board action that was intended to be ongoing into Board policy consistent with the Board Bylaws.

**ATTACHMENTS**

Attachment 1 - Board Policy III.W., Higher Education Research – Second  
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**STAFF COMMENTS AND RECOMMENDATIONS**

The Board approved the first reading of Board Policy III.W. at the December 2016 Board meeting. There are no changes between first and second reading.

Staff recommends approval.

**BOARD ACTION**

I move to approve the second reading of Board Policy III.W., Higher Education Research as submitted in Attachment 1.

Moved by\_\_\_\_\_ Seconded by\_\_\_\_\_ Carried Yes\_\_\_\_\_ No\_\_\_\_\_

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**Idaho State Board of Education  
GOVERNING POLICIES AND PROCEDURES  
SECTION: III. POSTSECONDARY AFFAIRS  
SUBSECTION: W. Higher Education Research**

~~October 2011~~February 2017

**1. Higher Education Research Council**

**a. Purpose and Coverage**

Idaho's universities seek to be a driving force in innovation, economic development and enhanced quality of life in the State of Idaho through nationally and internationally lauded research programs in strategic areas. By developing and leveraging the State's unique research expertise and strengths, Idaho's universities will serve as catalyst and engine to spur the creation of new knowledge, technologies, products and industries. This in turn will lead to new advances and opportunities for economic growth and enhance the State's reputation as a national and international leader in excellence and innovation.

The Higher Education Research Council of the Idaho State Board of Education (HERC) provides guidance to Boise State University, Idaho State University, Lewis-Clark State College and the University of Idaho for a statewide collaborative effort to accomplish these goals and objectives. In addition, HERC provides direction for and oversees the use of the limited resources of the State of Idaho provided by the Legislature for research by promoting research activities that will have the greatest beneficial effect on the quality of education and the economy of the State. The implementation of the higher education research policy of the Board will be the duty and responsibility of HERC. HERC shall report annually to the Board on a schedule and in a format established by the Executive Director.

**b. The Role of Research in Higher Education**

Research is the creative search for and application of new knowledge.

**i. Philosophical Statements and Guiding Principles**

The significant role science, technology and other research play in statewide economic development is also accompanied by a demand for the scrutiny of publicly funded research, accountability, and attention to the management of ethical, legal, and safety issues associated with academic research. To fulfill this role, HERC will direct and oversee the development, implementation, and monitoring of a statewide strategic plan for research. The development of a statewide strategic plan for research will assist in the identification of general research areas that will enhance the economy of Idaho via partnering between academia, industry, and/or government. HERC will facilitate this partnering and interaction among business, industry and the public sector with science, engineering and other research faculty.

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This Policy is designed to assist the public baccalaureate and post-baccalaureate institutions in addressing these areas via appropriate research activities through:

- 1) individual and multi-disciplinary research projects;
- 2) extensive and rapid dissemination of the new knowledge and establishment of knowledge networks which would facilitate public, private, and academic institution interaction; and
- 3) collaborative relationships between academia and varied shareholders outside the academy.

The guiding principles are:

- 1) to maximize impact on the quality of education and economic development as a consequence of Idaho's investment in quality science, engineering, and other research.
- 2) to ensure accountability for the state's investment via demonstrable results.

ii. Support of research activities with public funds is important because:

- 1) Research is important in the education of students at all levels.
- 2) Research plays an important role in maintaining and enhancing faculty quality.
- 3) Academic research contributes to economic development.

iii. The Board desires to increase the quality and quantity of research and to encourage continued public and private support of research in Idaho through application of the following principles:

The quality and quantity of academic research produced is extremely dependent upon the research infrastructure.

Faculty at Idaho's baccalaureate and post-baccalaureate institutions will be eligible to compete for research funds.

iv. The development and implementation of a statewide strategic plan for research is a vehicle for identification of research objectives and areas.

c. Specific Funding Programs to Strengthen Research in Idaho

The Board recognizes that talent exists on all of the campuses and the importance of permitting competition for research support and initiation funds. Therefore, the Board will use the following criteria in allocating funds for research activities under this policy at the various institutions.

Additionally, any condition set forth in the legislative appropriation for these research programs must be demonstrably met by the programs and/or projects that are to receive the appropriation.

i. Infrastructure [Funding](#)

A portion of the competitive research funding should be distributed to the state's baccalaureate and post-baccalaureate institutions to support their science, engineering, and other research infrastructure. Distribution of these funds will be made according to guidelines approved by HERC. These funds should be reserved for library support essential to research, graduate research assistantships, post doctoral fellows, technician support, maintenance contracts, research equipment, competitively awarded summer research support, startup funds for new hires, and incentives to reward faculty for their research achievements.

ii. Targeted Research Funding

Faculty members at the state's baccalaureate and post-baccalaureate institutions will have an opportunity to submit research project proposals for review under this program.

- 1) All projects selected for funding under this program will demonstrate the potential for economic benefit or cost savings for the State.
- 2) A major focus under this program should be start-up and seed funds that will assist a principal investigator in promoting basic or applied research; competing for external funding; and enhancing technology transfer or commercialization.
- 3) Collaborative research projects are encouraged.

Guidelines for this program will be established by HERC, will incorporate an independent peer review, and will include an evaluation component for commercial applicability for the benefit of the State.

iii. Research Centers [Funding](#)

Many important research advances are made through focused research centers. These centers should involve several faculty members from multiple institutions in conjunction with the necessary research equipment and support personnel. The funds needed to establish centers of this type should be adequate to create a critical research mass for multiple years leading to research center sustainability. State funding should be supplemented by non-state matching funds.

iv. State Matching Awards

Under this program State funds would be available to match those awarded by non-state sources by using an external peer review process.

Examples of matching entities for the state matching funds would be:

- 1) Federal Agencies

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- 2) EPSCoR projects e.g., National Science Foundation, National Institute of Health, Department of Energy, Department of Defense, National Aeronautics and Space Administration, etc.
- 3) Foundations
- 4) Business and Industry
- 5) Other

v. Idaho Global Entrepreneurial Mission Funding

Funding under this program will be awarded for competitive state university research in support of the goals of the Idaho Global Entrepreneurial Mission (IGEM) initiative. These funds are to be used as seed funding for strengthening Idaho's future by strategically investing in the development of expertise, products, and services which result in state economic growth.

Selected project proposals will be in alignment with the statewide higher education research strategic plan and will leverage the talents and expertise of Idaho's higher education research activities and the private sector to further the economic vitality of the state; create a platform to facilitate and accelerate the transfer of technology out of Idaho's public state research facilities and into the private sector; and create new ideas, products and companies that will lead to higher-paying jobs and a strong economic foundation for Idaho.

Priority will be granted to those proposals that can show a strong collaborative effort between institutions as well as the private sector or exhibit high potential for near term technology transfer to the private sector.

Further guidelines for this program will be established by HERC and will incorporate an independent peer review of proposals, an evaluation component for identifying the project success and economic benefit to the State. Performance measures established for project post-award accountability will be specific, objective, measurable and realistic. Awards may span multiple years, but will be evaluated for effectiveness annually.

vi. Post-Award Accountability

Any project receiving funding through any of the previously described Board sponsored programs will be required to report on the quality, relevance, and impact of the project. Reporting measures may include such items as: its productivity with respect to such items as:

Quality

- ~~2) Number of faculty involved;~~
- ~~3) External funding earned as a result;~~
- ~~4) Publications in refereed journals;~~
- 51) Presentations at professional meetings and conferences;
- 62) Patents awarded or pending;

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- ~~7) Economic benefits; or~~
- ~~8) Problem resolution;~~

Relevance

- 1) Importance of project to Idaho industries;
- 2) ~~3) External funding earned as a result;~~
- 3) Citations;
- 4) Programmatic impact

Impact

- 1) Number of undergraduate and graduate students involved;
- ~~4) Number of faculty involved;~~
- 3) Collaborations between universities and industries of Idaho;
- ~~1) ~~84) Problem resolution.~~~~
- ~~75) Economic benefits; or~~

Reporting procedures will be established and administered through HERC.

d. Responsibilities and Membership of the Higher Education Research Council

In order to advise the Idaho State Board of Education on the implementation of the above strategies, HERC will report to the Board through the Instruction, Research and Student Affairs Committee. The assigned responsibilities of HERC will include the following:

- i. Direct and oversee the development of a higher education statewide strategic plan for research;
- ii. Direct and oversee the use of Legislatively appropriated funds for higher education research;
- iii. Determine and distribute to all interested parties the guidelines for submission of proposals under the competitive programs;
- iv. Organize the review procedures for proposals submitted under the guidelines mandated;
- v. Monitor the productivity of each funded project to warrant continued funding and to provide accountability.

The membership of HERC shall consist of:

- i. the Vice Presidents of Research from Boise State University, Idaho State University, and the University of Idaho and a representative of Lewis-Clark State College;
- ii. a representative of the Idaho National Laboratory (INL); and
- iii. three non-institutional representatives, with consideration of geographic, private industry involvement and other representation characteristics.

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The Board shall appoint the three non-institutional representatives. The three non-institutional representatives shall be appointed for terms that are initially staggered to provide a rolling renewal of appointments. Thereafter, appointments shall be for three years. The appointments of the representative of INL shall be subject to approval of the Board. All members of HERC shall have equal voting privileges.

One (1) of the Vice Presidents of Research shall serve as chair of the Council, with a new chair selected each academic year such that the chair shall rotate among the Vice Presidents of Research. No Vice President of Research shall serve [as chair of the Council for](#) more than three (3) consecutive terms.

Executive Committee:

The Executive Committee shall consist of the three Vice Presidents of Research.

e. Nominating Process

HERC shall nominate candidates for membership for Board consideration. The list of candidates, including letters of interest and biographical information, must be forwarded to the Board for consideration not less than 60 days prior to expiration of the term of a committee member, or within 30 days after any vacancy.

i. Incumbent Reappointment

If the incumbent candidate is interested in reappointment and is eligible to continue serving based on HERC's current membership structure, the incumbent will provide in writing his or her interest for reappointment, which will be forwarded to the Board for consideration.

ii. Open Appointment

- 1) HERC members shall solicit nominations with consideration given to geographic, private industry involvement, and other representation characteristics.
- 2) Each nominee must provide a written statement expressing his or her interest in becoming a member of HERC. Each nominee must also provide a description of his or her qualifications, and must identify his or her primary residence.
- 3) HERC will review all nominations for the vacant position and will forward the qualified candidates with recommendations to the Board for consideration.

The Board may, after a review of nominee's pursuant to the process described herein, consider other candidates for HERC membership identified by the Board or its staff.

2. Experimental Program to Stimulate Competitive Research (EPSCoR)

a. Overview

The Experimental Program to Stimulate Competitive Research (EPSCoR) represents a federal-state partnership to enhance the science and engineering research, education, and technology capabilities of states that traditionally have received smaller amounts of federal research and development funds. As a participating state, Idaho EPSCoR shall be subject to federal program requirements and policy established by the Idaho State Board of Education (Board). The purpose of EPSCoR is to build a high-quality, academic research base to advance science, technology, engineering and mathematics (STEM) to stimulate sustainable improvements in research and development capacity and competitiveness.

b. EPSCoR Mission

Idaho EPSCoR's mission shall be to stimulate systematic and sustainable improvements in Idaho's academic science, technology, engineering and mathematics (STEM) research capabilities for the purpose of establishing nationally prominent research competitiveness in selected areas eligible for support by the National Science Foundation and other federal and private sponsors. It is expected that EPSCoR investments shall harmonize with the research interests of Idaho's public universities, the State of Idaho, and Idaho's industries. The University of Idaho, Idaho State University and Boise State University are Idaho EPSCoR partner institutions.

c. Idaho EPSCoR Committee

Idaho EPSCoR shall be guided by a committee appointed by the Board.

i. Duties and Responsibilities

The Idaho EPSCoR Committee shall serve under the direction of the Board and shall oversee the implementation of the Idaho EPSCoR program and office. The Idaho EPSCoR Committee is responsible for the selection and progress of EPSCoR projects funded by various federal agencies, in accordance with agency-specific guidelines. The committee shall establish policies and procedures to ensure that EPSCoR program goals and objectives are met. These policies and procedures shall be brought to the Board for approval. The committee will carry out the following EPSCoR objectives:

- 1) To catalyze key research themes and related activities within and among EPSCoR jurisdictions that empower knowledge generation, dissemination and application;

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- 2) To activate effective jurisdictional and regional collaborations among academic, government and private sector stakeholders that advance scientific research, promote innovation and provide multiple societal benefits;
- 3) To broaden participation in science and engineering by institutions, organizations and people within and among EPSCoR jurisdictions; and
- 4) To use EPSCoR for development, implementation and evaluation of future programmatic experiments that motivates positive change and progression.

ii. Operating Procedures

The committee will meet in person annually, and more often by teleconference to fulfill its duties. Additional meetings may be called by the chair or by request of three (3) or more committee members. The chair will appoint subcommittees as needed. The appointments are subject to review of the entire committee. On a regular basis, the committee shall monitor the activities of the project director and provide direction as necessary.

The project director, under the direction of the chair, prepares the agenda, schedules each meeting of the committee and maintains a written record of the committee's activities.

iii. Membership

Committee membership shall be constituted to provide for geographic, academic, business and state governmental representation. The committee shall consist of sixteen (16) members with voting privileges, composed of the following:

- 1) The Vice President for Research or Chief Research Officer at the University of Idaho, Idaho State University, and Boise State University;
- 2) One member from each chamber of the Idaho state legislature;
- 3) One representative from Idaho National Laboratory;
- 4) One representative from the Idaho Department of Commerce – such individual shall be focused on economic development;
- 5) The remainder shall be representatives of the private sector who have a stake in developing the state's research infrastructure or who have experience in innovation and entrepreneurial activities, applied research and development, management and finance, or community economic development.

In addition, one representative of the Governor's office and one member of the Board shall serve on the committee as ex officio members without voting rights.  
[The member of the Board shall be appointed by the Board President.](#)

iv. Nominating Process

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The Idaho EPSCoR Committee will nominate candidates for committee membership for consideration by the Board. The list of candidates must be forwarded to the Board for consideration not less than 60 days prior to expiration of the term of committee member, or within 30 days after any vacancy.

1) Incumbent Reappointment

In the event that the incumbent candidate is interested in reappointment and is eligible to continue serving, the nominating committee shall forward a recommendation to the Board, along with a letter of interest and statement of qualifications for the incumbent. The Board may choose to reappoint the incumbent without soliciting other candidates, thus completing the appointment procedures. If there is no incumbent seeking reappointment, or if the Board chooses not to reappoint an incumbent, the procedures are as outlined in item (2).

2) Open Appointment

- a) The EPSCoR committee on behalf of the Board will advertise the vacancy in appropriate state, regional or local publications. Such advertisements will solicit interested persons to apply for the vacant position on the Idaho EPSCoR Committee.
- b) Each applicant must provide a written statement expressing his or her interest in becoming a member of the committee. Each applicant must also provide evidence of his or her qualifications, and must identify his or her primary residence.
- c) The EPSCoR committee will review all applications for the vacant position and conduct interviews as deemed necessary. The purpose of this review is to identify the most qualified candidates for Board consideration.
- d) The EPSCoR committee will forward the qualified candidates, in order of preference, to the Board for consideration. The Board may provide for interviews of the candidates, if needed.

The Board may, after review of the candidates nominated by the committee pursuant to the process described herein, consider other candidates for committee membership identified by the Board or its staff.

v. Terms of Membership

Committee members shall serve five-year terms with the exception of the Vice Presidents of Research and the non-voting ex officio members. An incumbent member may be nominated by the committee for re-appointment by the Board, but no member may serve more than three (3) consecutive terms. All terms, regardless of length, shall begin on July 1st and end on June 30th of the year(s) beginning or ending said term. Members who serve by virtue of their position,

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without terms are not subject to the term limits and serve at the pleasure of the Board.

Appointments will be staggered to ensure that no more than one-third (1/3) of the appointments will become vacant in any given year. An appointee who has reached the end of his or her term shall remain in service as a committee member until reappointment, or until the appointment of a new member is named and approved by the Board. Officers will be nominated and elected by a vote of the committee.

d. Reporting

The committee shall prepare an annual report to the Board that details all projects by federal agency source, including reports of project progress from associated external Project Advisory Board (PAB).

e. Idaho EPSCoR Office

Within guidelines specified by NSF and this policy, the EPSCoR committee shall determine and select an Idaho EPSCoR partner institution to serve as the lead institution which will house the project director for purposes of administering Idaho EPSCoR and providing support and resources to the Idaho EPSCoR Committee.

f. Idaho EPSCoR Project Leadership

The project director and any associate project directors are selected by and serve under the direction of the Idaho EPSCoR Committee.

The project director shall be a tenured faculty member of an Idaho EPSCoR partner institution whose qualifications must include: a successful research track record (grants and professional publications) in science or engineering, experience in research management and academic administration, and a successful record of dealing with various segments of academic institutions, government, industry, and the public.

3. Center for Advanced Energy Studies

The Center for Advanced Energy Studies (CAES) is an ongoing research collaboration among Battelle Energy Alliance, LLC (BEA), Boise State University (BSU), Idaho State University (ISU) the University of Idaho (UI) and the University of Wyoming with its main location at the ISU/CAES building in Idaho Falls. Structure and administration of the collaborative is outlined through a consortium agreement. The agreement adds structure to the CAES collaboration while continuing to recognize each CAES member as a separate governmental entity operating under each member's own legal standing.

BSU, ISU, and UI shall report annually to Board on institution related CAES activities, including the expenditure of CAES appropriated funds through the Higher Education Research Council (HERC). The timing and format of such reports shall be established by HERC.

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Institutional Tracking No.

BSU NOI 16-022

Vice President

# Idaho State Board of Education

## Proposal for Undergraduate/Graduate Degree Program

DEC 12 2016

|                                       |                                   |                            |
|---------------------------------------|-----------------------------------|----------------------------|
| Date of Proposal Submission:          |                                   | Finance and Administration |
| Institution Submitting Proposal:      | Boise State University            |                            |
| Name of College, School, or Division: | College of Business and Economics |                            |
| Name of Department(s) or Area(s):     | Management                        |                            |

### Program Identification for Proposed New or Modified Program:

|                                     |   |                                      |   |               |                          |          |
|-------------------------------------|---|--------------------------------------|---|---------------|--------------------------|----------|
| Program Title:                      | BBA in Management                                       |                                      |   |               |                          |          |
| Degree:                             |   | Degree Designation                   | X | Undergraduate |                          | Graduate |
| Indicate if Online Program:         | X   | Yes (Using Online Program Fee Model) |   |               | No                       |          |
| CIP code (consult IR /Registrar):   | 52.0201 Business Administration and Management, General |                                      |   |               |                          |          |
| Proposed Starting Date:             | FALL 2017   |                                      |   |               |                          |          |
| Geographical Delivery:              | Location(s)   |                                      |   |               | Region(s)                |          |
| Indicate (X) if the program is/has: | X   | Self-Support Online fee model        |   |               | Professional Fee         |          |
| Indicate (X) if the program is:     | X   | Regional Responsibility              |   |               | Statewide Responsibility |          |

### Indicate whether this request is either of the following:

- ☒ New Degree Program
 ☐ Consolidation of Existing Program
- ☐ Undergraduate/Graduate Certificates (30 credits or more)
 ☐ New Off-Campus Instructional Program
- ☐ Expansion of Existing Program
 ☐ Other (i.e., Contract Program/Collaborative)

College Dean (Institution)

Date

College Dean (Institution)

Date

Graduate Dean or other official  
(Institution; as applicable)

Date

Academic Affairs Program Manager, OSBE

Date

FVP/Chief Fiscal Officer (Institution)

Date

Chief Academic Officer, OSBE

Date

Provost/VP for Instruction (Institution)

Date

SBOE/Executive Director Approval

Date

President

Date

**Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance.** This proposal form must be completed for the creation of each new program. All questions must be answered.

### **Rationale for Creation or Modification of the Program**

1. **Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

Boise State University proposes the creation of a wholly online program that will award a Bachelor of Business Administration (BBA) degree in Management. The proposed program will operate under the guidelines of SBOE Policy V.R as it pertains to wholly online programs. Boise State University currently offers a traditional format (i) a BBA in General Business, (ii) a BBA in Entrepreneurship Management, and (iii) a BBA in Human Resources Management. The proposed program is intended for students who want to specialize in management but want a program that is broader in focus than our Entrepreneurship Management and Human Resources Management degrees.

Many of the students who enter the program will be working adults with some prior college experience who want to enhance their careers in management. The program will focus on skills in digital communication, presentation, and management. Graduates will develop the knowledge base, analytic abilities, digital competence, and interpersonal skills needed to become an effective and ethical leader and manager.

The program will be designed to impart digital competence throughout its curriculum. The Joint Research Centre of the European Commission defines digital competence as “a set of knowledge, skills, attitudes (thus including abilities, strategies, values, and awareness) that are required when using Information, Communication, and Technologies (ICT) and digital media to perform tasks; solve problems; communicate; manage information; collaborate; create and share content; and build knowledge effectively, efficiently, appropriately, critically, creatively, autonomously, flexibly, ethically, reflectively for work, leisure, participation, learning, socializing, consuming, and empowerment.”

2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.
  - a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

List the job titles for which this degree is relevant:

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Because a BBA in Management can prepare a graduate for a wide range of positions, we will provide two estimates that will put high and low bounds on the likely actual number.

High bound: CIP Code 11-0000 Management Occupations

Low bound: CIP Codes 11-1021, 11-3011, and 11-9051 for General and Operations Managers, Administrative Services Managers, and Food Services Managers

|                             | State DOL data                | Federal DOL data                           | Other data source:<br>(describe) |
|-----------------------------|-------------------------------|--|----------------------------------|
| <b>Local (Service Area)</b> | 349 (1/2 of state; low bound) | 647(0.25% of national; high bound)         | N/A                              |
| <b>State</b>                | 698 (low bound)               | 1,293 (0.5% of national; high bound)       | N/A                              |
| <b>Nation</b>               | N/A                           | 84,310 (low bound) to 258,680 (high bound) | N/A                              |

Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

| 2014 National Employment Matrix<br>Title and Code |         | Employment (1000's) |         | Job Openings Due to Growth and Replacement Needs 2014-24 (1000's) |
|---|---------|---------------------|---------|---|
|   |         | 2014                | 2024    |   |
| Management Occupations                            | 11-0000 | 9,157.5             | 9,662.9 | 2,586.8   |

| 2014 National Employment Matrix<br>Title and Code |         | Employment       |                  | Job Openings Due to Growth and Replacement Needs 2014-24 (1000's over 10 years) |
|---|---------|------------------|------------------|---|
|   |         | 2014<br>(1000's) | 2024<br>(1000's) |   |
| General and Operations Managers                   | 11-1021 | 2,124.1          | 2,275.2          | 688.8   |
| Administrative Services Managers                  | 11-3011 | 287.3            | 310.8            | 77.2  |
| Food Service Managers                             | 11-9051 | 305.0            | 320.7            | 77.1  |

| 2014-2024 Idaho Long Term<br>Employment Projections |         | Employment |        | Job Openings Due to Growth and Replacement Needs 2014-24 |
|---|---------|------------|--------|--|
|   |         | 2014       | 2024   |  |
| General and Operations Managers                     | 11-1021 | 11,629     | 14,244 | 556  |
| Administrative Services Managers                    | 11-3011 | 1,416      | 1,748  | 59   |
| Food Service Managers                               | 11-9051 | 1,777      | 2,249  | 83   |

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey was used, please attach a copy of the survey instrument with a summary of results as **Appendix A**.

Many of the students likely to enroll in this program are working adults over the age of 25 with prior college experience but no bachelor's degree, although students without college credits will be eligible to pursue this degree. Students will possess varying business-related experience. Some students will need the degree to advance their careers and/or take on additional responsibility; others may be self-employed and want the degree to understand the bigger picture of business.

The proposed program will enable Boise State to reach potential students who need flexibility in their education due to professional and personal responsibilities. These students may also live in a rural area of Idaho that does not have face-to-face educational opportunities.

- c. Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

The SBOE's Complete College Idaho plan contains the following statement from a report produced by the Office of Performance Evaluation:

*"The long-term benefits of increasing educational attainment levels of Idahoans will directly impact the creation of new businesses...[and] the economic and social well-being of the state."*

The proposed online BBA in Management will directly contribute to the Complete College Idaho initiative by enabling a significant number of Idahoans to increase their level of education. The proposed degree will facilitate innovation and entrepreneurship by increasing the creation of new businesses.

- d. Societal Need:** Describe additional societal benefits and cultural benefits of the program.

N/A

- e. If Associate's degree, transferability:**

N/A

- 3. Similar Programs.** Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

| Similar Programs offered <u>by Idaho public institutions</u> (list the proposed program as well) |                         |  |
|--|-------------------------|--|
| Insti-<br>tution<br>Name   | Degree name and Level   | Program Name and brief description if warranted  |
| BSU  | BBA in General Business | IN-PERSON - A broad-based curriculum that is designed for students who do not wish to specialize in any single area of business. |

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|      |  |  |
|------|--|--|
|      | <p>BBA in Entrepreneurship Management</p> <p>BBA in Human Resources Management</p> <p>BBA in Management</p>                          | <p>IN-PERSON – A program designed for students who may wish to start their own business or work in small/family-owned businesses.</p> <p>IN-PERSON – Provides solid foundation for students interested in human resource management process.</p> <p>ONLINE – For students who want to specialize in management, but want a broader focus than HR or Entrepreneurship Management.</p> |
| ISU  | <p>BBA in Management</p> <p>Emphases: General Management, Human Resource Management, Operations Management, and Entrepreneurship</p> | <p>IN-PERSON – Flexible BBA with fewer required courses, more electives and makes it easier for a student to double major</p>  |
| LCSC | B.A./B.S. in General Business  | ONLINE and IN-PERSON - Designed to serve students who wish to develop a broad range of general management competencies.  |
|      | BA/B.S. in Business Administration   | ONLINE and IN-PERSON- Designed to provide an in-depth study of business as a career discipline.  |
|      | BA/BS in Hospitality Management  | IN- PERSON – Students receive training in food and beverage management and room division management.   |
|      | BA/BS in Sports administration   | IN-PERSON – Prepares students to integrate principles relating to business, kinesiology, and health to the administration of athletics, and health related activities.   |
| UI   | BA/BS in Management: Radiography emphasis  | IN-PERSON – Designed for students with radiography training who wish to develop a broad range of general management competencies.  |
|      | <p>B.S. in Business</p> <p>Emphases: Human Resources Management, Management, Operations Management</p>                               | <p>IN-PERSON – Learn to help organizations build and manage a productive, high-quality workforce to stay competitive. Topics include hiring and employee relations, labor regulations and policies, training and administration, project management, and more.</p>   |

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| <b>Similar Programs offered <u>by other Idaho institutions and by institutions in nearby states</u></b> |                                  |   |
|---|----------------------------------|---|
| <b>Institution Name</b>   | <b>Degree name and Level</b>     | <b>Program Name and brief description if warranted</b>  |
| NNU   | B.S. in Business Administration  | ONLINE and IN-PERSON – Degree completion program. Can earn degree in as little as 16 months.  |
| Arizona State University  | B.S. in Management               | ONLINE - Prepares students to become effective managers and team leaders by providing theoretical and conceptual knowledge and building critical skills.  |
| Colorado State – Global Campus  | B.S. in Business Management      | ONLINE – Learn how to gather and analyze financial data and employment reports, interview employees, observe the flow of the workplace, and develop solutions to potential problems.  |
| Portland State University   | BBA in Management and Leadership | ONLINE - Successful business leaders use online technologies to gather information, make connections and create opportunities. Get ahead of the curve by earning a bachelor's in business administration degree online with a concentration in management and leadership. |
| University of Phoenix   | B.S. in Management               | ONLINE - Coursework in this degree will teach you how to align resources to improve your organization's communication, productivity and effectiveness.  |
| University of Utah  | B.S. and B.S. in Management      | IN-PERSON - Designed to provide management majors with a deeper understanding of leadership and a broad conceptual foundation to recognize the challenges managers and leaders face in the 21st century.  |
| Washington State University   | B.S. in Management               | ONLINE –Prepares you on how to motivate people, anticipate change, and improve the planning, structure, and operation of organizations.   |

4. **Justification for Duplication with another institution listed above** (if applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

Not applicable. The program will be offered wholly online.

**5. Describe how this request supports the institution's vision and/or strategic plan.**

| <b>Goals of Institution Strategic Plan</b>  | <b>Proposed Program Plans to Achieve the Goal</b>  |
|---|--|
| Goal 1: Create a signature, high-quality educational experience for all students                | Boise State's online program development process created a cohesive, consistent, rigorous, outcome-driven educational experience. Program coursework infuses relevant business instruction with innovation, digital best practices, and experiential learning. |
| Goal 2: Facilitate the timely attainment of educational goals of our diverse student population | The online delivery of this program will enable students with work, life, or other responsibilities to obtain a marketable management degree.  |
| Goal 4: Align university program and activities with community needs                            | Graduates of the program will be effective, innovative, and enterprising employees who embrace challenges and are capable of developing opportunities for their firms and communities.   |

**6. Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The following measures will ensure the high quality of the new program:

Regional Institutional Accreditation: Boise State University is regionally accredited by the Northwest Commission on Colleges and Universities (NWCCU). Regional accreditation of the university has been continuous since initial accreditation was conferred in 1941. Boise State University is currently accredited at all degree levels (A, B, M, D).

Program Review: Internal program evaluations will take place every five years as part of the normal departmental review process conducted by the Office of the Provost. This process requires self-evaluation and a comprehensive strategic plan. A site visit by external evaluators will be encouraged.

Specialized Accreditation: The program falls under the College of Business and Economics accreditation by the Association to Advance Collegiate Schools of Business (AACSB). AACSB ensures the highest quality standards in business education to prepare the next generation of business leaders.

Program Development Support: The online BBA in Management is one of several created via the eCampus Initiative at Boise State University. Boise State's online program development process uses a facilitated 10-step program design to assist faculty members in the creation of an intentional, cohesive course progression with tightly aligned course and program outcomes. A multi-expert development team, which includes an instructional designer, multimedia specialist, graphic designer, and web designer, works collaboratively with the faculty member. One master version of each course is developed for consistent look and feel of courses across

the program; the master course utilizes a professionally created common template aligned with nationally used Quality Matters course design standards.

Student Authentication: Because the proposed program will be offered entirely online, it is important to include mechanisms by which we authenticate the identity of students enrolled in the program. We will use the following mechanisms:

- During the admissions process, the university will confirm required official transcripts and other documentation required for admission into the program.
- During student orientation programs, academic integrity will be addressed.
- At the beginning of each course, the instructor will communicate expectations regarding academic integrity to students verbally and in the syllabus.
- Associated with access to and use of our Learning Management System, a secure log-in environment will be provided and students will be required to use strong student passwords and to change them every 90 days.
- During the design of the curriculum and assessment of each course, instructors will apply training and principles from the Quality Instruction Program offered by Boise State's eCampus Center - which includes Quality Matters best practices and WCET's Best Practice Strategies to Promote Academic Integrity in Online Education (Version 2.0, June 2009).
- Faculty members will utilize Blackboard's Safe Assignment plagiarism detection program when appropriate. Faculty members are expected to be informed of and aware of the importance of academic integrity and student identity authentication, and to report and act upon suspected violations.

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B**.

N/A

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?

Yes \_\_\_\_\_ No X \_\_\_\_\_

If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

9. **Five-Year Plan: Is the proposed program on your institution's approved 5-year plan? Indicate below.**

Yes x No \_\_\_\_\_

### **Curriculum, Intended Learning Outcomes, and Assessment Plan**

10. **Curriculum for the proposed program and its delivery.**

- a. **Summary of requirements.** Provide a summary of program requirements using the following table.

|  |       |
|--|-------|
| Credit hours in required courses offered by the department (s) offering the program. | 49    |
| Credit hours in required courses offered by other departments                        | 34-37 |
| Credit hours in institutional general education curriculum                           | 0     |
| Credit hours in free electives   | 34-37 |
| Total credit hours required for degree program:                                      | 120   |

- b. Additional requirements.** Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

The following capstone course will be required of all students:

BUSMGT 425 CAPSTONE (3-0-3) (F/S/SU)(FF). Develops analytical, problem-solving, and decision making skills in situations dealing with complex organizations, with the ultimate objective of formulating policies and strategies, both domestic and worldwide. Builds upon and integrates the knowledge and methods acquired throughout the program to examine all functional areas of the organization. PREREQ: Completion of 40 credit hours in BUSMGT

## **11. Program Intended Learning Outcomes and Connection to Curriculum.**

- a. Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

Managerial Problem Solving: Apply appropriate analytical methods, as well as knowledge of business functions and a strategic assessment of global, legal, and economic contexts, to effectively address managerial problems and opportunities.

Interpersonal Competence: Demonstrate effective and professional collaboration, communication, and conflict resolution skills for leading, motivating, and influencing others.

Responsible Business Practices: Engage in ethical decision-making aligned with sustainable and socially responsible business practices, incorporating a knowledge of diverse cultural norms and legal environments.

Innovation: Employ creative thinking for the development of innovative solutions that open new opportunities for an organization to provide value to its stakeholders.

## **12. Assessment plans**

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

Artifacts will be gathered in specified courses. Rubrics will be used to review a sampling of the artifacts to determine if the program learning outcomes objectives are being met.

- b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

Data will be shared with the COBE Curriculum Improvement and Assessment Committee and

instructors, and program director. The program director and faculty will regularly meet to address opportunities and develop actions for improvement.

- c. Measures used.** What direct and indirect measures will be used to assess student learning?

The program assessment process described in Section 12a and faculty grades on specific assignments.

- d. Timing and frequency.** When will assessment activities occur and at what frequency?

Program Learning Outcomes are assessed yearly.

### **Enrollments and Graduates**

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

| Existing Similar Programs: Historical enrollments and graduate numbers |                                      |      |      |      |   |      |      |      |
|--|--------------------------------------|------|------|------|---|------|------|------|
| Institution and Program Name   | Fall Headcount Enrollment in Program |      |      |      | Number of Graduates From Program (Summer, Fall, Spring) |      |      |      |
|  | FY14                                 | FY15 | FY16 | FY17 | FY13  | FY14 | FY15 | FY16 |
| <b>BSU</b>   |                                      |      |      |      |   |      |      |      |
| BBA in General Business  | 579                                  | 577  | 649  | 660  | 146   | 134  | 137  | 136  |
| BBA in Entrepreneurship Mgmt.  | 141                                  | 150  | 160  | 168  | 12  | 23   | 27   | 20   |
| BBA in Human Resource Mgmt.  | 152                                  | 159  | 152  | 155  | 57  | 52   | 49   | 52   |
| <b>ISU</b>   |                                      |      |      |      |   |      |      |      |
| BBA in Management  | 174                                  | 190  | 182  | 201  | 29  | 31   | 32   | 40   |
| <b>UI</b>  |                                      |      |      |      |   |      |      |      |
| B.S. Management & Human Resources (Management emphasis)                | 151                                  | 120  | 81   | 51   | 38  | 42   | 41   | 22   |
| <b>LCSC</b>  |                                      |      |      |      |   |      |      |      |
| BA/B.S. in Business Administration                                     | 391                                  | 372  | 329  | 347  | 78  | 74   | 94   | 74   |
| BA/BS in Hospitality Management  | 18                                   | 13   | 8    | 6    | 2   | 5    | 3    | 3    |

|  |    |    |    |    |   |   |   |   |
|--|----|----|----|----|---|---|---|---|
| <b>BA/BS in Sports administration</b>            | 42 | 53 | 50 | 41 | 5 | 5 | 3 | 3 |
| <b>BA/BS in Management: Radiography emphasis</b> | 15 | 15 | 16 | 8  | 3 | 3 | 6 | 8 |

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

We expect many students working full-time to enroll in the program; therefore, we estimate that approximately 60% of students will be part-time students and 40% full-time. Idaho residents will most likely make up at least half of the enrolled students.

| <b>Proposed Program: Projected Enrollments and Graduates First Five Years</b> |      |      |      |      |      |  |      |      |      |      |      |
|---|------|------|------|------|------|--|------|------|------|------|------|
| <b>Program Name: BBA in Management</b>  |      |      |      |      |      |  |      |      |      |      |      |
| <b>Projected Fall Term Headcount Enrollment in upper-division courses</b>     |      |      |      |      |      | <b>Projected Annual Number of Graduates From Program</b> |      |      |      |      |      |
| FY18<br>(first year)  | FY19 | FY20 | FY21 | FY22 | FY23 | FY18<br>(first year)                                     | FY19 | FY20 | FY21 | FY22 | FY23 |
| 30  | 154  | 274  | 381  | 440  | 440  | 0  | 9    | 41   | 81   | 126  | 150  |

- 15. Describe the methodology for determining enrollment and graduation projections.** Refer to information provided in Question #2 "Need" above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The program's size will be scaled to demand for the program. The numbers in the table above reflect a reasonable and attainable scaling up of the program.

Marketing and recruitment efforts will include a digital marketing campaign, a web landing page, request for information form, and a full program website with details regarding the key program assets, curriculum plan, and costs. In addition, a comprehensive communication plan will be implemented to attract and nurture interested students. Strategic, personalized communications will engage and support students throughout the recruitment lifecycle. Our coaching approach to student services will support online students and maintain their connection to Boise State through graduation.

- 16. Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

Because the program will be utilizing the online fee model, it is best to put minimum enrollment

in terms of course registrations, which are what translate to revenue. Based on estimated expenses for instruction and for support personnel expenses, estimate the minimum number of course registrations to achieve breakeven is:

- Year 1: Annual credits 844, Annual FTEs 28.1
- Year 2: Annual credits 3,948, Annual FTEs 131.6
- Year 3: Annual credits 6,711, Annual FTEs 223.7
- Year 4: Annual credits 6,974, Annual FTEs 232.5
- Year 5: Annual credits 5,528, Annual FTEs 184.3

If enrollments do not meet expectations, expenses will adjust to reflect actual activity. The Program's financial sustainability will be evaluated at least annually.

### **Resources Required for Implementation – fiscal impact and budget**

#### **17. Physical Resources.**

- a. Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The available space and equipment is currently acceptable to operate a successful program.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

No impact.

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

Operating expenses associated with program support staff and new faculty is reflected in the budget.

#### **18. Library resources**

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

Library resources are sufficient.

- b. Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

None

**19. Personnel resources**

- a. Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?
- b. Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.
- c. List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.

The following description applies only to the upper-division courses taught as part of the program. Lower-division coursework will be available to students in a variety of majors and so is not considered here.

In Year One of the program:

- A Program Coordinator will be hired at 0.5FTE to support the program. Note that the position will be filled in early spring, 2017 and that the FY17 salary is included in the FY18 numbers for the budget.
- A total of six new 3-credit and 1-credit courses will be developed and then taught during fall, spring, and summer semesters by tenure-track faculty members. That instructional capacity is costed in the budget at the adjunct rate of \$3,696 per course because the tenure-track faculty members teaching will either be backfilled in their other courses by adjuncts or will be paid to teach on overload.

In Year Two of the program, assuming that enrollments meet expectations:

- A 0.5 FTE Administrative Assistant will be added.
- A total of nine new additional 3-credit courses will be developed and then taught by tenure-track faculty members; six of those in the fall and spring semesters. To provide instructional capacity during the fall and spring semesters, a 1.0 FTE PhD-level faculty member (either tenure track or clinical) will be hired, either to teach the designated courses or to provide backfill for existing faculty members who would teach in the program. Adjunct faculty members will be hired to provide additional necessary teaching capacity.

In subsequent years, personnel will be hired to scale the capacity of the program to growing enrollments.

- An advisor will be added for each 200 additional students.
- An additional 1.0FTE PhD-level faculty member will be added.
- Course offerings will be structured so that
  - Section capacity is limited to 35
  - PhD-level faculty members will be the lead instructor for the bulk of course offerings. Remaining sections will typically be taught by adjunct faculty members under the guidance of lead instructors.

- d. **Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

Three existing face-to-face programs, the BBA in Human Resources Management, the BBA in

Entrepreneurship Management and the BBA in General Business, may see some decline in numbers from students who would prefer a wholly online program. However, both program have robust enrollments and will remain viable in spite of any competition from the proposed program.

As described above, during the initial implementation several existing tenured/tenure-track faculty members in the Department of Management will be replaced in their face-to-face courses by adjunct faculty members. However, that change will be transitory given that AACSB require that we not rely overly much on adjunct faculty members.

## 20. Revenue Sources

- a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

N/A

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

No new appropriate will be required.

- c) **Non-ongoing sources:**

- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?

N/A

- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

### **Student Fees:**

- iii. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.

The student fee will be in accordance with the Online Program Fee as defined in the Board Policy V.R., 3.a.x. We will charge \$336 per credit hour. This aligns with a reasonable estimate Boise State undergraduate 2017-18 tuition of \$306 per credit plus the \$30 per credit online fee. Boise State would like to remain an affordable education option for people residing in Idaho.

- iv. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

Although a student may enter the program as a freshman, we anticipate that students entering

the program will typically have at a minimum an AA or AS degree, or 60 credits of coursework. For the 49 BUSMGT credits required for completion of the proposed program, students will pay \$336 per credit; the total cost of those 49 credits totals \$16,464. Students with the minimum of 60 credits will need 11 additional credits to meet the 120-credit requirement for graduation; the cost of those additional credits would be \$3,696 if taken under the online program fee model. A student requiring the 49 BUSMGT credits and the 11 additional credits would be charged a total of \$20,160. A student who took the entire 120 credits required would be charged \$40,320.

We project that by the fourth year of the program, it will generate 8,836 SCH, which will yield a total gross revenue of \$2,969,028.

21. Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
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| <b>I. PLANNED STUDENT ENROLLMENT</b>               |   |          |           |          |             |          |             |          |             |          |             |
|--|---|----------|-----------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|
|  |   | FY       | 2018      | FY       | 2019        | FY       | 2020        | FY       | 2021        | FY       | 2022        |
|  |   | FTE      | Headcount | FTE      | Headcount   | FTE      | Headcount   | FTE      | Headcount   | FTE      | Headcount   |
| A. New enrollments                                 |   | 25.3     | 57        | 118.4    | 177         | 201.3    | 279         | 265.1    | 365         | 306.6    | 416         |
| B. Shifting enrollments                            |   | 2.8      | 6         | 13.2     | 20          | 22.4     | 31          | 29.5     | 41          | 34.1     | 46          |
| <b>Total Enrollment</b>                            |   | 28.1     | 63        | 131.6    | 197         | 223.7    | 310         | 294.5    | 406         | 340.7    | 463         |
| <b>Student Credit Hours Generated</b>              |   | 844      |           | 3,948    |             | 6,711    |             | 8,836    |             | 10,220   |             |
| <b>II. REVENUE</b>                                 |   |          |           |          |             |          |             |          |             |          |             |
|  |   | FY       | 2018      | FY       | 2019        | FY       | 2020        | FY       | 2021        | FY       | 2022        |
|  |   | On-going | One-time  | On-going | One-time    | On-going | One-time    | On-going | One-time    | On-going | One-time    |
| 1. New Appropriated Funding Request                |   |          |           |          |             |          |             |          |             |          |             |
| 2. Institution Funds                               |   |          |           |          |             |          |             |          |             |          |             |
| 3. Federal   |   |          |           |          |             |          |             |          |             |          |             |
| 4. New Tuition Revenues from Increased Enrollments |   |          |           |          |             |          |             |          |             |          |             |
| 5. Student Fees                                    |   |          | \$283,641 |          | \$1,326,579 |          | \$2,255,002 |          | \$2,969,028 |          | \$3,433,982 |
| 6. Other (i.e., Gifts)                             |   |          |           |          |             |          |             |          |             |          |             |
| <b>Total Revenue</b>                               |   | \$0      | \$283,641 | \$0      | \$1,326,579 | \$0      | \$2,255,002 | \$0      | \$2,969,028 | \$0      | \$3,433,982 |
| Budget Notes:                                      |   |          |           |          |             |          |             |          |             |          |             |
| I.A, B.  | Calculation of FTE and headcount as follows:  |          |           |          |             |          |             |          |             |          |             |
|  | >1 FTE = 30 credits   |          |           |          |             |          |             |          |             |          |             |
|  | >Headcount determined as the distinct number of students in the program that year.                                |          |           |          |             |          |             |          |             |          |             |
|  | >Assume that 90% of the enrollments will be new enrollments and 10% will be shifting enrollments.                 |          |           |          |             |          |             |          |             |          |             |
|  | >Assume 4.4% attrition from one semester to the next.   |          |           |          |             |          |             |          |             |          |             |
| II.5.  | >Student Fee revenue calculated as Student Credit Hours * \$336 per credit.                                       |          |           |          |             |          |             |          |             |          |             |
|  | >\$336 calculated as \$306 as an estimate for 2017-2018 resident per-credit rate plus \$30 per credit online fee. |          |           |          |             |          |             |          |             |          |             |

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| <b>III. EXPENDITURES</b>                 |  |          |          |          |           |          |           |          |           |          |           |  |
|--|--|----------|----------|----------|-----------|----------|-----------|----------|-----------|----------|-----------|--|
|  |  | FY       | 2018     | FY       | 2019      | FY       | 2020      | FY       | 2021      | FY       | 2022      |  |
|  |  | On-going | One-time | On-going | One-time  | On-going | One-time  | On-going | One-time  | On-going | One-time  |  |
| <b>A. Personnel Costs</b>                |  |          |          |          |           |          |           |          |           |          |           |  |
| 1. FTE                                   |  |          | 2.20     |          | 7.76      |          | 11.49     |          | 13.93     |          | 16.20     |  |
| 2. Faculty                               |  |          | \$0      |          | \$125,246 |          | \$286,635 |          | \$286,635 |          | \$286,635 |  |
| 3. Adjunct Faculty                       |  |          | \$36,387 |          | \$134,974 |          | \$166,773 |          | \$218,321 |          | \$278,966 |  |
| 4. Graduate/Undergrad Assistants         |  |          |          |          |           |          |           |          |           |          |           |  |
| 5. Research Personnel                    |  |          |          |          |           |          |           |          |           |          |           |  |
| 6. Directors/Administrators              |  |          | \$41,800 |          | \$31,350  |          | \$31,350  |          | \$31,350  |          | \$31,350  |  |
| 7. Administrative Support Personnel      |  |          |          |          | \$14,000  |          | \$14,000  |          | \$14,000  |          | \$14,000  |  |
| 8. Fringe Benefits                       |  |          | \$20,330 |          | \$94,988  |          | \$197,662 |          | \$209,410 |          | \$229,086 |  |
| 9. Other: Academic Advisors/Coordinators |  |          |          |          |           |          | \$42,700  |          | \$56,933  |          | \$85,400  |  |
| <b>Total Personnel and Costs</b>         |  | \$0      | \$98,517 | \$0      | \$400,559 | \$0      | \$739,120 | \$0      | \$816,650 | \$0      | \$925,437 |  |
| Budget Notes (continued)                 |  |          |          |          |           |          |           |          |           |          |           |  |
| III.A.2                                  | Tenure track and lecturer faculty FTE: Calculated using (Credit hour load)/24  |          |          |          |           |          |           |          |           |          |           |  |
| III.A.3                                  | Adjunct FTE: Calculated using (Credit hour load)/30  |          |          |          |           |          |           |          |           |          |           |  |
| III.A.6                                  | Administrator: Program Coordinator starting January 2017 before program's anticipated launch in Fall 2017. Spring 2017 wage included in FY 2018 (Summer 2017-Spring 2018). |          |          |          |           |          |           |          |           |          |           |  |
| III.A.7                                  | Support Personnel (Administrative Assistant): .50 FTE starting Year 2.   |          |          |          |           |          |           |          |           |          |           |  |
| III.A.8                                  | Benefits calculated at professional \$12,240+(annual wage*21.28%), classified \$12,240+(annual wage*21.58%)  |          |          |          |           |          |           |          |           |          |           |  |
| III.A.9                                  | Other - Academic Advisors: Adding an academic advisor at 201 (Year 3) and 401 (Year 4) students.   |          |          |          |           |          |           |          |           |          |           |  |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
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|  |   | FY         | 2018            | FY         | 2019            | FY         | 2020            | FY         | 2021            | FY         | 2022            |
|--|---|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|------------|-----------------|
|  |   | On-going   | One-time        | On-going   | One-time        | On-going   | One-time        | On-going   | One-time        | On-going   | One-time        |
| <b>B. Operating Expenditures</b>                 |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| 1. Travel  |   |            | \$1,625         |            | \$3,774         |            | \$5,286         |            | \$6,034         |            | \$6,975         |
| 2. Professional Services                         |   |            | \$15,840        |            | \$36,000        |            | \$42,000        |            | \$46,800        |            | \$51,600        |
| 3. Other Services                                |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| 4. Communications                                |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| 5. Materials and Supplies                        |   |            | \$2,438         |            | \$5,661         |            | \$7,929         |            | \$9,051         |            | \$10,462        |
| 6. Rentals                                       |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| 7. Materials & Goods for<br>Manufacture & Resale |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| 8. Miscellaneous - Computer<br>Hardware/Software |   |            | \$4,064         |            | \$9,435         |            | \$13,214        |            | \$15,085        |            | \$17,437        |
| <b>Total Operating Expenditures</b>              |   | <b>\$0</b> | <b>\$23,967</b> | <b>\$0</b> | <b>\$54,869</b> | <b>\$0</b> | <b>\$68,429</b> | <b>\$0</b> | <b>\$76,970</b> | <b>\$0</b> | <b>\$86,474</b> |
| Budget Notes (continued):                        |   |            |                 |            |                 |            |                 |            |                 |            |                 |
| III.B.1  | Travel to Boise State University main campus and training   |            |                 |            |                 |            |                 |            |                 |            |                 |
| III.B.2  | Professional Services: Cost of assessment exams at a one time cost of \$240 per student. Paid to external vendor. |            |                 |            |                 |            |                 |            |                 |            |                 |
| III.B.5  | Materials & Supplies: Office supplies and materials   |            |                 |            |                 |            |                 |            |                 |            |                 |
| III.B.8  | Miscellaneous: Computer hardware/software   |            |                 |            |                 |            |                 |            |                 |            |                 |

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|  |  | FY       | 2018      | FY       | 2019        | FY       | 2020        | FY       | 2021        | FY       | 2022        |
|--|--|----------|-----------|----------|-------------|----------|-------------|----------|-------------|----------|-------------|
|  |  | On-going | One-time  | On-going | One-time    | On-going | One-time    | On-going | One-time    | On-going | One-time    |
| <b>C. Capital Outlay</b>   |  |          |           |          |             |          |             |          |             |          |             |
| 1. Library Resources   |  |          |           |          |             |          |             |          |             |          |             |
| 2. Equipment   |  |          |           |          |             |          |             |          |             |          |             |
| <b>Total Capital Outlay</b>  |  | \$0      | \$0       | \$0      | \$0         | \$0      | \$0         | \$0      | \$0         | \$0      | \$0         |
|  |  | FY       | 2018      | FY       | 2019        | FY       | 2020        | FY       | 2021        | FY       | 2022        |
|  |  | On-going | One-time  | On-going | One-time    | On-going | One-time    | On-going | One-time    | On-going | One-time    |
| <b>D. Capital Facilities Construction or Major Renovation</b>  |  |          |           |          |             |          |             |          |             |          |             |
| <b>E. Other Costs</b>  |  |          |           |          |             |          |             |          |             |          |             |
| 1. Boise State Central   |  |          | \$28,364  |          | \$132,658   |          | \$225,500   |          | \$296,903   |          | \$343,398   |
| 2. Boise State eCampus Center  |  |          | \$31,200  |          | \$145,924   |          | \$248,050   |          | \$326,593   |          | \$377,738   |
| 3. Boise State Online Innovation Fund  |  |          | \$14,182  |          | \$66,329    |          | \$112,750   |          | \$148,451   |          | \$171,699   |
| 4. Boise State Online Marketing, Recruitment, Enrollment & Retention Fund                                |  |          | \$96,438  |          | \$451,037   |          | \$766,701   |          | \$1,009,470 |          | \$1,167,554 |
| 5. Credit card fees  |  |          | \$2,269   |          | \$10,613    |          | \$18,040    |          | \$23,752    |          | \$27,472    |
| Utilities  |  |          |           |          |             |          |             |          |             |          |             |
| Maintenance & Repairs  |  |          |           |          |             |          |             |          |             |          |             |
| Other  |  |          |           |          |             |          |             |          |             |          |             |
| <b>Total Other Costs</b>   |  | \$0      | \$172,454 | \$0      | \$806,560   | \$0      | \$1,371,041 | \$0      | \$1,805,169 | \$0      | \$2,087,861 |
| <b>TOTAL EXPENDITURES:</b>   |  | \$0      | \$294,938 | \$0      | \$1,261,988 | \$0      | \$2,178,591 | \$0      | \$2,698,789 | \$0      | \$3,099,772 |
| <b>Net Income (Deficit)</b>  |  | \$0      | -\$11,297 | \$0      | \$64,590    | \$0      | \$76,412    | \$0      | \$270,239   | \$0      | \$334,210   |
| Budget Notes (specify row and add explanation where needed; e.g., "I.A.,B. FTE is calculated using..."): |  |          |           |          |             |          |             |          |             |          |             |
| III.E.1  | Boise State Central Services: A fund dedicated to funding support services for online students   |          |           |          |             |          |             |          |             |          |             |
| III.E.2  | Boise State eCampus Center: Provide funding for initiative management, online course/program development and other support services  |          |           |          |             |          |             |          |             |          |             |
| III.E.3  | Boise State Online Innovation Fund: Seed funding for academic programs, initiative infrastructure, and eventually innovation grants  |          |           |          |             |          |             |          |             |          |             |
| III.E.4  | Boise State Online Marketing, Recruitment, Enrollment and Retention Fund: A fund dedicated to marketing the program, recruiting students, enrolling qualified students and retaining students throughout the life of the program |          |           |          |             |          |             |          |             |          |             |

**APPENDIX A: Curriculum**

| <b>BBA in Management</b>  |                |
|---|----------------|
| <i>Course Number and Title</i>  | <i>Credits</i> |
| Foundational Studies Program requirements indicated in <b>bold</b> . See page 50 for details and lists of approved courses. |                |
| <b>ENGL 101</b> Introduction to College Writing   | 3              |
| <b>ENGL 102</b> Introduction to College Writing and Research  | 3              |
| <b>UF 100</b> Intellectual Foundations  | 3              |
| <b>UF 200</b> Civic and Ethical Foundations   | 3              |
| <b>DLM</b> Mathematics  | 3-4            |
| <b>DLN</b> Natural, Physical & Applied Sciences course with lab   | 4              |
| <b>DLN</b> Natural, Physical & Applied Sciences course in a second field  | 3-4            |
| <b>DLV</b> Visual Performing Arts   | 3              |
| <b>DLL</b> Literature and Humanities  | 3-4            |
| <b>DLS</b> Social Sciences course (must be ECON 201)  | 3              |
| <b>DLS</b> Social Sciences course in a second field   | 3              |
| <i>Major Requirements</i>   |                |
| BUSMGT 300 Orientation  | 1              |
| BUSMGT 304 Design Thinking  | 3              |
| <b>CID</b> BUSMGT 306 Professional Communication for Managers   | 3              |
| BUSMGT 315 Foundations of Management  | 3              |

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|   |                   |
|---|-------------------|
| BUSMGT 317 Managing Human Resources                           | 3                 |
| BUSMGT 320 Marketing  | 3                 |
| BUSMGT 322 Negotiation and Conflict Management                | 3                 |
| BUSMGT 325 International Business Management                  | 3                 |
| BUSMGT 342 Strategic Tools                                    | 3                 |
| BUSMGT 344 Business Intelligence and Analytics                | 3                 |
| BUSMGT 347 Law for Managers                                   | 3                 |
| BUSMGT 360 Leadership and High Performing Teams               | 3                 |
| BUSMGT 364 Business Ethics, Responsibility and Sustainability | 3                 |
| BUSMGT 368 Operations Management                              | 3                 |
| BUSMGT 420 Managing Innovation and Change                     | 3                 |
| BUSMGT 422 Finance for Managers                               | 3                 |
| <b>FF</b> BUSMGT 425 Capstone                                 | 3                 |
| Electives to total 121 credits                                | 34-37             |
| <b><i>Total</i></b>   | <b><i>120</i></b> |

## Program Map: BBA in Management



BOISE STATE  
UNIVERSITY

### Management Vision Statement

To be recognized as a top program for educating effective, innovative and enterprising graduates who embrace challenges and develop opportunities for their firms and communities.

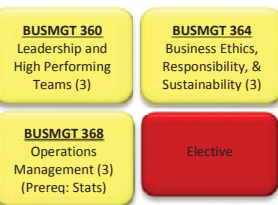
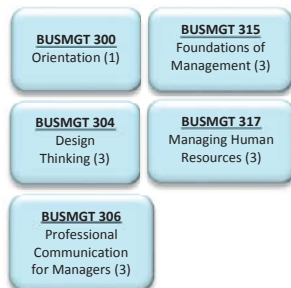
### Management Mission Statement

To enhance students' career success by developing their managerial skills and abilities through a state-of-the-art online learning experience.

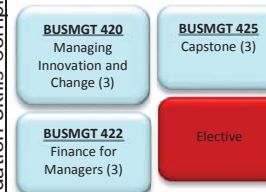
### Program Learning Goals:

- **Managerial Problem Solving:** Apply appropriate analytical methods, as well as knowledge of business functions and a strategic assessment of global, legal and economic contexts, to effectively address managerial problems and opportunities.
- **Interpersonal Competence:** Demonstrate effective and professional collaboration, communication and conflict resolution skills for leading, motivating and influencing others.
- **Responsible Business Practices:** Engage in ethical decision-making aligned with sustainable and socially responsible business practices, incorporating a knowledge of diverse cultural norms and legal environments.
- **Innovation:** Employ creative thinking for the development of innovative solutions that open new opportunities for an organization to provide value to its stakeholders.

### Begin Foundation Skills



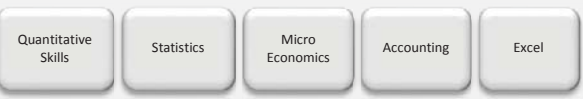
### Foundation Skills Complete



### Potential Elective Courses



### Foundation Skills Courses



### EXPERIENTIAL LEARNING • INTERACTION • DIGITAL COMPETENCE & COLLABORATION

### 7 Areas of Digital Competence

- Information Management
- Collaboration
- Communication and Sharing
- Creation of Content and Knowledge
- Ethics and Responsibility
- Evaluation and Problem-Solving
- Technical Operations

### University Outcomes

- Written Communication
- Oral Communication
- Critical Inquiry
- Innovation & Teamwork
- Ethics & Diversity

### Stakeholders

- COBEAC Advisory Council
- Students
- Local Employers
- COBE and other Academic Units at Boise State
- Local and Regional Communities

### Accreditation & Standards

- AACSB
- NWCCU
- COBE Outcomes

Entrance/Exit courses

Elective courses

Foundation Skills courses

**BOISE STATE UNIVERSITY**

**SUBJECT**

Online, Bachelor of Business Administration in Management

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III.G. and Section V.R.

**BACKGROUND/DISCUSSION**

Boise State University (BSU) proposes to create a new Bachelor of Business Administration (BBA) in Management that will be offered entirely online. The program will operate under the guidelines of Board Policy V.R. as it pertains to online programs. Boise State University currently offers the following programs in a traditional format (i) a BBA in General Business, (ii) a BBA in Entrepreneurship Management, and (iii) a BBA in Human Resources Management. The proposed program is intended for students who want to specialize in management but want a program that is broader in focus than our Entrepreneurship Management and Human Resources Management degrees.

Because the program is fully online it will enable BSU to reach potential students who need flexibility in their education as a result of professional and personal responsibilities. These students may also live in rural areas of Idaho that do not have face-to-face educational opportunities.

Many of the students who enter the program will be working adults with some prior college experience who want to enhance their careers in management. The program will focus on skills in digital communication, presentation, and management. Graduates will develop the knowledge base, analytic abilities, digital competence, and interpersonal skills needed to become an effective and ethical leader and manager.

The intended learning outcomes for the program are as follows:

- Managerial Problem Solving: Apply appropriate analytical methods, as well as knowledge of business functions and a strategic assessment of global, legal, and economic contexts, to effectively address managerial problems and opportunities.
- Interpersonal Competence: Demonstrate effective and professional collaboration, communication, and conflict resolution skills for leading, motivating, and influencing others.
- Responsible Business Practices: Engage in ethical decision-making aligned with sustainable and socially responsible business practices, incorporating a knowledge of diverse cultural norms and legal environments.

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
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- Innovation: Employ creative thinking for the development of innovative solutions that open new opportunities for an organization to provide value to its stakeholders.

Idaho State University, Lewis-Clark State College (LCSC), and University of Idaho each offer one or more bachelor's degree programs in management. Only LCSC presently offers an online format.

**IMPACT**

The program's size will be scaled to demand for the program, and BSU projects that the program will reach a size of 440 students by the sixth year, graduating approximately 150 students per year once the program is up and running.

The student fee will be in accordance with the Online Program Fee as defined in the Board Policy V.R., 3.a.x. BSU will initially charge \$336 per credit hour, which aligns with a reasonable estimate of BSU's undergraduate 2017-18 tuition of \$306 per credit plus the \$30 per credit online fee.

Although a student may enter the program as a freshman, BSU anticipates that students entering the program will typically have at a minimum an AA or AS degree, or 60 credits of coursework. Students entering with 60 credits will be required to complete the 49 business management credits, with 11 additional credits, in order to meet the 120-credit requirement for graduation; the cost of those additional credits would be \$3,696 if taken under the online program fee model. For the 49 business management credits, students will pay \$336 per credit; the total cost of those 49 credits totals \$16,464. A student requiring the 49 business management credits and the 11 additional credits would be charged a total of \$20,160. A student who took the entire 120 credits required would be charged \$40,320.

**ATTACHMENTS**

Attachment 1 – online, BBA in Business Administration proposal

Page 5

**STAFF COMMENTS AND RECOMMENDATIONS**

Boise State University's (BSU) proposed BBA in Administration falls within the mission of BSU, and will provide access to individuals not able to attend face to face classes. This program is consistent with service region program responsibilities.

Boise State University currently has a BBA in General Business included in its five-year plan for Fall 2017. The General Business major provides a broad-based curriculum and is designed for students who do not wish to specialize in any single area of business. During last year's update to the five-year plan, Boise State submitted a request to change the title to a BBA in Management; however, this change did not make it into the plan that the Board approved in August 2016. The change would provide students with a more focused degree and is intended for

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students who wish to specialize in management. Staff believes that there is sufficient justification, based on regional need, for BSU to create the proposed program. Consistent with Board Policy III.Z, no institution has the statewide program responsibility for business administration programs.

BSU is also requesting approval to assess an online program fee consistent with Board Policy V.R.3.a.x. at \$336 per credit. This policy provides the criteria that must be met in order to designate an online program fee for a Board approved academic program. This includes programs must be fully online and that the fee is in lieu of resident or non-resident tuition. Based on the information provided in the proposal, staff finds that the request to assess the online program fee meets policy requirements. Staff notes that the regular per credit hour fee for a full-time, undergraduate, resident BSU student taking 12 credits would be \$295/credit; or \$297/credit for a part-time student (attempting 1-11 credit hours).

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on January 19, 2017 and by the Board's Instruction, Research, and Student Affairs (IRSA) committee on February 2, 2017.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the request by Boise State University to create an online, Bachelor of Business Administration in substantial conformance to the program proposal in Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

I move to approve the request by Boise State University to designate an online program fee for the BBA, in Management in the amount of \$336 per credit.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

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**IDAHO STATE UNIVERSITY**

**SUBJECT**

New Master of Healthcare Administration

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III. G

**BACKGROUND/DISCUSSION**

Idaho State University (ISU) is requesting the addition of a Master in Healthcare Administration. Since 1975, the Kasiska School of Health Professions at ISU has offered an undergraduate B.S. degree in Health Care Administration (HCA) with a minor in business. The HCA program is the only nationally certified program in the state of Idaho. In recent years BYU-Idaho began offering an undergraduate HCA program; the Rexburg-based program is not specialty certified. While the undergraduate HCA program provides students an introduction to the fundamental knowledge and skills required for entry-level administrative positions in healthcare organizations, a Masters in Healthcare Administration would provide the more advanced and sophisticated training required for executive level positions.

The MHA degree has never been offered by ISU or any other college or university in Idaho. Students or working professionals who wish to pursue this degree must seek this education and professional credential outside the state of Idaho. The ISU College of Business does offer a Master of Business Administration (MBA) degree with a healthcare emphasis. Currently, this emphasis requires 9-10 credit hours of healthcare related coursework.

According to the Department of Bureau of Labor Statistics, employment in the field of health care management is projected to grow 17 percent from 2014 to 2024, much faster than the average for all occupations. The proposed MHA program is primarily intended to meet current and projected healthcare management employment needs in Idaho and the surrounding region. Establishing an Idaho based MHA program will enable local healthcare leaders to pursue an MHA degree without relocating out of the state. An Idaho based MHA will also stimulate the economy by generating tuition and other revenues from the degree program, and by producing competent healthcare leaders who will directly and indirectly stimulate the economic interests of their respective Idaho based healthcare organizations.

**IMPACT**

The proposed MHA program will have no significant impact on the existing programs with increased utilization of physical resources at both colleges. However, to support the successful implementation of the proposed program, funding resources will be required, estimated at \$23,000 annually with a one-time

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS**  
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cost for faculty recruitment, relocation, and start-up of \$20,000. Although most undergraduate healthcare administration (HCA) and College of Business faculty will spend a small portion of their time teaching and/or supporting the MHA program, the new graduate MHA degree will require approximately 3.5 new or reallocated faculty and support staff personnel. Of the \$23,000 needed, the travel is supplemented in the College of Business by earnings from the Reuttgers endowment, and the balance of the \$23,000 would need to be factored into the college's operating budget. The one-time \$20,000 start-up cost will come from the Dean's Excellence fund.

The MHA program will be primarily supported via graduate level tuition. There are no anticipated professional, laboratory, or class-fees connected to this proposal. No new appropriated dollars would be sought.

**ATTACHMENTS**

Attachment 1 – Master of Healthcare Administration proposal

Page 3

**STAFF COMMENTS AND RECOMMENDATIONS**

ISU projects that the program will have approximately 15 initial enrollments with an overall enrollment of approximately 50 students, and have at least 25 graduates per year once the program is fully up and running.

ISU's request to create a Master of Healthcare Administration is consistent with their Service Region Program Responsibilities and their Five-year Plan for Delivery of Academic Programs in Region V. Consistent with Board Policy III.Z, no institution has the statewide program responsibility for healthcare administration programs. Neighboring states with similar programs include University of Washington, Washington State University, Oregon Health Science University, University of Utah, Weber State University, Montana State University and University of Colorado.

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on January 19, 2017 and to the Board's Instruction, Research, and Student Affairs (IRSA) committee on February 2, 2017.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the request by Idaho State University to create a Master of Healthcare Administration in substantial conformance to the program proposal in Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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Institutional Tracking No. 2016-08

**Idaho State Board of Education**  
Proposal for **Undergraduate/Graduate Degree Program**

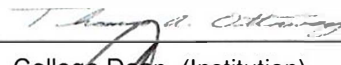

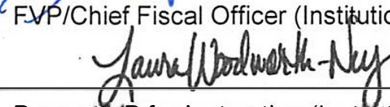


|                                       |  |
|---------------------------------------|--|
| Date of Proposal Submission:          | March 15, 2016   |
| Institution Submitting Proposal:      | Idaho State University   |
| Name of College, School, or Division: | Division of Health Sciences / Kasiska School of Health Professions in collaboration with the College of Business |
| Name of Department(s) or Area(s):     | Health Care Administration   |

**Program Identification for Proposed New or Modified Program:**

|                                     |  |                         |           |                          |            |
|-------------------------------------|--|-------------------------|-----------|--------------------------|------------|
| Program Title:                      | Masters of Healthcare Administration                   |                         |           |                          |            |
| Degree:                             | MHA  | Degree Designation      |           | Undergraduate            | X Graduate |
| Indicate if Online Program:         |  | Yes                     |           | X No                     |            |
| CIP code (consult IR /Registrar):   | 51.0701 (Health/Health Care Administration/Management) |                         |           |                          |            |
| Proposed Starting Date:             | Fall 2017  |                         |           |                          |            |
| Geographical Delivery:              | Location(s)  | Pocatello               | Region(s) | 5                        |            |
| Indicate (X) if the program is/has: |  | Self-Support            |           | Professional Fee         |            |
| Indicate (X) if the program is:     | X  | Regional Responsibility |           | Statewide Responsibility |            |

**Indicate whether this request is either of the following:**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> New Degree Program                            | <input type="checkbox"/> Consolidation of Existing Program            |
| <input type="checkbox"/> Undergraduate/Graduate Certificates (30 credits or more) | <input type="checkbox"/> New Off-Campus Instructional Program         |
| <input type="checkbox"/> Expansion of Existing Program                            | <input type="checkbox"/> Other (i.e., Contract Program/Collaborative) |

  
 College Dean (Institution) \_\_\_\_\_ Date \_\_\_\_\_  
  
 Graduate Dean \_\_\_\_\_ Date 12/5/16  
  
 FVP/Chief Fiscal Officer (Institution) \_\_\_\_\_ Date \_\_\_\_\_  
  
 Provost/VP for Instruction (Institution) \_\_\_\_\_ Date 12/5/16  
  
 President \_\_\_\_\_ Date \_\_\_\_\_

Vice President for Research \_\_\_\_\_ Date \_\_\_\_\_  
 Academic Affairs Program Manager, OSBE \_\_\_\_\_ Date \_\_\_\_\_  
 Chief Academic Officer, OSBE \_\_\_\_\_ Date \_\_\_\_\_  
 SBOE/Executive Director Approval \_\_\_\_\_ Date \_\_\_\_\_

**Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance. This proposal form must be completed for the creation of each new program. All questions must be answered.**

### **Rationale for Creation or Modification of the Program**

- 1. Describe the request and give an overview of the changes that will result. Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.**

Since 1975, the Kasiska School of Health Professions at Idaho State University (ISU) has offered an undergraduate B.S. degree in Health Care Administration (HCA) with a minor in business. The HCA program is the only nationally certified program in the state of Idaho. In recent years BYU-Idaho began offering an undergraduate HCA program; the Rexburg-based program is not specialty certified. While the undergraduate HCA program provides students an introduction to the fundamental knowledge and skills required for entry-level administrative positions in healthcare organizations, a Masters in Healthcare Administration would provide the more advanced and sophisticated training required for executive level positions.

The MHA degree has never been offered by ISU or any other college or university in Idaho. Students or working professionals who wish to pursue this degree must seek this education and professional credential outside the state of Idaho. The ISU College of Business does offer a Master of Business Administration (MBA) degree with a healthcare emphasis. Currently, this emphasis requires 9-10 credit hours of healthcare related coursework.

Given Idaho's rural and geographically diverse population, this proposal calls for a hybrid model where roughly 75 percent of the coursework is delivered during the evening in a traditional classroom based format but connected to distance learning sites in Idaho Falls and Meridian. The remaining coursework—roughly 25 percent—would be delivered in both synchronous and asynchronous online formats. Initially, a non-cohort model is proposed thereby enabling students and working professionals to enter the program and progress at their own speed.

In the United States, healthcare management programs are housed almost equally among schools or colleges of health professions, public health, and business. In recent years, the ISU College of Business (COB) has sought a health related focus to its academic programs and degrees to better align itself with the University's core theme of Leadership in the Health Professions. The Division of Health Sciences (DHS) has likewise sought to strengthen and further integrate its business-oriented programs—notably the undergraduate Health Care Administration (HCA) program and eventually the MHA—with the clinical programs to meet accreditation and industry expectations related to interprofessional education.

To meet the needs of today's healthcare leadership in Idaho and to increase the University's profile as a destination site for the health professions, a Masters in Healthcare Administration is now recommended. This proposed MHA program will consist of 48 graduate-level credits with the full curricular breadth to meet the competencies required by the Commission on the Accreditation of Healthcare Management Education (CAHME).

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2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.

- a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

List the job titles for which this degree is relevant:

- Hospital / healthcare Chief Executive Officer
- Hospital Administrator
- Hospital / health system Chief Operating Officer
- Hospital / health system Vice President
- Assistant Hospital Administrator
- Director of Nursing
- Director of Finance / Chief Financial Officer
- Director of hospital / healthcare support services
- Director of ambulatory care
- Director of healthcare planning
- Director of healthcare marketing / Public relations
- Director of healthcare quality improvement
- Healthcare compliance officer
- Physician practice manager
- Clinics manager
- Long term care administrator
- Insurance contracts administrator
- Director of public health

|                                     | State DOL data  | Federal DOL data | Other data source: (describe)  |
|-------------------------------------|---|------------------|--|
| <b>Local<br/>(Service<br/>Area)</b> | 25 (healthcare administrators and health services managers) |                  | Idaho Department of Labor. <sup>1</sup> (March 4, 2016). Retrieved from <a href="https://idahoworks.gov/ada/r/job_seeker">https://idahoworks.gov/ada/r/job_seeker</a><br><br>Idaho Hospital Association. <sup>2</sup> (March 4, 2016). Retrieved from <a href="http://www.idhospitaljobs.com/">http://www.idhospitaljobs.com/</a><br><br>TopUSAJobs.com. <sup>3</sup> (March 6, 2016). Retrieved from <a href="http://www.topusajobs.com">www.topusajobs.com</a> |

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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|               |   |   |  |
|---------------|---|---|--|
| <b>State</b>  | 207 (healthcare administrators and health service managers)   |   | Idaho Hospital Association. (March 4, 2016). Retrieved from <a href="http://www.idhospitaljobs.com/">http://www.idhospitaljobs.com/</a><br><br>Idaho Department of Labor Job Seekers. (March 4, 2016). Retrieved from <a href="https://idahoworks.gov/ada/r/job_seeker">https://idahoworks.gov/ada/r/job_seeker</a><br><br>TopUSAJobs.com. (March 6, 2016). Retrieved from <a href="http://www.topusajobs.com">www.topusajobs.com</a>                                |
| <b>Nation</b> | 6,612 (healthcare administrators, chief executive officers, chief financial officers, health services managers) | Bureau of Labor Statistics, U.S. Department of Labor <sup>4</sup> | TopUSAJobs.com. (March 6, 2016). Retrieved from <a href="http://www.topusajobs.com">www.topusajobs.com</a><br><br>HealthJobs Nationwide. <sup>5</sup> (March 6, 2016) retrieved from <a href="http://www.healthjobsnationwide.com/">http://www.healthjobsnationwide.com/</a> .<br><br>American College of Healthcare Executives Job Center. <sup>6</sup> (March 6, 2016). Retrieved from <a href="http://www.ache.org/career.cfm">http://www.ache.org/career.cfm</a> |

Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

US healthcare system expenditures are rapidly approaching 18% of the nation's GDP. As the nation seeks to recruit and train our increasingly depleted workforce of physicians, nurses, and other clinical personnel, there is a corresponding need for competent healthcare leaders and managers. Two types of degrees often pursued for the purposes of becoming a senior healthcare administrator are the Masters in Business Administration (MBA) degree with a healthcare focus, and the Masters in Healthcare Administration (MHA) degree.<sup>7</sup>

According to the Department of Bureau of Labor Statistics, employment in the field of health care management is projected to grow 17 percent from 2014 to 2024, much faster than the average for all occupations.<sup>4</sup> The following statistical data indicate that job opportunities for healthcare managers and administrators will be good, especially for applicants with work experience in healthcare and strong business and management skills. As the large baby-boom population ages and people remain active later in life, the healthcare industry as a whole will see an increase in the demand for health services. This demand will in turn result in an increase in the number of physicians, patients, and procedures, as well as in the number of facilities. Health administrators and managers will be needed to organize and manage healthcare organizations and staff in the healthcare industry. There will likely be increased demand for nursing care facility administrators as baby boomers age.

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| <u>Occupational Title</u>            | <u>Employment 2014</u> | <u>Projected Employment 2024</u> |
|--------------------------------------|------------------------|----------------------------------|
| Medical and Health Services Managers | 333,000                | 389,300                          |

Historically, the MHA (or MHSA) has been the preferred degree(s) for management students focused on the health care field. The state of Idaho does not offer a graduate degree in hospital or health services administration. Idaho State University does offer the only accredited undergraduate degree in health care administration (established in 1975). However, graduates of this program must relocate out of state to pursue MHA, MHSA, or equivalent degrees.

In conclusion, workforce projections data from the national employment matrix reflect significantly increased demands for health care managers over the next 8 years. Our proposed program is designed for meeting the job market and employment needs in Idaho and beyond.

Sources:

1. Idaho Department of Labor. (March 4, 2016). Retrieved from [https://idahoworks.gov/ada/r/job\\_seeker](https://idahoworks.gov/ada/r/job_seeker)
2. Idaho Hospital Association. (March 4, 2016). Retrieved from <http://www.idhospitaljobs.com/>
3. TopUSAJobs.com. (March 6, 2016). Retrieved from [www.topusajobs.com](http://www.topusajobs.com)
4. Bureau of Labor Statistics, U.S. Department of Labor, (March 6, 2016). Medical and Health Services Managers, Occupational Outlook Handbook, Retrieved from <http://www.bls.gov/ooh/management/medical-and-health-services-managers.htm>.
5. HealthJobs Nationwide.<sup>5</sup> (March 6, 2016) retrieved from <http://www.healthjobsnationwide.com/>.
6. American College of Healthcare Executives Job Center. (March 6, 2016). Retrieved from <http://www.ache.org/career.cfm>.
7. Isaac, W. W., Nippak, P., Ikeda-Douglas, C., & Pringle, J. (2012). Surveying perceptions of MBA and MHA Degree options in a health services management program. *Journal of Health Administration Education*. 29(1), 21-37.

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey was used, please attach a copy of the survey instrument with a summary of results. (Survey results are imbedded below).

Student enrollment to the ISU MHA program will most likely come from three major sources: (1) Current undergraduate ISU students, notably from the HCA and College of Business programs; (2) Undergraduate HCA students from BYU-Idaho; and (3) Working mid-level healthcare professionals from Idaho and surrounding states.

An anonymous survey was conducted among 850 ISU undergraduate Health Care Administration and College of Business students from August 26 through September 11, 2015. The purpose of the survey was to identify student needs and to assess the level of

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student interest in pursuing an online MHA degree at ISU and what primary reasons for pursuing an MHA degree at ISU.

A total of 158 students completed the survey. Out of 158 respondents, 56% of participants were male and 44% were female. Concerning age, 69% of participants reported they were at the age of 20-29 and 18% at the age of 30-39. Regarding education level, 47% (74/158) of participants were graduate students, 35% (56/158) were either juniors or seniors. The following table showed a distribution of majors among these participants:

**Distribution of Majors Among the Survey Participants (N=147)**

| <b>Major</b>                                   | <b>Number</b> | <b>Percent</b> |
|--|---------------|----------------|
| Health Care Administration                     | 27            | 18%            |
| Accounting, Finance, Marketing, and Management | 28            | 19%            |
| MBA and MBA with HCA Emphasis                  | 44            | 30%            |
| PharmD and PharmD/MBA                          | 36            | 25%            |
| Other Health Sciences (PTA, BSHS, BSN, etc.)   | 12            | 8%             |

The following table shows 41% (64/158) of participants were either very interested or interested and 15% (23/158) were somewhat interested. The top three primary reasons for these students to pursue an MHA degree were: 1) enhance prospects for job promotion (50%); 2) personal desire for advanced degree (48%); and 3) career interest in health care administration (47%).

**Level of Interest in Pursuing an MHA Degree at ISU (N=158)**

| <b>Item</b>                          | <b>Number</b> | <b>Percent</b> |
|--------------------------------------|---------------|----------------|
| Very interested                      | 45            | 29%            |
| Interested                           | 19            | 12%            |
| Somewhat interested                  | 23            | 15%            |
| Not interested                       | 44            | 28%            |
| Neither Interested nor Disinterested | 27            | 17%            |

**Primary Reasons for Pursuing MHA Degree at ISU (N=158)**

| <b>Item</b>                                   | <b># of Agree and Strongly Agree</b> | <b>Percent</b> |
|---|--------------------------------------|----------------|
| Enhanced Prospects for Job Promotion          | 79                                   | 50%            |
| Personal Desire for Advanced Degree           | 76                                   | 48%            |
| Career Interest in Health Care Administration | 75                                   | 47%            |
| Employer Encouragement                        | 24                                   | 15%            |

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Apart from ISU based student interest, the Rexburg based BYU-Idaho undergraduate healthcare management program has over 950 students (450 on-campus and 500 online). Roughly 60 percent of these graduating healthcare management students go on to pursue a graduate healthcare management degree, either the MHA or MBA with healthcare emphasis. A March 2016 informal survey of BYU-Idaho healthcare management campus-based upper-classmen indicated that 17 persons (of the roughly 270 who go onto graduate school) would be interested in a Southeastern Idaho / ISU based MHA program. With careful planning and promotion, ISU can reasonably expect to capture at least 10-12% of this future MHA-bound student population.

- c. **Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

The proposed MHA program is primarily intended to meet current and projected healthcare management employment needs in Idaho and the surrounding region. Establishing an Idaho based MHA program will enable local healthcare leaders to pursue an MHA degree without relocating out of state. An Idaho based MHA will also stimulate the economy by generating tuition and other revenues from the degree program, and by producing competent healthcare leaders who will directly and indirectly stimulate the economic interests of their respective Idaho based healthcare organizations.

In addition, MHA program professors will actively engage in scholarly research, grantsmanship, and services related to improving the financing and delivery of healthcare in Idaho. Faculty will advise and collaborate with Idaho hospital and health system leaders, including Idaho Health and Welfare and other government officials to accomplish these related goals.

- d. **Societal Need:** Describe additional societal benefits and cultural benefits of the program.

First, Idaho is a rural state. Geographically, it is the 14<sup>th</sup> largest state in the United States, covering 83,574 square miles separated by mountain ranges. Idaho presents unique challenges to rural health professionals and healthcare administrators. According to the American Hospital Association Guide in 2014, there were 57 hospitals and health systems in Idaho. Over 60% hospitals are located in rural areas. Out of 57, 42% (27/57) of Idaho's hospitals are critical access hospitals (CAH) that have fewer than 25 beds, the designation of which was established by law under the Medicare Program. Due to geographic barriers, it is not easy for Idaho citizens who live in a rural area to access healthcare facilities and receive medical treatment and diagnosis in a timely manner.

Second, Idaho has a low income and medically underserved population. Of Idaho's 44 counties, 35 are classified as rural or frontier counties and 49 areas and populations are medically underserved. Medically underserved areas/populations are defined by the Department of Health and Human Services Health Resources and Services Administration (HRSA) as having: too few primary care providers, high infant mortality, high poverty and/or high elderly population (HRSA, 2014). The 2015 U.S. Bureau of the Census showed that Idaho had an estimated population of 1.65 million (U.S. Bureau of the Census, 2016) with an increasing population, especially for Latino/Hispanic people. Low socioeconomic status and a shortage of healthcare professionals in Idaho present another challenge for Idaho citizens to receive adequate health access and quality of care.

Third, the MHA program has never been offered in the state of Idaho. Many current

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healthcare professionals (both clinical and administrative) have expressed interest in gaining the management skills needed to improve their organization's and advance their careers. Knowledge and skills gained from this locally offered and carefully designed CAHME accredited program will ultimately improve both the access, cost, and quality of healthcare offered in Idaho.

**e. If Associate's degree, transferability:**

Not applicable

- 3. Similar Programs.** Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

| <b>Similar Programs offered <u>by Idaho public institutions</u> (list the proposed program as well)</b> |                              |  |
|---|------------------------------|--|
| <b>Institution Name</b>   | <b>Degree name and Level</b> | <b>Program Name and brief description if warranted</b> |
| BSU   | None                         | N/A  |
| CSI   | None                         | N/A  |
| CWI   | None                         | N/A  |
| EITC  | None                         | N/A  |
| ISU   | None                         | N/A  |
| LCSC  | None                         | N/A  |
| NIC   | None                         | N/A  |
| UI  | None                         | N/A  |

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| <b>Similar Programs offered <u>by other Idaho institutions and by institutions in nearby states</u></b> |                              |  |
|---|------------------------------|--|
| <b>Institution Name</b>   | <b>Degree name and Level</b> | <b>Program Name and brief description if warranted</b> |
| University of Washington  | MHA                          | Master of Health Administration Program                |
| Washington State University   | MHA                          | Master of Health Policy and Administration Program     |
| Oregon Health Science University  | MHA                          | Master of Science in Healthcare Management             |
| University of Utah  | MHA                          | Master of Healthcare Administration Program            |
| Weber State University  | MHA                          | Master of Health Administration Program                |
| Montana State University  | MHA                          | Master of Health Administration <i>Program</i>         |
| University of Colorado  | MBA (healthcare emphasis)    | MBA in Health Administration Program                   |

4. **Justification for Duplication with another institution listed above.** (if applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

Idaho State University (ISU) has offered an undergraduate healthcare administration program for 40 years. As such ISU's HCA faculty have the depth of talent, professional and academic experience, and state-wide connections to implement the MHA in an effective and responsible way. Moreover, the programmatic synergies generated by offering both the HCA and MHA degree on the same campus by the same university are apparent.

5. **Describe how this request supports the institution's vision and/or strategic plan.**

The mission of ISU is to advance scholarly and creative endeavors through the creation of new knowledge, cutting-edge research, innovative artistic pursuits and high-quality academic instruction; to use these qualities to enhance technical, undergraduate, graduate, and professional education, health care, and other services provided to the people of Idaho, the Nation, and the

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World; and to develop citizens who will learn from the past, think critically about the present, and provide leadership to enrich the future in a diverse, global society.

The mission of ISU is complemented by four core themes, including theme three: Leadership in the Health Sciences. Specifically, ISU values its established leadership in the health sciences with primary emphasis in the health professions. We offer a broad spectrum of undergraduate, graduate, and postgraduate training. We deliver health related services and patient care throughout the State in our clinics and postgraduate residency training sites. We are committed to meeting the health professions workforce needs in Idaho. We support professional development, continuing education, and telehealth services. We are active in Health Sciences research.

The proposed MHA program would strengthen ISU commitment to leadership in the health sciences in both the clinical and administrative domains. The MHA program would also substantively enhance the ISU Division of Health Science's achievement of all three of its stated goals, including:

- Goal 1: To provide high quality programs that are efficient, cost effective, and student oriented.  
Goal 2: To create an environment conducive to inquiry.  
Goal 3: To expand the DHS image as a destination site for health professions education.

6. **Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The MHA program will be designed to meet the Commission on the Accreditation of Healthcare Management Education (CAHME) accreditation standards. CAHME is the National Accreditation Agency for all graduate healthcare administration programs and is granted formal recognition by the U.S. Department of Education. CAHME accreditation represents the highest and most distinguished level of accreditation of graduate healthcare management programs. CAHME accreditation will assist in attracting high quality students and ensuring program quality. To further ensure the quality of that portion of the program delivered in the online format, all online courses will be delivered by faculty experienced in the online environment and who have used the Quality Matters® program to assist in the design and assessment of their online courses.

The undergraduate healthcare administration is currently accredited by the Association of University Programs in Health Administration (AUPHA).

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B.**

Not applicable

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?

Yes \_\_\_\_\_ No  X

If yes, on what date was the Program Approval for Certification Request submitted to the

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Professional Standards Commission?

- 9. Five-Year Plan: Is the proposed program on your institution's approved 5-year plan? Indicate below.**

Yes   X   No       

Proposed programs submitted to OSBE that are **not** on the five-year plan must respond to the following questions and meet at least one criterion listed below.

N/A – The MHA program is on the five-year plan.

- a. Describe why the proposed program is not on the institution's five-year plan.**  
When did consideration of and planning for the new program begin? N/A
- b. Describe the immediacy of need for the program.** What would be lost was the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

**Criteria.** As appropriate, discuss the following: N/A

- i. How important is the program in meeting your institution's regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.
- ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.
- iii. Is there a contractual obligation or partnership opportunity to justify the program?
- iv. Is the program request or program change in response to accreditation requirements or recommendations?
- v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

**Curriculum, Intended Learning Outcomes, and Assessment Plan**

- 10. Curriculum for the proposed program and its delivery.**

- a. Summary of requirements.** Provide a summary of program requirements using the following table.

|  |  |
|--|--|
| Credit hours in required courses offered by the department (s) offering the program. | 14 required courses (42 credit hours) offered via HCA/School of Health Professions and College of Business |
| Credit hours in required courses offered by other departments:                       | 0  |
| Credit hours in institutional general education curriculum                           | 0  |
| Credit hours in free electives   | Up to 2 courses (6 credit hours)   |
| Total credit hours required for degree program:                                      | 48   |

*See proposed curriculum on page 15.*

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- b. Additional requirements.** Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

MHA students who have little or no working experience in healthcare administration will be required to complete an administrative internship. Students who are working professionals will be required to complete a 3-credit capstone project during the last semester of the program. All students will also be required to pass a comprehensive examination.

**11. Program Intended Learning Outcomes and Connection to Curriculum.**

- a. Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

The overarching student learning outcomes for the proposed MHA program are: (1) MHA students will develop an in-depth, executive-level understanding of the healthcare industry, (2) MHA students will develop administrative, technical, problem-solving, conceptual, and human relations knowledge and skills that provide a foundation for effective leadership in the healthcare field, and (3) MHA students will become well educated, productive citizens.

The above student learning outcomes will be realized via demonstrated proficiency across the following competencies:

**Competency domain 1: Communication and relationship management**

*The ability to communicate clearly and concisely with internal and external customers, establish and maintain relationships, and facilitate constructive interactions with individuals and groups. Communication and relationship management includes:*

- Relationship management
- Communication skills
- Facilitation and negotiation

**Competency domain 2: Leadership**

*The ability to inspire individual and organizational excellence, create a shared vision and successfully manage change to attain the organization's strategic ends and successful performance. The leadership domain intersects with each of the other four domains and includes:*

- Leadership skills and behavior
- Organizational climate and culture
- Communicating vision
- Managing change

**Competency domain 3: Professionalism**

*The ability to align personal and organizational conduct with ethical and professional standards that include a responsibility to the patient and community, a service orientation, and a commitment to lifelong learning and improvement. Professionalism*

*includes:*

- Personal and professional accountability
- Professional development and lifelong learning
- Contributions to the community and profession

**Competency domain 4: Knowledge of the healthcare environment**

*The understanding of the healthcare system and the environment in which healthcare managers and providers function. Knowledge of the healthcare environment includes:*

- Healthcare systems and organizations
- Healthcare personnel
- The patient's perspective
- The community and environment

**Competency domain 5: Business skills and knowledge**

*The ability to apply business principles, including systems thinking, to the healthcare environment. Business skills and knowledge includes:*

- General management
- Financial management
- Human resource management
- Organizational dynamics and governance
- Strategic planning and marketing
- Information management
- Quality improvement

The proposed MHA curriculum consists of 13 three-credit required courses; 1 MHA capstone, or administrative residency (may comprise 3-6 credit hours); and 1-2 elective courses as needed for a total of 48 credit hours.

An outline of the propose MHA curriculum is provided below:

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*Proposed MHA Curriculum*

| <b>MHA Required Courses</b>   | <b>Credits</b> |
|---|----------------|
| Healthcare leadership and governance                                  | 3              |
| Management of healthcare organizations                                | 3              |
| Healthcare economics and policy                                       | 3              |
| Financial reporting and managerial accounting                         | 3              |
| Business statistics, decision analysis, and evidence-based management | 3              |
| Healthcare finance I  | 3              |
| Healthcare finance II   | 3              |
| Healthcare information systems  | 3              |
| Healthcare strategic planning and marketing                           | 3              |
| Healthcare law and ethics   | 3              |
| Healthcare human resources and organizational behavior                | 3              |
| Managerial epidemiology and population health                         | 3              |
| Healthcare operations and quality                                     | 3              |
| <b>MHA Optional Capstone vs Administrative Residency</b>              | <b>Credits</b> |
| Option (A): MHA capstone project (for working/experienced students)   | 3              |
| Option (B): MHA administrative residency (3 to 6 credits)             | 3-6            |
| <b>MHA Elective Courses (Choose 1 or 2 as needed)</b>                 | <b>Credits</b> |
| Topics in Rural Health  | 3              |
| Physician Practice Management   | 3              |
| Issues in Long Term Care  | 3              |
| Comparative International Health Systems                              | 3              |
| Healthcare Entrepreneurship and Business                              | 3              |
| Other approved courses from MBA, MPH, or Health Informatics Program   | 3              |
| <b>Total</b>  | <b>48</b>      |

A mapping of the proposed curriculum to the competencies described on pages 13-14 will be available upon request.

**12. Assessment plans**

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

The proposed MHA program will be assessed based on the following program mission, vision, goals and objectives:

**Mission:**

The Masters in Health Care Administration (MHA) Program will provide quality education and lifelong learning opportunities to future and current healthcare leaders in Idaho. The MHA program supports Idaho State University's mission as the center of education of health professionals in the State of Idaho, and the Kasiska School of Health Profession's mission of enhancing the quality of life of the residents of Idaho. The Program will serve to advance the knowledge and the ability of healthcare professionals to lead their organizations, to serve their communities and to improve the health status of their communities.

**Vision:**

The MHA program will be the premier education venue for the State of Idaho in preparing students for entry or mid-level management positions in the healthcare industry. The MHA program will use innovative instructional methods to deliver high quality educational outcomes reflective of the industry's needs.

**The proposed goals, objectives, and performance outcomes for the MHA program are:**

**MHA Program Goals, Objectives, and Outcomes**

1. Education: Provide a high quality educational experience for MHA and other health professions students.
2. Scholarship: Promote an environment that supports learning and discovery through various forms of Scholarship.
3. Service: Demonstrate consummate professionalism by providing consequential service to the MHA Program, University, and profession.

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| <b>Goal 1: Education – Provide a high quality educational experience for MHA and other health professions students</b>   |  |                          |                      |                |   |
|--|--|--------------------------|----------------------|----------------|---|
| <b>Objectives</b>  | <b>Measurement</b>   | <b>Recent Assessment</b> | <b>Met / Not Met</b> | <b>Results</b> | <b>Comments / Actions</b>                               |
| 1. Establish and pursue a rigorous set of student learning outcomes (SLOs)   | See proposed student learning outcomes (SLO) below.  |                          |                      | TBD            | See proposed student learning outcomes mentioned above. |
| 2. Leverage practical educational experiences and interaction among students, alumni, and mentors throughout the region. | Number of active internships; advisory board meetings (with student input); student participation in external conferences and events |                          |                      | TBD            |   |
| 3. Establish and maintain CAHME accreditation  | CAHME accreditation  |                          |                      | TBD            |   |
| 4. Recruit and retain high quality faculty   | Number and percentage of faculty with terminal degrees   |                          |                      | TBD            |   |
|  | Faculty with 10+ years professional field experience   |                          |                      | TBD            |   |
| 5. Recruit and admit high quality and diverse student group  | Target GPA and GMAT/GRE: TBD   |                          |                      | TBD            |   |
|  | Target demographics: TBD   |                          |                      | TBD            |   |
| 6. Establish and maintain strong relationships with community  | Semi-annual MHA advisory board meetings  |                          |                      | TBD            |   |

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|   |   |  |  |     |  |
|---|---|--|--|-----|--|
| healthcare leaders/providers  | Residency and/or Practicum site relationships: TBD          |  |  | TBD |  |
| 7. Provide high quality student advising and career counseling  | Semi-annual student survey: Student advising metric         |  |  | TBD |  |
| 8. Collaborate with other ISU programs and colleges to organize and deliver high quality healthcare leadership programs and courses | Number of programs and courses being developed or delivered |  |  | TBD |  |

| Goal 2: Scholarship – Promote an environment that supports learning and discovery through various forms of Scholarship |                         |                   |               |         |                    |
|--|-------------------------|-------------------|---------------|---------|--------------------|
| Objectives   | Measurement             | Recent Assessment | Met / Not Met | Results | Comments / Actions |
| 1. Graduate faculty to publish at least one (1) scholarly / peer-reviewed work annually                                | Number of publications  |                   |               | TBD     |                    |
| 2. Graduate faculty to present scholarship at national / regional meetings at least once (1) per year                  | Number of presentations |                   |               | TBD     |                    |
| 3. Graduate faculty to initiate and respond to invited speeches / presentations  | Number of presentations |                   |               | TBD     |                    |

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| <b>Goal 3: Service – Demonstrate consummate professionalism by providing consequential service to the MHA Program, University, and profession</b> |                                    |                          |                      |                |                           |
|---|------------------------------------|--------------------------|----------------------|----------------|---------------------------|
| <b>Objectives</b>   | <b>Measurement</b>                 | <b>Recent Assessment</b> | <b>Met / Not Met</b> | <b>Results</b> | <b>Comments / Actions</b> |
| 1. Provide leadership and service to MHA program initiatives  | Number of committees / initiatives |                          |                      | TBD            |                           |
| 2. Provide leadership and service to university-based committees / initiatives  | Number of committees / initiatives |                          |                      | TBD            |                           |
| 3. Provide leadership and service to health related national / regional / local initiatives   | Number of committees / initiatives |                          |                      | TBD            |                           |

- b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

The MHA program will appoint a designated assessment coordinator to ensure that all matters related to program assessment and improvement are effectively acted upon. See also item 12c below.

- c. Measures used.** What direct and indirect measures will be used to assess student learning?

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**Approaches to Measuring Student Learning / Progress:**

| <b>Tool / Approach</b>                    | <b>Audience / Target Group</b>                            | <b>Description</b>  | <b>Frequency / Timing</b>                             | <b>Format</b>  | <b>Direct vs Indirect measures / Comments</b>   |
|---|---|---|---|--|---|
| Overall student competency assessment     | Newly admitted & graduating MHA majors                    | Modified ACHE competency assessment survey                                | Administered at time of admission and upon graduation | Email / Online survey  | Direct / To be initiated fall 2017  |
| Course-specific assessment methods        | All students taking MHA courses                           | Conventional exams, papers, projects, portfolios, etc.                    | Ongoing   | Various hard copy and online formats                         | Direct  |
| Course learning objectives (CLO)          | All students taking MHA courses                           | CLOs are tied to student learning outcomes and competencies               | Presented front end of each course, each semester     | Imbedded in standard place within all MHA course syllabi     | Indirect / See individual course syllabi  |
| Student evaluations of faculty/course     | All students taking MHA courses                           | Standard course evaluation: Likert-scale and open ended questions         | Semester end  | Administered via Moodle (Teaching / learning system)         | Indirect / Individual faculty members, including Program Director, review results and take action as needed |
| MHA XXX (Internship) Preceptor evaluation | MHA XXX students and preceptors                           | Assessment of student and preceptor performance                           | Likert-type scale survey with a few open questions    | Email and/or hard copy mailed to preceptor & students        | Direct / Internship Director and Program Director review findings and take action as needed                 |
| Semi-annual MHA program student survey    | All MHA   | Voluntary online survey of 15+ Likert-scale type and open-ended questions | Administered at the end of fall and spring semester   | Email / Online survey  | Indirect / Program faculty and advisory board review findings and take action as needed                     |
| MHA Program Advisory Board meetings       | MHA faculty, invited students, and Advisory board members | Formal and informal questions posed during meetings                       | Annual  | Questions / discussion initiated during semi-annual meetings | Indirect / Recent issues: (1) Program curriculum; (2) graduate education format (MBA vs. MHA)               |
| Special studies                           | Situational   | Studies conducted on an as needed basis.                                  | As needed   | Situational  | Indirect  |
| MHA program exit exam                     | Graduating MHA students                                   | TBD / Likely a comprehensive multiple choice exam                         | Given in final semester in program                    | Proctored classroom based exam                               | Direct / To be developed  |

- d. Timing and frequency.** When will assessment activities occur and at what frequency?  
See above

**Enrollments and Graduates**

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

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| <b>Existing Similar Programs: Historical enrollments and graduate numbers</b> |   |      |      |                       |  |      |      |                       |
|---|---|------|------|-----------------------|--|------|------|-----------------------|
| <b>Institution and Program Name</b>   | <b>Fall Headcount Enrollment in Program</b> |      |      |                       | <b>Number of Graduates From Program (Summer, Fall, Spring)</b> |      |      |                       |
|   | FY__  | FY__ | FY__ | FY__<br>(most recent) | FY__   | FY__ | FY__ | FY__<br>(most recent) |
| <b>BSU</b>  | None  | None | None | None                  | None   | None | None | None                  |
| <b>ISU</b>  | None  | None | None | None                  | None   | None | None | None                  |
| <b>UI</b>   | None  | None | None | None                  | None   | None | None | None                  |
| <b>LCSC</b>   | None  | None | None | None                  | None   | None | None | None                  |

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

| <b>Proposed Program: Projected Enrollments and Graduates First Five Years</b> |             |             |             |             |             |  |             |             |             |             |             |
|---|-------------|-------------|-------------|-------------|-------------|--|-------------|-------------|-------------|-------------|-------------|
| <b>Program Name:</b>  |             |             |             |             |             |  |             |             |             |             |             |
| <b>Projected Fall Term Headcount Enrollment in Program</b>                    |             |             |             |             |             | <b>Projected Annual Number of Graduates From Program</b> |             |             |             |             |             |
| <b>FY17<br/>(first year)</b>  | <b>FY18</b> | <b>FY19</b> | <b>FY20</b> | <b>FY21</b> | <b>FY22</b> | <b>FY17<br/>(first year)</b>                             | <b>FY18</b> | <b>FY19</b> | <b>FY20</b> | <b>FY21</b> | <b>FY22</b> |
| 15  | 35*         | 45*         | 50*         | 50*         | 50*         | 0  | 0           | 15          | 20          | 25          | 25          |

\* Includes first and second year enrollment

- 15. Describe the methodology for determining enrollment and graduation projections.** Refer to information provided in Question #2 "Need" above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The methods we have used for determining enrollment and graduation projections include:

- 1) Conducted a survey of ISU Health Care Administration and College of Business Students. Through the survey, student need for the MHA program was identified. The survey results showed that 87 students were interested in pursuing the MHA degree at ISU and 64% of responded students expressed their interest in enrolling in the MHA program in 2017;

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- 2) Met with BYU-Idaho officials to assess interest in ISU based MHA program. Findings revealed that approximately 900 BYU-Idaho students are engaged in the Rexburg-based undergraduate healthcare management program (roughly 50% of whom are fully online) and approximately 30% of eventual graduates immediately pursue graduate healthcare management education.
- 3) Performed comprehensive search for statistical data about job openings from authoritative and reliable sources at the federal, state, and local level. We have identified the needs of healthcare workforce, economy, and society for the proposed MHA program and an estimated student enrollment number;
- 4) Conducted research and analysis of: a) physical, personnel, and other related resources available at ISU; b) capacity of the proposed MHA program; and c) a potential student application pool to predict the graduation number; and
- 5) Met with healthcare industry leaders in Idaho and solicited their feedback about the proposed MHA program and their possible involvement in the program once established.

Potential students will learn about the MHA program through various ISU websites (DHS, KSHP, College of Business); career fairs; promotion from members of the MHA advisory board; Social media (Facebook, other); Flyers; Presentation from HCA and MHA faculty to various audiences, including the Idaho Hospital Association, Idaho Healthcare Association, Idaho Medical Group Management Association, etc.

Students will be recruited from both ISU and other regionally-based universities, including BYU-Idaho and Boise State University. Students will also be recruited from the various hospital and healthcare system organizations throughout Idaho and beyond. Specifically, students will be recruited from:

- ISU undergraduate HCA program
- ISU College of Business (various undergraduate business majors/programs)
- BYU-Idaho undergraduate HCA program
- Idaho-based hospital / healthcare systems, e.g. St. Luke Healthcare System; St. Alphonsus Healthcare System; Eastern Idaho Regional Medical Center; Portneuf Medical Center; member hospitals of the The Hospital Cooperative (THC).

- 16. Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

The MHA planning committee's survey results showed that approximately 75 students are somewhat or very interested in pursuing an MHA degree at ISU. We have determined that matriculating 15 students would be the minimum number to effectively launch this program – currently targeted for all 2017.

**Resources Required for Implementation – fiscal impact and budget**

**17. Physical Resources.**

- a. **Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The Division of Health Sciences and COB have office space, teaching instruments, computers, and other physical equipment available to support the successful

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implementation of this proposed program. The planning committee has also consulted instructional technology resource center (ITRC) personnel to assess the university's capacity to absorb additional demand for distance education. With careful planning, assurance has been given that the ITRC can indeed support an MHA distance-learning education model.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

The proposed MHA program will have no significant impact on the existing programs of increased utilization of physical resources at both colleges. However, to support the successful implementation of the proposed program, some resources must be required (See below).

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

| Item  | Frequency of Purchase | Estimated Annual Expense |
|---|-----------------------|--------------------------|
| CAHME accreditation fee(s)                          | Initial and Annual    |                          |
| Travel (@3.0 faculty)                               | Annual                | \$12,000                 |
| Material and supplies                               | Annual                | \$5,000                  |
| Telecommunication: Annual costs                     | Annual                | \$1,500                  |
| Faculty recruitment, relocation, and start-up costs | One time              | \$20,000                 |
| Website development / maintenance                   | One time              | \$500                    |
| Student marketing and recruitment materials         | Annual                | \$2,000                  |
| Library purchases                                   | Annual                | \$2,000                  |
| Faculty dues, tuitions, etc.                        |                       |                          |
| More  |                       |                          |

**18. Library resources**

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

ISU Libraries have subscribed to many online journals and databases related to health sciences, medicine, business, and management. The current subscriptions to databases include *Health Business Elite Full Text*, *Health Policy Reference Center*, *Business Source Complete*, *MEDLINE*, *Cochrane Library*, *Web of Science*, *DynaMed*, and *CINAHL*. Students are able to access library online resources any time they need. The Libraries provide an electronic classroom with updated software and Internet access for educational training. In addition, library staff members provide interlibrary loan service for students and faculty if no information resources are available at ISU Libraries. In short, the libraries have adequate resources to support the proposed MHA

Program.

- b. **Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

Faculty textbooks can be obtained complementarily via publishers. However, some new monographs and supplemental documents for ISU Libraries may need purchases in order to keep updated information resources in the field of healthcare administration to ensure successful implementation of the proposed program. The cost of purchasing those new library resources is included in the budget sheet (\$2,000).

#### 19. Personnel resources

- a. **Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

To take advantage of all resources and synergies available from both the DHS and COB and to explore the benefits and synergies of jointly administered academic programs, the DHS and COB propose the creation of an academic and business unit model where the proposed MHA program would be jointly delivered between the DHS and COB. Key provisions and considerations include the following:

- 1) The MHA program would be organized and delivered in a manner that conforms to the MHA accreditation requirements of the Commission on Accreditation for Healthcare Management Education (CAHME).
- 2) The MHA program Director would have a dual/joint appointment to the KSHP/DHS and College of Business and report jointly to the KSHP Director/DHS Associate Dean and Dean of the College of Business. The program would be staffed by faculty from both the DHS and COB; MHA faculty performance evaluations would be conducted by the director/chair of their primary academic home.
- 3) The MHA program would be guided by a steering committee chaired by the MHA Program Director with approximately 6-8 committee members equally distributed from the DHS and COB. The steering committee would address all matters related to the MHA program, including strategic and program planning; curriculum; staffing and faculty workload; budgeting; enrollment management and admissions; student advising and advancement; and program assessment and accreditation.
- 4) Program budget proposals would be developed by the MHA steering committee and reviewed/approved by designated DHS, COB, and other university administrators.
- 5) Credit for degrees, student head counts, student credit hours, research and other productivity measures would directly accrue to the MHA program and its faculty, and where both the DHS and COB would likewise take credit.

Although most undergraduate healthcare administration (HCA) and College of Business faculty will spend a small portion of their time teaching and/or supporting the MHA program, the new graduate MHA degree will require approximately 3.5 new or reallocated faculty and support staff personnel. (See 19c below)

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- b. Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

To keep costs down and improve the interdisciplinary nature of this program, the MHA degree program will be administered / delivered jointly between the Division of Health Sciences Health Care Administration Program and the College of Business. It is likely that six to eight faculty members from the DHS and COB will have joint appointments between their current academic homes and the MHA program. The MHA program will likely require at least three full-time faculty members, including the Program Director, to be fully devoted to the MHA program.

Besides the current core undergraduate Health Care Administration (HCA) program faculty, other ISU faculty members are expected to engage the MHA program either full or part-time.

- c. Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.

| <b>Name, Position &amp; Rank</b>                                 | <b>Annual Salary Rate</b> | <b>FTE Assignment to this Program</b>     | <b>Projected Student Credit Hours</b> | <b>FTE Students</b> |
|--|---------------------------|---|---------------------------------------|---------------------|
| MHA Program Director (Hermanson line)                            | \$68,515                  | 1.0 (Exclusively assigned to MHA program) |                                       |                     |
| MHA Program Faculty (Tracy Farnsworth)                           | \$140,312                 | .76 (Primarily assigned to MHA program)   |                                       |                     |
| MHA Program Faculty (Ruiling Guo)                                | \$51,542                  | .60 (Primarily assigned to MHA program)   |                                       |                     |
| MHA Adjunct Faculty(s) PCN 988025 – Group Part-time Instructors) | \$29,322                  | Adjunct / TBD                             |                                       |                     |
| Administrative Assistant (Tracie K. Chandler)                    | \$27,705                  | .50                                       |                                       |                     |

**Note: CAHME requires at least 3.0 faculty to be “primarily” assigned to MHA program**

**Revenue Sources**

- a) Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

Reallocation will primarily take place within the offering College(s), with faculty that have historically taught only in the undergraduate program taking on graduate responsibilities. The exception to this is PCN 7156 which will be designated as the full-time MHA Director.

In addition to the Health Care Administration faculty listed above, the College of Business

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will cover healthcare marketing, healthcare finance, healthcare economics, and health informatics utilizing existing faculty. The College of Business will also cover the general business courses: business statistics and financial and managerial accounting.

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

Not applicable, no new appropriated funds sought.

- c) **Non-ongoing sources:**

- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?

Although the MHA program will pursue donations from corporate and other sources, the program will not rely on such sources to fund initial program start-up costs.

- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds? (N/A)

- d) **Student Fees:**

- i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.
- ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

The MHA program will be primarily supported via graduate level tuition. There are no anticipated professional, laboratory, or class-fees connected to this proposal. A non-refundable application fee of \$55 will also be required.

20. Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).

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- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

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### Program Resource Requirements.

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first four fiscal years of
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

### I. PLANNED STUDENT ENROLLMENT

|                         | <u>FY 2017</u> |           | <u>FY 2018</u> |           | <u>FY 2019</u> |           | <u>FY 2020</u> |           |
|-------------------------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
|                         | FTE            | Headcount | FTE            | Headcount | FTE            | Headcount | FTE            | Headcount |
| A. New enrollments      | 15             |           | 35 *           |           | 45 *           |           | 50 *           |           |
| B. Shifting enrollments |                |           |                |           |                |           |                |           |
| <b>Total Enrollment</b> | 15             | 0         | 35             | 0         | 45             | 0         | 50             | 0         |

### II. REVENUE

|  | <u>FY 2017</u> |          | <u>FY 2018</u> |          | <u>FY 2019</u> |          | <u>FY 2020</u> |          |
|--|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
|  | On-going       | One-time | On-going       | One-time | On-going       | One-time | On-going       | One-time |
| 1. New Appropriated Funding Request                |                |          |                |          |                |          |                |          |
| 2. Institution Funds                               | \$296,944.62   |          | \$304,110.56   |          | \$311,491.48   |          | \$319,093.82   |          |
| 3. Federal   |                |          |                |          |                |          |                |          |
| 4. New Tuition Revenues from Increased Enrollments | \$76,578.90    |          | \$178,684.10   |          | \$229,736.70   |          | \$255,263.00   |          |
| 5. Student Fees                                    | \$45,221.10    |          | \$105,515.90   |          | \$135,663.30   |          | \$150,737.00   |          |
| 6. Other (i.e., Gifts)                             |                |          |                |          |                |          |                |          |
| <b>Total Revenue</b>                               | \$418,745      | \$0      | \$588,311      | \$0      | \$676,891      | \$0      | \$725,094      | \$0      |

*Ongoing is defined as ongoing operating budget for the program which will become part of the base.*

*One-time is defined as one-time funding in a fiscal year and not part of the base.*

### III. EXPENDITURES

|                                  | <u>FY 2017</u> |          | <u>FY 2018</u> |          | <u>FY 2019</u> |          | <u>FY 2020</u> |          |
|----------------------------------|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
|                                  | On-going       | One-time | On-going       | One-time | On-going       | One-time | On-going       | One-time |
| <b>A. Personnel Costs</b>        |                |          |                |          |                |          |                |          |
| 1. FTE                           | 1.2            |          | 1.2            |          | 1.2            |          | 1.2            |          |
| 2. Faculty                       | \$100,890.00   |          | \$103,916.70   |          | \$107,034.20   |          | \$110,245.23   |          |
| 3. Adjunct Faculty               | \$28,000.00    |          | \$28,000.00    |          | \$28,000.00    |          | \$28,000.00    |          |
| 4. Graduate/Undergrad Assistants |                |          |                |          |                |          |                |          |

# INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

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|                                     |                    |            |                    |            |                    |            |                    |            |
|-------------------------------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|------------|
| 5. Research Personnel               |                    |            |                    |            |                    |            |                    |            |
| 6. Directors/Administrators         | <u>\$84,075.00</u> |            | <u>\$86,597.25</u> |            | <u>\$89,195.17</u> |            | <u>\$91,871.02</u> |            |
| 7. Administrative Support Personnel | <u>\$13,228.80</u> |            | <u>\$13,625.66</u> |            | <u>\$14,034.43</u> |            | <u>\$14,455.47</u> |            |
| 8. Fringe Benefits                  | <u>\$70,750.82</u> |            | <u>\$71,970.95</u> |            | <u>\$73,227.68</u> |            | <u>\$74,522.11</u> |            |
| 9. Other:                           |                    |            |                    |            |                    |            |                    |            |
| <b>Total Personnel and Costs</b>    | <u>\$296,945</u>   | <u>\$0</u> | <u>\$304,111</u>   | <u>\$0</u> | <u>\$311,491</u>   | <u>\$0</u> | <u>\$319,094</u>   | <u>\$0</u> |

|   | <u>FY 2017</u>     |                    | <u>FY 2018</u>     |            | <u>FY 2019</u>     |            | <u>FY 2020</u>     |            |
|---|--------------------|--------------------|--------------------|------------|--------------------|------------|--------------------|------------|
|   | On-going           | One-time           | On-going           | One-time   | On-going           | One-time   | On-going           | One-time   |
| <b>B. Operating Expenditures</b>              |                    |                    |                    |            |                    |            |                    |            |
| 1. Travel                                     | <u>\$12,000.00</u> |                    | <u>\$12,000.00</u> |            | <u>\$12,000.00</u> |            | <u>\$12,000.00</u> |            |
| 2. Professional Services                      |                    | <u>\$500.00</u>    |                    |            |                    |            |                    |            |
| 3. Other Services                             |                    |                    |                    |            |                    |            |                    |            |
| 4. Communications                             | <u>\$1,500.00</u>  |                    | <u>\$1,500.00</u>  |            | <u>\$1,500.00</u>  |            | <u>\$1,500.00</u>  |            |
| 5. Materials and Supplies                     | <u>\$5,000.00</u>  |                    | <u>\$5,000.00</u>  |            | <u>\$5,000.00</u>  |            | <u>\$5,000.00</u>  |            |
| 6. Rentals                                    |                    |                    |                    |            |                    |            |                    |            |
| 7. Materials & Goods for Manufacture & Resale |                    |                    |                    |            |                    |            |                    |            |
| 8. Miscellaneous                              | 2000               | <u>\$20,000.00</u> | <u>\$2,000.00</u>  |            | <u>\$2,000.00</u>  |            | <u>\$2,000.00</u>  |            |
| <b>Total Operating Expenditures</b>           | <u>\$20,500</u>    | <u>\$20,500</u>    | <u>\$20,500</u>    | <u>\$0</u> | <u>\$20,500</u>    | <u>\$0</u> | <u>\$20,500</u>    | <u>\$0</u> |

Website

Marketing Faculty Recruiting

|                          | <u>FY 2017</u>    |          | <u>FY 2018</u>    |          | <u>FY 2019</u>    |          | <u>FY 2020</u>    |          |
|--------------------------|-------------------|----------|-------------------|----------|-------------------|----------|-------------------|----------|
|                          | On-going          | One-time | On-going          | One-time | On-going          | One-time | On-going          | One-time |
| <b>C. Capital Outlay</b> |                   |          |                   |          |                   |          |                   |          |
| 1. Library Resources     | <u>\$2,000.00</u> |          | <u>\$2,000.00</u> |          | <u>\$2,000.00</u> |          | <u>\$2,000.00</u> |          |

# INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS FEBRUARY 16, 2017

2. Equipment

|                             |                |                   |                |            |                |            |                |            |
|-----------------------------|----------------|-------------------|----------------|------------|----------------|------------|----------------|------------|
|                             |                | <u>\$6,000.00</u> |                |            |                |            |                |            |
| <b>Total Capital Outlay</b> | <u>\$2,000</u> | <u>\$6,000</u>    | <u>\$2,000</u> | <u>\$0</u> | <u>\$2,000</u> | <u>\$0</u> | <u>\$2,000</u> | <u>\$0</u> |

Computers

FY 2017

FY 2018

FY 2019

FY 2020

**D. Capital Facilities  
Construction or Major  
Renovation**

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|

**E. Other Costs**

Utilities

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|

Maintenance & Repairs

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|

Other

|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|--|

|                          |            |            |            |            |            |            |            |            |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|
| <b>Total Other Costs</b> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> | <u>\$0</u> |
|--------------------------|------------|------------|------------|------------|------------|------------|------------|------------|

|                            |                  |                 |                  |            |                  |            |                  |            |
|----------------------------|------------------|-----------------|------------------|------------|------------------|------------|------------------|------------|
| <b>TOTAL EXPENDITURES:</b> | <u>\$319,445</u> | <u>\$26,500</u> | <u>\$326,611</u> | <u>\$0</u> | <u>\$333,991</u> | <u>\$0</u> | <u>\$341,594</u> | <u>\$0</u> |
|----------------------------|------------------|-----------------|------------------|------------|------------------|------------|------------------|------------|

|                             |                 |                  |                  |            |                  |            |                  |            |
|-----------------------------|-----------------|------------------|------------------|------------|------------------|------------|------------------|------------|
| <b>Net Income (Deficit)</b> | <u>\$99,300</u> | <u>-\$26,500</u> | <u>\$261,700</u> | <u>\$0</u> | <u>\$342,900</u> | <u>\$0</u> | <u>\$383,500</u> | <u>\$0</u> |
|-----------------------------|-----------------|------------------|------------------|------------|------------------|------------|------------------|------------|

Budget Notes (specify row and add explanation where needed; e.g., "I.A..B. FTE is calculated using..."):

|   |   |
|---|---|
| * | Year two enrollment projection is year one continuing students plus 20 new students starting in year two      |
|   | Year three enrollment projection is year two continuing students plus 25 new students starting in year three  |
|   | Year four enrollment projection is year three continuing students plus 30 new students starting in year three |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |
|   |   |

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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|                      |          |
|----------------------|----------|
| Salary               | 84075    |
| Fringe               | 0.20487  |
| Health               | 12240    |
| Admin Assistant      | 26457.6  |
| Classified Fringe    | 0.209924 |
| Classified Health    | 11200    |
| # of Adjunct Courses | 4        |
| Adjunct Pay          | 3500     |
| CEC                  | 0.03     |
| Tuition              | 2552.63  |
| Grad Tutition&Fees   | 4060     |
| Fees                 | 1507.37  |
| Tuition Increase     |          |

**IDAHO STATE UNIVERSITY**

**SUBJECT**

Master of Taxation Program

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III G

**BACKGROUND/DISCUSSION**

Idaho State University (ISU) proposes creating a Graduate Tax Program awarding the Master of Taxation (MTAX) degree that will complement ISU's undergraduate and graduate accounting programs. The proposed program will build on existing courses from the Master of Accountancy and Master of Business Administration programs and will meet the needs of accounting graduates in gaining an in-depth knowledge of federal tax matters and related accounting and business issues. Offering a degree specific to taxation is likely to capture additional prospective students with a specific interest in taxation.

The primary source of students is likely to be graduates from BYU-Idaho. BYU-Idaho's accounting major currently has approximately 800 undergraduate accounting majors with approximately 150 graduating each year. BYU-Idaho's accounting department recently conducted a survey of their undergraduate accounting majors. Of 245 respondents, 80% said they were likely to attend graduate school, with 38% reporting they were likely to pursue a Master of Taxation degree specifically. With 150 graduates each year, 38% would be 57 students. If ISU were to attract even 1/3 of those students, they would have 19 students each year from BYU-Idaho alone.

The U.S. Bureau of Labor Statistics (BLS) reports that the employment of accountants and auditors is projected to grow 13 percent from 2012 to 2022 (166,700 jobs). The BLS states that there has been an increased focus on accounting in response to corporate scandals and recent financial crises and that stricter laws and regulations, particularly in the financial sector, will likely increase the demand for accounting services as organizations seek to comply with new standards.

**IMPACT**

The Master of Taxation program will be primarily supported by graduate level tuition. There are no anticipated professional, laboratory, or class fees associated with this program. Reallocation of existing funds will help support the MTAX, no new appropriated funds will be sought and no new personnel will be required. The Accounting department is fully staffed so the department will be able to continue to offer the same courses and programs previously offered without an impact on quality.

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There may be a reshuffling of students in the Master of Accountancy and Master of Business Administration programs but that should not negatively impact the total number of students receiving their master degree in the College of Business. Rather, the total pool with synergies would grow within the college.

**ATTACHMENTS**

Attachment 1 – Master of Taxation proposal

Page 3

**STAFF COMMENTS AND RECOMMENDATIONS**

ISU projects that the program will have approximately 24 initial enrollments with an overall enrollment of approximately 34 students, and have at least 32 graduates per year once the program is fully up and running.

ISU's request to create a Master of Taxation is consistent with their Service Region Program Responsibilities and their Five-year Plan for Delivery of Academic Programs in Region V. Consistent with Board Policy III.Z, no institution has the statewide program responsibility for accounting/business programs. Currently, Boise State University offers a similar program entitled Master of Accountancy – Taxation. Weber State University, a nearby state institution, offers a Master of Taxation program.

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on January 19, 2017 and to the Board's Instruction, Research, and Student Affairs (IRSA) committee on February 2, 2017. IRSA recommends approval.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the request by Idaho State University to create a Master of Taxation in substantial conformance to Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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Institutional Tracking No. 2016-07

**Idaho State Board of Education  
Proposal for Undergraduate/Graduate Degree Program**

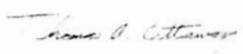
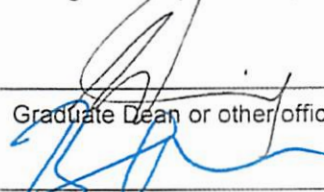
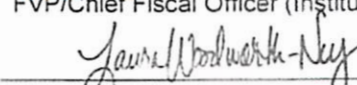
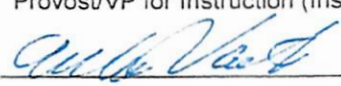

|                                       |                        |
|---------------------------------------|------------------------|
| Date of Proposal Submission:          | September 22, 2016     |
| Institution Submitting Proposal:      | Idaho State University |
| Name of College, School, or Division: | College of Business    |
| Name of Department(s) or Area(s):     | Accounting             |

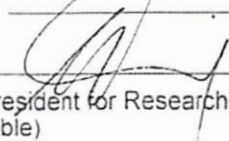
**Program Identification for Proposed New or Modified Program:**

|                                     |   |                    |  |  |
|-------------------------------------|---|--------------------|--|--|
| Program Title:                      | Graduation Tax Program: Master of Taxation                  |                    |  |  |
| Degree:                             | Master  | Degree Designation | Undergraduate                          | <input checked="" type="checkbox"/> Graduate |
| Indicate if Online Program:         | Yes   |                    | <input checked="" type="checkbox"/> No |  |
| CIP code (consult IR /Registrar):   | 52.1601   |                    |  |  |
| Proposed Starting Date:             | Fall 2017   |                    |  |  |
| Geographical Delivery:              | Location(s)   | Pocatello          | Region(s)                              |  |
| Indicate (X) if the program is/has: | Self-Support  |                    | Professional Fee                       |  |
| Indicate (X) if the program is:     | <input checked="" type="checkbox"/> Regional Responsibility |                    | Statewide Responsibility               |  |

**Indicate whether this request is either of the following:**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> New Degree Program                            | <input type="checkbox"/> Consolidation of Existing Program           |
| <input type="checkbox"/> Undergraduate/Graduate Certificates (30 credits or more) | <input type="checkbox"/> New Off-Campus Instructional Program        |
| <input type="checkbox"/> Expansion of Existing Program                            | <input type="checkbox"/> Other (i.e., Contract Program/Collaborative |

|   |           |
|---|-----------|
|  | 8/10/2016 |
| College Dean (Institution)  | Date      |
|  | 10/17/14  |
| Graduate Dean or other official   | Date      |
|  | 11/01/16  |
| FVP/Chief Fiscal Officer (Institution)  | Date      |
|  | 11/4/16   |
| Provost/VP for Instruction (Institution)  | Date      |
|  |           |
| President   | Date      |

|  |          |
|--|----------|
|  | 10/17/14 |
| Vice President for Research (Institution; as applicable)                             | Date     |
| Academic Affairs Program Manager, OSBE   | Date     |
| Chief Academic Officer, OSBE   | Date     |
| SBOE/Executive Director Approval   | Date     |

## INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

FEBRUARY 16, 2017

Institutional Tracking No. 2016-07

## Idaho State Board of Education

## Proposal for Undergraduate/Graduate Degree Program

|                                       |                        |
|---------------------------------------|------------------------|
| Date of Proposal Submission:          | September 22, 2016     |
| Institution Submitting Proposal:      | Idaho State University |
| Name of College, School, or Division: | College of Business    |
| Name of Department(s) or Area(s):     | Accounting             |

## Program Identification for Proposed New or Modified Program:

|                                     |  |                         |                  |                          |          |
|-------------------------------------|--|-------------------------|------------------|--------------------------|----------|
| Program Title:                      | Graduation Tax Program: Master of Taxation |                         |                  |                          |          |
| Degree:                             | Master                                     | Degree Designation      | Undergraduate    | x                        | Graduate |
| Indicate if Online Program:         | Yes  | x                       | No               |                          |          |
| CIP code (consult IR /Registrar):   | 52.1601                                    |                         |                  |                          |          |
| Proposed Starting Date:             | Fall 2017                                  |                         |                  |                          |          |
| Geographical Delivery:              | Location(s)                                | Pocatello               | Region(s)        |                          |          |
| Indicate (X) if the program is/has: | Self-Support                               |                         | Professional Fee |                          |          |
| Indicate (X) if the program is:     | x  | Regional Responsibility |                  | Statewide Responsibility |          |

## Indicate whether this request is either of the following:

- ☒ New Degree Program
 ☐ Consolidation of Existing Program  
☐ Undergraduate/Graduate Certificates (30 credits or more)
 ☐ New Off-Campus Instructional Program  
☐ Expansion of Existing Program
 ☐ Other (i.e., Contract Program/Collaborative)



8/10/2016

|  |      |
|--|------|
| College Dean (Institution)               | Date |
| Graduate Dean or other official          | Date |
| FVP/Chief Fiscal Officer (Institution)   | Date |
| Provost/VP for Instruction (Institution) | Date |
| President                                | Date |

|  |      |
|--|------|
| Vice President for Research (Institution; as applicable) | Date |
| Academic Affairs Program Manager, OSBE                   | Date |
| Chief Academic Officer, OSBE                             | Date |
| SBOE/Executive Director Approval                         | Date |

**INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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**Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance.** This proposal form must be completed for the creation of each new program. All questions must be answered.

**Rationale for Creation or Modification of the Program**

1. **Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

ISU proposes creating a Graduate Tax Program awarding the Master of Taxation degree that will complement ISU's undergraduate and graduate accounting programs. In addition to the proposed required and elective courses listed in response to Question 4 of this proposal, the proposed program will build on existing courses from the Master of Accountancy and Master of Business Administration programs. The program will be offered in Pocatello and Idaho Falls, and may include some online components or courses.

2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.

This program will meet the needs of accounting graduates in gaining an in-depth knowledge of federal tax matters and related accounting and business issues. Tax accountants must be able to identify tax-related issues faced by taxpayers and apply statutes and regulations to resolve such issues. Tax accountants must also know how to research particular tax issues and how to communicate and work effectively with lawyers and business people. Upon completion of the degree program, graduates will have the ability to:

- Work collaboratively with other accountants, lawyers, and business people to analyze and solve tax issues.
- Assess the tax-reporting and tax-planning needs of individuals and organizations and design appropriate plans to address such needs.
- Analyze and design plans to resolve tax disputes between taxpayers and the IRS.
- Communicate complex ideas effectively both orally and in writing to taxpayers, other professionals, and the IRS.

- a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

List the job titles for which this degree is relevant:

1. Certified Public Accountant
2. Staff Accountant

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|                                     | State DOL data | Federal DOL data | Other data source:<br>(describe) |
|-------------------------------------|----------------|------------------|----------------------------------|
| <b>Local<br/>(Service<br/>Area)</b> |                |                  | BLS (see below)                  |
| <b>State</b>                        |                |                  |                                  |
| <b>Nation</b>                       |                |                  |                                  |

Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

The U.S. Bureau of Labor Statistics (BLS) reports that the employment of accountants and auditors is projected to grow 13 percent from 2012 to 2022 (166,700 jobs). The BLS states that there has been an increased focus on accounting in response to corporate scandals and recent financial crises and that stricter laws and regulations, particularly in the financial sector, will likely increase the demand for accounting services as organizations seek to comply with new standards. The BLS reports that accountants and auditors who have earned professional recognition, especially as Certified Public Accountants (CPAs), should have the best prospects and that applicants who have a master's degree in accounting or a master's degree in business with a concentration in accounting also may have an advantage. The Internal Revenue Service's Taxpayer Advocate's 2010 report to Congress called tax complexity the number one problem facing taxpayers. It reported that from 2000 to 2010 there were approximately 4,428 tax code changes and that the tax code contains approximately 3.8 million words in 2010, over twice the number of words it contained in 2001. This complexity illustrates the need for trained tax professionals. As described above, conversations with top national and regional accounting firms reveal that they prefer to hire Master of Taxation (MT) graduates for tax positions (that one firm will only hire MT graduates for tax practice) and that some pay newly-hired MT graduates higher salaries than newly-hired Master of Accountancy graduates.

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey of s was used, please attach a copy of the survey instrument with a summary of results as **Appendix A.**

In our own undergraduate program, we have approximately 200 majors, with approximately 25 graduates each year. We anticipate that students from our own undergraduate program (perhaps 5 annually) would enroll in this program. Currently only 40% of our undergraduates stay for our MAcc degree. Offering a degree specific to taxation is likely to capture additional prospective students with a specific interest in taxation.

However, the primary source of students is likely to be graduates from BYU-Idaho. BYU-Idaho's accounting major currently has approximately 800 undergraduate accounting majors with approximately 150 graduating each year. BYU-Idaho's accounting department recently conducted a survey of their undergraduate accounting majors. Of 245 respondents, 80% said they were likely to attend graduate school, with 38% reporting they were likely to pursue a Master of Taxation degree specifically. With 150 graduates each year, 38% would be 57 students. If we were to attract even 1/3 of those students,

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we would have 19 students each year from BYU-Idaho alone.

In the same survey, students were asked about their perception of the quality of a master of taxation degree at Idaho State University. In spite of the fact that ISU *does not yet offer an MTax degree*, 71 students (26% of respondents) reported a 'good' or 'very good' perception of the quality of our MTax program, with the majority (181/272 or 67%) understandably having no opinion.

In fact, students were asked to rank their university preferences for attending graduate school. 100 of the 268 responding students (37%) indicated that Idaho State University was their first or second choice for attending graduate school. Of nine competitor universities, only BYU-Provo had more respondents select them as their first or second choice. Because BYU-Provo rarely admits outside students to its graduate accounting program, our estimate of capturing 1/3 of the prospective students from BYU-Idaho seems very reasonable.

- c. Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

Weber State University reports that in 2012 graduates of their MTax program earned an average salary of \$52,167 vs \$46,137 for a MAcc degree and \$41,838 for an undergraduate degree in accounting. A specialization in taxation will provide jobs with higher salaries, driven by demand for tax-related services in our region. (<http://www.weber.edu/WSUImages/careerservices/reports/Salary%20Statistics%20for%20WSU%20Business%20Graduates%20-%20May%202012.pdf>)

- d. Societal Need:** Describe additional societal benefits and cultural benefits of the program.

Professional accountants often specialize in one of two areas—auditing or taxation. Southeastern Idaho has many more small companies than large corporations. Small companies and individuals are more likely to require professional assistance related to taxation than auditing. Given the demographics of our service region, A Master of Taxation degree is likely to significantly improve our graduates' ability to meet the needs of many clients.

- e. If Associate's degree, transferability:**

N/A

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3. **Similar Programs.** Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

| Similar Programs offered <u>by Idaho public institutions</u> (list the proposed program as well) |                                  |   |
|--|----------------------------------|---|
| Institution Name   | Degree name and Level            | Program Name and brief description if warranted |
| Boise State University   | Master of Accountancy – Taxation | Master of Accountancy - Taxation                |

| Similar Programs offered <u>by other Idaho institutions and by institutions in nearby states</u> |                       |   |
|--|-----------------------|---|
| Institution Name   | Degree name and Level | Program Name and brief description if warranted |
| Weber State University   | Master of Taxation    | Master of Taxation                              |

4. **Justification for Duplication with another institution listed above.** (If applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

Our primary source of students will be our own graduates and graduates of BYU-Idaho. These students are much more likely to attend a program that is geographically proximate to their current residences. For example, we have seen significant success recruiting BYU-Idaho students to our MAcc program in part due to our proximity to Rexburg. We believe that our geographic proximity will assist us similarly in recruiting students from the Southeastern Idaho region for a Master of Taxation.

5. **Describe how this request supports the institution's vision and/or strategic plan.**

ISU's mission states, "The University provides access to its regional and rural communities through delivery of preeminent...graduate (and) professional...education....The University...engages and impacts its communities" A Master of Taxation fits within this mission.

Further, our vision statement is "leading in Opportunity and Innovation". A Master of Taxation will be an innovation that provides high-quality professional opportunities for graduates in the area as well as helping area businesses.

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6. **Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

Idaho State University is regionally accredited by the Northwest Commission on College and Universities (NWCCU). Idaho State University has carried this accreditation continuously since 1918.

Degrees in Taxation fall under the accreditation of the Association to Advance Collegiate Schools of Business (AACSB). The College of Business has carried AACSB accreditation on all of its programs since 1975. The Department of Accounting carries separate Accounting Accreditation.

In addition to the above accreditations, each of which requires a rigorous evaluation of program quality, Idaho State University has recently introduced a comprehensive, campus-wide, Program Prioritization effort. This effort to analyze program demand and viability will help ensure the quality and viability of all programs on campus.

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B.**

N/A

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?

Yes \_\_\_\_\_ No   x  

If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

9. **Five-Year Plan: Is the proposed program on your institution's approved 5-year plan? Indicate below.**

Yes   X   No \_\_\_\_\_

Proposed programs submitted to OSBE that are not on the five-year plan must respond to the following questions and meet at least one criterion listed below.

- a. **Describe why the proposed program is not on the institution's five year plan.**  
When did consideration of and planning for the new program begin?
- b. **Describe the immediacy of need for the program.** What would be lost were the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

**Criteria.** As appropriate, discuss the following:

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- i. How important is the program in meeting your institution's regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.
- ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.
- iii. Is there a contractual obligation or partnership opportunity to justify the program?
- iv. Is the program request or program change in response to accreditation requirements or recommendations?
- v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

**Curriculum, Intended Learning Outcomes, and Assessment Plan**

**10. Curriculum for the proposed program and its delivery.**

- a. **Summary of requirements.** Provide a summary of program requirements using the following table.

|  |    |
|--|----|
| Credit hours in required courses offered by the department (s) offering the program. | 18 |
| Credit hours in required courses offered by other departments:                       | 0  |
| Credit hours in institutional general education curriculum                           | 0  |
| Credit hours in free electives   | 12 |
| Total credit hours required for degree program:                                      | 30 |

- b. **Additional requirements.** Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

**11. Program Intended Learning Outcomes and Connection to Curriculum.**

- a. **Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

**Technical Competency and Professional Knowledge**

ISU MTax graduates will demonstrate technical competency and possess appropriate professional knowledge. Each student will:

- Apply knowledge of tax laws for planning and compliance purposes. Recognize and evaluate areas of potential legal concern in the business environment and demonstrate understanding of the role of law in risk assessment.
- Recognize and evaluate areas of potential risk in an entity's business processes

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and information technology environment.

### **Critical Thinking and Communication Skills**

ISU MTax graduates will demonstrate problem solving and critical thinking skills. Each student will:

- Gather, interpret, evaluate, analyze and apply relevant professional standards to complex accounting-related issues, and come to well-reasoned conclusions.
- Apply analytical and quantitative techniques to analyze financial statements within the context of risk assessment and firm valuation.
- Search effectively for information in online professional databases. Communicate complex ideas and thought effectively both orally and in writing.
- Interact in a group setting to effectively persuade others.

### **Group/Interpersonal Skills**

ISU MTax graduates will demonstrate group/interpersonal skills. Each student will:

- Work effectively in teams toward a common goal.

### **Professional Values and Ethics**

ISU MTax graduates will demonstrate the ability to recognize and appropriately respond to ethical issues in the practice of accounting. Each student will:

- Identify ethical issues and decision alternatives by incorporating appropriate professional codes of conduct and social responsibility. Demonstrate professional conduct and demeanor in class and business settings.

## **12. Assessment plans**

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

Learning outcomes based on the above learning goals will be incorporated into each relevant MTax course. At least twice during each five year period, instructors will be required to collect data from assignments or exams that provide assessment information related to each learning objective.

- b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

Once year, the department will meet to discuss the results of all collected assessment data and evaluate individual course content and curriculum generally.

- c. Measures used.** What direct and indirect measures will be used to assess student learning?

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Typically in accounting, we measure student success on exam questions or submitted assignments related to learning objectives. These are direct measures.

- d. Timing and frequency.** When will assessment activities occur and at what frequency?

As mentioned above, assessment data related to each learning objective will be collected at least twice during each five-year period.

**Enrollments and Graduates**

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

| Existing Similar Programs: Historical enrollments and graduate numbers |                                      |      |      |                    |   |      |      |                     |
|--|--------------------------------------|------|------|--------------------|---|------|------|---------------------|
| Institution and Program Name   | Fall Headcount Enrollment in Program |      |      |                    | Number of Graduates From Program (Summer, Fall, Spring) |      |      |                     |
|  | FY14                                 | FY15 | FY16 | FY17 (most recent) | FY13  | FY14 | FY15 | FY_16 (most recent) |
| <b>BSU (MS in Accountancy, Taxation)</b>                               | 27                                   | 31   | 24   | 15                 | 9   | 5    | 13   | 13                  |

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

| Proposed Program: Projected Enrollments and Graduates First Five Years |      |      |      |      |     |   |      |      |      |      |     |
|--|------|------|------|------|-----|---|------|------|------|------|-----|
| Program Name: Graduate Taxation Program                                |      |      |      |      |     |   |      |      |      |      |     |
| Projected Fall Term Headcount Enrollment in Program                    |      |      |      |      |     | Projected Annual Number of Graduates From Program |      |      |      |      |     |
| FY18 (first year)  | FY19 | FY20 | FY21 | FY22 | F23 | FY18 (first year)                                 | FY19 | FY20 | FY21 | FY22 | F23 |
| 24   | 26   | 28   | 30   | 32   | 34  | 22  | 24   | 26   | 28   | 30   | 32  |

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- 15. Describe the methodology for determining enrollment and graduation projections.** Refer to information provided in Question #2 “Need” above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The capacity for the above program will be 35 students initially. Recruiting efforts will coincide with our current recruiting efforts for our other graduate programs, especially our MAcc and MBA programs. These additional efforts should not require additional resources from the university.

- 16. Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

The MTax program will need to have at least 14 students by fiscal year 2022-2023 in order to remain financially viable in the long run. This is based on the estimated costs to staff MTax courses. In the event that the MTax program does not have a sufficient number of graduate students enrolled in the MTax program at the end of five years, the program would need to be evaluated, with a reduction in the frequency of course offerings and even discontinuation of the program being possible actions.

**Resources Required for Implementation – fiscal impact and budget**

**17. Physical Resources.**

- a. Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

Classroom space would be necessary in order to support this program.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

Idaho State University has the necessary classroom space to accommodate four additional courses per semester without straining existing classroom resources.

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

Existing Classrooms will be used, and other resources are already in place.

**18. Library resources**

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

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MTax students will utilize tax-related databases already in use by our accounting undergraduate and graduate students. The increased usage of these databases should not have a significant impact on the library or its staff.

- b. Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

MTax students will utilize existing subscriptions to tax-related databases.

**19. Personnel resources**

- a. Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

We expect that we will not need to offer additional sections of existing courses. In terms of instructional capacity, the implementation of this degree will require one section each year of nine new courses. The courses are listed below:

MTAX \_\_\_\_\_ Tax Procedure 3 credit hours.

Taxpayers' relationships with the Internal Revenue Service, including requests for rulings, conference and settlement procedures; deficiencies and their assessment; choice of forum; tax court practice; limitation periods and their mitigation, transferee liability; tax liens; and civil penalties.

MTAX \_\_\_\_\_ Corporate Taxation I 3 credit hours.

Tax considerations in corporate formations, distributions, redemptions, and liquidations. Some general consideration of the tax alternatives relating to the sales of corporate businesses.

MTAX \_\_\_\_\_ Corporate Taxation II 3 credit hours.

Corporate reorganizations; corporate acquisitions and divisions, including transfer or inheritance of losses and other tax attributes; corporate penalty taxes; consolidated returns provisions. Prerequisite: Corporate Taxation I.

MTAX \_\_\_\_\_ Partnership Taxation 3 credit hours.

Tax meaning of "partnership"; formation transactions between partner and partnership; determination and treatment of partnership income; sales or exchange of partnership interest; distributions; retirement; death of a partner; drafting the partnership agreement.

MTAX \_\_\_\_\_ Taxation of Individuals and Property Transactions 3 credit hours.

Tax problems of individual taxpayers; problems incident to the sale, exchange, and other disposition of property, including recognition and characterization concepts.

MTAX \_\_\_\_\_ Tax Research, Planning, and Policy 3 credit hours.

Substantial research and writing project on a federal tax subject; instruction in tax research techniques. Examination of the principal criteria used to make choices on

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forms of taxation and the impact of tax provisions on type and location of business and investment activities. Content may vary.

MTAX \_\_\_\_\_ State, Local, and International Taxation 3 credit hours.

Nature and purpose of state taxation; comparison of property and excise taxes; uniformity of taxation; assessment and collection procedures; remedies available to taxpayers. Survey of international tax regimes and consequences of various cross-border business transactions.

MTAX \_\_\_\_\_ Tax Exempt Organizations 3 credit hours.

A study of the exemption from federal income tax accorded to a variety of public and private organizations and the tax treatment of contributions to such organizations; public policies underlying exemption from tax and deductibility of contributions.

MTAX \_\_\_\_\_ Gift, Estate, and Fiduciary Taxation and Planning 3 credit hours.

Taxation of trust and estate income, including simple and complex trusts, annuities, property distributions, income in respect of a decedents, grantor trusts. Planning lifetime and testamentary dispositions of property; postmortem planning; analysis of small and large estates; eliminating and offsetting complicating and adverse factors; selection of a fiduciary and administrative provisions.

- b. Existing resources.** Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.

Instructional resources:

As of Fall 2016, the accounting department will be fully staffed for the first time in several years, though some new faculty will have a reduced teaching load for one year. As a result, beginning in the Fall of 2017, the accounting department will have increased teaching capacity compared to the past several years.

Support and administrative resources:

Recruiting and advising efforts for this program can be done utilizing our existing graduate program resources, including recruiting and advising.

- c. Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

As previously discussed, teaching these new courses will be possible given the department's recent hiring successes. We will continue to offer the same courses and programs as previously offered without an impact on quality.

- d. Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.

No new personnel will be required.

- a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

Reallocation will take place within the college.

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

Not applicable, no new appropriated funds sought.

- c) **Non-ongoing sources:**

- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?
- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

Although the MTax program will pursue donations from corporate and other sources, the program will not rely on such sources.

- d) **Student Fees:**

- i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.
- ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

The MTax program will be primarily supported via graduate level tuition. There are no anticipated professional, laboratory, or class fees connected to this proposal. A non-refundable application fee of \$60 is required.

21. Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

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**Program Resource Requirements.** Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first three fiscal years of the program. Include reallocation of existing personnel and resources and anticipated or requested new resources. Second and third year estimates should be in constant dollars. Amounts should reconcile subsequent pages where budget explanations are provided. If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies). Provide an explanation of the fiscal impact of the proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

### I. PLANNED STUDENT ENROLLMENT

|                         | FY  | 2018      | FY  | 2019      | FY  | 2020      | Cumulative Total |           |
|-------------------------|-----|-----------|-----|-----------|-----|-----------|------------------|-----------|
|                         | FTE | Headcount | FTE | Headcount | FTE | Headcount | FTE              | Headcount |
| A. New enrollments      | 24  | 24        | 26  | 26        | 28  | 28        | 78               | 78        |
| B. Shifting enrollments | 0   | 0         | 0   | 0         | 0   | 0         | 0                | 0         |

### II. REVENUE

|                                | FY                  | 2018          | FY                  | 2019          | FY                  | 2020          | Cumulative Total    |               |
|--------------------------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|---------------------|---------------|
|                                | On-going            | One-time      | On-going            | One-time      | On-going            | One-time      | On-going            | One-time      |
| 1. Appropriated (Reallocation) |                     |               |                     |               |                     |               | \$0.00              | \$0.00        |
| 2. Appropriated (New)          |                     |               |                     |               |                     |               | \$0.00              | \$0.00        |
| 3. Federal                     |                     |               |                     |               |                     |               | \$0.00              | \$0.00        |
| 4. Tuition                     | \$125,823.36        |               | \$140,397.90        |               | \$155,733.67        |               | \$421,954.93        | \$0.00        |
| 5. Student Fees                | \$78,224.64         |               | \$84,743.36         |               | \$96,819.94         |               | \$259,787.94        | \$0.00        |
| 6. Other (Specify)             |                     |               |                     |               |                     |               | \$0.00              | \$0.00        |
| <b>Total Revenue</b>           | <b>\$204,048.00</b> | <b>\$0.00</b> | <b>\$225,141.26</b> | <b>\$0.00</b> | <b>\$252,553.61</b> | <b>\$0.00</b> | <b>\$681,742.87</b> | <b>\$0.00</b> |

*Ongoing is defined as ongoing operating budget for the program which will become part of the base.*

*One-time is defined as one-time funding in a fiscal year and not part of the base.*

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**III. EXPENDITURES**

|  | FY                  | <u>2018</u>   | FY                  | <u>2019</u>   | FY                  | <u>2020</u>   | <b>Cumulative Total</b> |               |
|--|---------------------|---------------|---------------------|---------------|---------------------|---------------|-------------------------|---------------|
|  | On-going            | One-time      | On-going            | One-time      | On-going            | One-time      | On-going                | One-time      |
| <b>A. Personnel Costs</b>                |                     |               |                     |               |                     |               |                         |               |
| 1. FTE                                   |                     |               |                     |               |                     |               | 0.00                    | 0.00          |
| 2. Faculty                               | \$86,228.31         |               | \$88,815.16         |               | \$91,479.62         |               | \$266,523.10            | \$0.00        |
| 3. Administrators                        |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| 4. Adjunct Faculty                       |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| 5. Instructional Assistants              |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| 6. Research Personnel                    |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| 7. Support Personnel                     |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| 8. Fringe Benefits                       | 27457.5947          |               | 28281.3225          |               | 29129.7622          |               | \$84,868.68             | \$0.00        |
| 9. Other:                                |                     |               |                     |               |                     |               | \$0.00                  | \$0.00        |
| <b>Total FTE Personnel<br/>and Costs</b> | <u>\$113,685.91</u> | <u>\$0.00</u> | <u>\$117,096.49</u> | <u>\$0.00</u> | <u>\$120,609.38</u> | <u>\$0.00</u> | <u>\$351,391.78</u>     | <u>\$0.00</u> |
| Faculty                                  | 2016-17 Salary      | Fringe+Health |                     |               |                     |               |                         |               |
| Ray Rodrig                               | 140004.8            | 40922.7834    |                     |               |                     |               |                         |               |
| Jason Che                                | 140004.8            | 40922.7834    |                     |               |                     |               |                         |               |
| David Bagl                               | 76523.2             | 27917.308     |                     |               |                     |               |                         |               |
| Dawn Konc                                | 74608.77            | 27525.0987    |                     |               |                     |               |                         |               |

## INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

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|  | FY       | 2018     | FY       | 2019     | FY       | 2020     | Cumulative Total |          |
|--|----------|----------|----------|----------|----------|----------|------------------|----------|
|  | On-going | One-time | On-going | One-time | On-going | One-time | On-going         | One-time |
| <b>B. Operating Expenditures</b>                 |          |          |          |          |          |          |                  |          |
| 1. Travel  |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 2. Professional Services                         |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 3. Other Services                                |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 4. Communications                                |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 5. Utilities                                     |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 6. Materials and Supplies                        |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 7. Rentals                                       |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 8. Repairs & Maintenance                         |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 9. Materials & Goods for<br>Manufacture & Resale |          |          |          |          |          |          | \$0.00           | \$0.00   |
| 10. Miscellaneous                                |          |          |          |          |          |          | \$0.00           | \$0.00   |
| <b>Total Operating Expenditures</b>              | \$0.00   | \$0.00   | \$0.00   | \$0.00   | \$0.00   | \$0.00   | \$0.00           | \$0.00   |

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|   | FY           | 2018     | FY           | 2019     | FY           | 2020     | Cumulative Total |          |
|---|--------------|----------|--------------|----------|--------------|----------|------------------|----------|
|   | On-going     | One-time | On-going     | One-time | On-going     | One-time | On-going         | One-time |
| <b>C. Capital Outlay</b>  |              |          |              |          |              |          |                  |          |
| 1. Library Resources  |              |          |              |          |              |          | \$0.00           | \$0.00   |
| 2. Equipment  |              |          |              |          |              |          | \$0.00           | \$0.00   |
| <b>Total Capital Outlay</b>   | \$0.00       | \$0.00   | \$0.00       | \$0.00   | \$0.00       | \$0.00   | \$0.00           | \$0.00   |
| <b>D. Capital Facilities<br/>Construction or Major<br/>Renovation</b> |              |          |              |          |              |          |                  |          |
| <b>E. Indirect Costs (overhead)</b>                                   |              |          |              |          |              |          |                  |          |
| <b>TOTAL EXPENDITURES:</b>  | \$113,685.91 | \$0.00   | \$117,096.49 | \$0.00   | \$120,609.38 | \$0.00   | \$351,391.78     | \$0.00   |
| <b>Net Income (Deficit)</b>   | \$90,362.09  | \$0.00   | \$108,044.77 | \$0.00   | \$131,944.23 | \$0.00   | \$330,351.09     | \$0.00   |

**UNIVERSITY OF IDAHO**

**SUBJECT**

Bachelor of Science in Medical Sciences

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III.G.3.c.i.1).

**BACKGROUND/DISCUSSION**

The University of Idaho (UI), College of Science proposes to establish a new Bachelor of Science degree in Medical Sciences. The degree will be administered by the Department of Biological Sciences. It features an interdisciplinary curriculum that will prepare students for admission to professional programs in a variety of healthcare related fields (e.g., medicine, dentistry, ophthalmology, pharmacology, etc.). It will also serve students who are interested in healthcare-related professions in areas such as writing, policy, and administration.

The proposed curriculum is very challenging, and its development has been informed by feedback regarding the most critical areas for improvement needed in preparation of our students pursuing medical professions. The curriculum utilizes existing courses from across the campus to provide the breadth and depth necessary for future student success. Breadth of preparation is the distinguishing characteristic of the program.

The Medical Sciences major curriculum is tailored to meet the requirements of the healthcare profession and is designed to help students gain admission to healthcare professional programs. It will thus ultimately add highly trained individuals to the workforce when these students complete their professional training. Note that some students in this major may not choose to enter a professional program, but could use the preparation afforded by this degree for other healthcare-related careers (e.g., medical writer, healthcare administration, lawyer).

The Bureau of Labor Statistics (BLS) estimates that national employment in healthcare professions will grow 19% between 2014 and 2024, adding about 2.3 million new jobs. Healthcare professionals are generally well paid, with a median annual salary (BLS 2015 data) of \$62,610, nearly 73% higher than the median wage for all occupations. Increasing the number of workers prepared for these jobs will thus have a positive impact on the economic health of the state and region.

**IMPACT**

There is no need to develop new courses required for this curriculum, though we do anticipate the development of some course options in the future covering relevant topics such as epidemiology. We anticipate enrollment increases, as reflected on the accompanying budget document. The initial increases can be accommodated by existing capacity in the required courses.

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**ATTACHMENTS**

Attachment 1 – BS degree in Medical Sciences Program Proposal

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**STAFF COMMENTS AND RECOMMENDATIONS**

The UI projects that the program will have approximately 50 initial enrollments with an overall enrollment of approximately 75 students, and have at least 45 graduates per year once program is fully up and running.

The UI's request to create a Bachelor of Science in Medical Sciences is consistent with their Service Region Program Responsibilities and their Five-year Plan for Delivery of Academic Programs in Region II. Consistent with Board Policy III.Z, no institution has the statewide program responsibility for medical sciences/pre-professional programs.

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on January 19, 2017 and the Board's Instruction, Research, and Student Affairs (IRSA) committee on February 2, 2017. IRSA recommends approval.

The proposed program is above the fiscal threshold per year for Executive Director approval. Consistent with Board Policy III.G, Board approval is required of any new, modification of, and/or discontinuation of academic or career technical programs, with a financial impact of \$250,000 or more per fiscal year.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the request by the University of Idaho to offer the Bachelor of Science with a major of Medical Sciences in substantial conformance to the program proposal submitted as Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

## Idaho State Board of Education

### Proposal for Undergraduate/Graduate Degree Program

|                                       |                                   |
|---------------------------------------|-----------------------------------|
| Date of Proposal Submission:          | October 5, 2016                   |
| Institution Submitting Proposal:      | University of Idaho               |
| Name of College, School, or Division: | College of Science                |
| Name of Department(s) or Area(s):     | Department of Biological Sciences |

**Program Identification for Proposed New or Modified Program:**

|                                     |                  |                         |                          |               |          |
|-------------------------------------|------------------|-------------------------|--------------------------|---------------|----------|
| Program Title:                      | Medical Sciences |                         |                          |               |          |
| Degree:                             | BS               | Degree Designation      | X                        | Undergraduate | Graduate |
| Indicate if Online Program:         | Yes              | X                       | No                       |               |          |
| CIP code (consult IR /Registrar):   | 51.1100          |                         |                          |               |          |
| Proposed Starting Date:             | Fall 2017        |                         |                          |               |          |
| Geographical Delivery:              | Location(s)      | Moscow                  | Region(s)                | II            |          |
| Indicate (X) if the program is/has: | Self-Support     |                         | Professional Fee         |               |          |
| Indicate (X) if the program is:     | X                | Regional Responsibility | Statewide Responsibility |               |          |

**Indicate whether this request is either of the following:**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> New Degree Program                            | <input type="checkbox"/> Consolidation of Existing Program           |
| <input type="checkbox"/> Undergraduate/Graduate Certificates (30 credits or more) | <input type="checkbox"/> New Off-Campus Instructional Program        |
| <input type="checkbox"/> Expansion of Existing Program                            | <input type="checkbox"/> Other (i.e., Contract Program/Collaborative |

Mark Stahl 28 Nov 2016  
 College Dean (Institution) Date

N/A  
 Vice President for Research (Institution; as applicable) Date

N/A  
 Graduate Dean or other official (Institution; as applicable) Date

Academic Affairs Program Manager, OSBE Date

B. Stoney 12-1-16  
 FVP/Chief Fiscal Officer (Institution) Date

Chief Academic Officer, OSBE Date

John M. Smith 12-7-16  
 Provost/VP for Instruction (Institution) Date

SBOE/Executive Director Approval Date

Chuck Staher 12/8/16  
 President Date

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
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Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance. This proposal form must be completed for the creation of each new program. All questions must be answered.

**Rationale for Creation or Modification of the Program**

1. **Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

This request is for a new undergraduate major, Medical Sciences, which would be administered by the Department of Biological Sciences at the University of Idaho. It has an interdisciplinary curriculum that will prepare students for admission to professional programs in a variety of healthcare related fields (e.g., medicine, dentistry, ophthalmology, pharmacology, etc.). It will also serve students who are interested in healthcare-related professions in areas such as writing, policy and administration. The Medical Sciences curriculum utilizes existing courses from across the campus to provide the breadth and depth necessary for future student success. This new major does not duplicate or replace any existing program within the state.

2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.

- a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include [State](#) and [National Department of Labor](#) research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

List the job titles for which this degree is relevant:

1. pre-med applicant (see below)
2. pre-dent applicant (see below)

|                      | State DOL data | Federal DOL data | Other data source: (describe) |
|----------------------|----------------|------------------|-------------------------------|
| Local (Service Area) | NA             | NA               |                               |
| State                | NA             | NA               |                               |
| Nation               | NA             | NA               |                               |

NA = not applicable

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Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

In most instances this new major will not lead immediately to new jobs; that is, students graduating will not immediately enter wage-earning employment. This major is designed primarily to provide appropriate and necessary preparation for healthcare-related professional programs (e.g., medicine, dentistry, etc.) and secondarily to provide an enhanced STEM education that may be applicable to other professions. Most health professions require at least a 4-year program of study at the BA/BS level in order to apply for post-graduate training. The Medical Sciences major curriculum is tailored to meet the requirements of the healthcare profession and is designed to help students gain admission to the healthcare professional program of their choice. So, while it will not lead immediately to jobs in the local, state, or national workforce, it will ultimately add highly trained individuals to the workforce when these students complete their professional training. Note, that not all students that graduate from this major may choose to enter a professional program, but could use this education for other healthcare-related careers that may or may not require additional training beyond the BS (e.g., medical writer, healthcare administration, lawyer).

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.). Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey of s was used, please attach a copy of the survey instrument with a summary of results as **Appendix A**.

The mostly likely student population would be new, incoming, full-time first-year (freshmen) students that have an interest in a future healthcare-related professional program. This would include, for example, students interested in medicine or dentistry, but would be suitable for students going into radiology, physician's assistant, or medical technology. Currently, the university tracks students that are interested in pre-health studies through a Pre-Health Minor program or through pre-health advising; there are currently 136 such students enrolled. Therefore, considerable demand for this new major is anticipated.

- c. Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

This new major would prepare students to be highly successful in healthcare and healthcare-related professions. The healthcare field is a well-paid sector of the employment world. Students, and those from Idaho (i.e., in-state) in particular, that choose to stay within the state after their professional program is completed would contribute significantly to Idaho's economy.

- d. Societal Need:** Describe additional societal benefits and cultural benefits of the program.

The State of Idaho has a need for well-trained healthcare professionals. This new major would provide the opportunity to educate in-state students and make them more successful at gaining admission to and succeeding in health-related

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professional programs. Students from Idaho are more likely to stay in the state after their training is complete and contribute to the societal needs of Idaho.

**e. If Associate's degree, transferability:**

Not applicable (i.e., this is a 4-year BS degree).

- 3. Similar Programs.** Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

| Similar Programs offered <u>by Idaho public institutions</u> (list the proposed program as well) |                       |   |
|--|-----------------------|---|
| Institution Name   | Degree name and Level | Program Name and brief description if warranted   |
| University of Idaho  | BS Medical Sciences   | 4-year BS degree in Medical Sciences; fulfills requirements for many pre-professional programs (pre-med, pre-dental, pre PA etc.); highly interdisciplinary |
|  |                       |   |
|  |                       |   |

| Similar Programs offered <u>by other Idaho institutions and by institutions in nearby states</u> |                              |   |
|--|------------------------------|---|
| Institution Name   | Degree name and Level        | Program Name and brief description if warranted   |
| Washington State University  | Basic Medical Sciences major | Major that offers all the science needed to enter medical school or other health science schools. |
| University of Oregon   | BioHealth Sciences major     | Major for students that could enter health-science graduate fields.                               |
|  |                              |   |

- 4. Justification for Duplication with another institution listed above.** (if applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed

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program.

This new program is not offered by any other Idaho public institution. The BS in Health Sciences at ISU is the most similar program offered, but it does not target that same student population (e.g., pre-professional medical students). The ISU program has fewer requirements and utilizes a lower level chemistry and biology course sequence. We feel that the requirements of our proposed program will position students well to continue on into health care professions or professions related to health care.

**5. Describe how this request supports the institution's vision and/or strategic plan.**

The University of Idaho is embarking on a new Strategic Plan that emphasizes transformative education and expanding the institution's intellectual and economic impact. An objective of this plan is increased enrollment. A new major in Medical Sciences will add a new intellectual dimension to the university's curricular offerings that we don't currently support. In addition, this major, the first of its kind in Idaho, will attract students that want exceptional academic preparation for their future professional plans at an affordable cost (and not necessitate out-of-state enrollment).

**6. Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The University will ensure the quality of the program through its three-step review process. All new curricula are evaluated and approved first by the sponsoring department (i.e., Department of Biological Sciences), second by a college-level Curriculum Committee (i.e., College of Science), and finally by a university-wide committee (i.e., University Curriculum Committee). There is no special accreditation required for this new major, however, all programs are assessed every 7 years as part of the external program review process, and as required by SBOE and NWCCU. Since the next program review for Biological Sciences is scheduled for fall 2017, and this new major begins at that time, the first assessment of this new major would occur at the time of the following program review.

**7. In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B.**

Not applicable.

**8. Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?

Yes\_\_\_\_\_ No   X  

If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

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9. **Five-Year Plan:** Is the proposed program on your institution's approved 5-year plan? Indicate below.

Yes   X   No       

Proposed programs submitted to OSBE that are not on the five-year plan must respond to the following questions and meet at least one criterion listed below.

- a. **Describe why the proposed program is not on the institution's five year plan.**  
When did consideration of and planning for the new program begin?
- b. **Describe the immediacy of need for the program.** What would be lost were the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

**Criteria.** As appropriate, discuss the following:

- i. How important is the program in meeting your institution's regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.
- ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.
- iii. Is there a contractual obligation or partnership opportunity to justify the program?
- iv. Is the program request or program change in response to accreditation requirements or recommendations?
- v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

**Curriculum, Intended Learning Outcomes, and Assessment Plan**

10. **Curriculum for the proposed program and its delivery.**

- a. **Summary of requirements.** Provide a summary of program requirements using the following table.

|  |     |
|--|-----|
| Credit hours in required courses offered by the department (s) offering the program. | 41  |
| Credit hours in required courses offered by other departments:                       | 60  |
| Credit hours in institutional general education curriculum                           | 10  |
| Credit hours in free electives   | 9   |
| Total credit hours required for degree program:                                      | 120 |

- b. **Additional requirements.** Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some of which may carry credit hours included in the list above.

There is a *Senior Capstone* (2-4 cr.) requirement for this major. There is also a

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*Leadership and Professionalism* (5-6 cr.) requirement that contains an internship (i.e., Biol 398) option.

**11. Program Intended Learning Outcomes and Connection to Curriculum.**

- a. Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

Graduates will be expected to:

1. Demonstrate a strong knowledge base regarding biological, physical, health, and behavioral sciences as a foundation for admission to graduate level health / medical professional programs and future practice as healthcare professionals.
2. Display strong skills in communication and collaboration, particularly interpersonal skills required for patient/provider and professional interaction.
3. Demonstrate knowledge of professionalism and sound ethical standards.
4. Describe the importance of cultural competency and appreciation for diversity in the community and healthcare environments.
5. Identify and use professional/scientific literature and materials to support professional decision-making related to clinical practice and healthcare issues.
6. Communicate through oral and written assignments the scholarly and analytical skills (critical thinking), as well as the innate curiosity, necessary to become lifelong learners.

**12. Assessment plans**

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

The assessment process will utilize the *Intended Learning Outcomes* described above as a framework. One course from the curriculum will be selected to provide data for each outcome. A rating scale of 1) above expectations, 2) meets expectations, or 3) below expectations will be used for evaluation. This information will be used to inform decisions on any curricular changes that need to be made.

- b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

The data collected on learning outcome performance is compiled and presented to the department faculty at a meeting dedicated for assessment review. Faculty discussion is utilized to make appropriate changes to courses that are not satisfactorily meeting learning objectives. In addition, we will track admission to professional programs as a metric of our success.

- c. Measures used.** What direct and indirect measures will be used to assess student

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learning?

Direct measures of learning outcomes as measured by exam performance will be used.

- d. Timing and frequency.** When will assessment activities occur and at what frequency?

Assessment activities occur on an annual basis during the academic year.  
Reporting typically occurs at the beginning of fall semester.

**Enrollments and Graduates**

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

| <b>Existing Similar Programs: Historical enrollments and graduate numbers</b> |   |      |      |                       |  |      |      |                       |
|---|---|------|------|-----------------------|--|------|------|-----------------------|
| <b>Institution and Program Name</b>   | <b>Fall Headcount Enrollment in Program</b> |      |      |                       | <b>Number of Graduates From Program (Summer, Fall, Spring)</b> |      |      |                       |
|   | FY__  | FY__ | FY__ | FY__<br>(most recent) | FY__   | FY__ | FY__ | FY__<br>(most recent) |
| <b>BSU</b>  | NA  |      |      |                       |  |      |      |                       |
| <b>ISU</b>  | NA  |      |      |                       |  |      |      |                       |
| <b>UI</b>   | NA  |      |      |                       |  |      |      |                       |
| <b>LCSC</b>   | NA  |      |      |                       |  |      |      |                       |

NA = not applicable

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

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| <b>Proposed Program: Projected Enrollments and Graduates First Five Years</b> |      |      |      |      |      |  |      |      |      |      |      |
|---|------|------|------|------|------|--|------|------|------|------|------|
| <b>Program Name: BS Medical Sciences</b>                                      |      |      |      |      |      |  |      |      |      |      |      |
| <b>Projected Fall Term Headcount Enrollment in Program</b>                    |      |      |      |      |      | <b>Projected Annual Number of Graduates From Program</b> |      |      |      |      |      |
| FY18<br>(first year)  | FY19 | FY20 | FY21 | FY22 | FY23 | FY18<br>(first year)                                     | FY19 | FY20 | FY21 | FY22 | FY23 |
| 50  | 55   | 60   | 65   | 70   | 75   | 0  | 0    | 5    | 35   | 40   | 45   |

**15. Describe the methodology for determining enrollment and graduation projections.**

Refer to information provided in Question #2 "Need" above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The initial capacity for this program is 100 students, but it is unlikely that enrollment of this magnitude will be realized immediately. Combined with this thinking, it is anticipated that there will be a shift of freshman interest from other majors in Biological Sciences (i.e., Biochemistry, Biology, Molecular Biology, and Microbiology) to this new major in Medical Sciences. Since ~50% of current Biological Sciences majors have an interest in a healthcare profession (and current enrollment numbers of incoming freshman = ~100 students) we estimate that the FY18 headcount would be approximately 50 students. A 10% increase in subsequent years seems reasonable initially. An unknown, that we acknowledge, is the number of current students (2<sup>nd</sup>-4<sup>th</sup> year) that might switch major. This, however, would not markedly affect the total number of students in Biological Sciences (or other programs at the university), but could increase the numbers in the table above for the Medical Sciences major.

The recruitment efforts will be manifold. We are planning the following: an advertising campaign (mass media, brochure), new information through the department (website and faculty advisors), our Vandal Ambassador Program at high school recruiting events across the state, and dissemination through the UI Pre-Health Advisor.

Since the University of Idaho has a 55% graduation rate (previous five-year average) the projected number of graduates is based on this number. However, we expect the quality of students entering this major to be high and therefore predict that the graduation rate from this major will be above the university average (this has therefore been built into the projections indicated). We are projecting some graduates by the third year (i.e., FY20) of the new major due to transfer students, but the first significant number of graduating students would occur in FY 21, due to the first freshman cohort entering in FY 18.

**16. Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical

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basis for those minimums, what is the time frame, and what is the action that would result?  
The minimum for program continuance is 15 students. The basis for this minimum number is that it is similar to other viable majors in Biological Sciences (and other programs on campus).

**Resources Required for Implementation – fiscal impact and budget**

**17. Physical Resources.**

- a. Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The physical resources currently in place at the University of Idaho Moscow campus will be used for the delivery of all the courses listed on the new curriculum.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

In the short term, increased use of physical resources will not impact existing programs, because it is anticipated that most students will be shifting majors within Biological Sciences. A university-wide 20% increase in student enrollment is possible without affecting physical resources. This scope will easily accommodate the enrollment of this new major.

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

New resources needed in laboratory courses for increased enrollment will be met by the corresponding lab fees.

**18. Library resources**

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

There are adequate existing library resources for this new major.

- b. Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

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No new library resources are necessary for this new major.

**19. Personnel resources**

- a. **Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

In the short term, no new personnel resources or course sections are necessary for this new major. However, should we experience large future enrollment there may be a need to increase the number of instructors, tenure-track faculty and teaching assistants will be needed to teach some courses.

- b. **Existing resources.** Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.

This new major uses courses currently existing in the University of Idaho catalog. Most of the required courses are already being taken by students who plan to apply to healthcare professional programs. In the case of elective courses, a selection has been developed in each category to avoid large increases in any specific course. Advising resources have already been identified for this new major, including college-level advising initially with a switch to departmental advising of more advanced students. Students will also work with the university-wide advisor for the health care professions.

- c. **Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

It is anticipated that most enrollment in this new major will come from shifting majors within Biological Sciences, although some may come from other programs. Biological Sciences will monitor enrollment in its other majors over time and will make adjustments to majors as appropriate. It is anticipated that most pre-physical therapy students and pre-occupational therapy students will continue to major in Movement Sciences.

- d. **Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.

No new personnel are required to support this proposed program unless and until the program results in a large increase in enrollment.

**20. Revenue Sources**

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- a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

No reallocation of funds is required.

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

No new appropriation is required.

- c) **Non-ongoing sources:** Not applicable.

- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?
- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

- d) **Student Fees:**

- i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.

There are no new institutional local fees.

- ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

The total cost to students will be \$7,232 for in-state and \$22,040 for out-of-state (i.e., the same as other UI BS programs).

- 21.** Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).

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- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

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### Program Resource Requirements.

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

### I. PLANNED STUDENT ENROLLMENT

|                         | <u>FY 2018</u> |           | <u>FY 2019</u> |           | <u>FY 2020</u> |           | <u>FY 2021</u> |           |
|-------------------------|----------------|-----------|----------------|-----------|----------------|-----------|----------------|-----------|
|                         | FTE            | Headcount | FTE            | Headcount | FTE            | Headcount | FTE            | Headcount |
| A. New enrollments      |                | 50        |                | 55        |                | 60        |                | 65        |
| B. Shifting enrollments |                | 50        |                | 50        |                | 50        |                | 50        |
| <b>Total Enrollment</b> | 0              | 100       | 0              | 105       | 0              | 110       | 0              | 115       |

### II. REVENUE

|  | <u>FY 2018</u> |          | <u>FY 2019</u> |          | <u>FY 2020</u> |          | <u>FY 2021</u> |          |
|--|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
|  | On-going       | One-time | On-going       | One-time | On-going       | One-time | On-going       | One-time |
| 1. New Appropriated Funding Request                |                |          |                |          |                |          |                |          |
| 2. Institution Funds                               |                |          |                |          |                |          |                |          |
| 3. Federal   |                |          |                |          |                |          |                |          |
| 4. New Tuition Revenues from Increased Enrollments | \$258,116      |          | \$283,928      |          | \$309,739      |          | \$335,551      |          |
| 5. Student Fees                                    |                |          |                |          |                |          |                |          |
| 6. Other (i.e., Gifts)                             |                |          |                |          |                |          |                |          |
| <b>Total Revenue</b>                               | \$258,116      | \$0      | \$283,928      | \$0      | \$309,739      | \$0      | \$335,551      | \$0      |

*Ongoing is defined as ongoing operating budget for the program which will become part of the base.*

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*One-time is defined as one-time funding in a fiscal year and not part of the base.*

**III. EXPENDITURES**

|                                      | <u>FY 2018</u>    |                   | <u>FY 2019</u>    |                   | <u>FY 2020</u>    |                   | <u>FY 2021</u>    |                   |
|--------------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
|                                      | On-going          | One-time          | On-going          | One-time          | On-going          | One-time          | On-going          | One-time          |
| <b>A. Personnel Costs</b>            |                   |                   |                   |                   |                   |                   |                   |                   |
| 1. FTE                               |                   |                   |                   |                   |                   |                   |                   |                   |
| 2. Faculty                           |                   |                   |                   |                   |                   |                   |                   |                   |
| 3. Adjunct Faculty                   |                   |                   |                   |                   |                   |                   |                   |                   |
| 4. Graduate/Undergrad Assistants     |                   |                   |                   |                   |                   |                   |                   |                   |
| 5. Research Personnel                |                   |                   |                   |                   |                   |                   |                   |                   |
| 6. Directors/Administrators          |                   |                   |                   |                   |                   |                   |                   |                   |
| 7. Administrative Support Personnel  |                   |                   |                   |                   |                   |                   |                   |                   |
| 8. Fringe Benefits                   |                   |                   |                   |                   |                   |                   |                   |                   |
| 9. Other:                            |                   |                   |                   |                   |                   |                   |                   |                   |
| <b>Total Personnel<br/>and Costs</b> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> | <u><u>\$0</u></u> |

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|  | <u>FY 2018</u> |          | <u>FY 2019</u> |          | <u>FY 2020</u> |          | <u>FY 2021</u> |          |
|--|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
|  | On-going       | One-time | On-going       | One-time | On-going       | One-time | On-going       | One-time |
| <b>B. Operating Expenditures</b>                 |                |          |                |          |                |          |                |          |
| 1. Travel  |                |          |                |          |                |          |                |          |
| 2. Professional Services                         |                |          |                |          |                |          |                |          |
| 3. Other Services                                |                |          |                |          |                |          |                |          |
| 4. Communications                                |                |          |                |          |                |          |                |          |
| 5. Materials and Supplies                        |                |          |                |          |                |          |                |          |
| 6. Rentals                                       |                |          |                |          |                |          |                |          |
| 7. Materials & Goods for<br>Manufacture & Resale |                |          |                |          |                |          |                |          |
| 8. Miscellaneous                                 |                |          |                |          |                |          |                |          |
| <b>Total Operating Expenditures</b>              | \$0            | \$0      | \$0            | \$0      | \$0            | \$0      | \$0            | \$0      |

|                             | <u>FY 2018</u> |          | <u>FY 2019</u> |          | <u>FY 2020</u> |          | <u>FY 2021</u> |          |
|-----------------------------|----------------|----------|----------------|----------|----------------|----------|----------------|----------|
|                             | On-going       | One-time | On-going       | One-time | On-going       | One-time | On-going       | One-time |
| <b>C. Capital Outlay</b>    |                |          |                |          |                |          |                |          |
| 1. Library Resources        |                |          |                |          |                |          |                |          |
| 2. Equipment                |                |          |                |          |                |          |                |          |
| <b>Total Capital Outlay</b> | \$0            | \$0      | \$0            | \$0      | \$0            | \$0      | \$0            | \$0      |

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|   | <u>FY 2018</u>   | <u>FY 2019</u> | <u>FY 2020</u>   | <u>FY 2021</u>   |
|---|------------------|----------------|------------------|------------------|
| <b>D. Capital Facilities<br/>Construction or Major<br/>Renovation</b> |                  |                |                  |                  |
|   |                  |                |                  |                  |
| <b>E. Other Costs</b>   |                  |                |                  |                  |
| Utilities   |                  |                |                  |                  |
| Maintenance & Repairs   |                  |                |                  |                  |
| Other Overhead  | \$64,529         | \$70,982       | \$77,435         | \$83,888         |
| <b>Total Other Costs</b>  | <u>\$64,529</u>  | <u>\$0</u>     | <u>\$77,435</u>  | <u>\$83,888</u>  |
|   |                  |                |                  |                  |
| <b>TOTAL EXPENDITURES:</b>  | <u>\$0</u>       | <u>\$0</u>     | <u>\$0</u>       | <u>\$0</u>       |
|   |                  |                |                  |                  |
| <b>Net Income (Deficit)</b>   | <u>\$258,116</u> | <u>\$0</u>     | <u>\$309,739</u> | <u>\$335,551</u> |

Budget Notes (specify row and add explanation where needed; e.g., "I.A.,B. FTE is calculated using..."):

|      |   |
|------|---|
| II.4 | Tuition rate of \$2,581.16 per semester used. |
|      |   |
|      |   |
|      |   |
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**UNIVERSITY OF IDAHO**

**SUBJECT**

First Year Law Curriculum in Boise

**REFERENCE**

|                  |  |
|------------------|--|
| August 21, 2008  | The Board authorized the University of Idaho to expand its offerings in Boise to a full third year curriculum to include a legislative appropriation in the FY 2010 budget for the expansion.  |
| August 16, 2012  | The Board reviewed the University of Idaho's FY 2014 Line Item request for a new appropriation of \$400,000 to help support the cost of delivering the second year law curriculum in Boise. The Board gave preliminary approval to the line-item request subject to programmatic review at the October 2012 meeting. |
| October 18, 2012 | The Board authorized the University of Idaho to expand its offerings in Boise to offer the second year curriculum.   |

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section III.G.3.c.i.1

**BACKGROUND/DISCUSSION**

The University of Idaho, College of Law, proposes to expand curricular offerings at the Boise campus of the University of Idaho, College of Law by offering first-year law courses at that campus. If approved, this expansion completes the dual-location model that the University has been developing with the Board's approval and under its supervision since 2008. The dual-location model will permit students to take all course work required to earn the Juris Doctor degree at either the Moscow campus or the Boise campus, or both.

The proposed first-year curriculum thus does not create a new program. Rather, it is an addition to the existing curriculum at the Boise campus that will enable students to matriculate at the Boise campus, and to complete all course requirements for the J.D. degree, without having to spend their first year at the Moscow campus. At the same time, the two locations will be part of a fully integrated unitary program. Students in each location will be able to take course work and engage in co-curricular activities at the other location through state-of-the-art distance-education technology. Faculty at each location will collaborate using that same technology and through frequent visits to the other campus. Finally, if space is available, students who matriculate at the Moscow campus will be able to relocate to the Boise campus after their first year, and again after their second year of coursework, to take advantage of the experiential education

opportunities and networking opportunities that abound in Boise. Students at each location perform public service, as well, by participating in externships with public agencies and engaging in the 50 hours of pro bono legal service (under attorney supervision) required to earn the J.D. degree.

Completion of the dual location model furthers the University's statewide mission to provide public legal education in Idaho by offering an affordable, high-quality J.D. program in a rural setting, on the University's main campus, and in a metropolitan setting, at the State's seat of government.

College of Law graduates have solid job prospects at the state and national level. It bears emphasis, however, that the proposal does *not* seek to increase the overall number of graduates from the College of Law. Rather, completion of the dual-location model will create an additional *location* where 1st year law students who are admitted to the College can spend their first year. Right now, all 1st year law students admitted to the College of Law must spend their first year at the Moscow campus. Under the proposal presented in this document, up to half of the entering class would, instead, spend its first year at the Boise campus. Although we anticipate that approval of this proposal could modestly increase the size of the entering class (and thereby increase the number of eventual graduates), that is not the objective of the proposal. The objective, instead, is to give students the choice between two campuses, each of which offers differing settings and opportunities, including externships, part-time jobs, and networking opportunities. This is expected to facilitate Idahoans' ability to obtain an affordable, high-quality, public legal education and to enhance our graduates' ability to secure post-graduation employment.

With the Board's approval and under its supervision, the University of Idaho College of Law has expanded the J.D. curriculum in Boise incrementally. In 2001, the College began offering law students in their final (6th) semester a "semester-in-practice" program in Boise, in which they could earn academic credit for working full-time in semester-long externships. In 2004, the College expanded its externship offerings in Boise. In 2010, the College began offering students the opportunity to spend their entire third year (5th and 6th semesters) in Boise. In 2014, the College expanded the Boise J.D. curriculum to include second-year law courses. In 2015, the College moved the second- and third-year curricula from the Idaho Water Center to the Idaho Law and Justice Learning Center.

Throughout this 15-year process of gradual expansion, the College has planned carefully and in coordination with central university administration and all stakeholders. Most recently, this planning process included in-depth study of the instructional resources and other resources needed to support the expansion proposed in this document. Each incremental expansion has required not only the Board's approval but also the approval (formally known as "acquiescence") of the College's accrediting agency, the American Bar Association. To get acquiescence, the College first undergoes an in-depth review that includes a site visit by a "fact

finder,” and within a certain period after getting acquiescence, the College has a follow up site visit by a fact finder. The American Bar Association (ABA) will grant acquiescence “only if the law school demonstrates that the [proposed change] will not detract from the law school’s ability to remain in compliance with the [Accreditation] Standards.” ABA Standard 105(b). Besides the pre-acquiescence and post-acquiescence reviews, the ABA conducts top-to-bottom accreditation reviews every seven years. The College of Law is next due for a top-to-bottom accreditation review in 2018-2019.

In short, processes are in place – besides those of the College, the University, and the Board — to ensure that expansion of the curriculum at the Boise campus does not adversely affect the existing J.D. program. Indeed, the University believes that the expansion will significantly enhance the program.

### **IMPACT**

The attached proposal contemplates a combination of student revenues and internal reallocations to fund the operation of the first-year J.D. curriculum in Boise. Three additional personnel positions will be needed to support the offering of the first-year curriculum in Boise. Those include an Associate Director of Admissions, Director of Academic Success, and a faculty member to teach Legal Research and Writing.

The UI currently charges a professional fee to students enrolled in the JD program consistent with Board Policy V.R. The UI will not be assessing any additional or separate fees in connection with the expansion of the J.D. curriculum in Boise to include the first-year curriculum.

The proposal includes a detailed budget for the dual-location model.

### **ATTACHMENTS**

Attachment 1 – First Year Law Curriculum in Boise Program Proposal      Page 5

### **STAFF COMMENTS AND RECOMMENDATIONS**

The UI College of Law conducted an extensive market research study in 2007, which assessed the demand and impact of expanding its course offerings in Boise. To further demonstrate the need for legal education in the Boise area, the College conducted another market research study in 2015. Those results were consistent with findings in 2007 and showed that the dual-location model will enable students to pursue a public legal education in the location that offers the greatest comparative advantage for them.

The UI provided evidence that in the 2015-16 academic year, tuition at private law schools in the Northwest and Intermountain West (other than BYU) ranged from \$29,043 to \$44,220 per year. For public law schools in this region, Idahoans would pay nonresident tuition ranging from \$30,078 to \$38,652. In contrast, the University of Idaho charges Idaho residents \$17,230. Even the UI’s non-resident tuition level in 2015-16 (\$31,234) compares favorably to the tuition levels in other states.

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The University of Idaho's request to offer the first-year curriculum in Boise is consistent with their Five-Year Plan for Delivery of Academic Programs in Region III and is in alignment with their statewide program responsibility pursuant to Board Policy III.Z. Concordia University of Oregon also offers a Law program in Boise. Concordia is a regionally accredited institution and currently holds ABA provisional accreditation for their Law program in Boise.

The proposal went through the program review process and was recommended for approval by the Council on Academic Affairs and Programs (CAAP) on January 19, 2017 and the Board's Instruction, Research, and Student Affairs (IRSA) committee on February 2, 2017.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the request by the University of Idaho to offer a first-year law curriculum in Boise in substantial conformance to the program proposal submitted as Attachment 1.

Moved by \_\_\_\_\_ Seconded by \_\_\_\_\_ Carried Yes \_\_\_\_\_ No \_\_\_\_\_

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Institutional Tracking No. \_\_\_\_\_

**Idaho State Board of Education**  
**Proposal for Undergraduate/Graduate Degree Program**

|                                       |                     |
|---------------------------------------|---------------------|
| Date of Proposal Submission:          | December 14, 2016   |
| Institution Submitting Proposal:      | University of Idaho |
| Name of College, School, or Division: | College of Law      |
| Name of Department(s) or Area(s):     | n/a                 |

**Program Identification for Proposed New or Modified Program:**

|                                     |  |                    |               |                          |          |
|-------------------------------------|--|--------------------|---------------|--------------------------|----------|
| Program Title:                      | Expansion of JD program by addition of 1st-year courses in Boise |                    |               |                          |          |
| Degree:                             | JD   | Degree Designation | Undergraduate | X                        | Graduate |
| Indicate if Online Program:         | Yes  |                    | X             | No                       |          |
| CIP code (consult IR /Registrar):   | 22.0101  |                    |               |                          |          |
| Proposed Starting Date:             | August 21, 2017  |                    |               |                          |          |
| Geographical Delivery:              | Location(s)  | Boise              | Region(s)     |                          |          |
| Indicate (X) if the program is/has: | Self-Support   |                    | X             | Professional Fee         |          |
| Indicate (X) if the program is:     | Regional Responsibility  |                    | X             | Statewide Responsibility |          |

**Indicate whether this request is either of the following:**

- |   |   |
|---|---|
| <input type="checkbox"/> New Degree Program                                       | <input type="checkbox"/> Consolidation of Existing Program            |
| <input type="checkbox"/> Undergraduate/Graduate Certificates (30 credits or more) | <input type="checkbox"/> New Off-Campus Instructional Program         |
| <input checked="" type="checkbox"/> Expansion of Existing Program                 | <input type="checkbox"/> Other (i.e., Contract Program/Collaborative) |

 12/20/2016  
 College Dean (Institution) Date

N/A  
 Vice President for Research (Institution; as applicable) Date

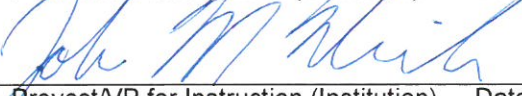
N/A

Graduate Dean or other official (Institution; as applicable) Date

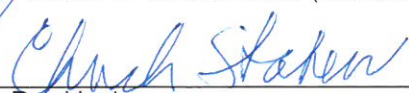
Academic Affairs Program Manager, OSBE Date

 12-20-16  
 FVP/Chief Fiscal Officer (Institution) Date

Chief Academic Officer, OSBE Date

   
 Provost/VP for Instruction (Institution) Date

SBOE/Executive Director Approval Date

   
 President Date

**Before completing this form, refer to Board Policy Section III.G., Postsecondary Program Approval and Discontinuance.** This proposal form must be completed for the creation of each new program. All questions must be answered.

### **Rationale for Creation or Modification of the Program**

- 1. Describe the request and give an overview of the changes that will result.** Will this program be related or tied to other programs on campus? Identify any existing program that this program will replace.

This document seeks the Board's approval to expand curricular offerings at the Boise campus of the University of Idaho College of Law by offering first-year law courses at that campus. If approved, this expansion completes the dual-location model that the University has been developing with the Board's approval and under its supervision since 2008. The dual-location model will permit students to take all course work required to earn the Juris Doctor degree at either the Moscow campus or the Boise campus, or both (by, for example, taking first-year courses in Moscow and then transferring to Boise to take second- and third-year courses).

By way of background, in August 2008, the University of Idaho sought approval from the Board of Regents/State Board of Education to establish a branch location of the College of Law in Boise, as a second place for delivery of the J.D. degree, in addition to the existing location in Moscow. In response, the State Board passed the following motion:

“A motion to authorize the University of Idaho to expand its offerings in Boise to a full third year curriculum and to include a legislative appropriation in the FY 2010 budget for this expansion. The Regents recognize the statewide mission of the University of Idaho for legal education. The University is instructed to re-visit the issue of funding and support for a full dual location model, including a full three year branch curriculum in Boise, to continue collaboration with the Idaho Supreme Court on the Idaho Law Learning Center with respect to those programs to be delivered in Boise, and return to the Regents for further discussion.”

In accordance with the Board's 2008 motion and following approval (formally known as “acquiescence”) by the American Bar Association – which serves as the accrediting agency for the College of Law – the College implemented a full third-year curriculum in Boise in fall 2010, relying on a combination of College and central university funds. In further accordance with the Board's 2008 motion, the College and central university officials continued planning for a full dual-location model.

On August 16, 2012, the Board voted conditionally to approve the University's appropriation request of \$400,000 to expand its offerings in Boise to include a full second-year curriculum – the condition being that the expansion itself be approved by the Board. The Board gave that approval in October 2012.

Implementation of the second-year curriculum in Boise was delayed. The delay occurred because the Governor did not include the University's base funding request of \$400,000 in his FY2014 budget request, and because the College's enrollment predictions did not match actual enrollments, due to a nationwide downturn in the volume of law school applications. The

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Governor did include the University's base funding request of \$400,000 in his FY2015 budget, however, enabling implementation of the Board-approved second-year curriculum in fall 2014.

In fall 2015, the College relocated from the University's Boise Water Center to the former Ada County Courthouse, which had been renovated and renamed the Idaho Law and Justice Learning Center (ILJLC). The ILJLC is a multipurpose facility that houses:

- The College of Law in Boise
- The Idaho State Law Library
- The Idaho Supreme Court's judicial education and training facilities
- Public civics outreach and education space

As stated above, this document contains the University's request to complete the dual-location model by expanding the College of Law curriculum in Boise to include the first-year law curriculum along with the existing second- and third-year curriculum. The proposed first-year curriculum thus does not create a new program. Rather, it is an addition to the existing curriculum at the Boise campus that will enable students to matriculate at the Boise campus, and to complete all course requirements for the J.D. degree, without having to spend their first year at the Moscow campus. At the same time, the two locations will be part of a fully integrated unitary program. Students in each location will be able to take course work and engage in co-curricular activities at the other location through state-of-the-art distance-education technology. Faculty at each location will collaborate using that same technology and through frequent visits to the other campus. Finally, if space is available, students who matriculate at the Moscow campus will be able to relocate to the Boise campus after their first year, and again after their second year of coursework, to take advantage of the experiential education opportunities and networking opportunities that abound in Boise. Students at each location do public service, as well, by participating in externships with public agencies and engaging in the 50 hours of pro bono legal service (under attorney supervision) required to earn the J.D. degree.

Completion of the dual location model furthers the University's statewide mission to provide public legal education in Idaho by offering an affordable, high-quality J.D. program in a rural setting, on the University's main campus, and in a metropolitan setting, at the State's seat of government.

2. **Need for the Program.** Describe the student, regional, and statewide needs that will be addressed by this proposal and address the ways in which the proposed program will meet those needs.
  - a. **Workforce need:** Provide verification of state workforce needs that will be met by this program. Include State and National Department of Labor research on employment potential. Using the chart below, indicate the total projected annual job openings (including growth and replacement demands in your regional area, the state, and nation. Job openings should represent positions which require graduation from a program such as the one proposed. Data should be derived from a source that can be validated and must be no more than two years old.

List the job titles for which this degree is relevant:

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1. Lawyers
2. Judicial Law Clerks

|                                     | State DOL data   | Federal DOL data | Other data source: (describe) |
|-------------------------------------|--|------------------|-------------------------------|
| <b>Local<br/>(Service<br/>Area)</b> | No. Central Idaho<br>(Moscow area) =<br>3<br><br>SW Idaho (Boise<br>area) = 24 |                  |                               |
| <b>State</b>                        | 57   |                  |                               |
| <b>Nation</b>                       |  | 16,040           |                               |

Provide (as appropriate) additional narrative as to the workforce needs that will be met by the proposed program.

All jobs in the United States requiring a law license entail passage of a state bar examination. Qualification to sit for a state bar examination, in turn, requires – in Idaho and nearly all other States – a Juris Doctor degree from an accredited law school. In addition to jobs requiring law licenses (“law license jobs”), many jobs either require or favor holders of a JD degree, even if those jobs do not require a law license; these are known as “J.D.-advantage jobs.”

Although the availability of law license jobs softened during the “Great Recession,” Idaho graduates were not as adversely affected as their national counterparts, and the prospects for law school graduates seems to have rebounded somewhat at both the national and state level. At the national level, data for law students graduating in 2014 – the most recent group for which reliable data is available – showed an overall employment rate of 86.7% 10 months after graduation, which reflected an increase of 2% over 2013. The overall employment rate for students graduating from the University of Idaho College of Law in 2014 was 90.24% (compared to the national rate of 86.7%), an increase of 1.4% over 2013. The U.S. Department of Labor’s Bureau of Labor Statistics currently projects that employment of lawyers nationwide will grow about 6% from 2014 to 2024, which is about as fast as the average for all occupations. The Idaho Department of Labor currently projects that employment of lawyers in Idaho will grow by about 4.3% over the period 2012-2022.

In addition to law license jobs, a J.D. degree benefits job seekers and job holders in many professional fields: business and entrepreneurship; human resources; public administration; teaching and educational administration; nonprofit entity management; social services; mediation and other forms of facilitated dispute resolution; military service; and other fields. National statistics indicate that as many as 30% of J.D. degree holders find careers outside the traditional practice, some of which require J.D. degrees, and others of which do not. These non-traditional jobs often offer decent pay and family-friendly working hours.

In short, College of Law graduates have solid job prospects at the state and national level. It bears emphasis, however, that the proposal presented in this document does *not* seek to increase the overall number of graduates from the College of Law. Rather, completion of the dual-location model will create an additional *location* where 1st year

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law students who are admitted to the College can spend their first year. Right now, all 1st year law students admitted to the College of Law must spend their first year at the Moscow campus. Under the proposal presented in this document, up to half of the entering class would, instead, spend its first year at the Boise campus. Although we anticipate that approval of this proposal could modestly increase the size of the entering class (and thereby increase the number of eventual graduates), that is not the objective of the proposal. The objective, instead, is to give students the choice between two campuses, each of which offers differing settings and opportunities, including externships, part-time jobs, and networking opportunities. This is expected to facilitate Idahoans' ability to obtain an affordable, high-quality, public legal education and to enhance our graduates' ability to secure post-graduation employment.

- b. Student need.** What is the most likely source of students who will be expected to enroll (full-time, part-time, outreach, etc.)? Document student demand by providing information you have about student interest in the proposed program from inside and outside the institution. If a survey of students was used, please attach a copy of the survey instrument with a summary of results as **Appendix A.**

The University of Idaho's College of Law offers its J.D. program only to full-time students, though its rules permit the admission of part-time students on a case-by-case basis. Historically, Idaho residents have accounted for about 55-65% of each entering class, and nonresidents have accounted for 35-45%. The College of Law expects to continue admitting residents and nonresidents in these proportions. The nonresident population is important because many nonresidents have family or other personal ties to Idaho. Moreover, nonresidents contribute to the quality of the law school because they bring a wider range of experiences and diversity of backgrounds than would exist in a class consisting exclusively of one State's residents. Nonresidents also enhance the educational opportunities for College of Law graduates, not only by paying out-of-state tuition (which helps keep in-state tuition down) but also by spreading the reputation of the College of Law among lawyers and other professionals outside Idaho who then employ Idaho law graduates or refer cases in Idaho to them. Beyond those benefits, many nonresidents stay in Idaho after graduation from the College of Law and enrich the Idaho legal profession and contribute to the State in other ways. Their College of Law education trains them in Idaho law and acculturates them to the high standards of ethics and civility that are the hallmarks of the Idaho bar and the broader professional community of which the state bar is a part.

Beginning in 2007, the College of Law conducted extensive market research on the demand for, and impact of, expanding its course offerings in Boise and ultimately establishing a branch campus in Boise offering a full three-year J.D. program. The results of that research were described in, and attached to, the 2008 and 2012 proposals to the Board that resulted in approval, respectively, of a third-year law program and of a second-year law program in Boise. The College conducted another round of market research in 2015, the results of which are described below and are attached to this proposal as Appendix A. The 2015 market research is consistent with the past research. Both sets of research show that the dual-location model that this present proposal seeks to complete enables students to pursue a public legal education in the location that offers the greatest *comparative advantage* for them.

- Among all respondents surveyed in 2015 – a group that included current College of Law students, College of Law alums, prospective students, and “nonmatriculating”

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students (i.e., students who were admitted to the College of Law but who chose not to attend) – the highest percentage favored having Moscow remain the main campus of the law school, with an option for all students to enroll in Boise. Among all respondents – as well as among prospective students and nonmatriculating students – Moscow’s greatest advantages over Boise are its small town feel, its location in the northern part of the State, and its connection to the main campus of the University of Idaho. (See Appendix A, Campus Location Survey Analysis (Sept. 2015), at pp. 3, 10, 13, 14 (Fig. 1.11) & 16 (Fig. 1.15); Campus Location Survey – Supplemental Graphics (Oct. 2015), at 9 (Fig. 9); Factors of Matriculation & Geographic Analysis (Nov. 2015), at p. 4.)

The College of Law continues to build on the advantages of the Moscow campus. Specifically, it has established and continues to explore interdisciplinary course work and interdisciplinary research projects with other colleges on the main UI campus. Those interdisciplinary connections include law courses cross-listed with the American Indian Studies Department, and the College’s participation in the Water Resources Graduate Program, which offers a JD/MA and a JD/Ph.D. in law, water management, and water policy. The Moscow campus also does outreach to Northwest tribes in coordination with the UI’s Office of Tribal Relations, and offers law students externship placements with the Nez Perce and Coeur d’Alene Tribes. In addition, the Moscow campus operates the Main Street Legal Clinic, which represents clients in a wide variety of cases – including misdemeanor defense, family law, consumer protection, and landlord-tenant disputes – and is particularly well suited for students who may wish, after graduation, to enter a general practice in a rural location.

- Among all respondents surveyed in 2015, Boise emerged as the preferred location as a place to study law and to live and work. Among all respondents – as well as among prospective students and non-matriculating students – Boise’s greatest advantages compared to Moscow are its internship/externship opportunities, its job market, its networking opportunities, and its metropolitan setting. (See Appendix A, Campus Location Survey Analysis (Sept. 2015), at pp. 3, 12 (Fig. 1.8); Campus Location Survey – Supplemental Graphics (Oct. 2015), at 8 (Fig. 8).)

The College of Law continues to build on the advantages of the Boise campus. In 2015, the College transitioned its externship director from part-time to full-time status to meet the student demand to participate in externships in the Treasure Valley. Those externships place students in public agencies such as the Idaho Attorney General’s Office, the Office of the Governor of Idaho, the Boise City Attorney’s Office, and the U.S. Attorney’s Office. Placements are also made in state and federal judges’ chambers. The Boise campus also gives students experiential learning opportunities through participation, as third-year students, in the Small Business Legal Clinic, many of whose clients are start-up businesses in the Treasure Valley, and the Economic Development Clinic, which enables students to advise Idaho counties, cities, tribes and non-governmental agencies with economic development-related issues.

In addition to the comparative advantages of Moscow and Boise, the 2015 research showed that the two top factors that prospective students weigh, when selecting a law school, are costs (tuition and fees) and location. (See Appendix A, Campus Location Survey Analysis (Sept. 2015), at p. 20.) The importance of these two factors – cost and location – reinforces the benefits to Idahoans of completing the dual-location model.

The 2015 market research shows student demand for each location. Almost 30% of the

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College's current students and alums said that they would not have enrolled at the UI College of Law if it had been located exclusively in Boise. On the other hand, 24% of non-matriculating students cited the Moscow location as the main reason that they did not enroll at the College of Law. Moreover, 75% of the non-matriculating students agreed that Boise would be a better place to study law than Moscow. Likewise, 75% of non-matriculating students agreed, as a general (non-comparative) matter, that Boise is a moderately, very, or extremely appealing location for a law school campus. A similarly high number of prospective students – 71% – rated Boise as a moderately, very, or extremely appealing location for a law school. Among prospective students, Moscow was found moderately, very, or extremely appealing by 27%, and was considered a better place than Boise to study law by 24%. (See Appendix A, Campus Location Survey Analysis (Sept. 2015), at pp. 16 (Fig. 1.15) & 23 (Fig. 2.4); Campus Location Survey – Supplemental Graphics (Oct. 2015), at 7 (Fig. 7) & 10 (Figs. 10 & 11).) In short, although Boise enjoys the majority's preference, Moscow will remain the location of choice for a significant minority, especially as it continues to offer students who matriculate there the option of transferring to the Boise campus as second- or third- year students to take advantage of externship and networking opportunities.

The dual-location model has particular value in addressing the needs of students of diverse backgrounds. The College's Moscow campus has had success, for example, in attracting students from small, rural communities throughout Idaho and Washington, including many Latino/a students from eastern and central Washington; students from large urban settings, such as Los Angeles, who wish to study in a less hectic and crime-prone community; Native American students from the Northwest tribes; and students from Washington State University, which has a high percentage of students from diverse backgrounds. The Boise campus meets the needs of students in southern Idaho as well as northern Nevada, especially those who are place-bound by family ties, spousal employment, etc. Boise is the center of the State's Latino/a population, and is thus a good location from which to recruit Latino/a students. A diverse student body, in turn, enriches the quality of the educational experience for all students, in part by preparing students for the practice of law in an increasingly diverse State and nation.

As the 2015 market research reaffirms, student demand for a program of public legal education that offers both rural and urban learning opportunities will remain strong, especially if it is coupled with a cost advantage. In 2015-2016, tuition at private law schools in the Northwest and Intermountain West (other than BYU) ranged from \$29,043 to \$44,220. Even at public law schools in this region, Idahoans would pay nonresident tuition ranging from \$30,078 to \$38,652. In contrast, the University of Idaho College of Law in 2015-2016 charged Idaho residents \$17,230. Even our nonresident tuition level in 2015-2016 (\$31,234) compares favorably to the tuition level in other States. Indeed, *preLaw* magazine has named the UI College of Law a "Best Value Law School". The benefit of a cost-effective legal education is realized not only by the students, but also by their eventual clients who will not have to pay fees leveraged upward by their attorneys' high educational debts.

- c. Economic Need:** Describe how the proposed program will act to stimulate the state economy by advancing the field, providing research results, etc.

The College of Law directly serves the State's economy through two clinical programs located at the Boise campus: the Small Business Legal Clinic, and the Economic Development Clinic. The Small Business Legal Clinic assists small and start-up businesses referred to the clinic by the Idaho Small Business Development Center. Clients include both for-profit and nonprofit companies in a variety of business areas. Students in the clinic

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perform legal services, such as preparing formation and organizational documents, employee agreements, and more. The Economic Development Clinic enables students to advise Idaho counties, cities, tribes and non-governmental agencies with economic development-related issues typically arising in questions of land use law, administrative law, state and local government law, and environmental law.

The College of Law indirectly serves the State's economy through its graduates. Those graduates facilitate commercial transactions by giving advice, drafting documents, negotiating agreements, and resolving disputes. Although television and movies dwell on the courtroom lawyer (for dramatic reasons), the day-to-day work of most lawyers today rarely involves trials. Indeed, many lawyers do not spend a majority of their time involved in lawsuits at all. Instead, they support commerce by counseling clients in connection with significant economic matters like buying a home, making a will, setting up a trust, starting a business, and hiring and paying employees. Lawyers also draft documents to ensure that these commercial transactions and any resulting commercial relationships are stable and secure. In addition, many lawyers devote significant time to advising clients on how to comply with the law governing their personal or business affairs. Many businesses require licenses and permits, and they need a lawyer's help to get them and to comply with the web of regulatory law with which most businesses today must cope. Finally, more and more lawyers spend much time serving as mediators. All these activities by attorneys support the economy.

And this is just to describe the work of lawyers in the private sector. About 30% of the College of Law's graduates get jobs in the public sector – for example, as clerks in judges' chambers, as prosecutors in towns and counties throughout Idaho, or as attorneys in the state agencies. In these positions, our graduates become part of the legal infrastructure supporting Idaho's economy.

**d. Societal Need:** Describe additional societal benefits and cultural benefits of the program.

The University of Idaho College of Law does outreach addressing the social needs of the State, the region, and the nation through its faculty, students, and graduates. Completion of the dual-location model will enhance the College's ability to do this outreach.

Consistent with the University of Idaho's land grant mission, College of Law faculty at the Moscow and Boise campus engage in service and outreach that enhance the performance of legal institutions. To cite some recent examples:

- Professor Elizabeth Brandt (Moscow) serves on the Idaho Supreme Court's Child Protection Committee, and was part of a team that, in 2015, finished work on the 3rd edition of the Idaho Child Protection Manual, which is used by judges throughout the State.
- Professor Annemarie Bridy, Ph.D., (Boise) serves on the Idaho Technology Council's Tech2Market Committee, whose mission is to strengthen research, development and commercialization activity in Idaho as measured by R&D funded, capital raised, jobs created or retained, and IP-based companies started. Dr. Bridy also recently gave a webinar for the Idaho State Board of Education in support of its statewide initiative to adopt Open Educational Resources (OER) in K-12 and post-secondary education.
- Professor Barb Lock (Boise) coordinates efforts to serve Idaho citizens by collaborating with BSU faculty in support of the Volunteer Income Tax Assistance (VITA) program.

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- Professor Jerrold Long, Ph.D., (Moscow) has joined with Professor Brant Miller of the UI College of Education to extend the Confluence Project to schools in southern Idaho. The Confluence Project gives high school teachers and students a watershed science curriculum that lets them do on-the-ground, experiential environmental and science learning. The Confluence Project's expansion to southern Idaho has financial and technical support from the U.S. Geological Survey and Idaho Water Resources Research Institute.
- Professor Katherine Macfarlane (Moscow) has recently been appointed to the United States District of Idaho's Advisory Committee on Local Rules. The committee advises the United States District Court for the District of Idaho on local rules of civil procedure.
- Professor Stephen Miller (Boise) served in 2014-2015 as a commissioner on the Boise City Planning & Zoning Commission.
- Professor Shaakirrah Sanders (Boise) has addressed current legal topics ranging from the 2nd Amendment to faith healing, to Justice Antonin Scalia's impact on the U.S. Supreme Court, in print and broadcast media at the local and national level. Professor Sanders also recently hosted a public panel discussion of criminal justice reform, a panel that included U.S. Congressman Raúl Labrador.

College of Law students perform public service in three main ways. First, they participate in externships with public agencies in every branch of Idaho state government and in local public agencies. Second, they participate in one of the law school clinics, where they represent clients with legal needs under the supervision of licensed attorneys. Several of these clinics have been mentioned. They include the Main Street Legal Clinic, the Economic Development Clinic, the Tax Clinic, the Immigration Clinic, the Mediation Clinic, and the Small Business Legal Clinic. Third, to graduate, all students must perform 50 hours of pro bono legal services. They meet this requirement in a wide range of settings, including legal service organizations, government agencies, private firms (pro bono cases), nonprofits, and legislative offices.

Finally, the College of Law's graduates also serve the public and individuals who need legal services but cannot afford them. Every Idaho lawyer must subscribe to the statutory oath or affirmation, solemnly recited before the Supreme Court, "to contribute time and resources to public service ... and never [to] reject, for any considerations personal to myself, the cause of the defenseless or oppressed." The College of Law believes that its graduates learn how to fulfill this oath by completing the College's pro bono service requirements and serving the needy in our clinics and the general public in externships with public agencies. In any event, many graduates become leaders in their communities and in the profession because of their public service.

In addition, many of our students come from small, rural communities with the objective of returning to those communities to practice. This is important. As the title of a recent article in the *American Bar Association Journal* said, "In rural America, there are job opportunities and a need for lawyers." (Lorelei Laird, *ABA Journal*, Oct. 1, 2014, [http://www.abajournal.com/magazine/article/too\\_many\\_lawyers\\_not\\_here\\_in\\_rural\\_america\\_lawyers\\_are\\_few\\_and\\_far\\_between](http://www.abajournal.com/magazine/article/too_many_lawyers_not_here_in_rural_america_lawyers_are_few_and_far_between).) That is true in Idaho, where law school graduates are badly needed to: (1) serve as leaders in rural communities; (2) provide access to justice to the residents of those communities, and (3) support economic activity. Recent graduates are needed in these communities partly because "Baby Boomer" attorneys are retiring. The College of Law supports these students through its Main Street Legal Clinic, and other opportunities, including externships in local agencies, at its Moscow campus.

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More importantly, the College offers an affordable legal education, which enables graduates to take jobs in rural communities at starting salaries that are typically lower than can be found in urban area but that are feasible given our graduates' debt load.

Access to justice is not exclusively a concern for Idaho's rural population. It is a significant concern for Idahoans modest means. This was demonstrated by an Idaho Legal Needs Assessment prepared in 2013 for the College of Law by the University of Idaho Social Science Research Unit. The assessment rested on three means of data collection: a statewide telephone survey of Idaho residents; an Internet survey of Idaho judges, lawyers, court clerks, and victim advocates; and interviews of key stakeholders. Not surprisingly, the assessment showed that households with incomes at or below 200% of the federal poverty guidelines were significantly more likely than the population as a whole to have unmet legal needs, relating to matters such as landlord-tenant disputes, child custody, public services, and adult guardianship. For lawyers to provide affordable legal services to Idaho residents of modest means, the lawyers cannot graduate from law school saddled with student debts equivalent in size to a home mortgage. This makes the availability of an affordable public legal education a key component of addressing Idaho's unmet legal needs.

<http://web.cals.uidaho.edu/ssru/2013/06/18/idaho-legal-needs-assessment/>

**e. If Associate's degree, transferability:**

Not applicable.

- 3. Similar Programs.** Identify similar programs offered within Idaho and in the region by other in-state or bordering state colleges/universities.

| Similar Programs offered <u>by Idaho public institutions</u> (list the proposed program as well)* |                       |   |
|---|-----------------------|---|
| Institution Name  | Degree name and Level | Program Name and brief description if warranted |
|   |                       |   |
|   |                       |   |
|   |                       |   |
|   |                       |   |

\* – The University of Idaho has the exclusive statewide mission in public legal education.

| Similar Programs offered <u>by other Idaho institutions and by institutions in nearby states</u> |                       |   |
|--|-----------------------|---|
| Institution Name   | Degree name and Level | Program Name and brief description if warranted |
|  |                       |   |

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|   |           |   |
|---|-----------|---|
| <b>Concordia University, Portland, OR</b>     | <b>JD</b> | <b>Concordia University School of Law, Boise, ID</b>                                  |
| <b>University of Oregon, Eugene, OR</b>       | <b>JD</b> | <b>University of Oregon School of Law, Eugene, OR</b>                                 |
| <b>Willamette University, Salem, OR</b>       | <b>JD</b> | <b>Willamette University College of Law, Salem, OR</b>                                |
| <b>Lewis and Clark College, Portland, OR</b>  | <b>JD</b> | <b>Northwestern School of Law of Lewis and Clark College, Portland, OR</b>            |
| <b>University of Washington, Seattle, WA</b>  | <b>JD</b> | <b>University of Washington School of Law, Seattle, WA</b>                            |
| <b>Seattle University, Seattle, WA</b>        | <b>JD</b> | <b>Seattle University School of Law, Seattle, WA</b>                                  |
| <b>Gonzaga University, Spokane, WA</b>        | <b>JD</b> | <b>Gonzaga University School of Law, Spokane, WA</b>                                  |
| <b>University of Montana, Missoula, MT</b>    | <b>JD</b> | <b>Alexander Blewett III School of Law at the University of Montana, Missoula, MT</b> |
| <b>University of Wyoming, Laramie, WY</b>     | <b>JD</b> | <b>University of Wyoming College of Law, Laramie, WY</b>                              |
| <b>University of Utah, Salt Lake City, UT</b> | <b>JD</b> | <b>S.J. Quinney College of Law, Salt Lake City, UT</b>                                |
| <b>Brigham Young University, Provo, UT</b>    | <b>JD</b> | <b>J. Reuben Clark Law School, Provo, UT</b>  |

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|  |           |   |
|--|-----------|---|
| <b>University of<br/>Nevada, Las<br/>Vegas, NV</b> | <b>JD</b> | <b>William S. Boyd School of Law, Las Vegas,<br/>NV</b> |
|--|-----------|---|

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4. **Justification for Duplication with another institution listed above.** (if applicable). If the proposed program is similar to another program offered by an Idaho public institution, provide a rationale as to why any resulting duplication is a net benefit to the state and its citizens. Describe why it is not feasible for existing programs at other institutions to fulfill the need for the proposed program.

Not applicable.

5. **Describe how this request supports the institution's vision and/or strategic plan.**

- **Vision:** "The University of Idaho will expand the institution's intellectual and economic impact and make higher education relevant and accessible to qualified students of all backgrounds."

By expanding the College of Law's presence in the State's capital and largest population center, the request will increase the intellectual and economic impact of the College's scholarly output and outreach, and will increase access by Idaho students in that part of the State to an affordable legal education of high quality.

- University of Idaho Strategic Plan Goal **1: Innovate** ("Scholarly and creative work with impact")

Goal 1 will be advanced at Objective A ("Build a culture of collaboration that increases scholarly and creative productivity through interdisciplinary, regional, national, and global partnerships") through interactions between and among the University of Idaho's Boise campus, the business-related concurrent degree programs at Boise State University – namely, the JD/Master of Accountancy and the JD/MBA – the business enterprises and nonprofit entities of southern Idaho, and the sources of interdisciplinary expertise residing at federal and state regulatory agencies in and near Boise.

- University of Idaho Goal **2: Engage** ("Outreach that inspires innovation and culture")

Goal 2 will be especially advanced at Objective B ("Develop community, regional, national and/or international collaborations which promote innovation and use University of Idaho research and creative expertise to address emerging issues.") through the University's collaboration with the Idaho Supreme Court at the Idaho Law and Justice Learning Center, through concurrent degree programs offered with Boise State University, through cooperative projects undertaken with the Idaho's legal and business communities, and through increased interaction with – and service provided by law faculty and students to – government agencies in and near Idaho's capital city.

- University of Idaho Strategic Plan Goal **3: Transform** ("Educational experiences that improve lives")

This goal will be advanced overall through the development and delivery of complementary curricula at Moscow and Boise, with curricular and co-curricular offerings that build on the comparative advantages of the land-grant campus in Moscow and the metropolitan location in Boise. More specifically, the goal will be advanced at Objective A ("Provide greater access to educational opportunities to meet the evolving needs of society.") by providing a full 3-year law curriculum in the Treasure Valley. The goal will also be advanced at Objective B ("Foster educational excellence via curricular innovation and evolution.") because state-of-the-art

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educational technology will be used to link students and faculty at the Boise and Moscow campuses; and at Objective C (“Create an inclusive learning environment that encourages students to take an active role in their student experience.”) by offering a full three-year course of law studies at a location – on the Capitol Mall – that exposes law students from the outset to see the law in action, through proceedings at the Capital, the Idaho Supreme Court, and various Idaho state agencies.

- University of Idaho Goal 4: **Cultivate** (“A valued and diverse community”)

Goal 4 will be advanced at Objective A (“Build an inclusive, diverse community that welcomes multicultural and international perspectives.”) by enhancing access for, and inclusion of, diverse populations in legal education at a metropolitan location, while continuing partnerships at the Moscow campus with the Nez Perce and Coeur d’Alene tribes, as well as with centers of Latino/a population in eastern and central Washington State. Goal 4 will be advanced at Objective B (Enhance the University of Idaho’s ability to compete for and retain outstanding scholars and skilled staff.”) by strengthening the viability and statewide relevance of the legal education program in Moscow through its connections to a complementary program in Boise, providing attractive rural and urban settings to which to attract and retain talented and diverse faculty and staff.

6. **Assurance of Quality.** Describe how the institution will ensure the quality of the program. Describe the institutional process of program review. Where appropriate, describe applicable specialized accreditation and explain why you do or do not plan to seek accreditation.

The College of Law is accredited by the American Bar Association and has received ABA approval (known as “acquiescence”), on separate occasions, for delivery of the second-year and the third-year curriculum in Boise. The expansion of the College’s curriculum in Boise to include first-year courses will likewise require ABA acquiescence. The ABA requires that resources for a branch campus be sufficient to assure ongoing compliance with ABA standards at both the branch and home campuses. Once approved, the first-year curriculum in Boise will be reviewed as part of the ABA’s annual and 7-year accreditation review scheduled for 2018-2019. The College has applied for ABA acquiescence with review by the Accreditation Committee in January and consideration by the ABA Council on Legal Education in March.

7. **In accordance with Board Policy III.G., an external peer review is required for any new doctoral program.** Attach the peer review report as **Appendix B.**

Not applicable.

8. **Teacher Education/Certification Programs** All Educator Preparation programs that lead to certification require review and recommendation from the Professional Standards Commission (PSC) and approval from the Board.

Will this program lead to certification?

Yes \_\_\_\_\_ No   X  

If yes, on what date was the Program Approval for Certification Request submitted to the Professional Standards Commission?

9. **Five-Year Plan: Is the proposed program on your institution’s approved 5-year plan?**

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Indicate below.

Yes   X   No       

Proposed programs submitted to OSBE that are not on the five-year plan must respond to the following questions and meet at least one criterion listed below.

**a. Describe why the proposed program is not on the institution's five year plan.**

When did consideration of and planning for the new program begin?

**b. Describe the immediacy of need for the program.** What would be lost were the institution to delay the proposal for implementation of the new program until it fits within the five-year planning cycle? What would be gained by an early consideration?

**Criteria.** As appropriate, discuss the following:

- i. How important is the program in meeting your institution's regional or statewide program responsibilities? Describe whether the proposed program is in response to a specific industry need or workforce opportunity.
- ii. Explain if the proposed program is reliant on external funding (grants, donations) with a deadline for acceptance of funding.
- iii. Is there a contractual obligation or partnership opportunity to justify the program?
- iv. Is the program request or program change in response to accreditation requirements or recommendations?
- v. Is the program request or program change in response to recent changes to teacher certification/endorsement requirements?

**Curriculum, Intended Learning Outcomes, and Assessment Plan**

**10. Curriculum for the proposed program and its delivery.**

**a. Summary of requirements.** Provide a summary of program requirements using the following table.

|  |     |
|--|-----|
| Credit hours in required courses offered by the department (s) offering the program. | 46  |
| Credit hours in required courses offered by other departments:                       |     |
| Credit hours in institutional general education curriculum                           | 0   |
| Credit hours in free electives   | 44* |
| Total credit hours required for degree program:                                      | 90  |

\* – As discussed below in 10.b, besides earning at least 90 credit hours, students must satisfy other requirements to get the J.D.; those other requirements will carry some of the credit hours included in the 44 credit hours categorized in the table above as “free electives.”

**b. Additional requirements.** Describe additional requirements such as comprehensive examination, senior thesis or other capstone experience, practicum, or internship, some

of which may carry credit hours included in the list above.

- *Upper-Division Writing Requirement* – After their first year of law school and before graduation, students must complete a major research and writing project under faculty supervision.
- *Pro Bono Service Requirement* – Students entering the College in and after fall 2015 must, before graduation, perform at least 50 hours of law-related pro bono service without monetary compensation, academic credit, or other tangible benefit for work performance.
- *Professionalism Training* – Students entering the College in and after fall 2014 and thereafter must complete a professionalism education program by participating in educational opportunities addressing the following topics: (1) cultural competencies; (2) civility and appropriate professional behaviors before courts, tribunals, and in other professional settings; (3) law practice management; (4) bias and thought processes; and (5) other topics related to the development of a student's professional conduct and identity.
- *Experiential Course Work* – Student entering the College in and after fall 2016 must take one or more experiential courses totaling at least six credit hours. Experiential courses must be a simulation course, a law clinic, or a field placement.

**11. Program Intended Learning Outcomes and Connection to Curriculum.**

- a. Intended Learning Outcomes.** List the Intended Learning Outcomes for the proposed program, using learner-centered statements that indicate what will students know, be able to do, and value or appreciate as a result of completing the program.

**LEARNING OUTCOME 1 – KNOWLEDGE OF LAW AND LEGAL INSTITUTIONS**

Graduates will demonstrate knowledge and understanding of substantive and procedural law and legal institutions.

**LEARNING OUTCOME 2 – LEGAL ANALYSIS AND REASONING**

Graduates will demonstrate the capacity to engage in sophisticated legal reasoning and analysis.

**LEARNING OUTCOME 3 – ORAL AND WRITTEN COMMUNICATION SKILLS**

Graduates will be proficient at communicating complex legal arguments, reasoning, and analysis, both in writing and in oral communication.

**LEARNING OUTCOME 4 – PROBLEM SOLVING**

Graduates will recognize that multiple different potential resolutions to a dispute exist, including avoiding disputes before they begin.

**LEARNING OUTCOME 5 – PROFESSIONALISM, ETHICS, AND VALUES**

Graduates will understand their professional and ethical obligations to their clients, the courts and the bar, and the public.

**12. Assessment plans**

- a. Assessment Process.** Describe the assessment process that will be used to evaluate how well students are achieving the intended learning outcomes of the program.

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The College of Law is engaged in ongoing development of an institutional assessment plan that accords with all relevant requirements, including those of the Board (Policy Section III.X), the University of Idaho, the Northwest Commission on Colleges and Universities (Standards 4 and 5), and the American Bar Association (Standards 302, 303, 314, and 315).

In brief, the College is required to follow a five-step assessment process:

1. The College is now in the process of revising its College-level learning outcomes. The most recent set of learning outcomes is quoted above in 11.a.
2. Each learning outcome will be translated into more specific learning competencies.
3. The College's curriculum will then be mapped to identify the courses in which each competency is introduced or practiced, or in which students develop the required level of proficiency. Curriculum mapping will also identify courses in which each competency is assessed.
4. The College will develop an annual assessment cycle, in which the College (a) collects data on selected competencies; (b) analyzes the data that has been collected the year before on other selected competencies; and (c) discusses what changes are to be made in light of the most recently completed analysis.
5. The College implements the agreed-upon changes, which will be subject to further, systematic assessment.

**b. Closing the loop.** How will you ensure that the assessment findings will be used to improve the program?

The University of Idaho College of Law has a standing Curriculum Committee that works with the College's administration to design program assessment. Assessment processes and policies are reviewed by the College of Law faculty. Changes in the curriculum and assessment processes and policies are implemented by the associate for faculty affairs. The associate dean for faculty affairs requires all faculty members to submit course syllabi that identify course-level learning outcomes. Faculty members also complete annual performance evaluations in which they report the formative and summative assessment tools they use in their courses to assess student achievement of the course-level learning outcomes.

**c. Measures used.** What direct and indirect measures will be used to assess student learning?

The College of Law uses traditional measures such as quizzes and exams; essays and research papers; simulation exercises; peer assessment; and self-reflection papers and other exercises. The College also evaluates bar-exam-passage rates and student performance in capstone courses, such as the College's legal clinics and externships, where supervisors can assess a range of student skills and knowledge. The College will also explore other assessment measures such as reviewing student portfolios; taking exit surveys of graduates; and surveying attorneys, judges, and alums.

**d. Timing and frequency.** When will assessment activities occur and at what frequency?

As described above in 12.a, step 4 of the program-assessment process, as prescribed by the

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University of Idaho, entails an annual cycle in which every year the College (a) collects data on selected competencies; (b) analyzes the data that has been collected the year before on other selected competencies; and (c) discusses what changes are to be made, in the upcoming year, in light of the most recently completed analysis. Of course, assessment of student learning within courses occurs during and at the end of each semester.

**Enrollments and Graduates**

- 13. Existing similar programs at Idaho Public Institutions.** Using the chart below, provide enrollments and numbers of graduates for similar existing programs at your institution and other Idaho public institutions.

| <b>Existing Similar Programs: Historical enrollments and graduate numbers</b> |   |      |      |                       |  |      |      |                       |
|---|---|------|------|-----------------------|--|------|------|-----------------------|
| <b>Institution and Program Name</b>   | <b>Fall Headcount Enrollment in Program</b> |      |      |                       | <b>Number of Graduates From Program (Summer, Fall, Spring)</b> |      |      |                       |
|   | FY13  | FY14 | FY15 | FY16<br>(most recent) | FY13   | FY14 | FY15 | FY16<br>(most recent) |
| <b>BSU</b>  | N/A   | N/A  | N/A  | N/A                   | N/A  | N/A  | N/A  | N/A                   |
| <b>ISU</b>  | N/A   | N/A  | N/A  | N/A                   | N/A  | N/A  | N/A  | N/A                   |
| <b>UI</b>   | 340   | 323  | 353  | 343                   | 104  | 117  | 122  | 93                    |
| <b>LCSC</b>   | N/A   | N/A  | N/A  | N/A                   | N/A  | N/A  | N/A  | N/A                   |

- 14. Projections for proposed program:** Using the chart below, provide projected enrollments and number of graduates for the proposed program:

| <b>Proposed Program: Projected Enrollments and Graduates First Five Years</b> |      |      |      |      |      |  |      |      |      |      |      |
|---|------|------|------|------|------|--|------|------|------|------|------|
| <b>Program Name: Juris Doctor</b>   |      |      |      |      |      |  |      |      |      |      |      |
| <b>Projected Fall Term Headcount Enrollment in Program</b>                    |      |      |      |      |      | <b>Projected Annual Number of Graduates From Program</b> |      |      |      |      |      |
| FY18<br>(first year)  | FY19 | FY20 | FY21 | FY22 | FY23 | FY18<br>(first year)                                     | FY19 | FY20 | FY21 | FY22 | FY23 |
| 310   | 320  | 330  | 330  | 340  | 340  | 95   | 90   | 115  | 115  | 115  | 115  |

**15. Describe the methodology for determining enrollment and graduation projections.**

Refer to information provided in Question #2 "Need" above. What is the capacity for the program? Describe your recruitment efforts? How did you determine the projected numbers above?

The above projected numbers are based first on the current size of our first year class, 104 students. Of that 104, a small number will be academically dismissed or transfer to other institutions. We are projecting that class to melt into a second and third year class of 95 at minimum which will go on to be the first graduating class in FY18. The class entering in Moscow in fall 2016 will be at minimum 100 students and will melt into 90 students graduating in FY19. Adding the first year curriculum in Boise in FY18 is expected to bring a modest increase in students from pent up demand and interest. The initial increase will be as a result of courses in Boise, but rely heavily on Moscow to serve the majority of new students. The FY18 headcount number plans for 125 students between Moscow and Boise in the College's first year classes, which takes the total to 310 in the first year. It is expected then that retention will be higher with the first year class in Boise as more residents stay in the area for their legal education. As the College enrolls slightly larger first year classes the total enrollment will increase to around 340 students, approximately 120 students on average entering each year with a small amount withdrawing, transferring or being academic dismissed.

The above numbers are based on College of Law statewide enrollment projections. The physical space capacity in Boise is limited by the largest classroom in which first year courses can be taught without needing to add a second section as well as appropriately sized legal writing and research sections. The largest classroom holds approximately 60 students. The College intends to enroll less than 60 students in Boise the first year of operation, but is expecting that overtime we will easily enroll 60 students in Boise and around the same in Moscow.

The College of Law participates in national and regional recruiting efforts through fairs, digital marketing, social media and more. Our Enrollment Marketing and Recruitment Plan, revised annually, serves as the guiding document in our recruitment efforts.

**16. Minimum Enrollments and Graduates.** Have you determined minimums that the program will need to meet in order to be continued? What are those minimums, what is the logical basis for those minimums, what is the time frame, and what is the action that would result?

While it is not expected that the College will face a minimums issue with the launch of the first year in Boise, the main factors in that analysis are on the teaching load and capacity side of our plans. With one legal writing and research professor in Boise, the College expects that the section size will be comparable to those in Moscow (though not exactly the same). Financially, a minimum group of 25 to 35 students would warrant such a dedicated faculty resource and the sections of the rest of the first year curriculum. If the enrollment grows in Boise to closer to 60 students the College would need to explore a second legal writing and research professor to accommodate, but the rest of the curriculum offerings would not be impacted. In summary, at minimum we need 25 to 35 students to enroll in the first year in Boise and beyond that the only action needed is the threshold for offering a second section of legal writing and research.

**Resources Required for Implementation – fiscal impact and budget**

**17. Physical Resources.**

- a. Existing resources.** Describe equipment, space, laboratory instruments, computer(s), or other physical equipment presently available to support the successful implementation of the program.

The College will offer the first-year law curriculum proposed in this document at the Idaho Law and Justice Learning Center (ILJLC), where the College currently offers the second- and third-year curricula. The ILJLC can accommodate the additional students, along with the additional personnel needed to support the expansion.

The ILJLC opened in 2015, in the building that long served as the Ada County Courthouse and also housed the Idaho Legislature while the capitol was renovated. This is an ideal location for a public law school – being located on the Idaho Capitol Mall, between the capitol and the Idaho Supreme Court buildings, and right across the street from the Idaho State Bar headquarters.

The College collaborated with the Idaho Supreme Court in creating the ILJLC. It is a multipurpose facility that houses:

- The College of Law in Boise
- The Idaho State Law Library
- The Idaho Supreme Court's judicial education offices and training facilities; and
- Public service outreach and education space.

Space is allocated in the ILJLC as follows:

- College of Law: 16,927 net sq. ft., excluding common areas
- Library: 7,655 net sq. ft., excluding common areas
- Idaho Supreme Court: 3,354 net sq. ft.

The College of Law uses the first three levels of the ILJLC. More specifically:

- *First Level.* The first level of the ILJLC has space for (a) the College's clinical programs, (b) student organizations, (c) the main student reading room/study area, (d) two seminar classrooms for about 22 students each, (e) one conference room for videoconference and training uses, and (f) a student lounge. Other uses on the first level include offices for IT support and general storage.
- *Second Level.* The second level primarily houses the law library, with space for (a) a central circulation and control desk, (b) the library stacks, and (c) offices for the librarian and library staff. In addition, the Supreme Court has an office and training space on the second level. The library space also has computer terminals for use by students and the public.
- *Third Level.* The third level of the ILJLC holds (a) the Administration Suite (including a reception area and a conference room with videoconference equipment), (b) faculty and staff offices, (c) an employee lounge, and (d) two large classrooms for approximately 67 students each. The two large classrooms make use of the space formerly used by the Idaho legislature for the House and Senate Chambers while the

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State Capitol was being remodeled and expanded.

The ILJLC has state-of-the-art instructional technology. The technology allows classes that are taught live at the Moscow campus to be beamed to students in Boise, and vice-versa. During these "distance ed" classes, students and faculty at each campus can interact with students at the other campus. This technology also permits student-faculty conferences between the two campuses; faculty meetings between faculty members in each location; and student-to-student communication on collaborative co-curricular projects (such as moot court competitions) between the two campuses. The University has information-technology staff at the ILJLC to support the technology, as well as additional IT staff at the University's Idaho Water Center in Boise.

- b. Impact of new program.** What will be the impact on existing programs of increased use of physical resources by the proposed program? How will the increased use be accommodated?

The College of Law does not anticipate any significant impact as a result of expanding the curriculum at the Boise campus to include the first-year curriculum. That is because this expansion was contemplated (and hoped for) when the College planned the ILJLC.

- c. Needed resources.** List equipment, space, laboratory instruments, etc., that must be obtained to support the proposed program. Enter the costs of those physical resources into the budget sheet.

The College of Law does not anticipate a need for any significant additional physical resources.

## **18. Library resources**

- a. Existing resources and impact of new program.** Evaluate library resources, including personnel and space. Are they adequate for the operation of the present program? Will there be an impact on existing programs of increased library usage caused by the proposed program? For off-campus programs, clearly indicate how the library resources are to be provided.

With a modest addition of new library material, the existing library resources, including personnel and space, at the ILJLC will meet the needs of the first-year students who will be taking courses at the Boise campus under the present proposal.

As discussed above in 17.a, the College currently supports and maintains a law library at the ILJLC that meets the needs of the College's teaching, scholarship, research, and service programs for a full three-year course of study. The College meets the needs of the Boise location through its management of the State Law Library located on the 2nd floor of the ILJLC. The law library is a collaboration between College of Law and the Idaho Supreme Court in which the College of Law has taken over management of the State Law Library and then supplemented the State Law Library with an academic collection in support of the Boise location and curriculum. The College has also funded substantial updates to the practitioner and public collections.

The Boise Law Library collection currently has about 30,000 volumes and volume equivalents.

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In addition, selected federal, state, and Idaho archival materials are located in the basement of the Idaho Supreme Court Building. The Boise Law Library has four computer terminals with public access to WESTLAW Next, and access to all of the databases currently subscribed to by the College of Law, including HeinOnline, the CCH Internet Research Network, selected BNA Reporters, RIA Checkpoint for tax research, the Making of Modern Law, and the U.S. Congressional Serial Set, among others.

The library needs of 1st-year law students will not be exactly the same as those of existing 2nd and 3rd year students. Accordingly, the College has budgeted an additional \$4,000 to purchase monographs, loose leafs, and other materials to support the 1st year curriculum in Boise, and the College believes that the existing library space at the ILJLC can accommodate the addition of these materials and these students.

The Boise Law Library hours of operation are 8:00 a.m. to 5:00 p.m., and the collection is open to the public. Students currently have 24/7 access to the collection through their electronic swipe cards.

The Boise Law Library staff consists of the following:

- 1 full-time associate law librarian
- 1 full-time JD librarian who provides reference and research assistance
- 1 full-time assistant librarian employed by the State
- 1 full-time staff person employed by the State, who also handles the budget for the library

The two State of Idaho employees are managed by the College in accordance with the Memorandum of Understanding between the College and the Idaho Supreme Court.

When materials needed by students, faculty, or staff are not available in Boise, the Boise Law Library can request the materials directly from the University of Idaho Main Library and the College of Law Library in Moscow. The Boise Law Library can also request interlibrary loans. The Law Library staff in Moscow would also be available to students, faculty, and staff in Boise for reference assistance by telephone, email, or Skype (or equivalent) access.

- b. Needed resources.** What new library resources will be required to ensure successful implementation of the program? Enter the costs of those library resources into the budget sheet.

As stated above in 18.a, the University has budgeted an additional \$4,000 to buy monographs, loose leafs, and other materials for the first-year curriculum at the Boise campus. The Boise Law Library has enough space for this additional material and the additional students.

**19. Personnel resources**

- a. Needed resources.** Give an overview of the personnel resources that will be needed to implement the program. How many additional sections of existing courses will be needed? Referring to the list of new courses to be created, what instructional capacity will be needed to offer the necessary number of sections?

Currently, at the Moscow campus the College of Law offers two sections of all first-year ("1L")

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courses except for the first-year Legal Research and Writing (“LRW”) course, of which six sections are offered:

| <b>REQUIRED COURSES, 1L YEAR</b>   |                           |
|------------------------------------|---------------------------|
| <b>Course Title</b>                | <b>Number of Sections</b> |
| <b>1L Fall Semester</b>            |                           |
| Civil Procedure I                  | 2                         |
| Contracts                          | 2                         |
| Property                           | 2                         |
| Torts                              | 2                         |
| Legal Research and Writing         | 6                         |
| <b>1L Spring Semester</b>          |                           |
| Civil Procedure II                 | 2                         |
| Contracts/Sales                    | 2                         |
| Constitutional Law I               | 2                         |
| Criminal Law                       | 2                         |
| Legal Research and Writing         | 6                         |
| Legal Research (starting Fall '17) | To Be Determined          |

The current proposal seeks, in effect, to “split” this first-year curriculum into two halves, so that one section of each of the 1L courses except LRW will “move” to the Boise campus. As for LRW, two or three of its six sections will “move” to Boise; the precise number depends on the size of the first-year class admitted to the Boise campus:

| <b>REQUIRED COURSES, 1L YEAR</b>              |                             |
|---|-----------------------------|
| <b>Course Title</b>                           | <b>Number of Sections</b>   |
| <b>1L Fall Semester</b>                       |                             |
| Civil Procedure I (2 credits)                 | 1 in Moscow, 1 in Boise     |
| Contracts (2 credits)                         | 1 in Moscow, 1 in Boise     |
| Property (4 credits)                          | 1 in Moscow, 1 in Boise     |
| Torts (4 credits)                             | 1 in Moscow, 1 in Boise     |
| Legal Research and Writing (0 credits)        | 3-4 in Moscow, 2-3 in Boise |
| <b>1L Spring Semester</b>                     |                             |
| Civil Procedure II (3 credits)                | 1 in Moscow, 1 in Boise     |
| Contracts/Sales (3 credits)                   | 1 in Moscow, 1 in Boise     |
| Constitutional Law I (3 credits)              | 1 in Moscow, 1 in Boise     |
| Criminal Law (3 credits)                      | 1 in Moscow, 1 in Boise     |
| Legal Research and Writing (5 credits)        | 3-4 in Moscow, 2-3 in Boise |
| Legal Research (starting Fall '17) (1 credit) | To Be Determined            |

Under this arrangement, no “additional sections” of the existing first-year courses will be

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needed. It is possible, however, that eventually the College might have to create additional sections of some existing upper-level courses. But the College has no current plan to do so.

Along with “moving” half of the sections of the first-year law courses from Moscow to Boise, the College of Law will have three full-time faculty positions relocated from the Moscow campus to the Boise campus.

Other, additional personnel needed to support the expansion of the Boise curriculum are described below in 12.d.

- b. Existing resources.** Describe the existing instructional, support, and administrative resources that can be brought to bear to support the successful implementation of the program.

*Instructional personnel:* The College of Law currently has 11 faculty members who work full-time for the UI College of Law at the Boise campus:

- Lee Dillion, Associate Dean for Boise
- Katie Ball, Externship Director
- Annemarie Bridy, Professor of Law
- Wendy Couture, Associate Professor of Law
- Stacy Etheridge, Associate Law Librarian
- Michael Greenlee, Associate Law Librarian
- Sarah Haan, Associate Professor of Law
- Barb Lock, Associate Clinical Professor
- Stephen Miller, Associate Professor of Law
- John Rumel, Associate Professor of Law
- Shaakirrah Sanders, Associate Professor of Law

This list includes two faculty members – Associate Dean Dillion and Associate Law Librarian Greenlee – who devote part of their time to instruction but most of their time to administration; and one other faculty member, Associate Law Librarian Etheridge, who currently has no instructional responsibilities. Please note that Associate Law Librarians Greenlee and Etheridge were included in the library staff listed above in 18.a.

In addition to the existing personnel listed above, three full-time faculty positions are being relocated from the Moscow campus to the Boise campus to support an expanded curriculum in Boise.

Besides the full-time personnel, the College of Law employs about 15-20 adjunct professors (formally known as “temporary, part-time lecturers”) to teach single courses in Boise during the academic year and in the summer. Many of these adjunct professors have been teaching for the College for many years and are practicing attorneys or judges who bring valuable experience to the classroom. The adjunct professors, however, teach only upper-level courses (to second- and third-year law students); they will not teach any of the first-year law courses.

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Finally, some classes taught live in Moscow are offered to Boise students by videoconference link. These “distance-ed” courses, however, account for a very small portion of the curriculum currently offered in Boise. Furthermore, all of the first-year law courses proposed to be offered at the Boise campus will be taught live at that campus by full-time members of the faculty.

*Support personnel:* Support personnel at the ILJLC include:

- Michelle Bartlett, Director of Career Development
- Rebekah Cudé, Director of Student Affairs for Boise
- Elaine Kempton, Clinical Services Coordinator
- Neil Luther, Development Assistant
- Rowland Marshall, IT and Classroom Media Specialist
- Terri Muse, Assistant Dean for External Relations

Besides these personnel, who are located at the ILJLC, the College works with the University administration at the Idaho Water Center in Boise to offer all the normal student services, including:

- Computer Lab
- Disability Support Services
- Graduation and Commencement
- Health Services
- Housing for Students (apartments, etc.)
- Recreation Facilities
- Textbook Orders
- Transportation Options
- Transcript Request Form
- Vandal Card (student identification card)

Moreover, IT personnel at the Idaho Water Center support the IT needs of the ILJLC.

*Administrative Personnel:* Administrative personnel at the ILJLC include:

- Lee Dillion, Associate Dean for Boise (listed above among instructional personnel)
- Stacey Anderson, Assistant Law Librarian Technical Services
- Tonia Hake-Harmon, Administration and Faculty Assistant
- Diana DeJesus, Associate Director of Admissions

- c. Impact on existing programs.** What will be the impact on existing programs of increased use of existing personnel resources by the proposed program? How will quality and productivity of existing programs be maintained?

With the Board's approval and under its supervision, the University of Idaho College of Law has expanded the J.D. curriculum in Boise incrementally. In 2001, the College began offering law students in their final (6th) semester a "semester-in-practice" program in Boise, in which they could earn academic credit for working full-time in semester-long externships. In 2004, the College expanded its externship offerings in Boise. In 2010, the College began offering students the opportunity to spend their entire third year (5th and 6th semesters) in Boise. In 2014, the College expanded the Boise J.D. curriculum to include second-year law courses. In 2015, the College moved the second- and third-year curricula from the Idaho Water Center to the ILJLC.

Throughout this 15-year process of gradual expansion, the College has planned carefully and in coordination with central university administration and all stakeholders. Most recently, this planning process included in-depth study of the instructional resources and other resources needed to support the expansion proposed in this document. Each incremental expansion has required not only the Board's approval but also the approval (formally known as "acquiescence") of the College's accrediting agency, the ABA. To get acquiescence, the College first undergoes an in-depth review that includes a site visit by a "fact finder," and within a certain period after getting acquiescence, the College has a follow up site visit by a fact finder. The ABA will grant acquiescence "only if the law school demonstrates that the [proposed change] will not detract from the law school's ability to remain in compliance with the [Accreditation] Standards." ABA Standard 105(b).

An additional ABA Standard applies to the current proposal to begin offering first-year law curriculum at the Boise campus. The proposal triggers ABA Standard 106, because if granted it would result in the entire J.D. curriculum being offered at a "separate location" by a "branch campus":

**Standard 106. SEPARATE LOCATIONS AND BRANCH CAMPUSES**

(a) A law school that offers a separate location shall provide:

- (1) Full-time faculty adequate to support the curriculum offered at the separate location and who are reasonably accessible to students at the separate location;
- (2) Library resources and staff that are adequate to support the curriculum offered at the separate location and that are reasonably accessible to the student body at the separate location;
- (3) Academic advising, career services and other student support services that are adequate to support the student body at the separate location and that are reasonably equivalent to such services offered to similarly situated students at the law school's main location;
- (4) Access to co-curricular activities and other educational benefits adequate to support the student body at the separate location; and
- (5) Physical facilities and technological capacities that are adequate to support the curriculum and the student body at the separate location.

(b) In addition to the requirements of section (a), a branch campus must:

- (1) Establish a reliable plan that demonstrates that the branch campus is reasonably likely to be in substantial compliance with each of the Standards within three years of the effective date of acquiescence as required by Rule 30;

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- (2) Comply with instructional requirements and responsibilities as required by Standard 403(a) and Standard 404(a); and
- (3) Offer reasonably comparable opportunities for access to the law school's program of legal education, courses taught by full-time faculty, student services, co-curricular programs, and other educational benefits as required by Standard 311. [Note: Standard 311, "Academic Program and Academic Calendar," prescribes a minimum of credit-hours that a law school must require for graduation with a J.D. degree; the minimum and maximum time periods in which the course of study for the J.D. must be completed; and a limit on the amount of coursework in which a J.D. candidate can be enrolled at any one time.]

Besides the pre-acquiescence and post-acquiescence reviews, the ABA conducts top-to-bottom accreditation reviews every seven years. The College of Law is next due for a top-to-bottom accreditation review in 2018-2019.

In short, processes are in place – besides those of the College, the University, and the Board – to ensure that expansion of the curriculum at the Boise campus does not adversely affect the existing J.D. program. Indeed, the University believes that the expansion will significantly enhance the program.

- d. Needed resources.** List the new personnel that must be hired to support the proposed program. Enter the costs of those personnel resources into the budget sheet.

The College has determined that three additional personnel positions must be created to support the proposal to offer the first-year curriculum in Boise. The College made this determination following informal consultation with officials at the American Bar Association, the College's accrediting agency. The three new positions are as follows:

1. Associate Director of Admissions in Boise. This person would serve the admissions needs of the College statewide through planning and executing campus visits for prospective students, workshops for prospective students on how to apply to law school, other events for prospective students, community outreach, outreach to college pre-law advisors, and recruitment and marketing. Besides recruiting students for the Boise campus, this position advises first-year students. The person hired for the position started work in September 2016. This person reports to the Director of Admissions, who is at the Moscow campus.
2. Director of Academic Success in Boise. This person would address the needs of the first-year law students in Boise by holding workshops on topics such as effective study strategies, advising, academic planning, bar-exam advising, and more. The addition of this position is necessary allow the College to have enough resources to support the academic achievement and bar passage of all students, particularly students in the bottom quartile of the entering class, who are a concern of the faculty and the ABA.
3. Faculty member to teach Legal Research and Writing ("LRW") in Boise. LRW is a required course for all first-year law students. The LRW Faculty Member in Boise will teach one section of LRW based on enrollment and could possibly be filled internally or with a visiting professor.

Funding for these three new positions is feasible by making internal reallocations. As discussed above in 19.c, ABA standards require that expansion of the curriculum at the Boise campus does not adversely affect the existing J.D. program. Indeed, the University believes

that the expansion will significantly enhance the program.

**20. Revenue Sources**

- a) **Reallocation of funds:** If funding is to come from the reallocation of existing state appropriated funds, please indicate the sources of the reallocation. What impact will the reallocation of funds in support of the program have on other programs?

As discussed above in item 19, funding for needed resources will occur through an internal reallocation of resources within the J.D. program. Because this reallocation is internal to the J.D. program, it will not affect any other programs.

- b) **New appropriation.** If an above Maintenance of Current Operations (MCO) appropriation is required to fund the program, indicate when the institution plans to include the program in the legislative budget request.

Not applicable.

- c) **Non-ongoing sources:**

- i. If the funding is to come from one-time sources such as a donation, indicate the sources of other funding. What are the institution's plans for sustaining the program when that funding ends?

Not applicable.

- ii. Describe the federal grant, other grant(s), special fee arrangements, or contract(s) that will be valid to fund the program. What does the institution propose to do with the program upon termination of those funds?

Not applicable.

- d) **Student Fees:**

- i. If the proposed program is intended to levy any institutional local fees, explain how doing so meets the requirements of Board Policy V.R., 3.b.

The University of Idaho charges a professional fee to students enrolled in the J.D. program in accordance with Board Policy V.R. The University will not charge any additional or separate fees in connection with the expansion of the J.D. curriculum in Boise to include first-year law curriculum.

- ii. Provide estimated cost to students and total revenue for self-support programs and for professional fees and other fees anticipated to be requested under Board Policy V.R., if applicable.

Not applicable.

- 21.** Using the budget template provided by the Office of the State Board of Education, provide the following information:

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years of the program.

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- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

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### Program Resource Requirements.

- Indicate all resources needed including the planned FTE enrollment, projected revenues, and estimated expenditures for the first **four** fiscal years
- Include reallocation of existing personnel and resources and anticipated or requested new resources.
- Second and third year estimates should be in constant dollars.
- Amounts should reconcile subsequent pages where budget explanations are provided.
- If the program is contract related, explain the fiscal sources and the year-to-year commitment from the contracting agency(ies) or party(ies).
- Provide an explanation of the fiscal impact of any proposed discontinuance to include impacts to faculty (i.e., salary savings, re-assignments).

### I. PLANNED STUDENT ENROLLMENT

|                          | <u>FY 18</u> |            | <u>FY 19</u> |            | <u>FY 20</u> |            | <u>FY</u>  |
|--------------------------|--------------|------------|--------------|------------|--------------|------------|------------|
|                          | FTE          | Headcount  | FTE          | Headcount  | FTE          | Headcount  | FTE        |
| A. New enrollments       | 0            | 0          | 10           | 10         | 20           | 20         | 20         |
| Out of State enrollments | 0            | 0          | 4            | 4          | 11           | 11         | 11         |
| B. Shifting enrollments  | 310          | 310        | 310          | 310        | 310          | 310        | 310        |
| <b>Total Enrollment</b>  | <b>310</b>   | <b>310</b> | <b>320</b>   | <b>320</b> | <b>330</b>   | <b>330</b> | <b>330</b> |

### II. REVENUE

|                                     | <u>FY 18</u>        |            | <u>FY 19</u>        |            | <u>FY 20</u>        |            | <u>FY</u>           |
|-------------------------------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|
|                                     | On-going            | One-time   | On-going            | One-time   | On-going            | One-time   | On-going            |
| 1. New Appropriated Funding Request | \$0.00              | \$0.00     | \$0.00              | \$0.00     | \$0.00              | \$0.00     | \$0.00              |
| 2. Institution Funds                | \$6,229,545         | \$0.00     | \$6,229,545         | \$0.00     | \$6,229,545         | \$0.00     | \$6,229,545         |
| 3. Federal                          | \$95,000            | \$0.00     | \$95,000            | \$0.00     | \$95,000            | \$0.00     | \$95,000            |
| 4. Student Fees                     | \$3,417,174         |            | \$3,428,434         |            | \$3,439,694         |            | \$3,439,694         |
| 5. Other (i.e., Gifts)              | \$1,050,000         | \$0.00     | \$1,050,000         | \$0.00     | \$1,050,000         | \$0.00     | \$1,050,000         |
| <b>Total Revenue</b>                | <b>\$10,791,719</b> | <b>\$0</b> | <b>\$10,802,979</b> | <b>\$0</b> | <b>\$10,814,239</b> | <b>\$0</b> | <b>\$10,814,239</b> |

*Ongoing is defined as ongoing operating budget for the program which will become part of the base.*

*One-time is defined as one-time funding in a fiscal year and not part of the base.*

### III. EXPENDITURES

IRSA

## INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

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|                                      | <u>FY 18</u>              |                   | <u>FY 19</u>              |                   | <u>FY 20</u>              |                   | <u>FY</u>                 |
|--------------------------------------|---------------------------|-------------------|---------------------------|-------------------|---------------------------|-------------------|---------------------------|
|                                      | On-going                  | One-time          | On-going                  | One-time          | On-going                  | One-time          | On-going                  |
| <b>A. Personnel Costs</b>            |                           |                   |                           |                   |                           |                   |                           |
| 1. FTE                               | <u>79.0</u>               | <u>0.0</u>        | <u>79.0</u>               | <u>0.0</u>        | <u>79.0</u>               | <u>0.0</u>        | <u>79.0</u>               |
| 2. Faculty                           | <u>\$4,142,650</u>        | <u>\$0</u>        | <u>\$4,064,300</u>        | <u>\$0</u>        | <u>\$4,026,528</u>        | <u>\$0</u>        | <u>\$4,026,528</u>        |
| 3. Adjunct Faculty                   | <u>\$160,000</u>          | <u>\$0</u>        | <u>\$160,000</u>          | <u>\$0</u>        | <u>\$160,000</u>          | <u>\$0</u>        | <u>\$160,000</u>          |
| 4. Graduate/Undergrad Assistants     | <u>\$61,400</u>           | <u>\$0</u>        | <u>\$61,400</u>           | <u>\$0</u>        | <u>\$61,400</u>           | <u>\$0</u>        | <u>\$61,400</u>           |
| 5. Research Personnel                | <u>\$0</u>                | <u>\$0</u>        | <u>\$0</u>                | <u>\$0</u>        | <u>\$0</u>                | <u>\$0</u>        | <u>\$0</u>                |
| 6. Directors/Administrators          | <u>\$543,980</u>          | <u>\$0</u>        | <u>\$543,980</u>          | <u>\$0</u>        | <u>\$543,980</u>          | <u>\$0</u>        | <u>\$543,980</u>          |
| 7. Administrative Support Personnel  | <u>\$699,489</u>          | <u>\$0</u>        | <u>\$699,489</u>          | <u>\$0</u>        | <u>\$699,489</u>          | <u>\$0</u>        | <u>\$699,489</u>          |
| 8. Fringe Benefits                   | <u>\$1,810,703</u>        | <u>\$0</u>        | <u>\$1,775,338</u>        | <u>\$0</u>        | <u>\$1,758,288</u>        | <u>\$0</u>        | <u>\$1,758,288</u>        |
| 9. Other: Summer Research            | <u>\$135,000</u>          | <u>\$0</u>        | <u>\$135,000</u>          | <u>\$0</u>        | <u>\$135,000</u>          | <u>\$0</u>        | <u>\$135,000</u>          |
| <b>Total Personnel<br/>and Costs</b> | <u><u>\$7,553,222</u></u> | <u><u>\$0</u></u> | <u><u>\$7,439,507</u></u> | <u><u>\$0</u></u> | <u><u>\$7,384,685</u></u> | <u><u>\$0</u></u> | <u><u>\$7,384,685</u></u> |

FY 18FY 19FY 20FY

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|  | On-going           | One-time   | On-going           | One-time   | On-going           | One-time   | On-going           |
|--|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
| <b>B. Operating Expenditures</b>                 |                    |            |                    |            |                    |            |                    |
| 1. Travel  | \$140,082          | \$0        | \$138,285          | \$0        | \$138,285          | \$0        | \$138,285          |
| 2. Professional Services                         | \$467,038          | \$0        | \$473,200          | \$0        | \$482,700          | \$0        | \$482,700          |
| 3. Other Services                                | \$550,000          | \$0        | \$550,000          | \$0        | \$550,000          | \$0        | \$550,000          |
| 4. Communications                                | \$97,474           | \$0        | \$95,588           | \$0        | \$95,588           | \$0        | \$95,588           |
| 5. Materials and Supplies                        | \$81,438           | \$0        | \$80,394           | \$0        | \$80,394           | \$0        | \$80,394           |
| 6. Rentals                                       | \$489,334          | \$0        | \$479,868          | \$0        | \$479,867          | \$0        | \$479,867          |
| 7. Materials & Goods for<br>Manufacture & Resale | \$0                | \$0        | \$0                | \$0        | \$0                | \$0        | \$0                |
| 8. Miscellaneous                                 | \$339,964          | \$0        | \$333,496          | \$0        | \$333,496          | \$0        | \$333,496          |
| <b>Total Operating Expenditures</b>              | <b>\$2,165,330</b> | <b>\$0</b> | <b>\$2,150,831</b> | <b>\$0</b> | <b>\$2,160,330</b> | <b>\$0</b> | <b>\$2,160,330</b> |

|                             | <b>FY 18</b>       |            | <b>FY 19</b>       |            | <b>FY 20</b>       |            | <b>FY</b>          |
|-----------------------------|--------------------|------------|--------------------|------------|--------------------|------------|--------------------|
|                             | On-going           | One-time   | On-going           | One-time   | On-going           | One-time   | On-going           |
| <b>C. Capital Outlay</b>    |                    |            |                    |            |                    |            |                    |
| 1. Library Resources        | \$1,628,427        | \$0        | \$1,693,564        | \$0        | \$1,761,307        | \$0        | \$1,761,307        |
| 2. Equipment                | \$0                | \$0        | \$0                | \$0        | \$0                | \$0        | \$0                |
| <b>Total Capital Outlay</b> | <b>\$1,628,427</b> | <b>\$0</b> | <b>\$1,693,564</b> | <b>\$0</b> | <b>\$1,761,307</b> | <b>\$0</b> | <b>\$1,761,307</b> |

**FY 18**

**FY 19**

**FY 20**

**FY**

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**D. Capital Facilities  
Construction or Major  
Renovation**

|       |       |       |       |       |       |       |
|-------|-------|-------|-------|-------|-------|-------|
| \$0   | \$0   | \$0   | \$0   | \$0   | \$0   | \$0   |
| <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> | <hr/> |

**E. Other Costs**

|                          |                |            |                |            |                |                |
|--------------------------|----------------|------------|----------------|------------|----------------|----------------|
| Utilities                | \$0            | \$0        | \$0            | \$0        | \$0            | \$0            |
|                          | <hr/>          | <hr/>      | <hr/>          | <hr/>      | <hr/>          | <hr/>          |
| Maintenance & Repairs    | \$5,000        | \$0        | \$5,000        | \$0        | \$5,000        | \$5,000        |
|                          | <hr/>          | <hr/>      | <hr/>          | <hr/>      | <hr/>          | <hr/>          |
| Other                    | <hr/>          | <hr/>      | <hr/>          | <hr/>      | <hr/>          | <hr/>          |
| <b>Total Other Costs</b> | <u>\$5,000</u> | <u>\$0</u> | <u>\$5,000</u> | <u>\$0</u> | <u>\$5,000</u> | <u>\$5,000</u> |

|                             |                     |            |                     |            |                     |            |                     |
|-----------------------------|---------------------|------------|---------------------|------------|---------------------|------------|---------------------|
| <b>TOTAL EXPENDITURES:</b>  | <u>\$11,351,979</u> | <u>\$0</u> | <u>\$11,288,901</u> | <u>\$0</u> | <u>\$11,311,321</u> | <u>\$0</u> | <u>\$11,311,321</u> |
| <b>Net Income (Deficit)</b> | <u>-\$560,260</u>   | <u>\$0</u> | <u>-\$485,923</u>   | <u>\$0</u> | <u>-\$497,083</u>   | <u>\$0</u> | <u>-\$497,083</u>   |

Budget Notes (specify row and add explanation where needed; e.g., "I.A.,B. FTE is calculated using..."):

|         |   |
|---------|---|
| I.B     | We have recorded the number of non-new enrollments for each year, because there are no shifting enrollments. Notice that the enollme    |
| II.2    | For institution funds,the reported figures include occupancy funding and no increases; occupancy funding included in the 260000 of reve |
| II.5    | Professional Fee Rate remains constant at FY17 level of \$10,134 with only a change in enrollment numbers. This also includes summe     |
| III.A.2 | This assumes no salary savings from faculty retirements or sabbaticals, and that any faculty vacancies that occur will be filled.       |
| III.B.2 | Figures reported include cost of paying bar-exam preparation company, BARBRI, to give bar-exam preparation course to each student,      |
| III.B.3 | "Other services" are expenditures for student scholarships.   |

III.B.6 Rental figures reflect occupancy costs.

III.B line 1 Total operating expenditures are projected expenses distributed by to date expense model ratios

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of the

**21**

Headcount

20

11

310

330

**21**

One-time

\$0.00

\$0.00

\$0.00

\$0.00

\$0

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21

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One-time

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21

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IRSA

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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One-time

\$0

\$0

\$0

\$0

\$0

\$0

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One-time

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21

IRSA

INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS  
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# CAMPUS LOCATION SURVEY ANALYSIS

Prepared for University of Idaho College of Law

September 2015

In the following report, Hanover Research analyzes a survey of current, former, non-matriculating, and prospective University of Idaho College of Law students to determine perceptions of and preferences for the College's campus locations in Moscow, Idaho and Boise, Idaho.

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## EXECUTIVE SUMMARY AND KEY FINDINGS

### INTRODUCTION

This report presents the results and analysis of a survey administered to current, former, non-matriculating, and prospective students of the University of Idaho (UI) College of Law. The survey was administered online by Hanover Research on behalf of the College of Law in July and August of 2015. The goal of the survey was to gauge the perception of and preference for two campus locations – Moscow, ID and Boise, ID. The results will assist the College in its strategic planning for programming at each campus.

In total, 498 individuals participated in the survey. The survey was sent to 2,795 valid e-mail addresses for a response rate of 18 percent.

### KEY FINDINGS

- **Boise consistently emerged as the preferred location among survey respondents, both as a place to study law and as a place to live and work.** Respondents perceive Boise as a nice city with a small town feel, a high quality of life, many job opportunities, and access to outdoor activities and recreation. Nearly 90 percent view Boise as an appealing location for a law school campus and similarly, nearly all respondents recognize the appeal of offering at least the option to study in Boise.
- **Compared to Moscow, Boise's main advantage as a location to study law comes from its employment and networking opportunities.** Over 80 percent of respondents cite employment and networking opportunities as an advantage of Boise over Moscow, while less than ten percent feel that these are advantages in Moscow. This reflects Boise's image as the business and legal center of the state.
- **While many respondents recognize the small town charm of Moscow, the lack of amenities, job opportunities, and remote location make it a less desirable place to study law.** Less than 10 percent of respondents agree that Moscow has a thriving job market for law school graduates. Several also note that the limited job market in Moscow is a challenge for spouses relocating to the area.
- **Despite the overall preference for studying in Boise, Moscow remains an important campus location for many respondents.** About half of the respondents would most prefer that the main campus remain in Moscow, with the option to study in Boise either all years (27%), only during the second and third years (20%), or not at all (9%). The remaining half would most prefer that Boise serves as either the exclusive (24%) or main campus (20%). Moscow's greatest advantage over Boise is its connection to the main University of Idaho campus.
- **Among survey respondents, moving the main campus to Boise is more likely to increase interest and enrollment rather than decrease it.** The majority of respondents report that their likelihood of enrolling at UI College of Law would

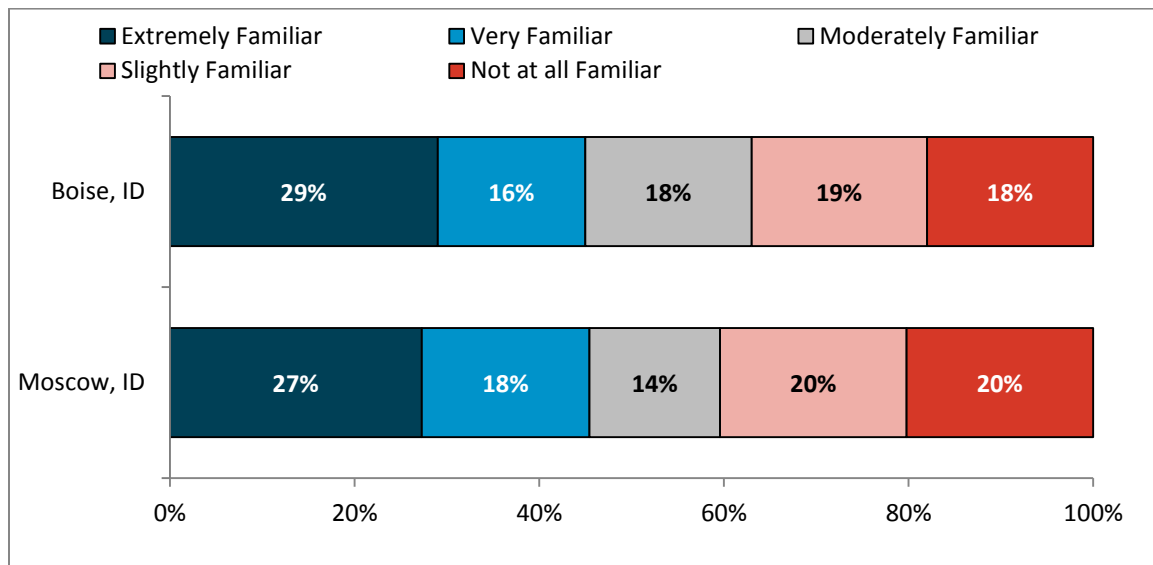
increase (53%) or remain the same (24%) if the main campus, with the majority of faculty and resources, was located in Boise. Because location is the second most influential factor for respondents when considering JD programs, the University of Idaho College of Law should consider offering first-year students the opportunity to study in Boise.

- Compared to current students and alumni, a higher percentage of prospective and non-matriculated students would be more likely to enroll in the UI College of Law if the main campus was in Boise. This suggests that the College of Law may see an increase in admission yield and applications if the main campus moves to Boise. However, these increases may be offset to some degree by a decline in enrollment by students that historically choose UI College of Law.

## SECTION I: BOISE AND MOSCOW CAMPUS PREFERENCE ANALYSIS

This section contains information on survey respondents' perceptions of the cities of Boise and Moscow as well as their preferences regarding studying law in each location. Overall, a similar percentage of respondents are familiar with both Boise and Moscow.

Figure 1.1: Familiarity with Boise and Moscow



N= 498

### PERCEPTION OF BOISE AND MOSCOW

Respondents generally view Boise as a nice city with a small town feel, a high quality of life, many job opportunities, and access to outdoor activities and recreation. Many also note that Boise is the largest urban area in the state and the center of government and legal activities. The majority of respondents agree or strongly agree that Boise is both a desirable place to study law (65%) and also provides law students with access to internships/externships (71%), valuable resources (71%), and a thriving job market (61%).

Moscow is typically characterized as a quaint college town. Many view Moscow as a nice and friendly community, but also see its remote location as isolating and limiting in terms of access to jobs and amenities. While the majority agree or strongly agree that Moscow is a desirable place to study law (66%) and offers valuable resources for law students (52%), fewer feel that Moscow provides law students with valuable internship/externship opportunities (30%). Further, nearly half of all respondents (43%) strongly *disagree* that Moscow has a thriving job market for law school graduates.

**Figure 1.2: First Thoughts about Boise**

| THEME  | COUNT     | EXAMPLES  |
|--|-----------|---|
| <b>Great/Nice Place, High Quality of Life</b>    | <b>95</b> | <ul style="list-style-type: none"> <li>▪ A charming little city that has both small town appeal and a bit of a larger city feel.</li> <li>▪ Beautiful city with lots of opportunities. A great place to raise a family</li> <li>▪ I love Boise. It's a great environment for any type of person to live happily. Lots of young energy, and motivated people.</li> <li>▪ Modern, safe, accessible, friendly.</li> <li>▪ I love Boise. Lots to do, lots of opportunities, good quality of life</li> </ul> |
| <b>Jobs, Business, and Opportunities</b>         | <b>91</b> | <ul style="list-style-type: none"> <li>▪ It has plenty of opportunities to engage in the real-world practice of law.</li> <li>▪ Business center for Idaho.</li> <li>▪ Population, opportunity, job prospects, proximity to practice location</li> <li>▪ Economic and legal center of the state</li> <li>▪ More access to important legal opportunities.</li> </ul>  |
| <b>Beautiful, Nature, and Outdoor Activities</b> | <b>62</b> | <ul style="list-style-type: none"> <li>▪ Greenbelt, Small City, lots of outdoor access.</li> <li>▪ Mountains and wildlife</li> <li>▪ Outdoor sports are easy to come by, like skiing, wake boarding, fishing, mountain biking, hiking, etc.</li> <li>▪ Amazing quality of life, sunshine every day, greenbelt, mountains, tons of events and entertainment and the people are incredible!</li> </ul>  |
| <b>Big, Urban, City</b>                          | <b>62</b> | <ul style="list-style-type: none"> <li>▪ Biggest city in Idaho</li> <li>▪ Great City, Bigger, booming.</li> <li>▪ More urban than the rest of Idaho.</li> <li>▪ Urban center for Idaho. Urban sprawl.</li> </ul>  |
| <b>Capital, Government</b>                       | <b>61</b> | <ul style="list-style-type: none"> <li>▪ Capital, center of business, metropolis, legislature</li> <li>▪ State capital</li> <li>▪ The Idaho Supreme Court building and the Capital Building</li> </ul>  |
| <b>Boise State University</b>                    | <b>24</b> | <ul style="list-style-type: none"> <li>▪ Boise State</li> <li>▪ BSU Football</li> <li>▪ Blue turf</li> </ul>  |
| <b>Mix of small town and big city feel</b>       | <b>24</b> | <ul style="list-style-type: none"> <li>▪ Small-town Feel in a city</li> <li>▪ Boise is an excellent city that in many ways still feels like a small town.</li> <li>▪ Love the downtown urban feel but still a small town feel too.</li> </ul>   |
| <b>Hometown/Family from Boise</b>                | <b>24</b> | <ul style="list-style-type: none"> <li>▪ Home town, very nice place</li> <li>▪ I have a lot of family in the area and spent a lot of time there. Really love the area.</li> </ul>   |

# INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

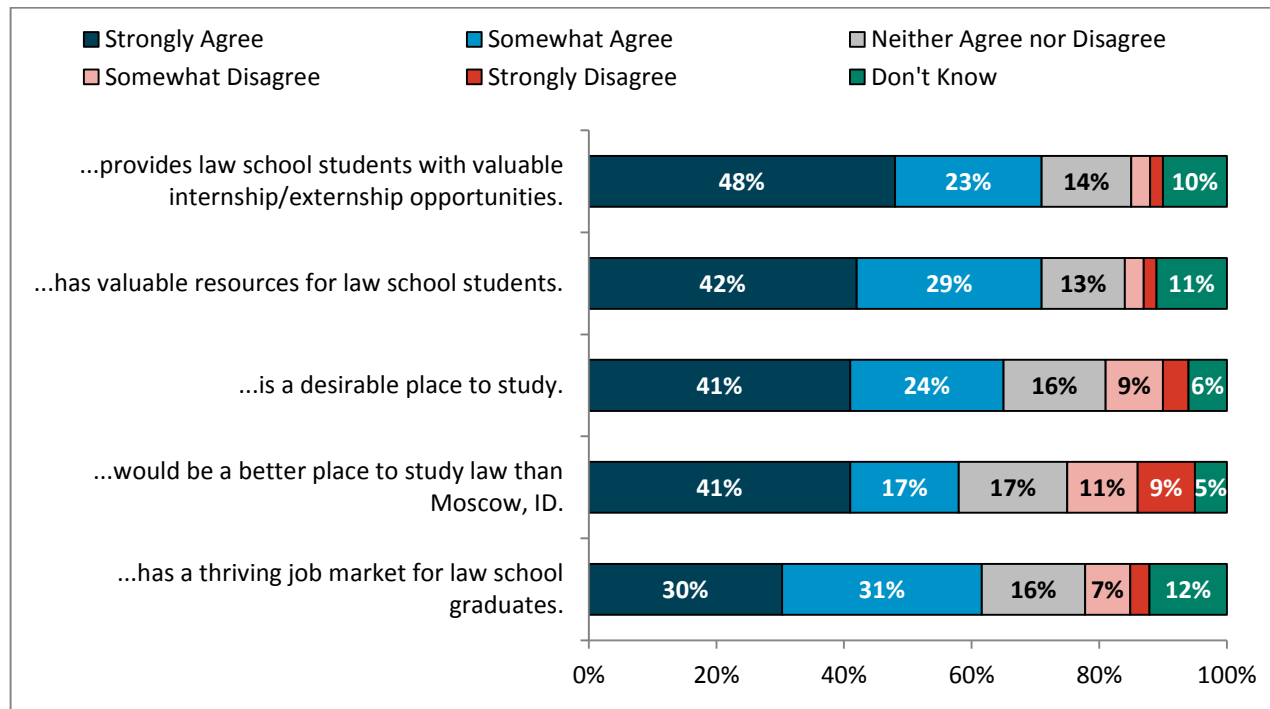
## FEBRUARY 16, 201

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| THEME                  | COUNT | EXAMPLES  |
|------------------------|-------|---|
| Small, Rural, Isolated | 22    | <ul style="list-style-type: none"> <li>Biggest city in Idaho, but still small in comparison to my hometown of Portland.</li> <li>Rural and not near home</li> <li>Smallish town that calls itself a city</li> </ul> |

N=360, question only answered if slightly, moderately, very, or extremely familiar with Boise. A single respondent's comment may touch on multiple themes.

**Figure 1.3: Agreement with Statements about Boise**



N=407, question only answered if slightly, moderately, very, or extremely familiar with Boise

**Figure 1.4: First Thoughts about Moscow**

| THEME                                    | COUNT      | EXAMPLES  |
|--|------------|---|
| <b>Small, Quaint Place</b>               | <b>114</b> | <ul style="list-style-type: none"> <li>▪ Small and quiet community.</li> <li>▪ Cute and quaint small town.</li> <li>▪ Small, quiet. Peaceful. Studious.</li> <li>▪ It's a small city, but lots of life and quirkiness. However, very hard to find jobs, not very diverse. A small town out in the middle of nowhere. But very beautiful.</li> </ul>   |
| <b>College Town, University of Idaho</b> | <b>107</b> | <ul style="list-style-type: none"> <li>▪ I think of Moscow as a small university town.</li> <li>▪ Very homey and welcoming, very much a college town.</li> <li>▪ UI, mostly.</li> <li>▪ A really great college town but a bit isolated from the world.</li> </ul>   |
| <b>Remote, Rural, Isolated</b>           | <b>84</b>  | <ul style="list-style-type: none"> <li>▪ Small, isolated college town.</li> <li>▪ In the middle of nowhere.</li> <li>▪ Remote, too far away.</li> <li>▪ Remote, distant, cow-country</li> </ul>   |
| <b>Nice Place, Community, Friendly</b>   | <b>77</b>  | <ul style="list-style-type: none"> <li>▪ Very walkable and bikeable city. Great college town. Friendly people. Beautiful campus. An island surrounded by wheat fields as opposed to water. Difficult to access, but that adds to the charm and desirability of the place.</li> <li>▪ Small town atmosphere w/character-can get around easily w/o having to drive. Great community to get involved with.-highly active &amp; engaged community, especially re environmental issues.</li> <li>▪ Community oriented. Nice people. Beautiful summers. Good food.</li> <li>▪ Beautiful, lovely community that has provided many positive memories. I wish that I could find substantive work in Moscow, as it would be a wonderful place to start a family.</li> </ul> |
| <b>Beautiful, Nature, and Scenic</b>     | <b>64</b>  | <ul style="list-style-type: none"> <li>▪ I think of the country and woods and cows and small town charm.</li> <li>▪ Natural beauty, outdoor activities, state &amp; national parks, community, arts</li> <li>▪ Beautiful area, great outdoor access, and a great place to attend undergrad.</li> <li>▪ Wheat fields.</li> </ul>   |
| <b>Lacking in Opportunities, Jobs</b>    | <b>29</b>  | <ul style="list-style-type: none"> <li>▪ Nice college town but very small and limited opportunities.</li> <li>▪ Difficult job market for spouses. Limited recreational options. Poor access to government, major businesses, and law firms.</li> <li>▪ Great town. But not where the law school should be as it is too limited for law student "practice" opportunities.</li> <li>▪ College town, not a lot of job opportunities for spouses</li> </ul>   |

# INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

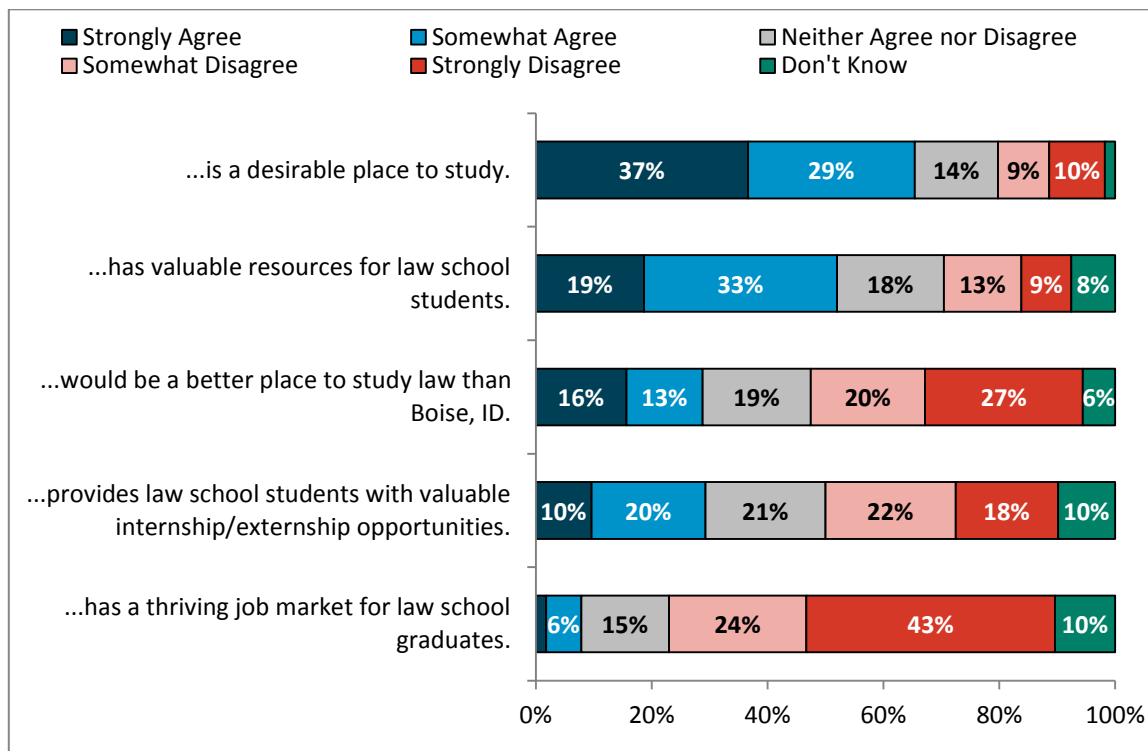
## FEBRUARY 16, 201

Hanover Research | September 2015

| THEME                                     | COUNT     | EXAMPLES  |
|---|-----------|---|
| <b>Unappealing, Lacking in Amenities</b>  | <b>24</b> | <ul style="list-style-type: none"> <li>Small and boring</li> <li>Way too small. - Nothing to do. - Tremendously cold, dark and dreary during the school year.</li> <li>The winters are miserable and it's windy most of the time. There's not much to do in Moscow in regards to events, dining out late, dining local and healthy, and shopping. The cost of living is expensive.</li> </ul> |
| <b>Few Distractions, Good for Studies</b> | <b>20</b> | <ul style="list-style-type: none"> <li>Very nice college town with the opportunity to focus on studies</li> <li>College town with enough diversity to make it interesting, and small enough to keep out distraction.</li> <li>Fun little college town, pretty far away from lots of things, though. It was great to help keep me focused in law school!</li> </ul>                            |
| <b>Proximity to Washington State</b>      | <b>19</b> | <ul style="list-style-type: none"> <li>Just on the state boundary with Washington State.</li> <li>Near Pullman, rural.</li> <li>It's very far west within Idaho and practically eastern Washington.</li> </ul>  |

N=359, question only answered if slightly, moderately, very, or extremely familiar with Moscow. A single respondent's comment may touch on multiple themes.

**Figure 1.5: Agreement with Statements about Moscow**



N=396, question only answered if slightly, moderately, very, or extremely familiar with Moscow

## COMPARISON OF BOISE AND MOSCOW

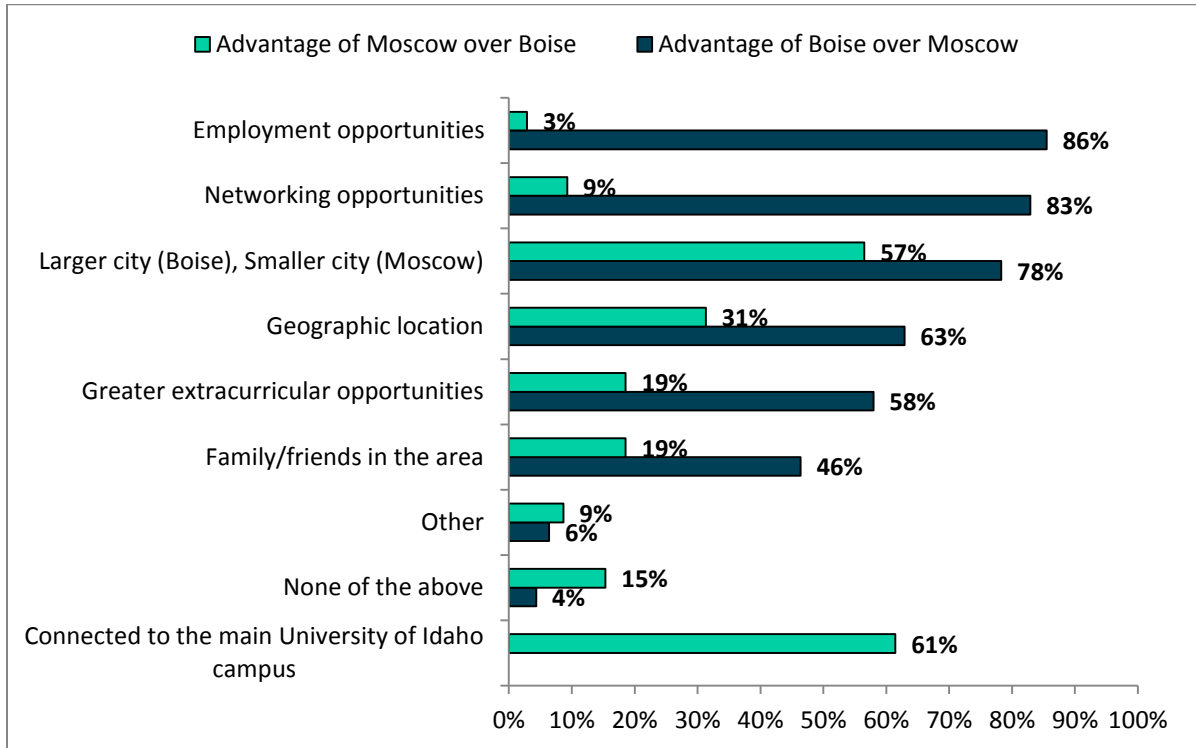
Respondents with some familiarity of both Boise and Moscow were asked to compare the relative advantages of each location. The two locations differ most dramatically in their perceived advantage for employment and networking. Over 80 percent of respondents cite employment and networking opportunities as an advantage of Boise over Moscow, while less than 10 percent feel that these are advantages in Moscow. This finding is also seen in comparing respondents' opinion on the presence of a thriving job market for law school graduates. Sixty-one percent agree or strongly agree that Boise has a thriving job market and only 8 percent feel the same about Moscow.

Moscow's greatest advantage over Boise is its connection to the main University of Idaho campus. Respondents were somewhat split in viewing city size as an advantage. Fifty-seven percent feel that Moscow's smaller size is an advantage and 78 percent feel that Boise's larger size is an advantage.

While respondents generally believe that there are more advantages to studying in Boise, students who have taken courses in Moscow report largely favorable experiences at the campus. Seventy-five percent of current and former UI College of Law students rate their experience at the Moscow campus as somewhat or very positive. However, the relatively few students who have studied at the Boise campus rate their experience in Boise as even more positive, 90 percent somewhat or very positive.

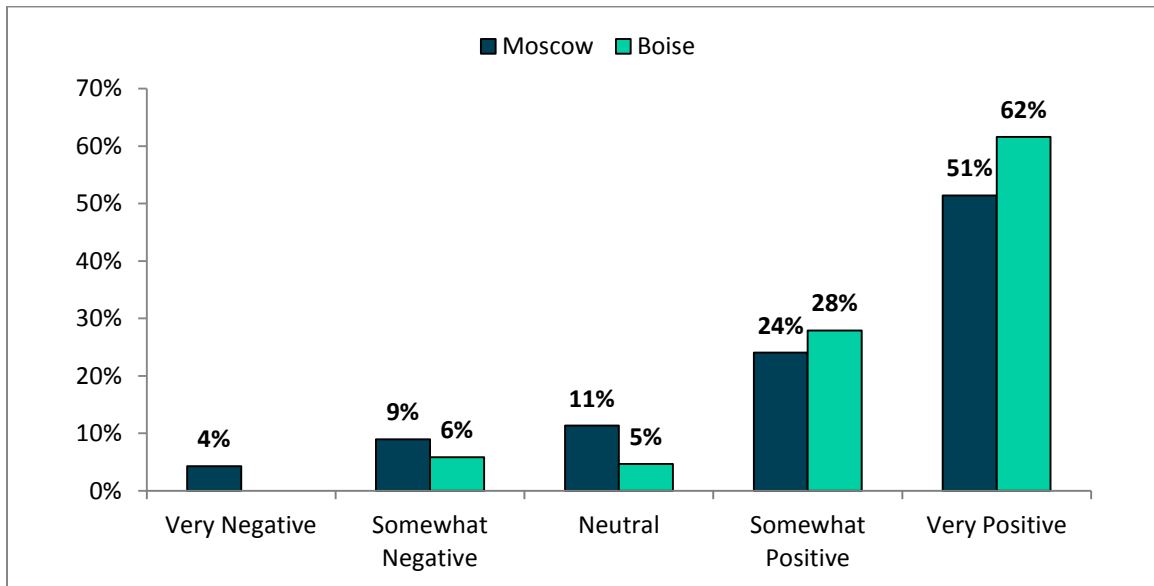
In comparing respondents' opinions about the two locations, both Boise and Moscow receive high levels of agreement that each is a "desirable place to study." However, Boise is viewed as a "better place to study law" than Moscow. Fifty-eight percent strongly or somewhat agree that Boise is the better place to study law compared to 29 percent that strongly or somewhat agree that Moscow is the better place to study law.

**Figure 1.6: Advantages of Boise and Moscow as Law Student**



N=345, questions only answered if slightly, moderately, very, or extremely familiar with Boise and Moscow

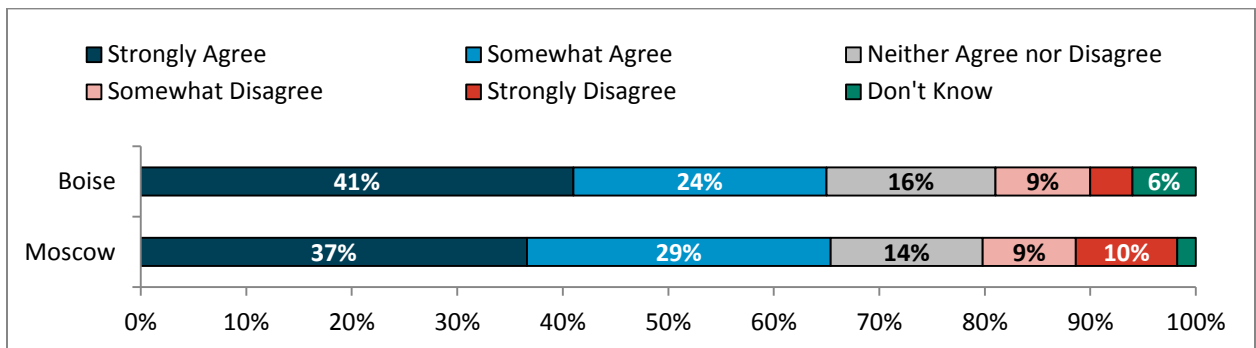
**Figure 1.7: Rating of Experience on Moscow and Boise Campuses**



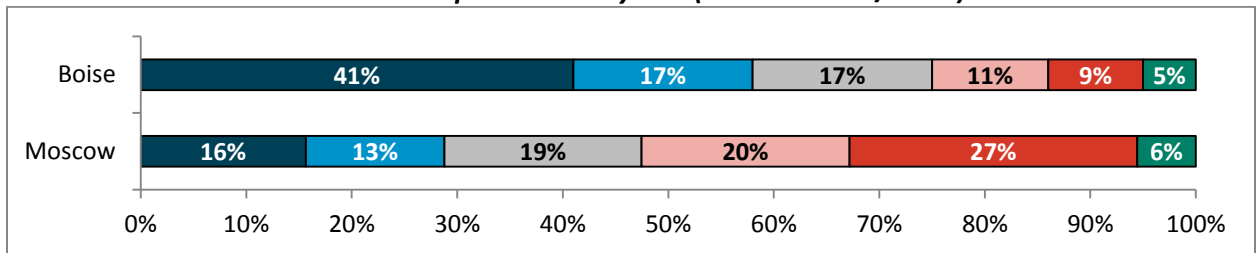
N= 212 (Moscow), 86 (Boise), questions answered by current students and alumni that enrolled in each location only

Figure 1.8: Agreement with Statements about Boise and Moscow

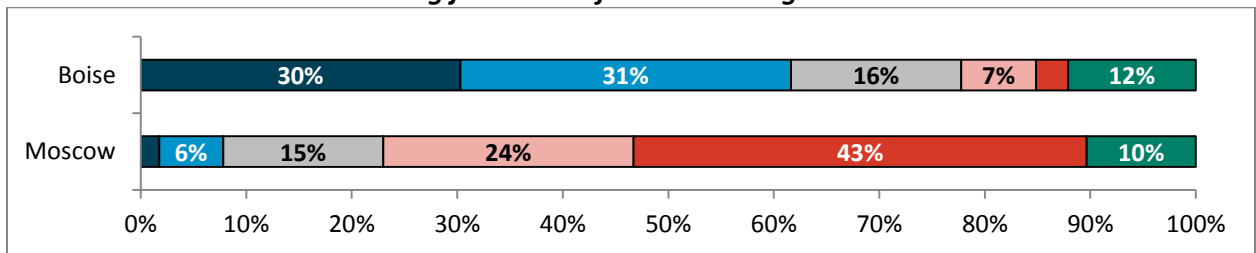
*...is a desirable place to study.*



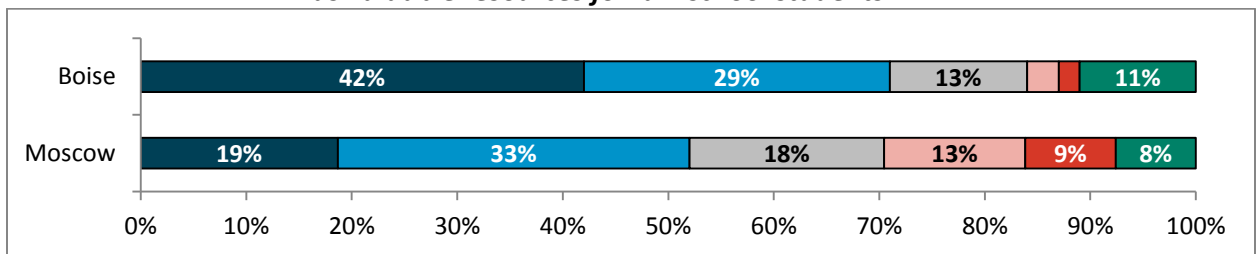
*...would be a better place to study law (than Moscow/Boise)*



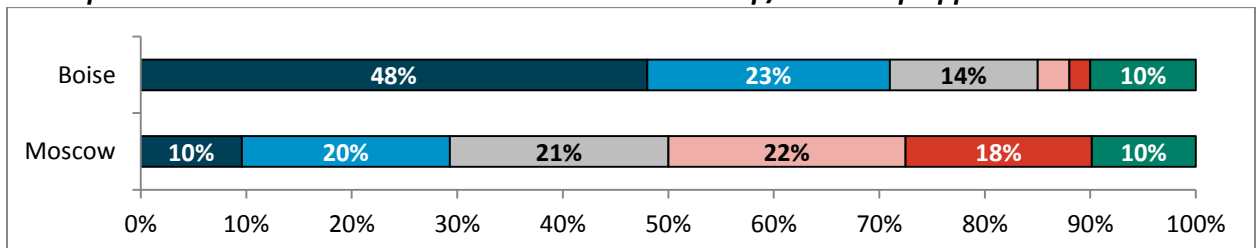
*...has a thriving job market for law school graduates.*



*...has valuable resources for law school students.*



*...provides law school students with valuable internship/externship opportunities.*



N= 407 (Boise), 396 (Moscow), questions only answered if slightly, moderately, very, or extremely familiar with location

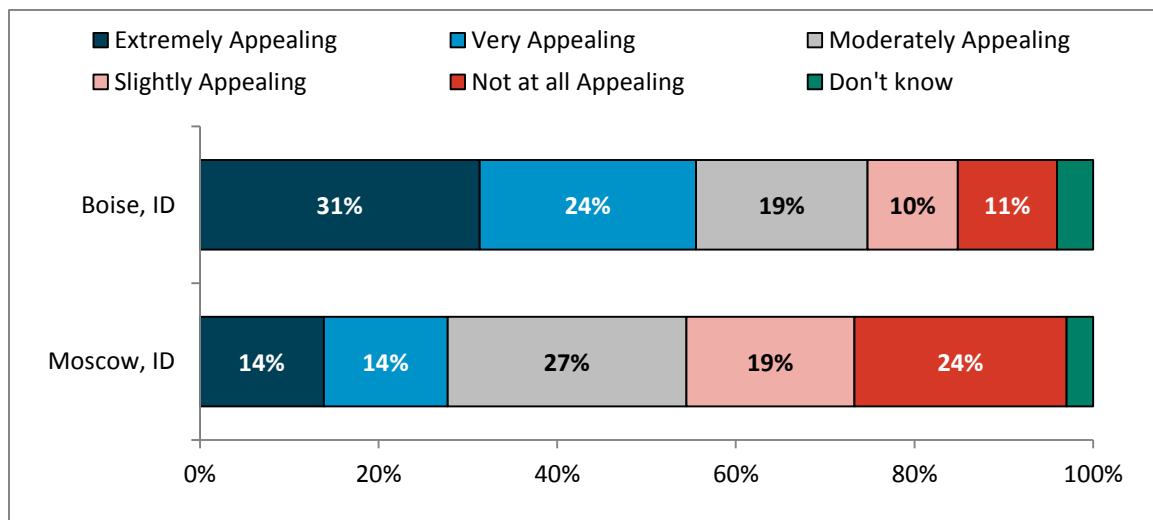
## CAMPUS LOCATION PREFERENCES

Survey respondents were asked a series of questions to understand their preference for the UI College of Law campus location. Overall, Boise emerged as a more appealing campus location than Moscow. Thirty-one percent of respondents rate the Boise campus as extremely appealing compared to only 14 percent for the Moscow campus. Twenty-four percent of respondents rate the Moscow campus as not at all appealing compared to only 11 percent for the Boise campus. Further, the majority of respondents report that their likelihood of enrolling at UI College of Law would increase if the main campus was located in Boise (53%).

Despite this, Moscow remains an important campus location for many respondents. In ranking their preference for campus location options, the highest percentage of respondents (27%) most prefer Moscow as the main campus, with an option for all students to enroll in Boise. A similar percentage of current students and alumni (29%) say they would not have enrolled at UI College of Law if it had been exclusively located in Boise rather than Moscow. A slightly lower percentage of current students and alumni (20%) say they would not have enrolled if Boise was the primary location of the two.

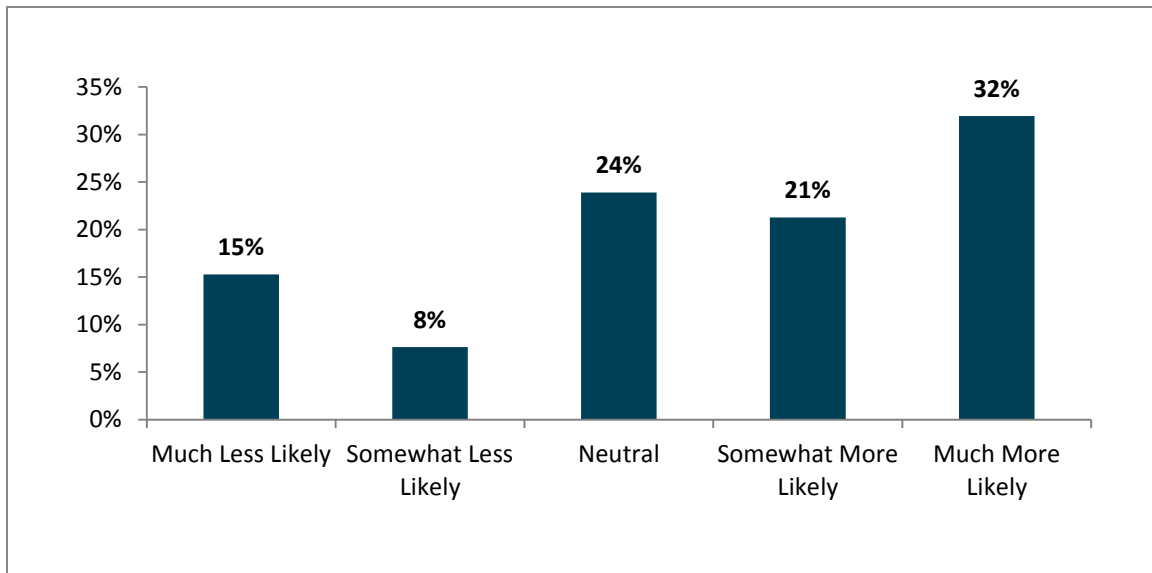
Nearly all respondents recognize the value and appeal of offering at least some option for studying at the Boise campus. Sixty-two percent of respondents feel that providing first year law students with the option to study in Boise is extremely or very appealing. Only 10 percent find this option not at all appealing. Similarly, only 9 percent of respondents rank Moscow as the exclusive campus as their first preference for the campus location. All other respondents' first preference includes an option for studying in Boise.

Figure 1.9: Appeal of Boise and Moscow for a Law School Campus



N=498

**Figure 1.10: Likelihood of Enrolling at UI College of Law if Main Campus was in Boise**



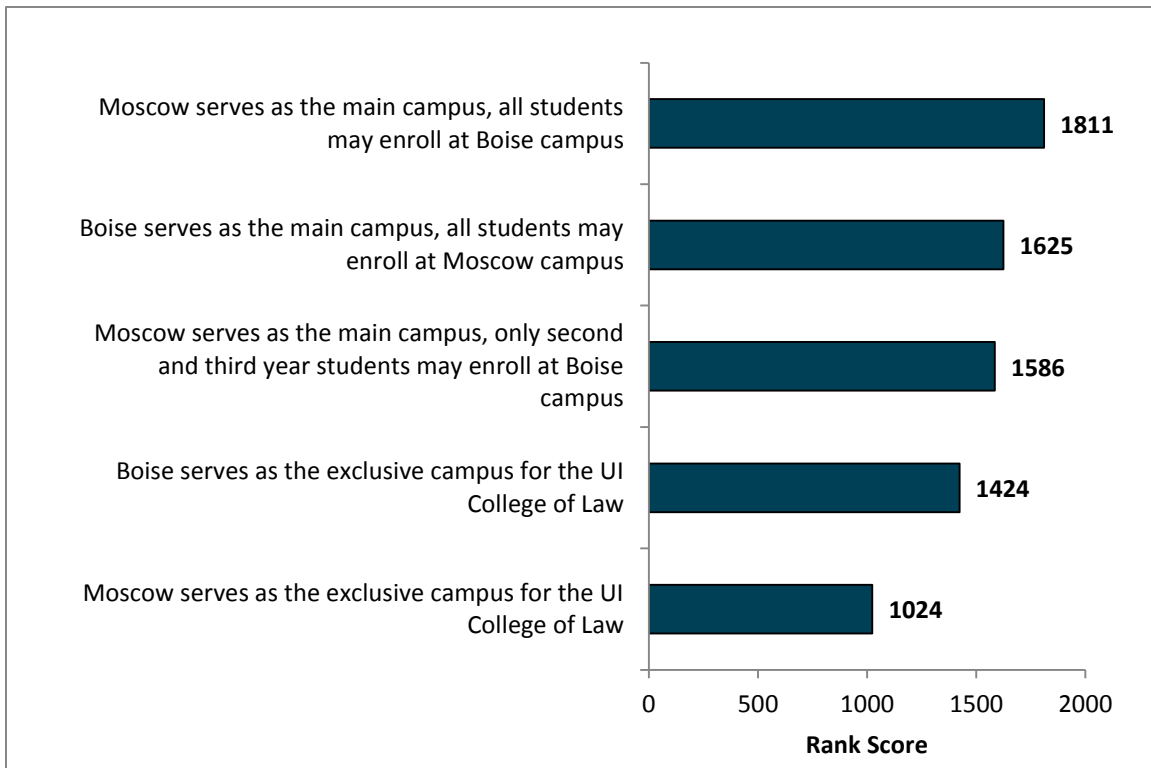
N=498. Respondents instructed that in this scenario, the majority of faculty and resources would be located in Boise instead of Moscow.

**Figure 1.11: First Preference for Campus Location**

| Enrollment Option  | % Selecting as First Preference |
|--|---------------------------------|
| Moscow serves as the main campus, all students may enroll at Boise campus                        | 27%                             |
| Boise serves as the exclusive campus for the UI College of Law                                   | 24%                             |
| Moscow serves as the main campus, only second and third year students may enroll at Boise campus | 20%                             |
| Boise serves as the main campus, all students may enroll at Moscow campus                        | 20%                             |
| Moscow serves as the exclusive campus for the UI College of Law                                  | 9%                              |

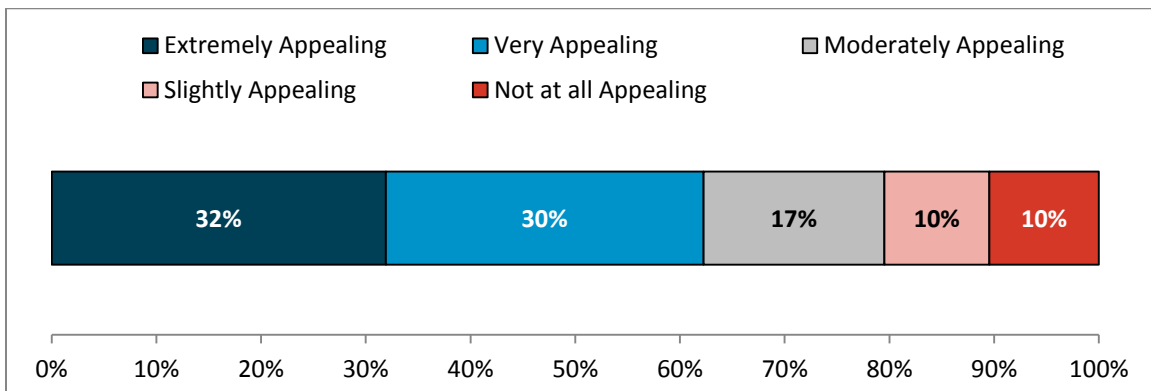
N=498. See appendix for complete rankings.

**Figure 1.12: Rank Score of Campus Location Preferences**



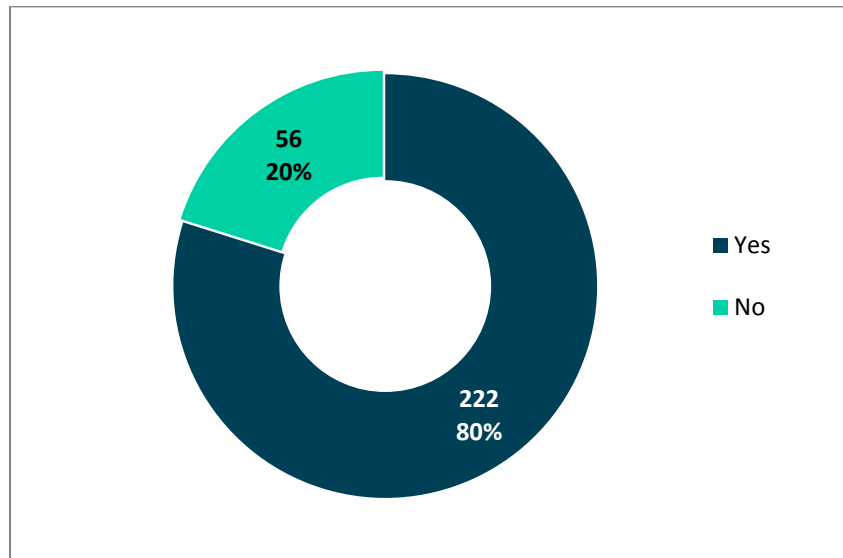
N=498. Rank score calculated based on order of preferences by respondents, see appendix for complete rankings.

**Figure 1.13: Appeal of Providing First Year Law Students with Option to Study in Boise**



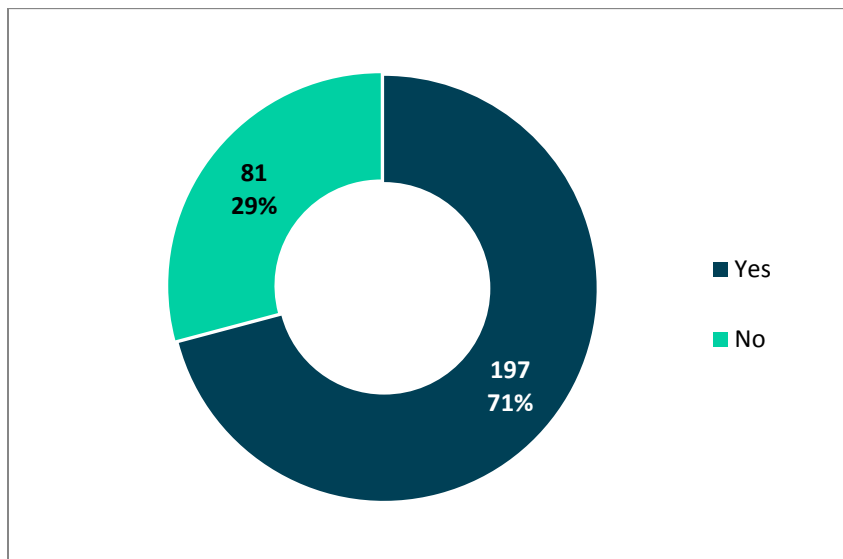
N=498

Figure 1.14: Would Have Enrolled at UI College of Law if it had been *primarily* located in Boise rather than Moscow?



N= 278, question answered by current students and alumni only

Figure 1.15: Would Have Enrolled at UI College of Law if it had been *exclusively* located in Boise rather than Moscow?

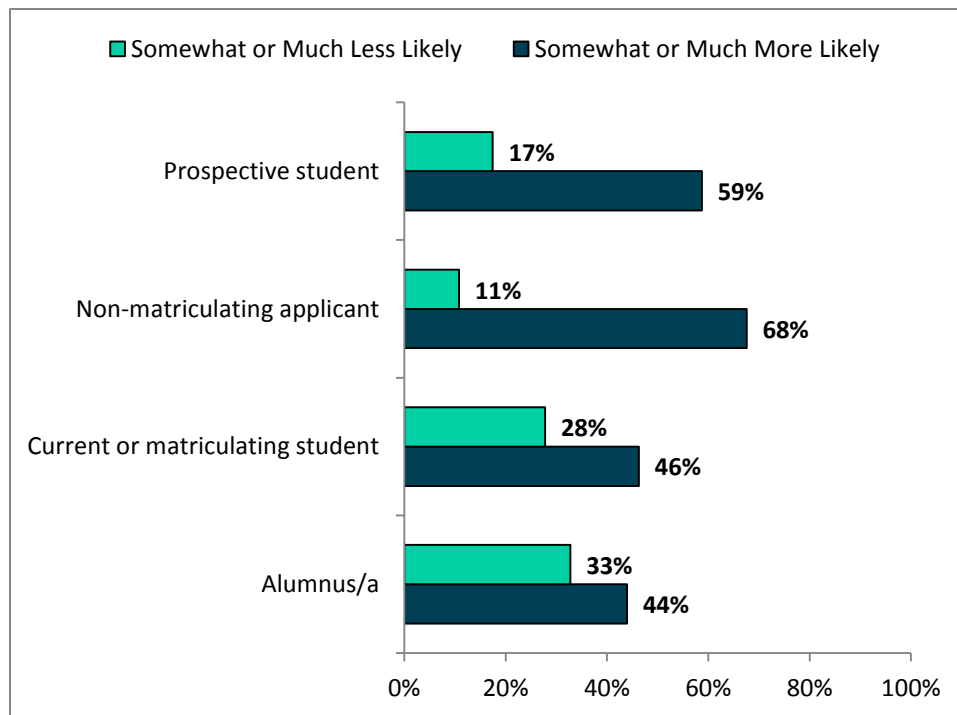


N= 278, question answered by current students and alumni only

## SEGMENTED RESULTS

A higher percentage of prospective and non-matriculating students are somewhat or much more likely to enroll in UI College of Law if the main campus is in Boise compared to current students and alumni. This suggests that the College of Law may see an increase in admission yield and applications if the main campus moves to Boise. However, these increases may be offset to some degree by a decline in enrollment by students that historically choose UI College of Law.

**Figure 1.16: Likelihood of Enrolling at UI College of Law if Main Campus was in Boise (Segmented Results)**

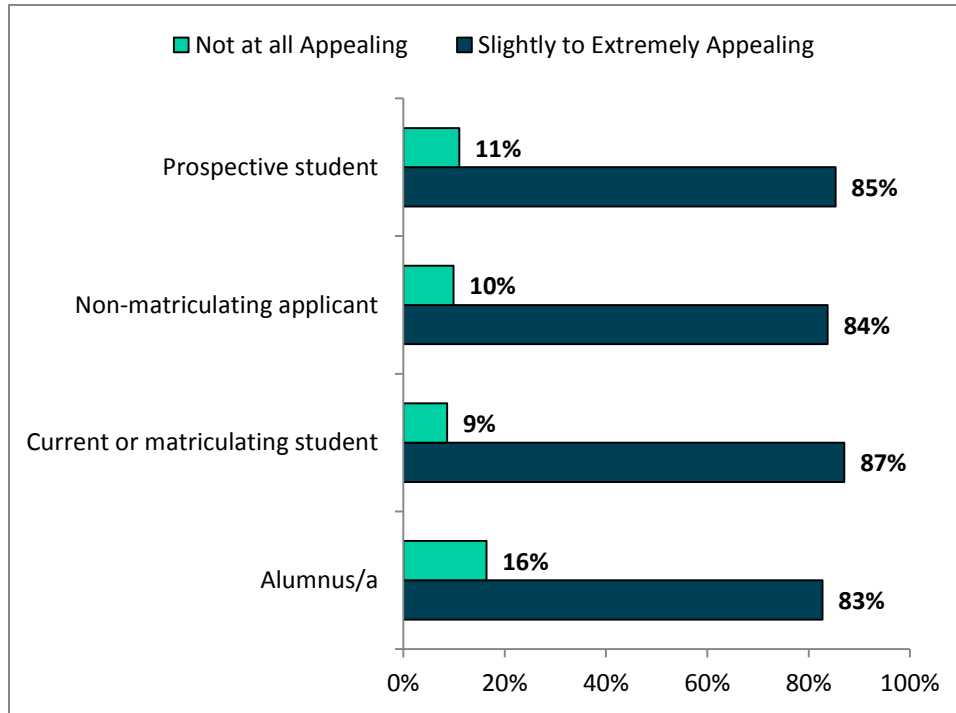


\*There is a statistically significant difference between prospective and non-matriculating students and current students and alumni. Chart does not include neutral responses (22-26% across each group).

Over 80 percent of all groups view Boise as at least slightly appealing as a location for a law school campus. However, alumni are more likely than current students to view Boise as not at all appealing. Current students and alumni are more likely to view Moscow as at least slightly appealing and less likely to view Moscow as not at all appealing compared to prospective and non-matriculating students.

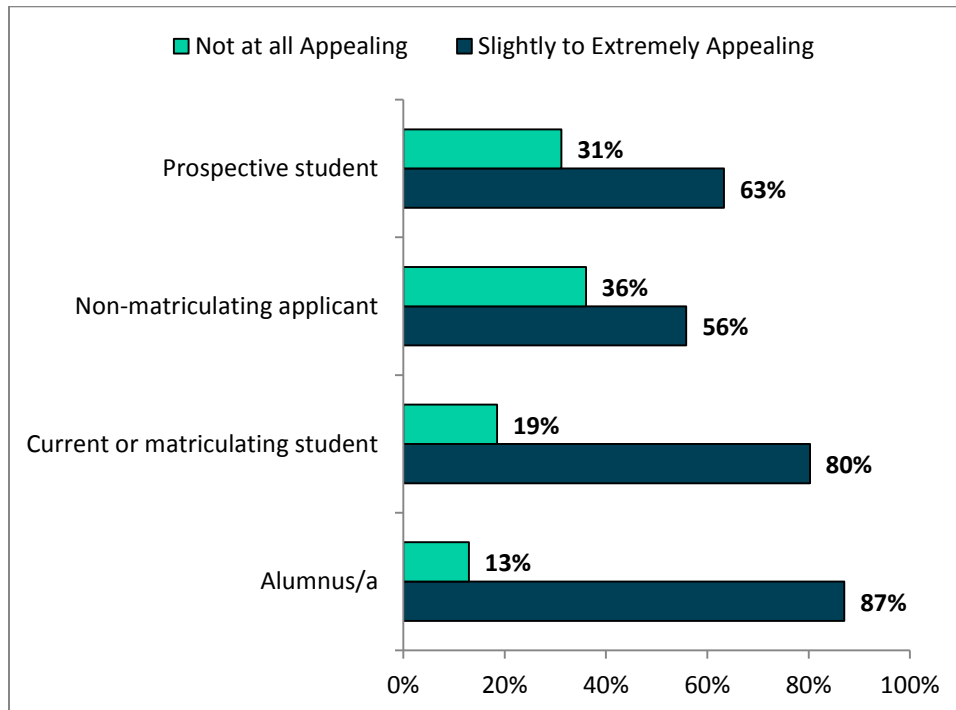
Current students have the most reservation about allowing first year students the option of studying in Boise. Sixteen percent of current students find this option not at all appealing compared to 6 percent of non-matriculating and prospective students.

**Figure 1.17: Appeal of Boise for a Law School Campus (Segmented Results)**



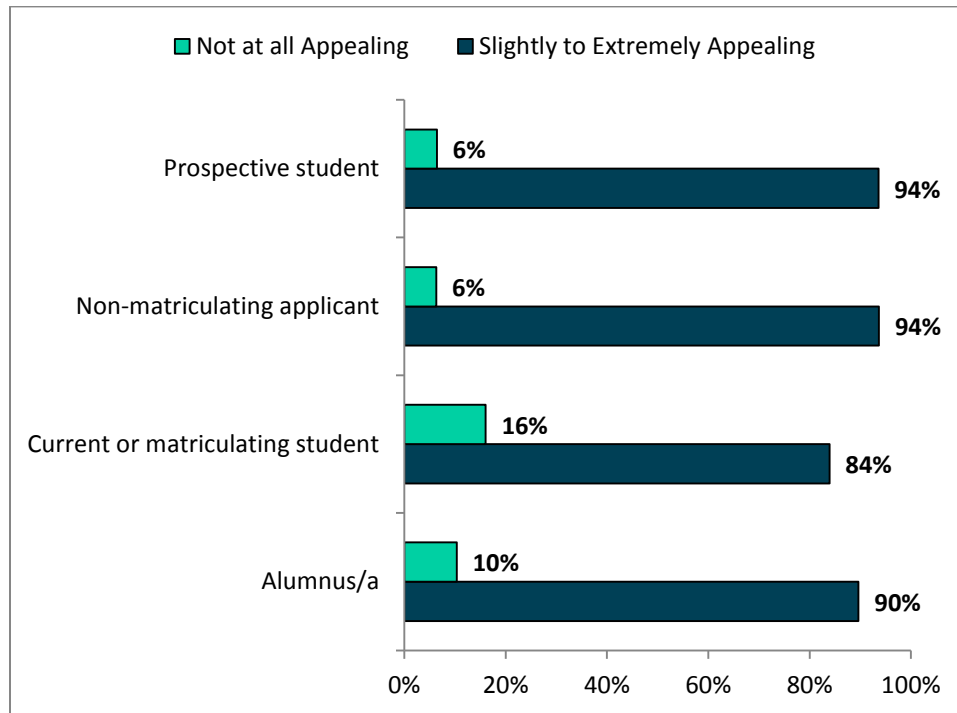
\*There is a statistically significant difference in the percentage “not at all appealing” between current students and alumni

**Figure 1.18: Appeal of Moscow for a Law School Campus (Segmented Results)**



\*There is a statistically significant difference between prospective and non-matriculating students and current students and alumni.

**Figure 1.19: Appeal of Providing First Year Law Students with Option to Study in Boise  
(Segmented Results)**



\*There is a statistically significant difference between prospective and non-matriculating students and current students.

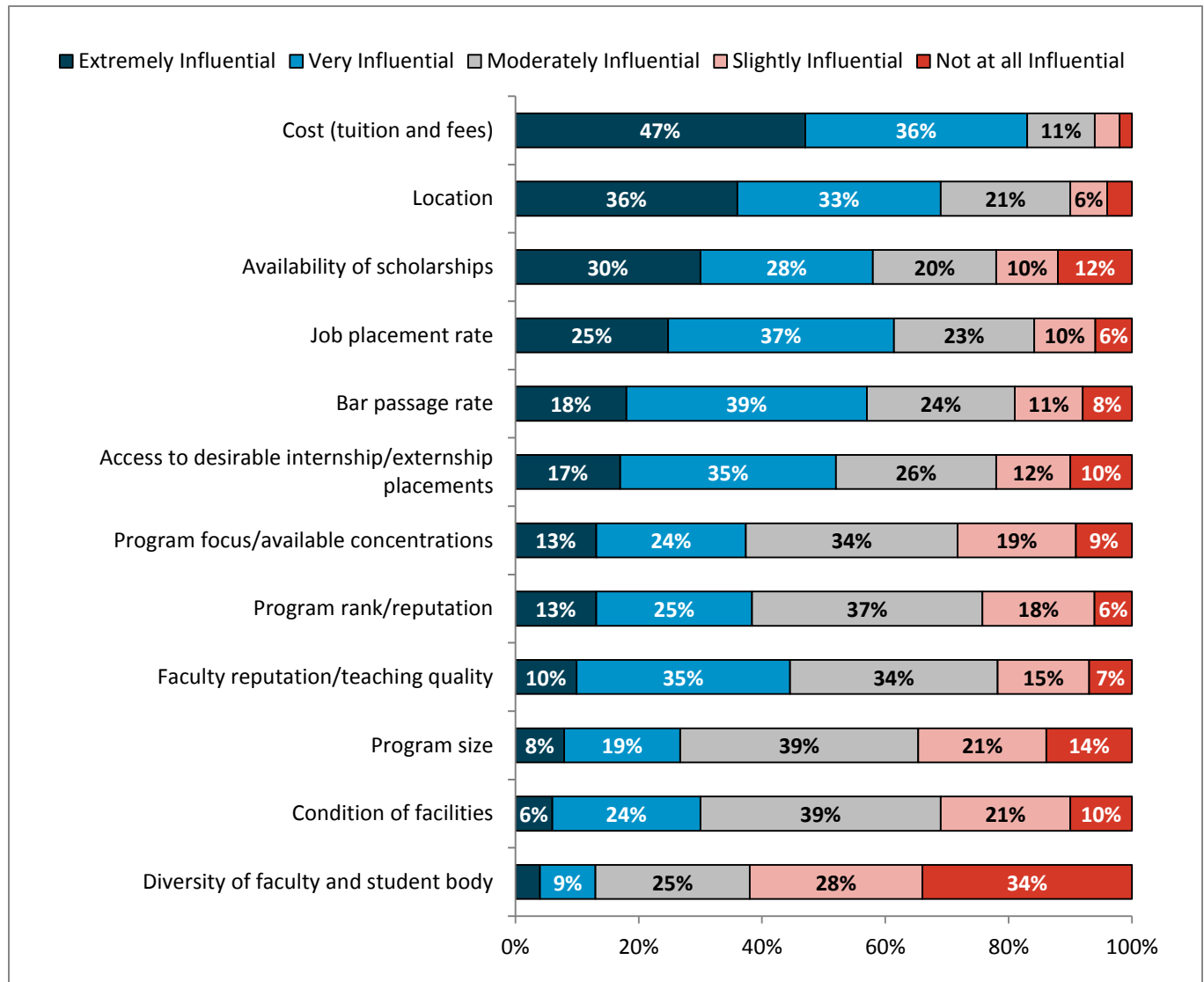
## SECTION II: LAW SCHOOL PREFERENCES AND RATING

### ADMISSION DECISION MAKING

Cost (tuition and fees) and location are the top two factors potential students weigh in considering JD programs. Over 95 percent of respondents view these two factors as at least slightly influential. In addition to cost and location, at least 50 percent of respondents also view the availability of scholarships, the job placement rate, the bar passage rate, and access to desirable internships/externships as extremely or very influential. Respondents are least influenced by the diversity of faculty and student body, with 34 percent rating this aspect as not at all influential in their decision making process.

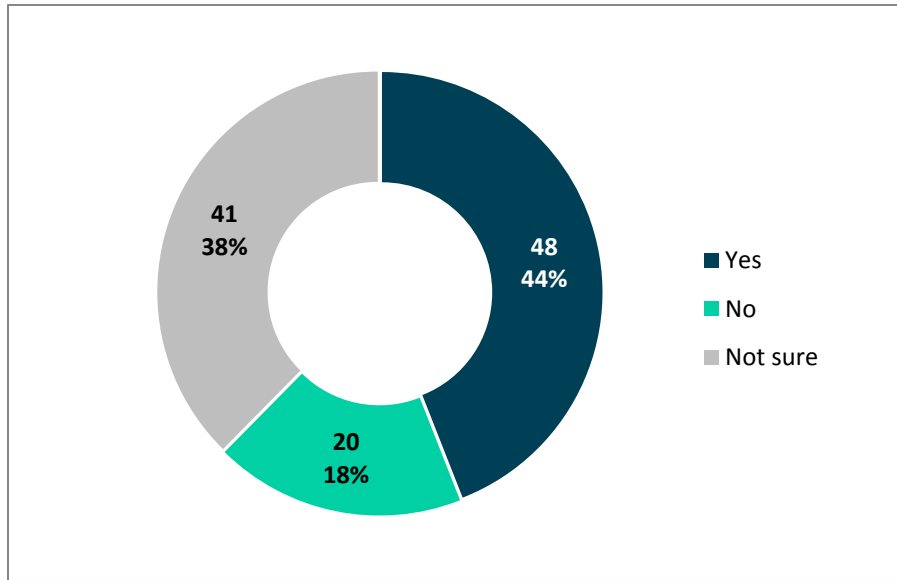
Only 18 percent of prospective students (n=20) are not planning to apply to the UI College of Law. These respondents cite the College's location, reputation, and cost and scholarships as reasons for not applying. Non-matriculating students list receiving an admission offer to their top choice (25%), location of UI College of Law (24%), and poor reputation/low ranking (15%) as their primary reasons for not enrolling. Seventeen respondents chose to write in another reason for not enrolling at UI College of Law. Of these respondents, 11 cite better scholarship offers or tuition costs at another law school as the primary reason for not enrolling.

**Figure 2.1: Influence of Factors in Considering JD Programs**



N= 498

Figure 2.2: Do you plan to apply to UI College of Law (Prospective Students)



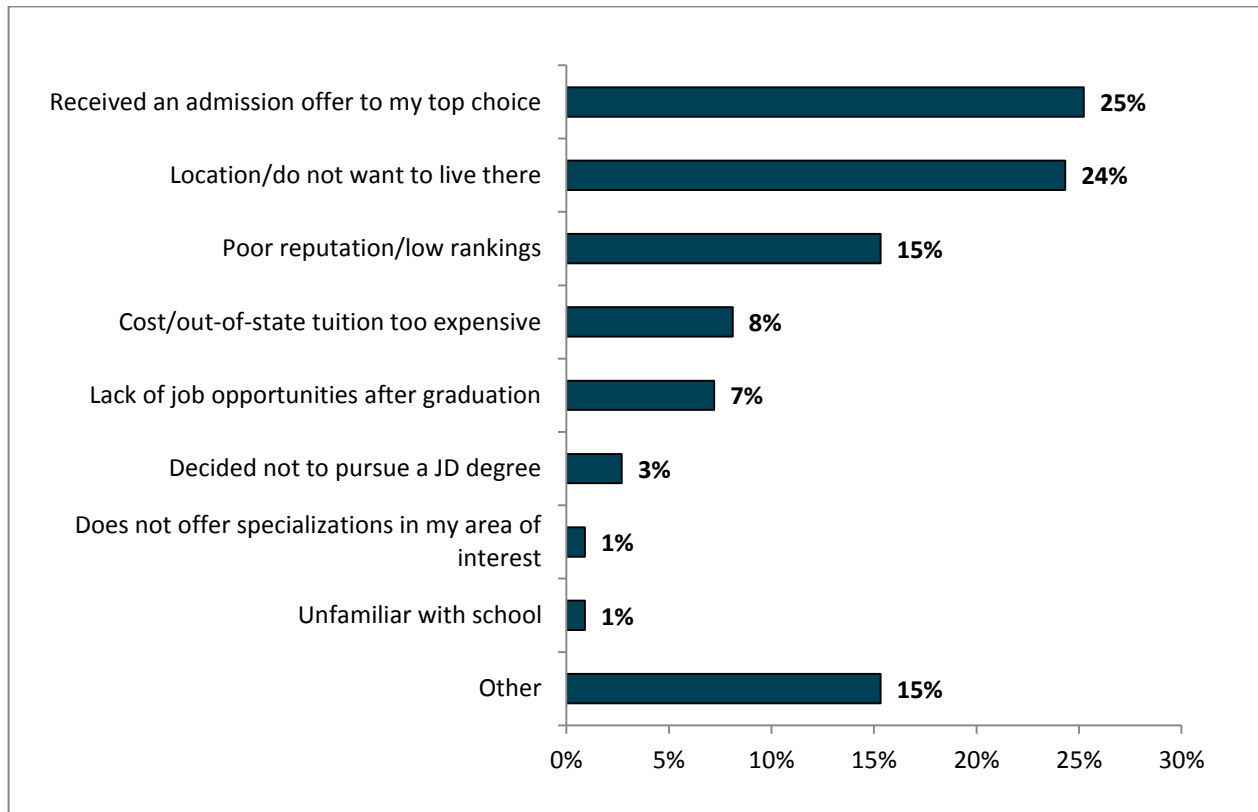
N=109

Figure 2.3: Primary Reasons for Not Applying to UI College of Law (Prospective Students)

| REASON  | COUNT | EXAMPLES   |
|---|-------|--|
| Location  | 16    | <ul style="list-style-type: none"> <li>City too small</li> <li>Too far from family</li> <li>I prefer Missoula, MT over Moscow</li> </ul>                                     |
| Reputation or ranking                                 | 10    | <ul style="list-style-type: none"> <li>It's not ranked very high</li> <li>Not prestigious</li> <li>Not as good a program as other offerings - would not recommend</li> </ul> |
| Prefer other law school or went to another law school | 10    | <ul style="list-style-type: none"> <li>Chose another school</li> <li>Idaho was my second choice</li> <li>I go to ASU</li> </ul>  |
| Cost or scholarships                                  | 6     | <ul style="list-style-type: none"> <li>Small scholarships</li> <li>Offered better scholarship in OR</li> <li>Cheaper tuition</li> </ul>                                      |

N= 20, respondents were permitted to list up to three reasons.

**Figure 2.4: Primary Reason for Not Enrolling at UI College of Law (Non-Matriculating Students)**



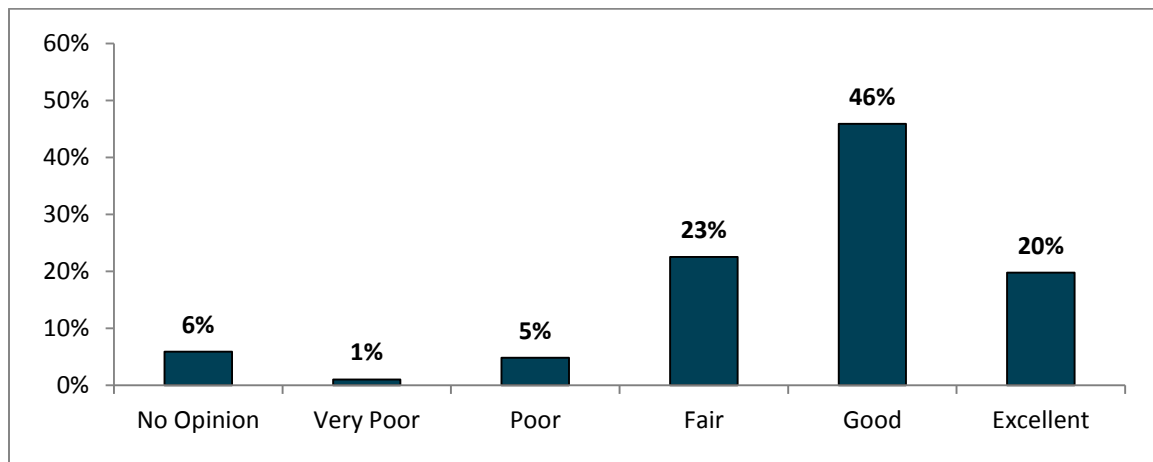
N=111

## PERCEPTION OF IDAHO LAW

The largest percentage of respondents rate the UI College of Law as “good” overall (46%). An additional 20 percent rate the College of Law as “excellent.” Only 6 percent of respondents view the College of Law as “poor” or “very poor.”

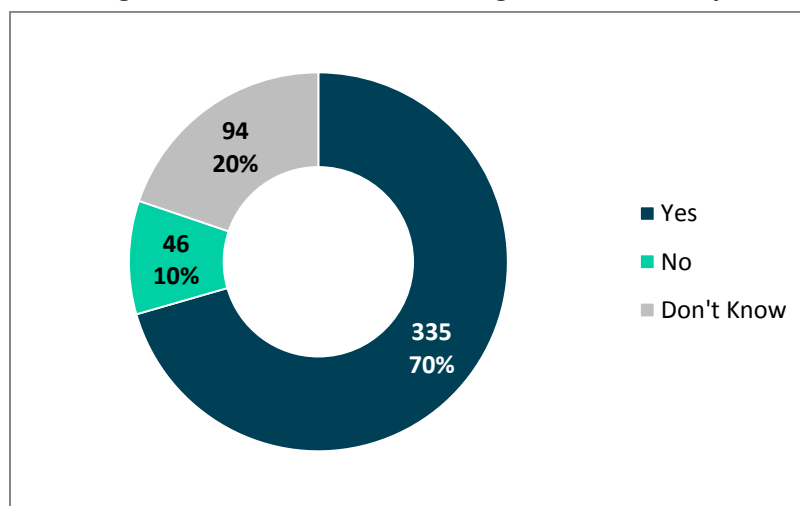
Seventy percent of respondents would recommend the University of Idaho College of Law to a prospective student. In open-ended comments, respondents cite the College’s value as the main reason for recommending to prospective students. Its location, faculty, and reputation for quality are other common reasons for recommending. Respondents also list the College’s reputation and location as reasons *not* to recommend it to prospective students. Additionally, many feel that the limited career opportunities and career preparation is a reason not to recommend the College of Law.

Figure 2.5: Overall Rating of UI College of Law



N=475

Figure 2.6: Willingness to Recommend UI College of Law to Prospective Students



N=475

**Figure 2.7: Main Reasons for Recommending the UI College of Law**

| REASON                                     | COUNT      | EXAMPLES  |
|--|------------|---|
| <b>Value</b>                               | <b>110</b> | <ul style="list-style-type: none"> <li>▪ A good school at a great price</li> <li>▪ Affordable education with strong Idaho connections</li> <li>▪ Because it is one of the best values in the nation for a law school</li> <li>▪ Best legal education for the money</li> <li>▪ Tuition is reasonable</li> <li>▪ Value per dollar it seems to be a great place to learn and get experience</li> </ul>   |
| <b>Location (Overall)</b>                  | <b>77</b>  |   |
| Location (Ideal for practice in Idaho)     | 24         | <ul style="list-style-type: none"> <li>▪ It's the place to go to practice in Idaho.</li> <li>▪ If you want to practice in Idaho it would be a good choice.</li> <li>▪ If you are planning on practicing in Idaho it is a great school to prepare you for Idaho's legal field</li> </ul>   |
| Location (Moscow mentioned specifically)   | 14         | <ul style="list-style-type: none"> <li>▪ The location (Moscow). Great place to live and go to school.</li> <li>▪ It has a great location in Moscow, (I love the town and the Moscow-Pullman areas and what they have to offer) and a great community.</li> </ul>  |
| Location (Boise mentioned specifically)    | 8          | <ul style="list-style-type: none"> <li>▪ Because it now has the Boise program which makes it even more convenient for students from the southern parts of Idaho</li> <li>▪ The Boise campus is a new, extremely attractive option.</li> </ul>   |
| <b>Faculty</b>                             | <b>74</b>  | <ul style="list-style-type: none"> <li>▪ The professors are always so willing to go above and beyond to help you succeed in your classes, and the students here really are like a little family.</li> <li>▪ The faculty really care about student success.</li> <li>▪ For the most part the professors are really good at teaching the material</li> <li>▪ The faculty shows a sincere desire for each student to be successful.</li> </ul>   |
| <b>Reputation and Quality of Education</b> | <b>73</b>  | <ul style="list-style-type: none"> <li>▪ Good reputation, high quality faculty, diverse opportunities to emphasize different areas of interest.</li> <li>▪ I would recommend the UI College of Law because it provides a quality education by individuals who care.</li> <li>▪ Excellent education for the price and the degree travels well around the west, especially in the public sector.</li> <li>▪ Very affordable education that has a high level of recognition in the legal community.</li> </ul> |

N= 282, question only answered if would recommend UI College of Law

**Figure 2.8: Main Reasons for *Not* Recommending UI College of Law**

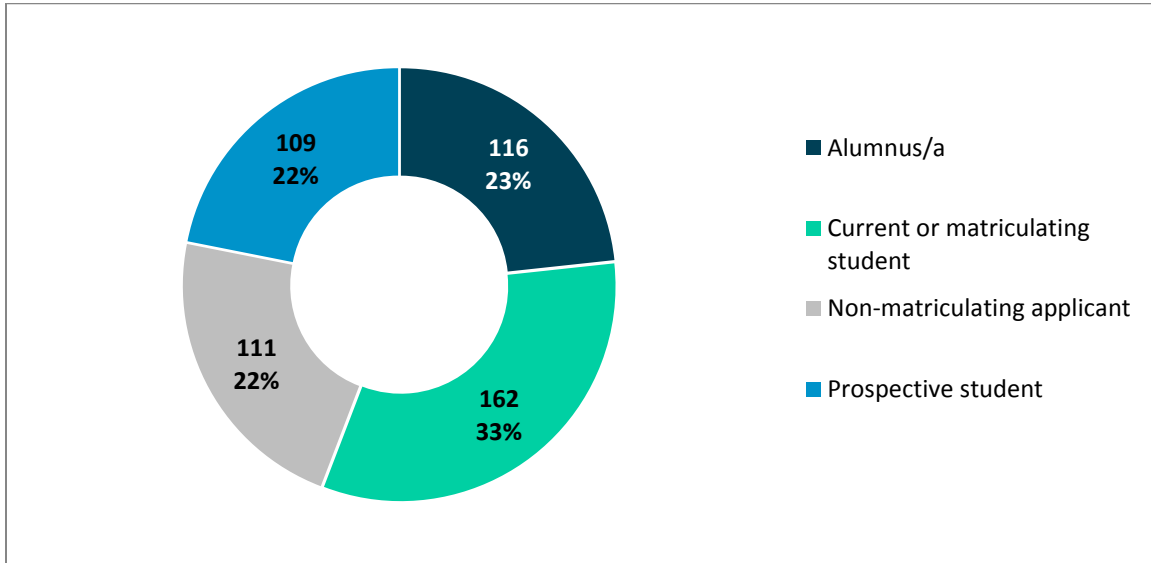
| REASON                                      | COUNT     | EXAMPLES   |
|---|-----------|--|
| <b>Career Opportunities and Preparation</b> | <b>12</b> | <ul style="list-style-type: none"> <li>▪ Job placement is not good</li> <li>▪ The career development office was pretty worthless. All the externships and internships were geared toward kids with rich daddies who could afford to work for free and pay rent in two places at once.</li> <li>▪ My experience with OCIs and school networked job postings: this year was pitiful. I do not know if the market or the University is to blame, but regardless the effect was the same. I spent Aug-April searching for a summer job. I finally found one that has been okay, but not at all what I wanted.</li> <li>▪ There is no emphasis on preparing graduates to pass the bar exam. The professors also make it clear to the students that 90% of them are there only to finance the educations of the 10% that will ever become career attorneys.</li> </ul> |
| <b>Reputation</b>                           | <b>12</b> | <ul style="list-style-type: none"> <li>▪ Because the program is not as strong nationally as a lot of other law schools in the region</li> <li>▪ If the prospective student only desired to work in semi-rural Idaho I would recommend the program. Otherwise the relative obscurity of the law school makes Idaho a poor choice.</li> <li>▪ No national reach.</li> <li>▪ Poor legal market coupled with firms having a preference for higher ranked schools outside the state.</li> </ul>   |
| <b>Location</b>                             | <b>10</b> | <ul style="list-style-type: none"> <li>▪ Its location makes it very difficult to create connections with those in the field and requires relocation over the summers.</li> <li>▪ Too small, not enough opportunities in Moscow.</li> <li>▪ Moscow is in the middle of nowhere. Not a lot to do in the town. For those interested in working in government need to transfer to move while in law school to the Boise campus.</li> </ul>   |

N= 44, question only answered if would not recommend UI College of Law

## SECTION III: RESPONDENT DEMOGRAPHIC INFORMATION

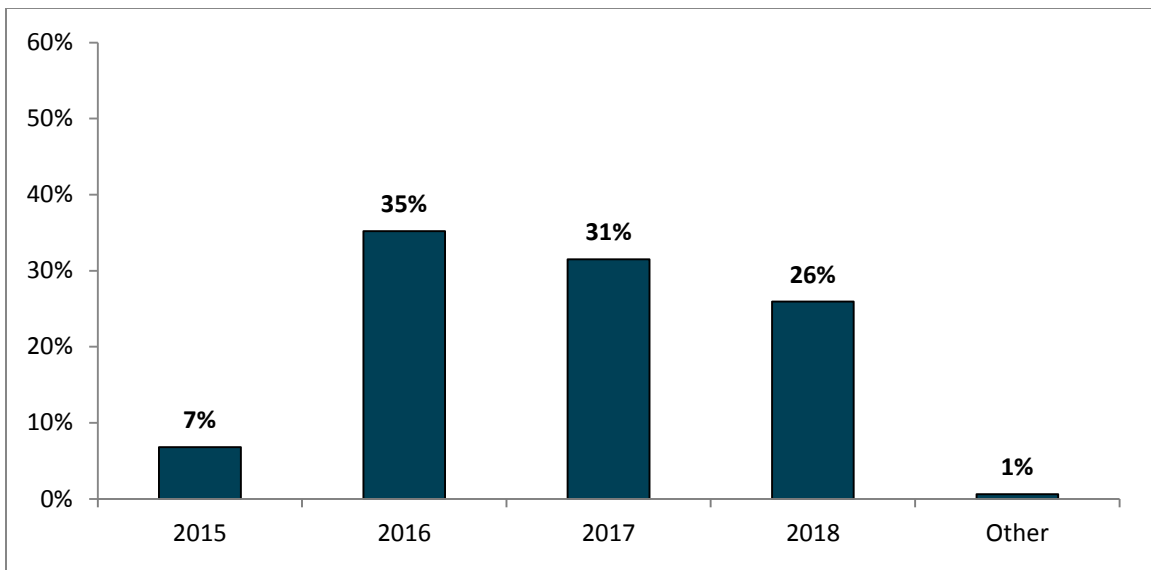
### CONNECTION AND FAMILIARITY WITH UI COLLEGE OF LAW

Figure 3.1: Connection to the UI College of Law



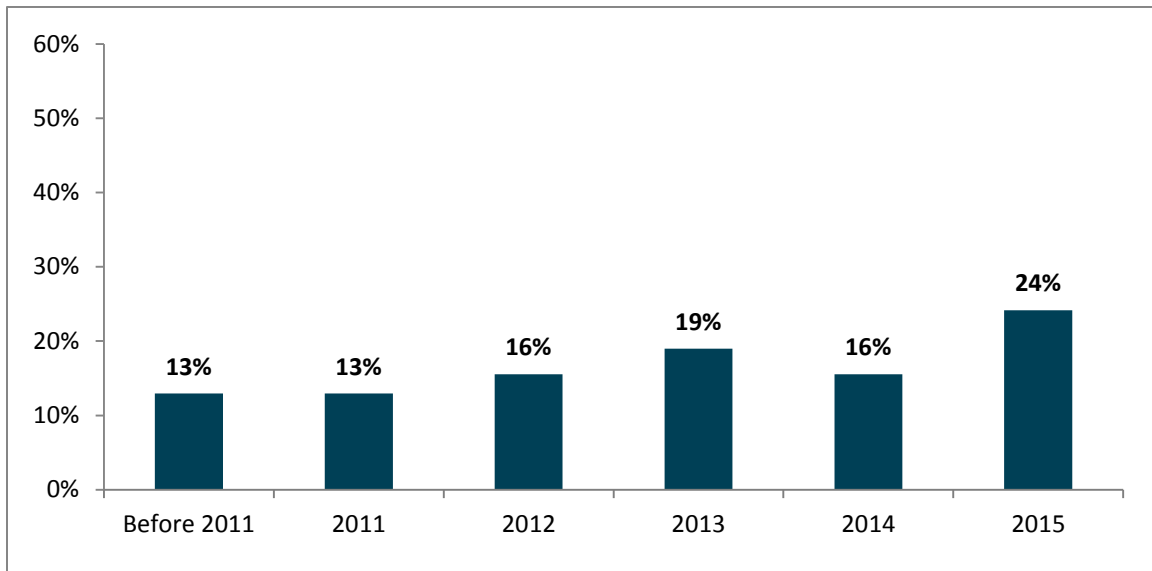
N=498

Figure 3.2: Current Student Expected Graduation Year



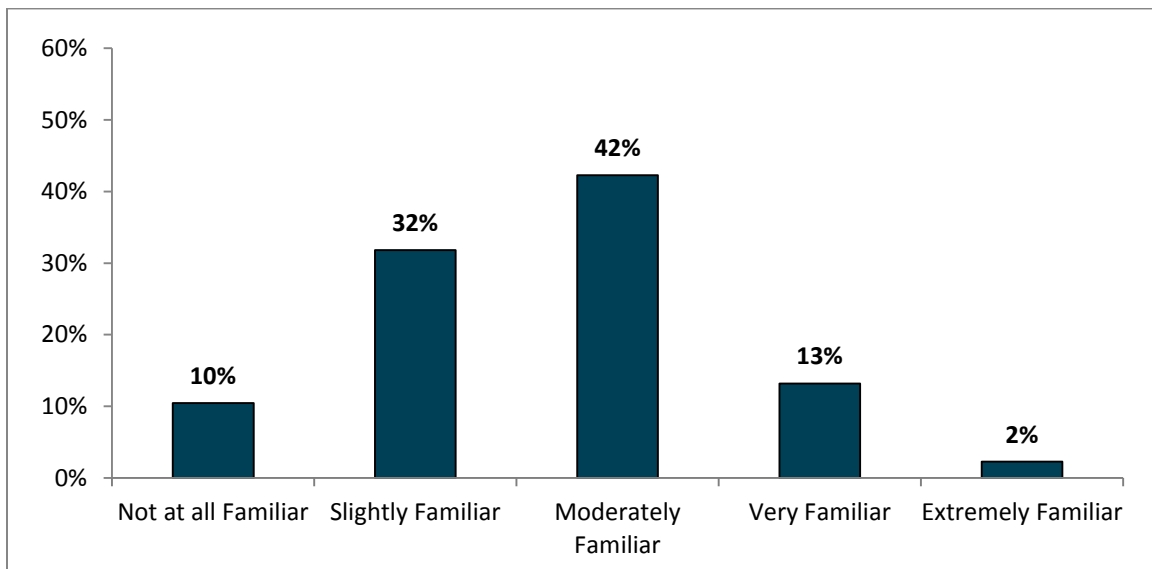
N= 162

Figure 3.3: Alumnus/a Graduation Year



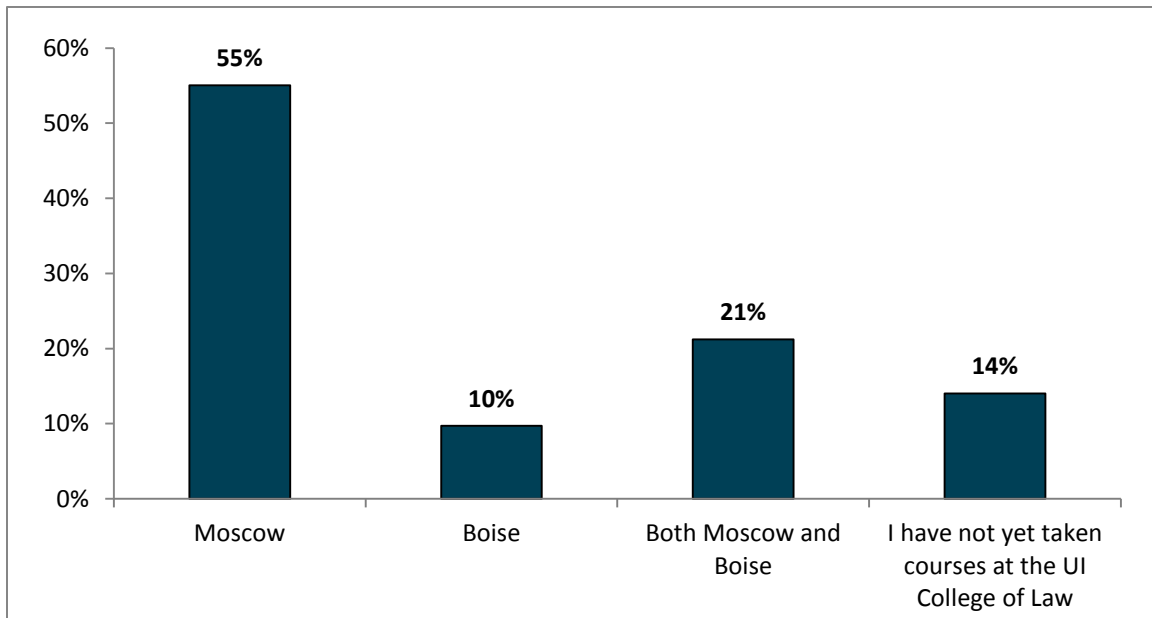
N= 116

Figure 3.4: Familiarity with UI College of Law (Non-Matriculating and Prospective Students)



N= 220

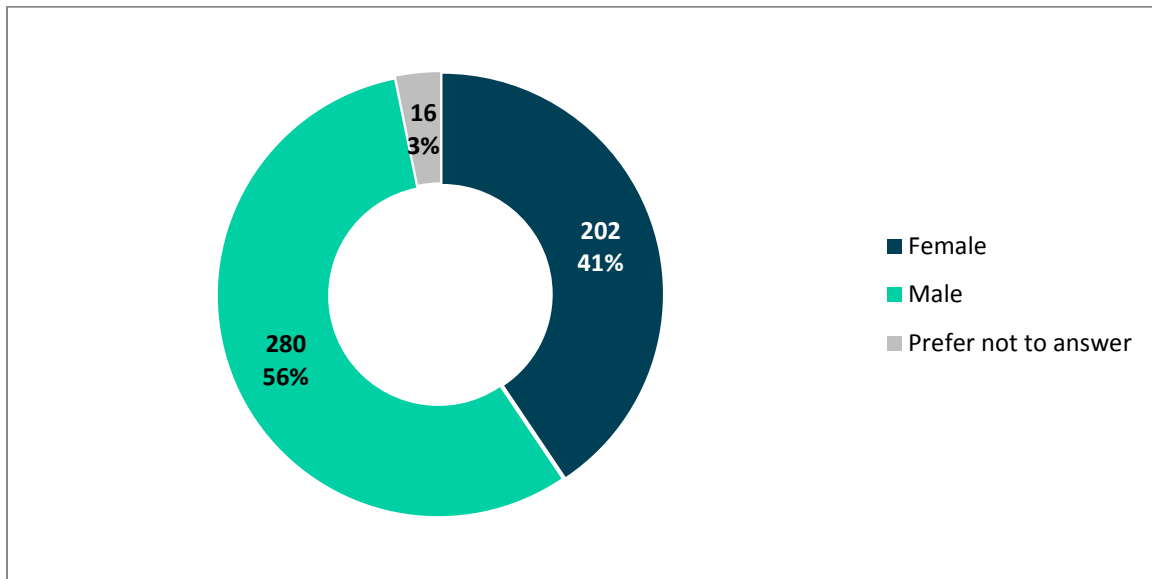
Figure 3.5: Location of Coursework at UI College of Law (Current Students and Alumni)



N=278

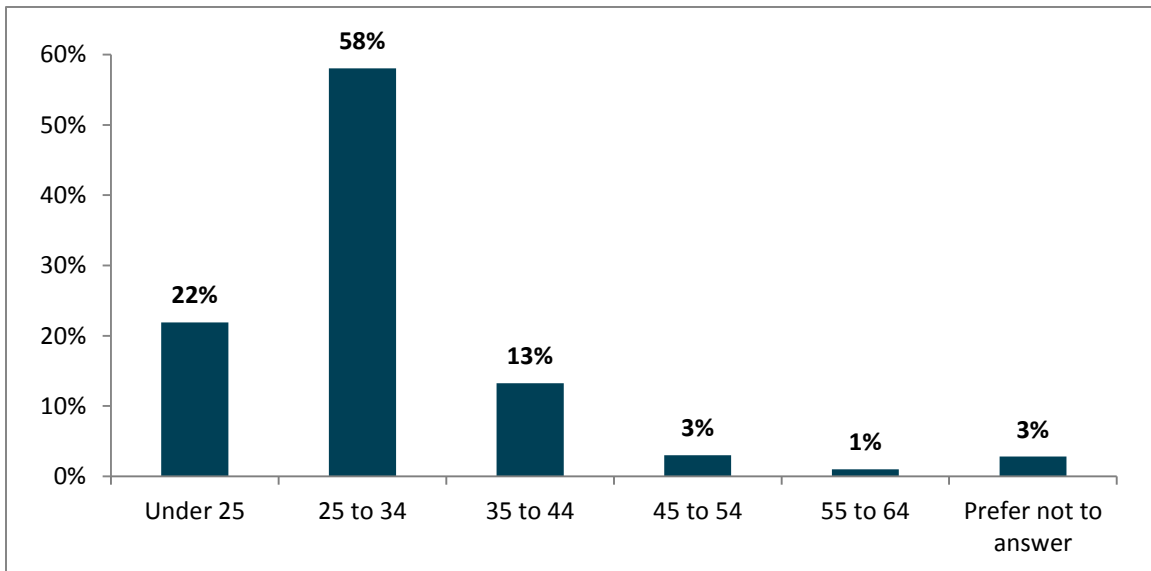
## DEMOGRAPHICS

Figure 3.6: Gender



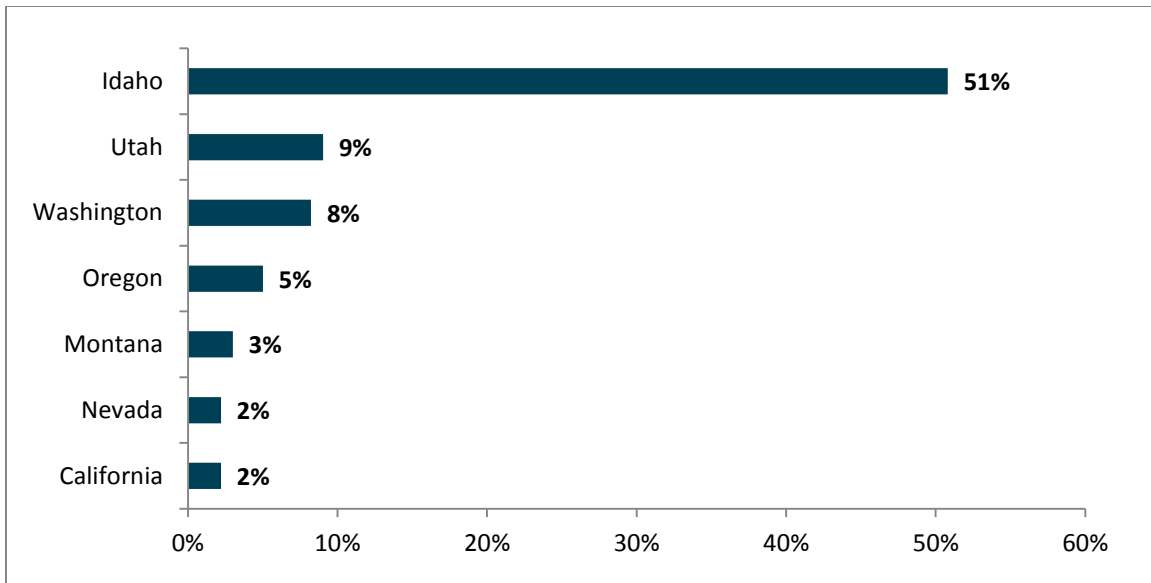
N= 498

Figure 3.7: Age



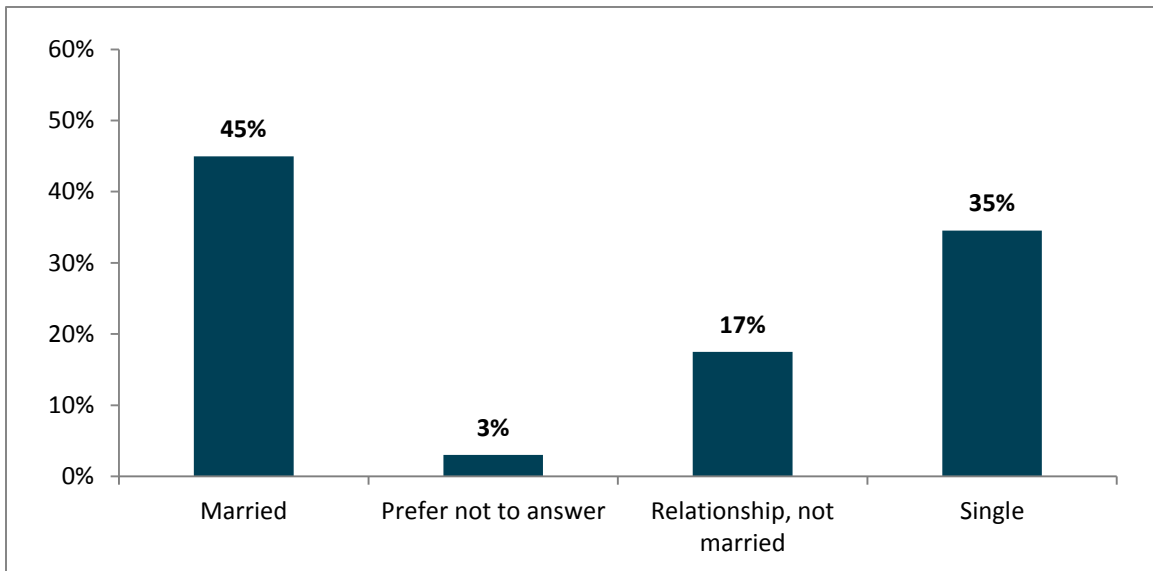
N= 498

Figure 3.8: Current State of Residence



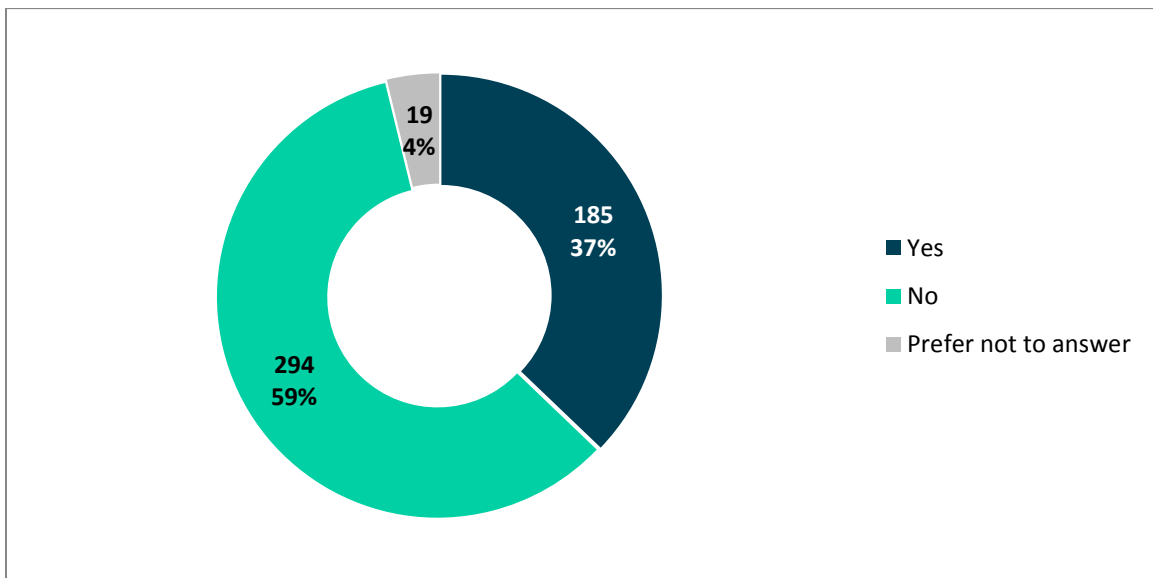
N= 498, states with fewer than 10 respondents not listed in chart

Figure 3.9: Marital Status



N= 498

Figure 3.10: Dependents



N= 498

## APPENDIX

Figure A.1: Campus Enrollment Option Preferences

|   | COUNT | PERCENT |
|---|-------|---------|
| <b>MOSCOW SERVES AS THE MAIN CAMPUS, ONLY SECOND AND THIRD YEAR STUDENTS MAY ENROLL AT BOISE CAMPUS</b> |       |         |
| First Preference  | 101   | 20%     |
| Second Preference   | 109   | 22%     |
| Third Preference  | 92    | 18%     |
| Fourth Preference   | 173   | 35%     |
| Fifth Preference  | 23    | 5%      |
| <b>MOSCOW SERVES AS THE MAIN CAMPUS, ALL STUDENTS MAY ENROLL AT BOISE CAMPUS</b>                        |       |         |
| First Preference  | 133   | 27%     |
| Second Preference   | 123   | 25%     |
| Third Preference  | 188   | 38%     |
| Fourth Preference   | 36    | 7%      |
| Fifth Preference  | 18    | 4%      |
| <b>BOISE SERVES AS THE EXCLUSIVE CAMPUS FOR THE UI COLLEGE OF LAW</b>                                   |       |         |
| First Preference  | 121   | 24%     |
| Second Preference   | 85    | 17%     |
| Third Preference  | 55    | 11%     |
| Fourth Preference   | 77    | 15%     |
| Fifth Preference  | 160   | 32%     |
| <b>MOSCOW SERVES AS THE EXCLUSIVE CAMPUS FOR THE UI COLLEGE OF LAW</b>                                  |       |         |
| First Preference  | 43    | 9%      |
| Second Preference   | 39    | 8%      |
| Third Preference  | 74    | 15%     |
| Fourth Preference   | 89    | 18%     |
| Fifth Preference  | 253   | 51%     |
| <b>BOISE SERVES AS THE MAIN CAMPUS, ALL STUDENTS MAY ENROLL AT MOSCOW CAMPUS</b>                        |       |         |
| First Preference  | 100   | 20%     |
| Second Preference   | 142   | 29%     |
| Third Preference  | 89    | 18%     |
| Fourth Preference   | 123   | 25%     |
| Fifth Preference  | 44    | 9%      |

N=498

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# CAMPUS LOCATION SURVEY— SUPPLEMENTAL GRAPHICS

Prepared for University of Idaho College of Law

October 2015



In the following brief, Hanover Research visualizes survey response patterns of prospective students and non-matriculating applicants to the University of Idaho College of Law.

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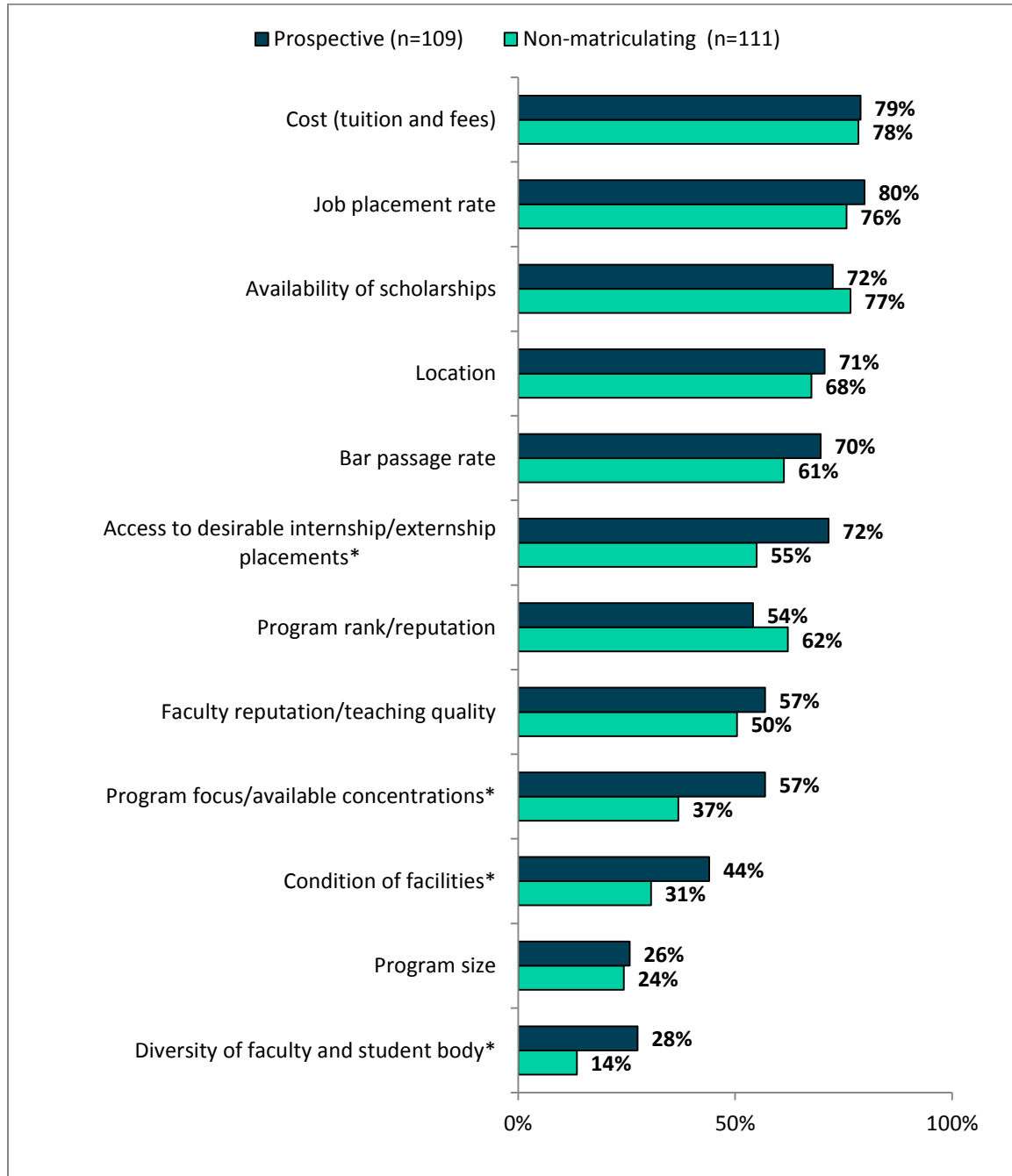
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## PROSPECTIVE VS NON-MATRICULATING

### FACTORS INFLUENCING ENROLLMENT

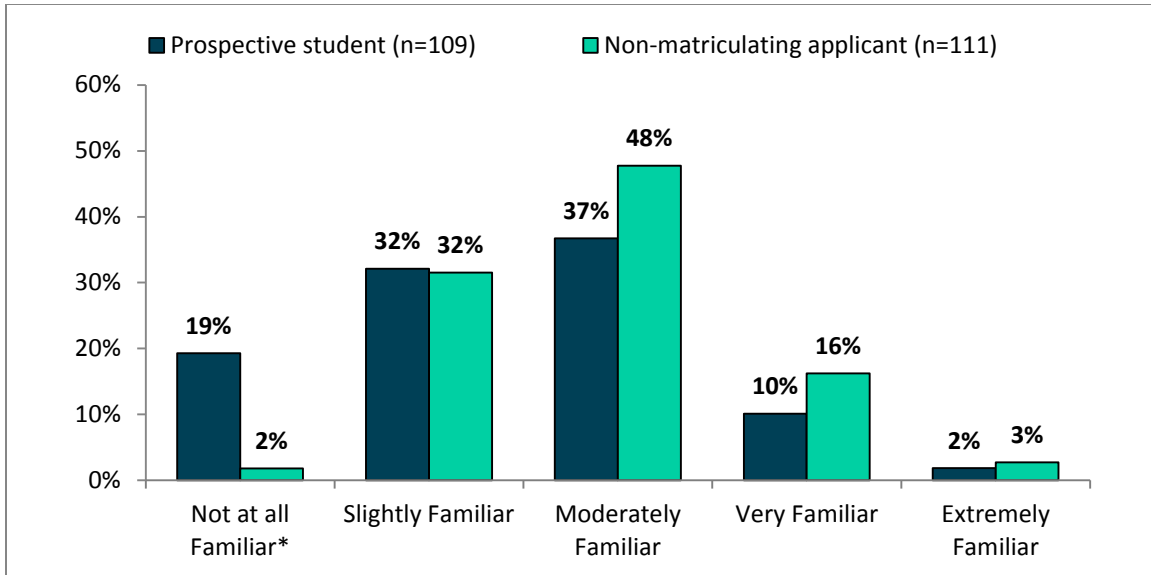
**Figure 1: When considering JD programs, how influential were/are the following factors in your decision making? (% Very + Extremely Influential)**



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

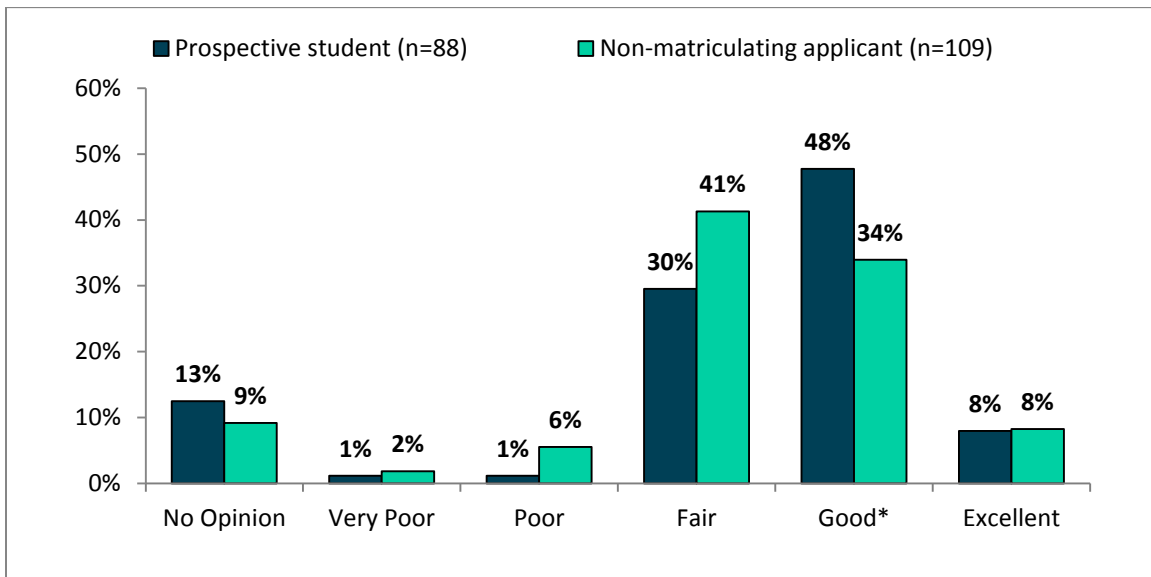
## QUALITY RATINGS OF IDAHO LAW

Figure 2: How familiar are you with the UI College of Law?



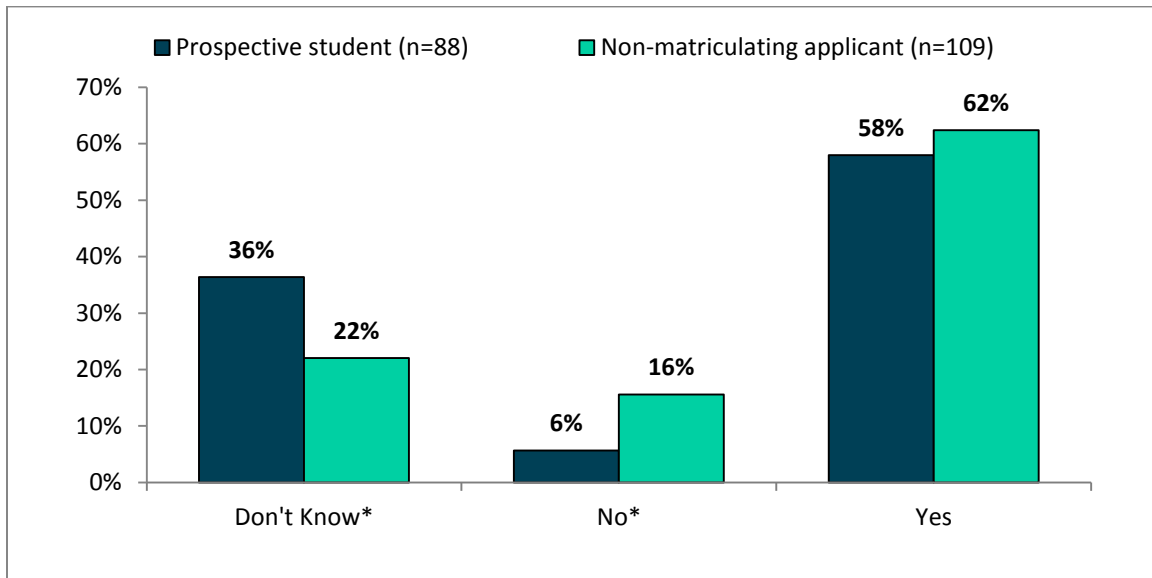
Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

Figure 3: Overall, how would you rate the UI College of Law?



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

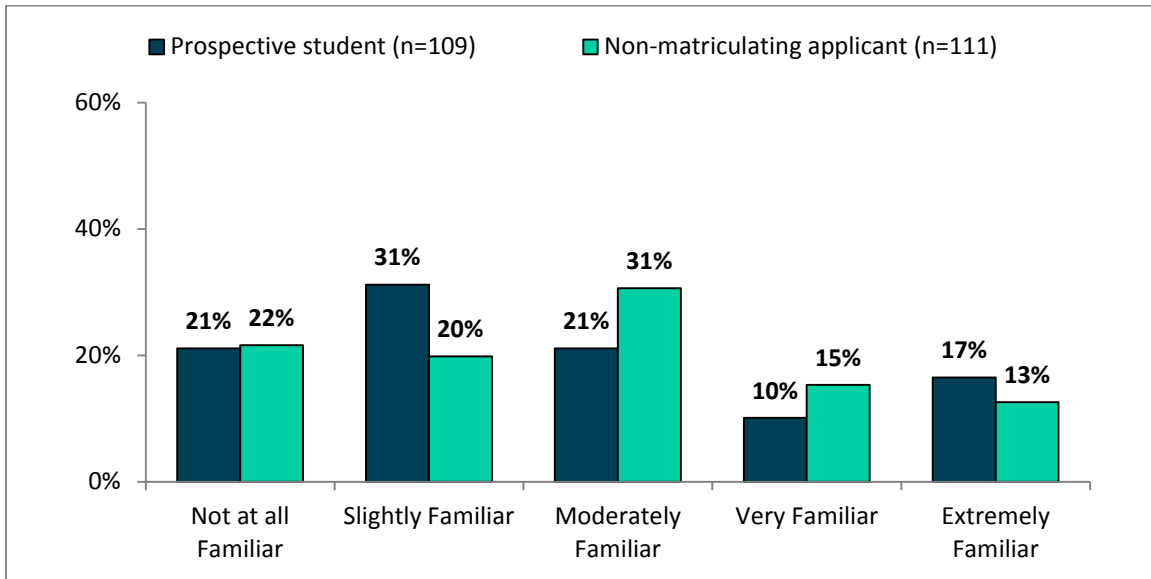
**Figure 4: Would you recommend applying to the UI College of Law to prospective students?**



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

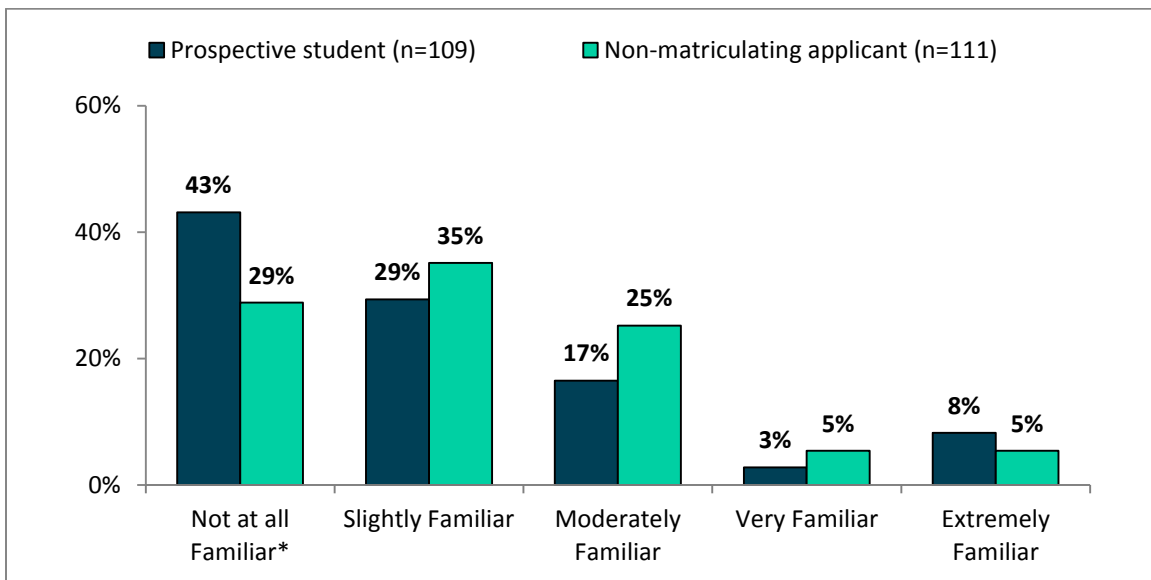
## FAMILIARITY WITH BOISE AND MOSCOW

Figure 5: How familiar are you with Boise, ID?



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

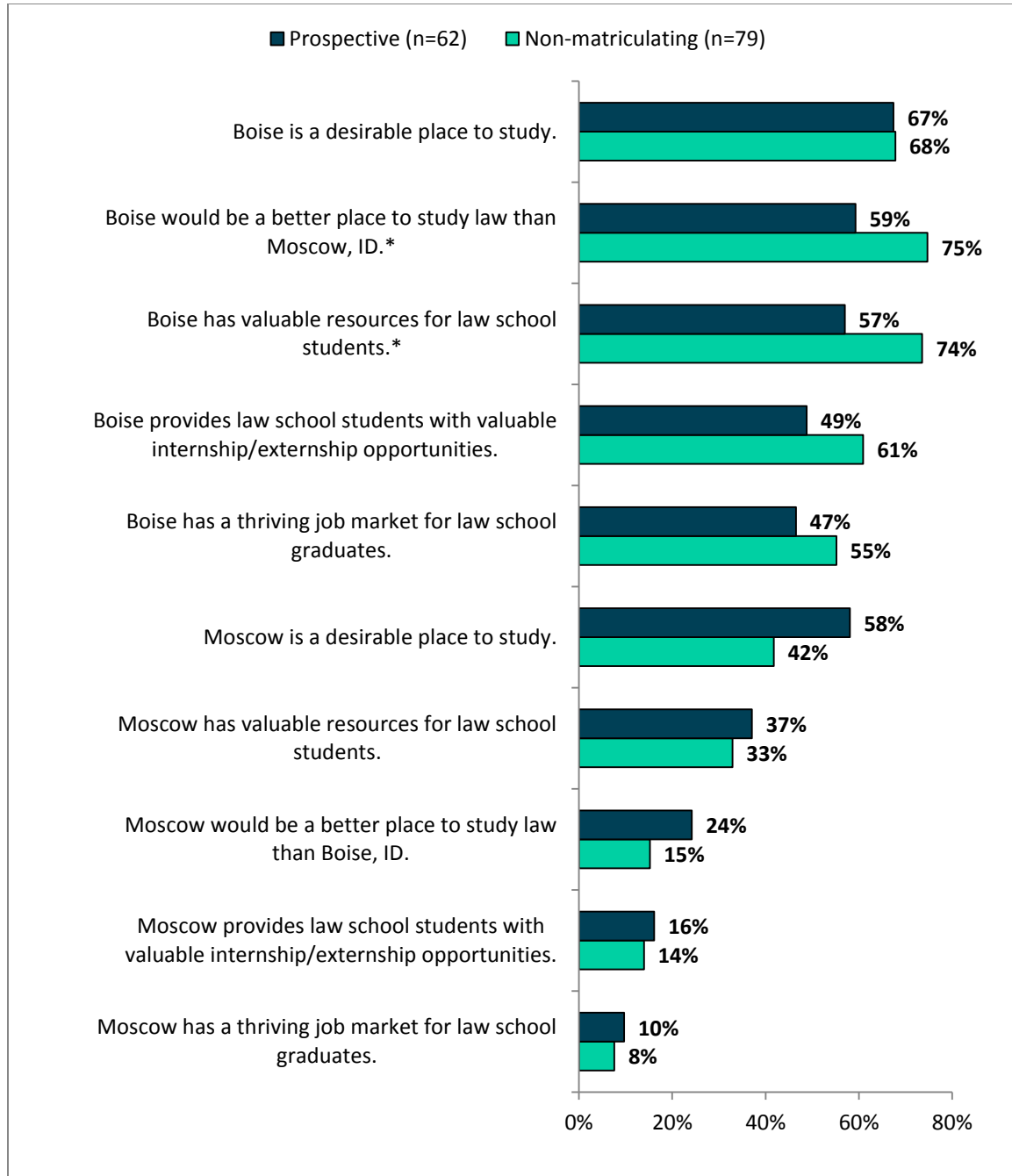
Figure 6: How familiar are you with Moscow, ID?



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

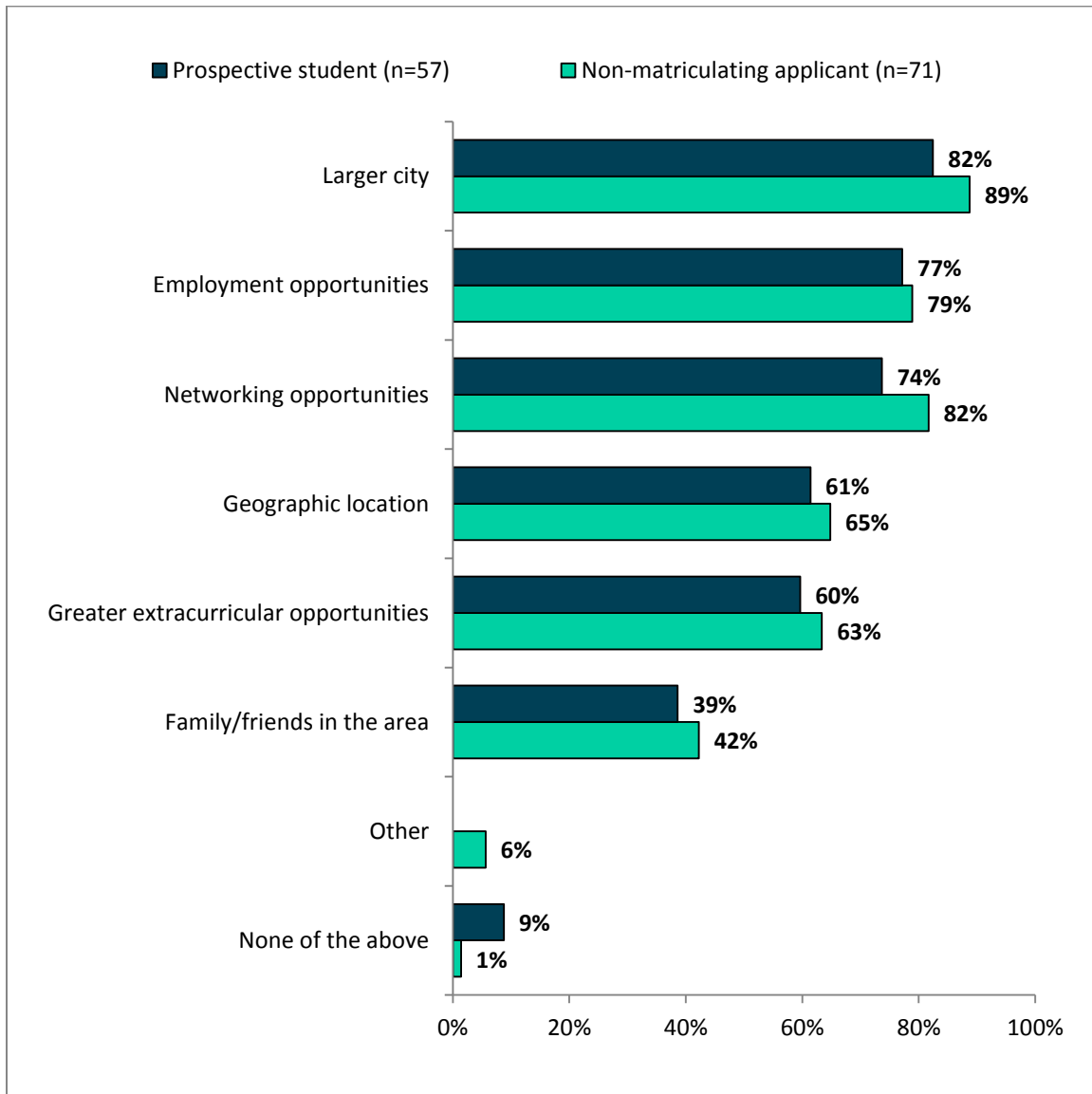
## PERCEPTIONS OF BOISE AND MOSCOW

**Figure 7: To what extent do you agree or disagree with the following statements?  
(% Somewhat Agree+ Strongly Agree)**

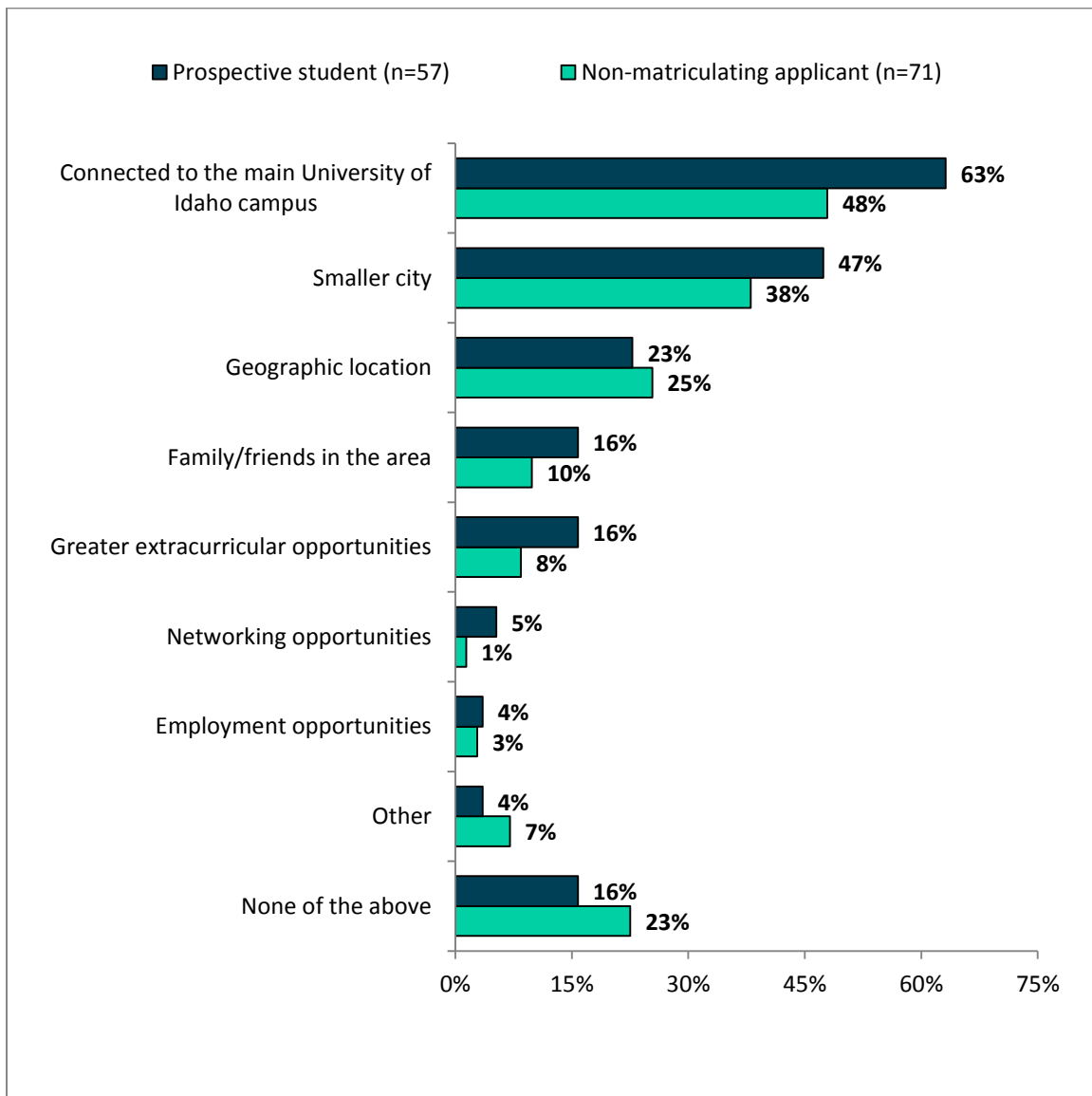


Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

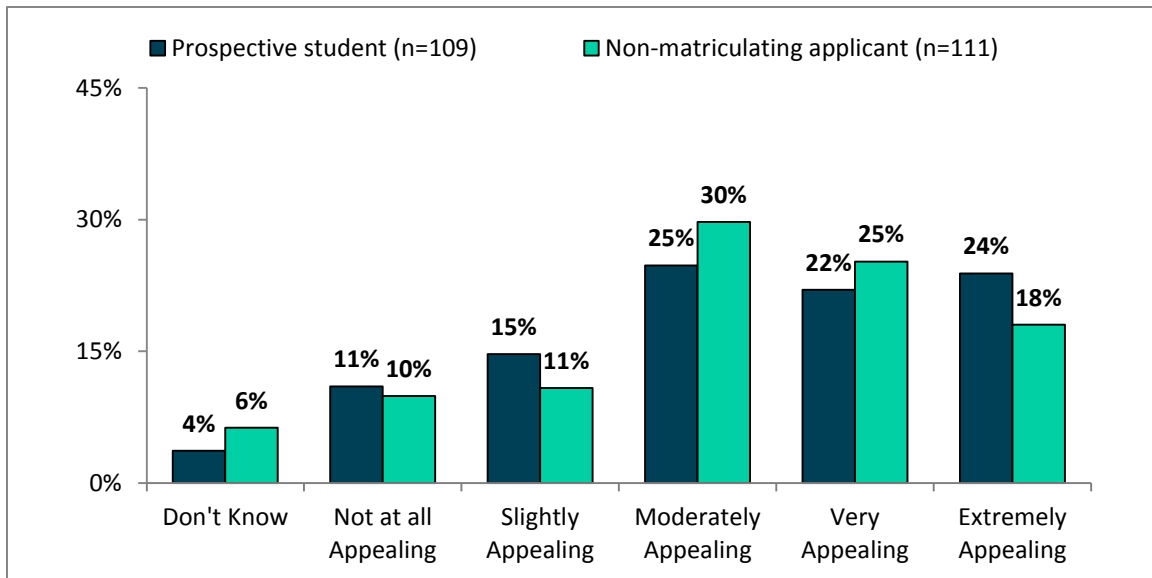
**Figure 8: What advantages, if any, would Boise, ID have over Moscow, ID for you as a law student?**



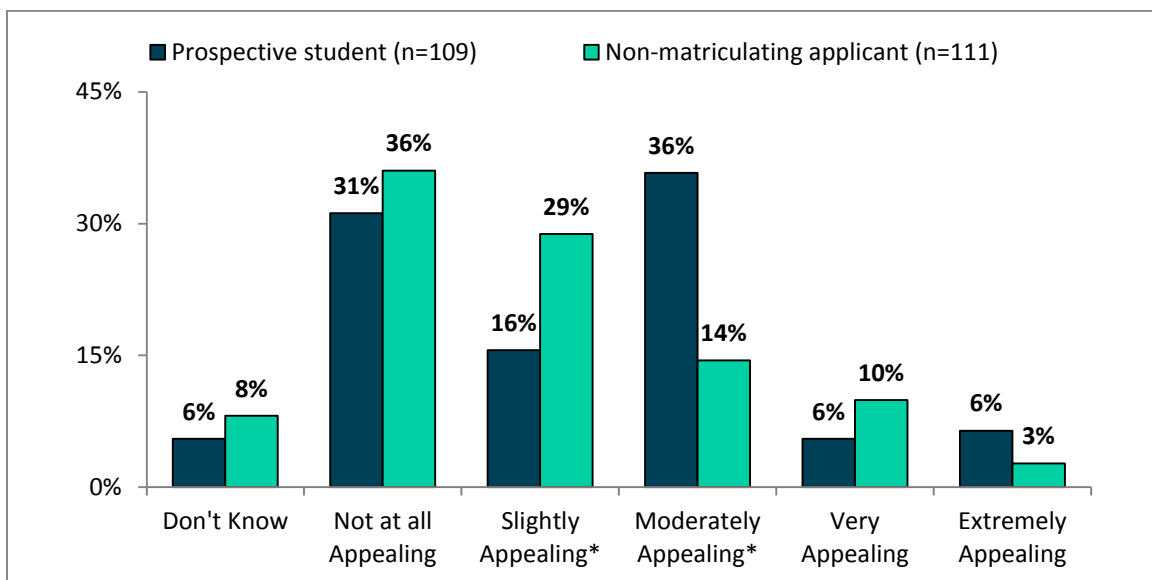
**Figure 9: What advantages, if any, would Moscow, ID have over Boise, ID for you as a law student?**



**Figure 10: How appealing is Boise, ID as a location for a law school campus?**



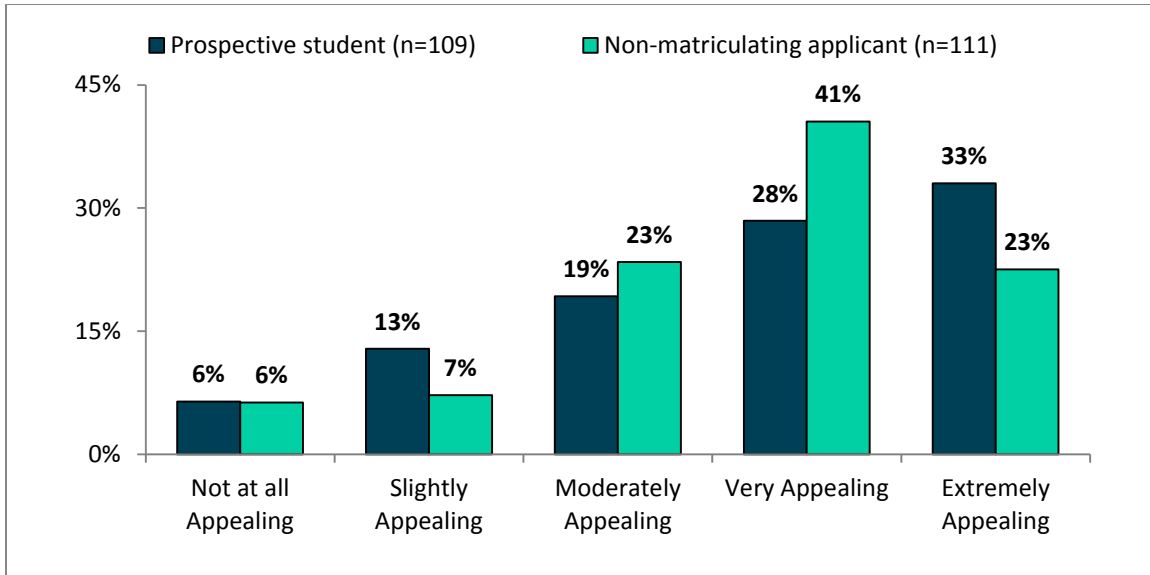
**Figure 11: How appealing is Moscow, ID as a location for a law school campus?**



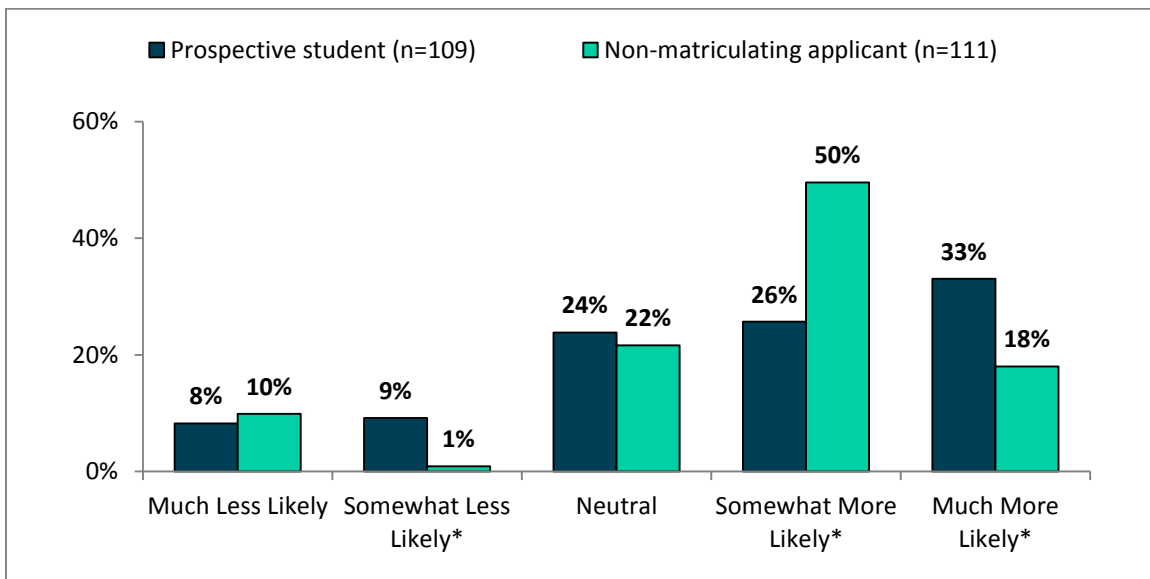
Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

## APPEAL OF PROGRAM OPTIONS

**Figure 12: How appealing do you think it would be to provide first year JD students with the option to study in Boise?**

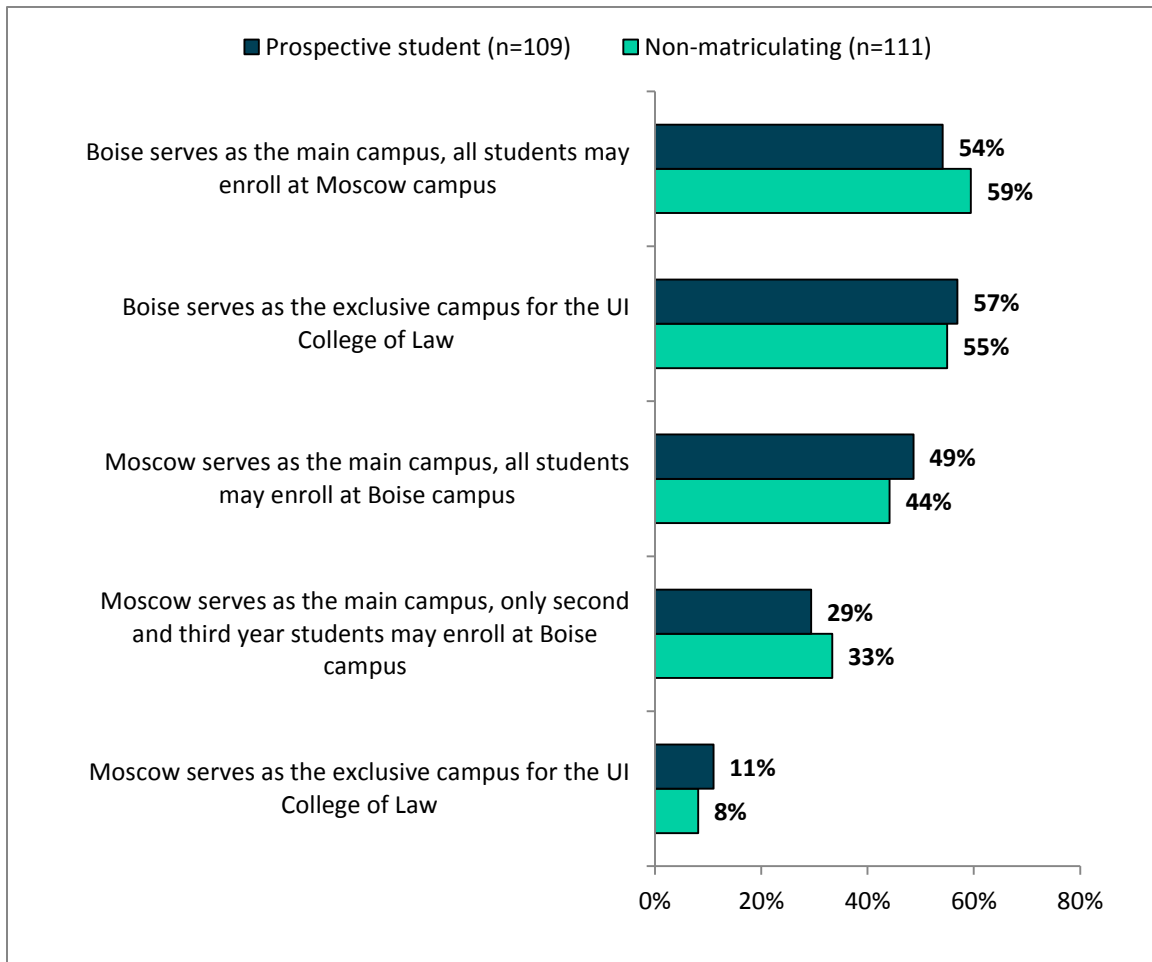


**Figure 13: How likely would you be/have been to enroll at the UI College of Law if the main law school campus, with the majority of faculty and resources, was located in Boise instead of Moscow?**



Asterisks (\*) indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

Figure 14: Campus Enrollment Option Preferences (% 1<sup>st</sup> + 2<sup>nd</sup> Choice)



## DEMOGRAPHIC PROFILES

### INTERESTED IN BOISE<sup>1</sup>

|  | PROSPECTIVE STUDENT | NON-MATRICULATING APPLICANT |
|--|---------------------|-----------------------------|
| <b>What is your sex?</b>                         |                     |                             |
| Sample Size                                      | 93                  | 93                          |
| Female   | 48%                 | 32%                         |
| Male   | 47%                 | 67%                         |
| Prefer not to answer                             | 4%                  | 1%                          |
| <b>How old are you?</b>                          |                     |                             |
| Sample Size                                      | 93                  | 93                          |
| Under 25   | 42%                 | 18%                         |
| 25 to 34   | 42%                 | 66%                         |
| 35 to 44   | 9%                  | 14%                         |
| 45 to 54   | 4%                  | 1%                          |
| 55 to 64   | 0%                  | 1%                          |
| Prefer not to answer                             | 3%                  | 0%                          |
| <b>In which state do you currently reside?</b>   |                     |                             |
| Sample Size                                      | 93                  | 93                          |
| Idaho  | 27%                 | 11%                         |
| Utah   | 19%                 | 15%                         |
| Washington                                       | 9%                  | 8%                          |
| Oregon   | 5%                  | 15%                         |
| Montana  | 9%                  | 3%                          |
| California                                       | 1%                  | 5%                          |
| Colorado   | 0%                  | 5%                          |
| New Mexico                                       | 5%                  | 1%                          |
| Nevada   | 3%                  | 3%                          |
| Texas  | 0%                  | 4%                          |
| Arizona  | 2%                  | 3%                          |
| Wyoming  | 0%                  | 3%                          |
| Kansas   | 2%                  | 1%                          |
| Prefer not to answer                             | 2%                  | 1%                          |
| <b>Which best describes your marital status?</b> |                     |                             |
| Sample Size                                      | 93                  | 93                          |
| Married  | 34%                 | 47%                         |
| Prefer not to answer                             | 3%                  | 1%                          |
| Relationship, not married                        | 13%                 | 26%                         |
| Single   | 49%                 | 26%                         |
| <b>Do you have children or dependents?</b>       |                     |                             |
| Sample Size                                      | 93                  | 93                          |
| No   | 65%                 | 66%                         |
| Prefer not to answer                             | 3%                  | 1%                          |
| Yes  | 32%                 | 33%                         |

Blue shaded cells indicate statistically significant differences at the 95 percent confidence level (z-test,  $p < 0.05$ ).

<sup>1</sup> Sample includes respondents selecting “slightly appealing” or higher in response to the option of studying in Boise.

# INSTRUCTION, RESEARCH, AND STUDENT AFFAIRS

## FEBRUARY 16, 201

Hanover Research | October 2015

### INTERESTED IN MOSCOW<sup>2</sup>

|  | PROSPECTIVE STUDENT | NON-MATRICULATING APPLICANT |
|--|---------------------|-----------------------------|
| <b>What is your sex?</b>                         |                     |                             |
| Sample Size                                      | 69                  | 62                          |
| Female   | 43%                 | 32%                         |
| Male   | 51%                 | 66%                         |
| Prefer not to answer                             | 6%                  | 2%                          |
| <b>How old are you?</b>                          |                     |                             |
| Sample Size                                      | 69                  | 62                          |
| Under 25   | 41%                 | 21%                         |
| 25 to 34   | 45%                 | 61%                         |
| 35 to 44   | 9%                  | 16%                         |
| 45 to 54   | 3%                  | 2%                          |
| 55 to 64   | 0%                  | 0%                          |
| Prefer not to answer                             | 3%                  | 0%                          |
| <b>In which state do you currently reside?</b>   |                     |                             |
| Sample Size                                      | 69                  | 62                          |
| Idaho  | 29%                 | 11%                         |
| Utah   | 19%                 | 15%                         |
| Washington                                       | 12%                 | 11%                         |
| Oregon   | 3%                  | 13%                         |
| Montana  | 9%                  | 3%                          |
| California                                       | 1%                  | 10%                         |
| Colorado   | 0%                  | 6%                          |
| New Mexico                                       | 3%                  | 2%                          |
| Nevada   | 3%                  | 2%                          |
| Texas  | 0%                  | 5%                          |
| Arizona  | 1%                  | 2%                          |
| Wyoming  | 1%                  | 3%                          |
| Kansas   | 3%                  | 2%                          |
| Prefer not to answer                             | 3%                  | 0%                          |
| <b>Which best describes your marital status?</b> |                     |                             |
| Sample Size                                      | 69                  | 62                          |
| Married  | 30%                 | 42%                         |
| Prefer not to answer                             | 4%                  | 2%                          |
| Relationship, not married                        | 13%                 | 21%                         |
| Single   | 52%                 | 35%                         |
| <b>Do you have children or dependents?</b>       |                     |                             |
| Sample Size                                      | 69                  | 62                          |
| No   | 61%                 | 73%                         |
| Prefer not to answer                             | 4%                  | 3%                          |
| Yes  | 35%                 | 24%                         |

Blue shaded cells indicate statistically significant differences at the 95 percent confidence level (z-test, p<0.05).

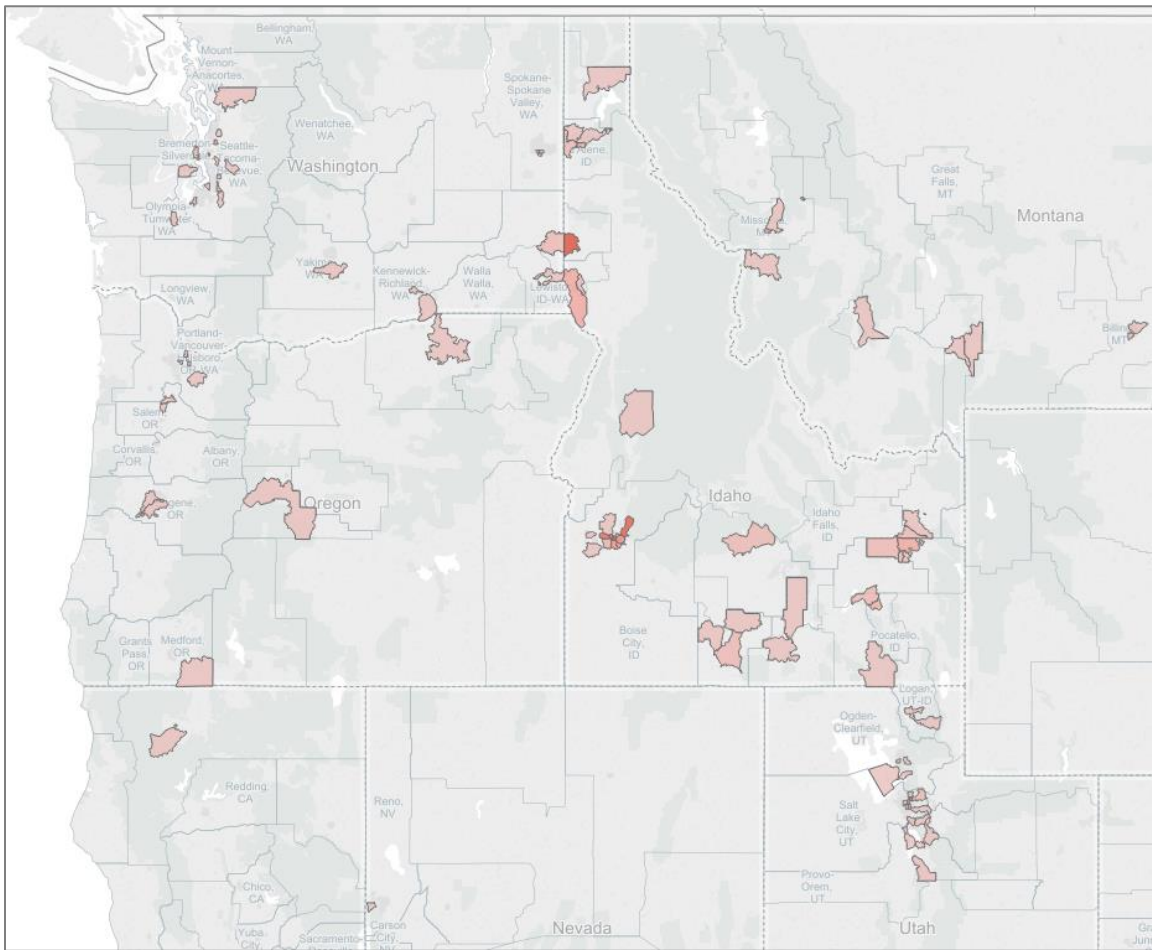
<sup>2</sup> Sample includes respondents selecting "slightly appealing" or higher in response to the option of studying in Moscow.

## APPENDIX: RESPONDENT LOCATIONS<sup>3</sup>

Figure A.1: Most Common ZIP Codes (>10 Respondents)

| ZIP CODE | COUNT |
|----------|-------|
| 83843    | 15    |
| 83704    | 14    |
| 83702    | 13    |
| 83844    | 12    |
| 83646    | 11    |

Respondent ZIP Code Map



Darker shaded regions indicate higher response counts.

<sup>3</sup> Note that the ZIP codes presented in this section are geotags included in the survey data, which indicate where respondents were physically located while taking the survey. As such, these ZIP codes serve as rough estimates of respondents' actual places of residence.

Figure A.2: Respondent ZIP Code Map—Boise Area

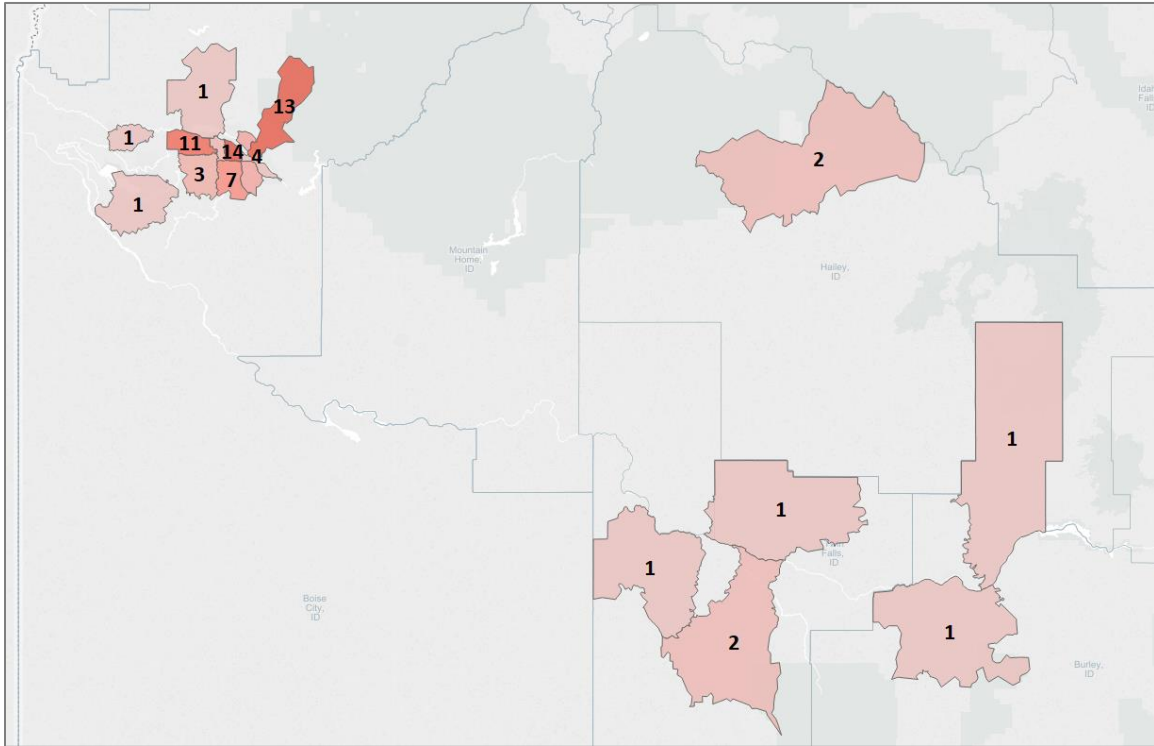
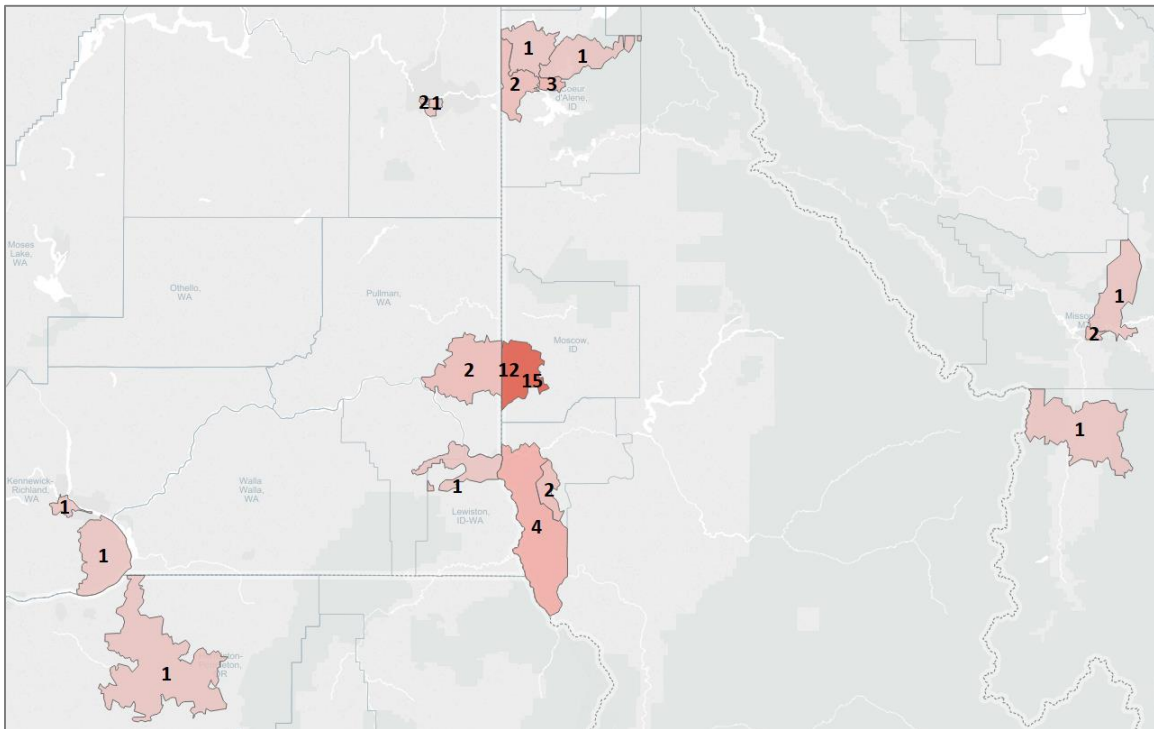


Figure A.3: Respondent ZIP Code Map—Moscow Area



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# FACTORS OF MATRICULATION & GEOGRAPHIC ANALYSIS

Prepared for University of Idaho College of Law

November 2015

In this report, Hanover Research investigates the factors that are predictive of whether an admitted applicant matriculates at the University of Idaho College of Law. The analysis highlights the role that an applicant's geographic factors play in the likelihood of matriculating at Idaho Law.

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## EXECUTIVE SUMMARY AND KEY FINDINGS

### INTRODUCTION

In this report, Hanover Research investigates the factors that are predictive of whether an admitted first-time applicant enrolls at the University of Idaho College of Law (Idaho Law). Specifically, this study explores the effect of an applicant's geographic, academic, demographic, and financial characteristics when choosing to enroll at the College. This analysis was completed using admissions data on five consecutive admissions cycles (2011-2015) supplied by Idaho Law.

Our analysis provides insight into the factors that are predictive of enrollment, and highlights differences in the average probability of enrollment based on applicants' geographic characteristics, including their estimated distance from the campus at Moscow, Idaho at the time of applying. This analysis is meant as a second step towards helping Idaho law identify the factors that predict enrollment at the School, and how these predictors relate to the opportunity of extending a campus in Boise, Idaho. Following feedback on this report from Idaho Law, and if it is of interest to the College, Hanover can use the models presented here as a basis for developing an interactive tool ("Enrollment Dashboard") for further exploration of the relationships between student profiles and enrollment at Idaho Law.

This report comprises three sections. Section I describes the data provided by Idaho Law, introduces the main variables of interest, and discusses the methodology behind this work. Section II presents summary statistics for the independent variables of interest that were used in the modeling; we organize these statistics into geographic, academic, financial, and demographic groups. Section III identifies statistically significant enrollment factors and assesses the independent effects of predictive variables on the probabilities of enrollment.

## KEY FINDINGS

Below we highlight the key findings from this study, with an emphasis on the effect that statistically significant factors have on enrollment at Idaho Law, especially in regards of geographic characteristics.<sup>1</sup>

### *Geographic Factors*

- **Admitted applicants who are further away from Idaho Law's campus at Moscow, Idaho present significantly lower probabilities of enrollment.** Regression analysis results indicate that at an approximate distance of 600 miles from campus (the sample average in this study), a 100-mile increase is associated with a 2.9 percentage-point decrease in the probability of enrollment. However, after controlling for other relevant covariates, this negative effect is weakest for applicants from Boise, Idaho compared to applicants from other locations outside of Moscow.

### *Academic Information*

- **Applicants with stronger academic profiles who are extended an offer of admission by Idaho Law are less likely to accept the offer and enroll at the College.** As can be expected, prospective law school students with higher LSAT and cumulative GPA scores have more options available to them, and are consequently less likely to enroll at any one law school. The results of our study suggest that a student with one point above the average LSAT score of 154 exhibits a 0.04 percentage-point lower likelihood of enrollment. In a similar fashion, a student with a cumulative GPA score one point above the average presents a 25 percentage-point lower probability of enrollment.<sup>2</sup>

### *Demographics*

- **Regression analysis suggests that enrollment rates vary significantly across admitted applicants' ethnicities.** Specifically, compared to admitted applicants who self-identified under every other ethnicity, those who reported being of White/Caucasian ethnicity present a significantly higher probability of enrollment at Idaho Law.

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<sup>1</sup> Note that the descriptions below refer exclusively to the effects of statistically significant predictors. Statistical significance indicates our level of confidence that an estimated effect is different from zero. For example, if an effect is highlighted as statistically significant with a "p-value" that is less than 0.05 (expressed as "p<0.05" and marked with two asterisks (\*\*)), we mean that 95 times out of 100, we will observe a similar effect. Please refer to Section III for additional discussion of these findings.

<sup>2</sup> As discussed in Section I, for continuous variables, this approach calculates the *instantaneous rate of change* for the variable on the probability of enrollment or conversion, when compared to the predictor's average. As we are using a logistic regression framework, the effects of continuous variables are not linear and therefore cannot be extrapolated linearly.

### *Financial Information*

- **Admitted applicants who are offered more money in scholarships also present a significantly higher likelihood of enrolling at Idaho Law.** The regression analysis established in this report indicates that a scholarship offer \$1,000 above the average of \$5,553 is associated with a 1.7 percentage-point increase in the probability of enrollment.

## SECTION I: DATA AND METHODOLOGY DISCUSSION

In this section, Hanover describes the data used to examine the potential geographic, academic, financial, and demographic predictors of enrollment Idaho Law.

### DATA STRUCTURE & DESCRIPTION

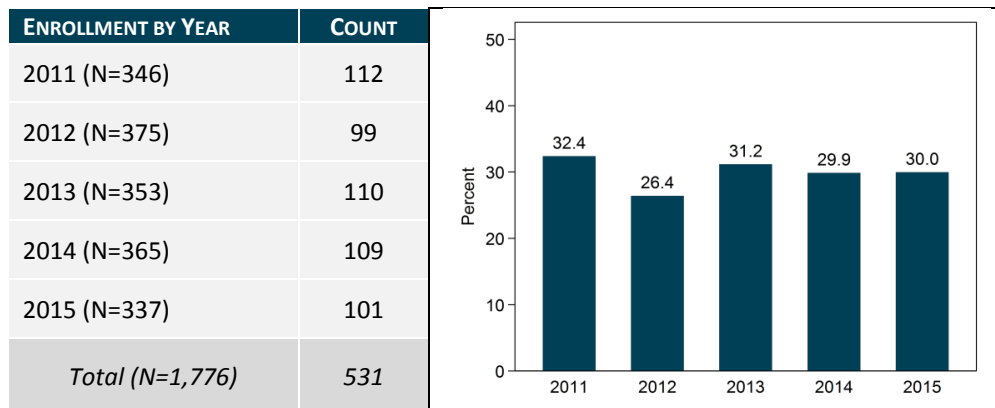
In support of this analysis, Idaho Law provided Hanover with a student-level dataset for the 2011-2015 admissions cycles. The dataset was restricted to consider only first-time applicants who were admitted by the College. Thus, Figure 1.1 shows the number and percent of first-time admitted students, segmented by year.

**Figure 1.1: Data Structure, First-Time Admitted Students by Year**

| YEAR         | COUNT        | PERCENT     |
|--------------|--------------|-------------|
| 2011         | 346          | 19.48%      |
| 2012         | 375          | 21.11%      |
| 2013         | 353          | 19.88%      |
| 2014         | 365          | 20.55%      |
| 2015         | 337          | 18.98%      |
| <i>Total</i> | <i>1,776</i> | <i>100%</i> |

This report was commissioned by Idaho Law to discern the factors that are predictive of enrollment at the College, and identify the effect that geographic characteristics have on the likelihood of enrolling there. Figure 1.2 presents enrollment rates at the College from 2011 to 2015, highlighting a dip in the 2012 enrollment rate, as well as a slight, general decrease from 32.4 percent enrollment in 2011, to 30.0 percent enrollment in 2015.

**Figure 1.2: Enrollment by Year**



Admissions data used in the analysis include geographic, academic, financial, and demographic characteristics of first-time admitted applicants over the last five admissions cycles. Most of these variables are self-explanatory, but some were transformed for the purpose of our analysis, and require additional explanation.

**First, the dataset provided by Idaho Law did not contain a large number of missing cases across any of the key variables for this study.** However, a few student records were blank across several fields. For continuous variables, such cases were ultimately omitted from the statistical analysis presented in Section III. In the case of categorical variables, these records were grouped into a separate “Unknown” category, allowing Hanover to preserve a larger sample size for the regression analysis.

**Second, categorical variables with small groups were reconfigured into new categorical variables with statistically comparable counts.** Comparing groups composed of individuals with drastically different characteristics can lead to inaccurate and sometimes misleading results, especially when some groups accumulate few records. An example of this reconfiguration relates to the identification of admitted applicant undergraduate institutions, which were grouped to identify the top five feeders, and set all remaining institutions into an “Other” category. Based on the probable differences across the cases that comprise the “Other” category, such instances are not individually analyzed in this study in order to avoid presenting misleading interpretations.

**Third, admitted applicants’ city and state of residence were recoded into a single categorical variable to identify key geographic areas in the admission process.** The geographic identifier sorts students into seven different areas, and groups all blank records into a separate, “Unknown” category. More specifically, Moscow, Boise, and other locations in Idaho were separated into three separate categories; neighboring states were separated to identify applicants from Washington State, and other locations in neighboring states; other, non-neighboring locations in the United States and armed forces areas were grouped into a single category, labeled “Other States”; and, finally, students with non-U.S. addresses were grouped into a single category, labeled as “Foreign.”

**Fourth, Hanover calculated the approximate distance from each applicant’s zip code to Moscow, Idaho.** The standard calculation of this distance consists of a variation of the Haversine formula, derived from the Law of Haversines. Haversine’s formula measures distances between points—in this case, the approximate latitude and longitude associated with a given zip code compared to Idaho Law’s zip code—in spherical surfaces. In this case, the exact application of the Haversine formula consists of two possible calculations to account for the distance of applicants in locations far off from Idaho Law.<sup>3</sup> However, we note that these distance calculations are only an approximation of the exact Euclidean (i.e. straight-line) distance between two points, as we are working with the Earth’s average radius as a single, constant measure, instead of compensating for altitude and a non-spherical terrain. Our calculations also average longitudes and latitudes for each applicant’s zip code, introducing minor, potential inaccuracies in the distance measurements.

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<sup>3</sup> The application of Haversine through Excel programming was accessed via “The Zip Code Database Project.” The Excel formula was published as open source material by Jonathan Colson, and accessible via <http://zips.sourceforge.net/>

A description of Haversine can be revised in the online Mathematics Compendium of Wolfram Alpha, which is accessible via <http://mathworld.wolfram.com/Haversine.html>

In a minority of cases with city and state information, but no zip code, distance from campus was approximated to the average of the zip codes in that given city.

Figure 1.3 presents a full list and description of the variables used to study enrollment at Idaho Law.

**Figure 1.3: Variable List**

| NAME                                  | TYPE        | DESCRIPTION  |
|---------------------------------------|-------------|--|
| <b>Year</b>                           | Categorical | Academic Year.   |
| <b>Enrollment Status</b>              | Binary      | Indicator of student enrollment for first-time applicants.   |
| <b>Distance to Idaho-Moscow</b>       | Continuous  | Approximate distance to Idaho-Moscow's zip code 83843.   |
| <b>Geographic Indicator</b>           | Categorical | Combination of city and state to identify key geographic areas across the pool of admitted applicants.         |
| <b>LSAT Score</b>                     | Continuous  | Reported LSAT score.   |
| <b>Cumulative GPA</b>                 | Continuous  | Reported cumulative GPA score.   |
| <b>Top Undergraduate Institutions</b> | Categorical | Top 5 feeder institutions to Idaho Law. All other institutions were grouped into a separate, "Other" category. |
| <b>Age</b>                            | Continuous  | Reported age at the time of application.   |
| <b>Ethnicity</b>                      | Categorical | Admitted applicant's self-identified ethnicity.  |
| <b>Gender</b>                         | Binary      | Admitted applicant's self-identified gender.   |
| <b>Residency</b>                      | Binary      | Admitted applicant's residency indicator.  |
| <b>Native Language</b>                | Categorical | Admitted applicant's self-identified native language.  |
| <b>Citizenship</b>                    | Categorical | Admitted applicant's citizenship.  |
| <b>Scholarship</b>                    | Continuous  | Scholarship award, measure in USD.   |
| <b>Fee Waived Indicator</b>           | Binary      | Indicator of waived application fee.   |

## METHODOLOGY

To investigate the factors predictive of whether a prospective student enrolls at Idaho Law, the analysis presented in this report follows a three-step approach. First, we present the results of logistic regression models, including all the factors of interest in a single model. Second, we remove factors from these models wherever they fail to show statistical significance in their relation to enrollment. Third, we focus exclusively on differences in the probability of enrollment based on changes in distance to the campus at Moscow, Idaho, across six areas in the United States. Areas not associated with a zip code, city, state, or not located in the U.S. are excluded from this part of the study.

Following the methodology described above, the results presented in this report are primarily based on each variable's "marginal effect at the mean" (MEM). The MEMs methodology uses the logistic regression (*logit*) model's coefficients to calculate the instantaneous rate of change for a continuous explanatory variable on the probability of enrollment, when compared to the predictor's average. In the case of categorical explanatory variables, MEMs estimate the change in an applicant's predicted probability of enrollment for a given classification (e.g., completed undergraduate studies at Boise State University), compared to a reference category (e.g., completed undergraduate studies at the University of Idaho), while continuous values are held constant at their average.<sup>4</sup>

<sup>4</sup> It is important to note that while this method can identify which geographic, academic, financial, or demographic factors are *correlated* with the predicted probability of enrollment, it does not necessarily show the specific factors that *cause* it.

## SECTION II: DESCRIPTIVE STATISTICS

This section presents summary statistics for the variables that were ultimately used to predict enrollment at Idaho Law. The following figures organize these data into geographic, academic, financial, and demographic groups. A final figure in this section (Figure 2.8) summarizes the relationship between enrollment and distance across six key geographic areas in the United States.

**Figure 2.1: Geographic Factors, Key Geographic Areas**

| KEY GEOGRAPHIC AREAS      | COUNT        | PERCENT     |
|---------------------------|--------------|-------------|
| Idaho-Moscow              | 48           | 2.70%       |
| Idaho-Boise               | 135          | 7.60%       |
| Idaho-Other               | 330          | 18.58%      |
| Neighbor State-Washington | 313          | 17.62%      |
| Neighbor State-Other      | 365          | 20.55%      |
| Other States              | 546          | 30.74%      |
| Foreign                   | 34           | 1.91%       |
| Unknown                   | 5            | 0.28%       |
| <b>Total</b>              | <b>1,776</b> | <b>100%</b> |

**Figure 2.2: Geographic Factors, Distance**

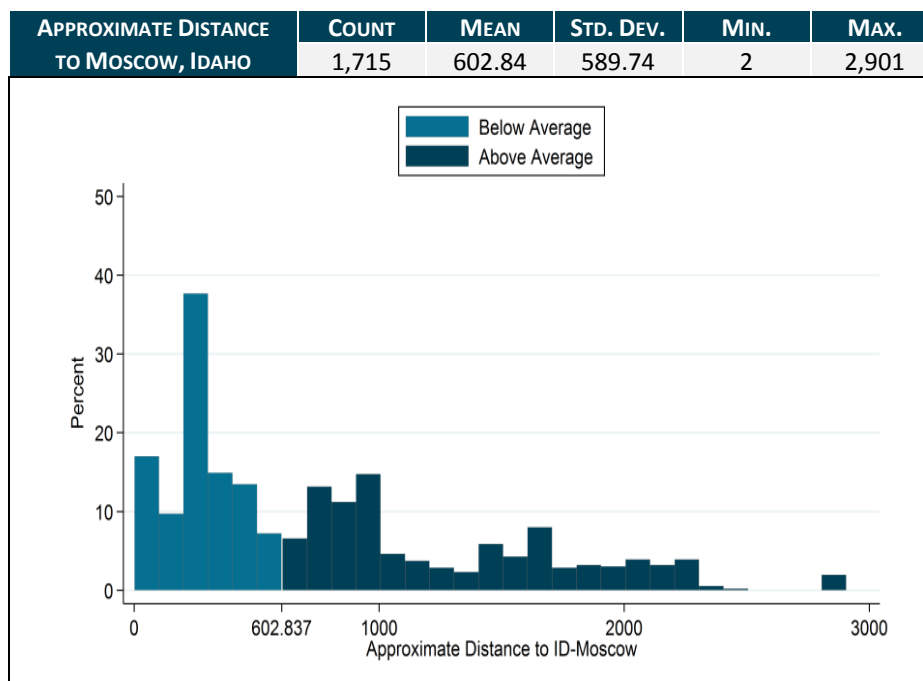


Figure 2.3: Academic Information, Qualifications

| ACADEMIC QUALIFICATIONS | COUNT | MEAN   | STD. DEV. | MIN. | MAX. |
|-------------------------|-------|--------|-----------|------|------|
| LSAT Score              | 1,776 | 153.89 | 5.68      | 132  | 173  |
| Cumulative GPA          | 1,747 | 3.27   | 0.42      | 1.97 | 4.07 |

Figure 2.4: Academic Information, Top Undergraduate Institutions

| TOP UNDERGRADUATE INSTITUTIONS   | COUNT        | PERCENT     |
|----------------------------------|--------------|-------------|
| University of Idaho              | 141          | 7.94%       |
| Boise State University           | 103          | 5.80%       |
| Brigham Young University (Idaho) | 103          | 5.80%       |
| Brigham Young University         | 88           | 4.95%       |
| Washington State University      | 83           | 4.67%       |
| Other Institution                | 1,258        | 70.83%      |
| <i>Total</i>                     | <i>1,776</i> | <i>100%</i> |

Figure 2.5: Financial Information

| FINANCIAL INFORMATION    | COUNT | MEAN       | STD. DEV.  | MIN.    | MAX.     |
|--------------------------|-------|------------|------------|---------|----------|
| Scholarship <sup>5</sup> | 1,116 | \$8,814.23 | \$5,305.27 | \$1,000 | \$30,500 |
| Fee Waived Indicator     | 1,776 | 37.27%     | —          | 0       | 1        |

Figure 2.6: Demographics, Age

|     | COUNT | MEAN  | STD. DEV. | MIN. | MAX. |
|-----|-------|-------|-----------|------|------|
| Age | 1,776 | 29.13 | 6.25      | 20   | 69   |

<sup>5</sup> Note that this figure presents summary statistics for scholarship offers only among students who received a scholarship. If students who did not receive a scholarship are included in the calculation (with a scholarship value of \$0), the mean scholarship drops to \$5,553.

Figure 2.7: Demographics, Other Factors

| DEMOGRAPHICS                   | COUNT        | PERCENT     |
|--------------------------------|--------------|-------------|
| <b>Ethnicity</b>               |              |             |
| Caucasian/White                | 1,298        | 73.09%      |
| Hispanic/Latino                | 148          | 8.33%       |
| American Indian/Alaskan Native | 85           | 4.79%       |
| Asian                          | 85           | 4.79%       |
| Unknown                        | 55           | 3.10%       |
| Did not Indicate               | 48           | 2.70%       |
| Black/African American         | 44           | 2.48%       |
| Other                          | 13           | 0.73%       |
| <i>Total</i>                   | <i>1,776</i> | <i>100%</i> |
| <b>Gender</b>                  |              |             |
| Male                           | 1,098        | 61.82%      |
| Female                         | 678          | 38.18%      |
| <i>Total</i>                   | <i>1,776</i> | <i>100%</i> |
| <b>Residency</b>               |              |             |
| Non-Resident                   | 1,249        | 70.33%      |
| Resident                       | 527          | 29.67%      |
| <i>Total</i>                   | <i>1,776</i> | <i>100%</i> |
| <b>Language</b>                |              |             |
| English                        | 1,045        | 58.84%      |
| Spanish                        | 37           | 2.08%       |
| Other                          | 53           | 2.98%       |
| Unknown                        | 641          | 36.09%      |
| <i>Total</i>                   | <i>1,776</i> | <i>100%</i> |
| <b>Citizenship</b>             |              |             |
| United States                  | 1,397        | 78.66%      |
| Canada                         | 21           | 1.18%       |
| Unknown                        | 326          | 18.36%      |
| Other                          | 32           | 1.80%       |
| <i>Total</i>                   | <i>1,776</i> | <i>100%</i> |

Figure 2.8: Enrollment Summary by Key Geographic Areas

| KEY GEOGRAPHIC AREAS      | ADMITTED APPLICANTS | ENROLLMENT COUNT | ENROLLMENT RATE | AVERAGE DISTANCE | CORRELATION BETWEEN DISTANCE AND ENROLLMENT |
|---------------------------|---------------------|------------------|-----------------|------------------|---|
| Idaho-Moscow              | 48                  | 38               | 79.17%          | 2                | —   |
| Idaho-Boise               | 135                 | 73               | 54.07%          | 219              | -0.09                                       |
| Idaho-Other               | 329                 | 184              | 55.93%          | 232              | -0.08                                       |
| Neighbor State-Washington | 309                 | 85               | 27.51%          | 186              | -0.13                                       |
| Neighbor State-Other      | 358                 | 68               | 18.99%          | 449              | -0.01                                       |
| Other States              | 536                 | 72               | 13.43%          | 1,324            | -0.05                                       |
| <i>Total<sup>6</sup></i>  | <i>1,715</i>        | <i>520</i>       | <i>30.32%</i>   | <i>603</i>       | <i>-0.26</i>                                |

<sup>6</sup> This figure consists only of 1,715 records in the analytic database with non-missing distance.

## SECTION III: PREDICTORS OF ENROLLMENT

Section III identifies enrollment predictors, with an emphasis on highlighting statistically significant effects on the decision to enroll at Idaho Law.

### MAIN TAKEAWAYS

According to the findings discussed in this section, the best predictors of *increased* likelihood of **enrollment** at Idaho Law are listed below.

- Being closer to Moscow, Idaho (indeed, being in Moscow maximizes the proximity effect on the likelihood of enrollment);
- Lower LSAT scores;
- Lower cumulative GPA scores;
- White/Caucasian self-reported ethnicity;
- Higher scholarship amounts; and
- Did not receive an application fee waiver.

### RESULTS

The results portion of this section outlines factors that are predictive of enrollment in a statistically significant manner. After highlighting profiles of first-time applicants that are highly associated with the decision to enroll Idaho Law, we discuss the magnitude of such effects. Note that the estimated percentage point change in likelihood of enrollment shifts from model to model, depending on the inclusion or exclusion of specific predictors. Therefore, the discussion of magnitudes corresponds exclusively to the model labeled as “Model 3—Best Predictors (Key Geographic Areas).”

This analysis presents two series of best predictors in order to separate out the geographical indicator from the distance measurement. These two variables estimate a similar measure, and including them in a single model generates a problem known as “multicollinearity,” where a model cannot effectively discern which of the two or more related independent variable is creating variation in the outcome of interest. Given that the geographic indicator reflects data from the admission process exclusively, we restrict the interpretation of magnitudes to this model alone.

This approach will shed light on three important aspects of prospective students’ enrollment decision: first, we identify which observable characteristics are correlated with whether an admitted applicant chooses to enroll at the College, or opts to withdraw from the application process. Second, the Best Predictors models are separated to estimate the effect of distance to the campus at Moscow, Idaho, as well as the effect of six key geographic locations within the United States. Finally, we estimate the magnitude of these effects in the “Model 3—Best Predictors (Key Geographic Areas)” model. Overall, this

approach is designed to help Idaho Law determine whether there is a valuable opportunity to extend its first-year academic offerings to Boise, Idaho.

In the interest of keeping our modeling and the interpretation exhibited below consistent, we have kept a single, constant reference category for each categorical predictor throughout the analysis. Specifically, all models have been fitted relative to first-time applicants from Idaho-Moscow, who completed their undergraduate studies at the University of Idaho, of self-reported white/Caucasian ethnicity and male gender, did not have their application fee waived, and were admitted in the latest admissions cycle of 2015. Note that the decision on a given set of reference categories does not alter the predictive effects of variables, but can help facilitate a more intuitive analysis of results.

Lastly, please keep in mind that **we do not attempt to analyze the effect of “N/A,” “Unknown,” and “Other” categories on enrollment (e.g., Undergraduate University, “Other Institution,” or Geographic Indicator “Unknown”), because this could result in misleading interpretations.** However, by including these cases in our modeling, we maintain a higher sample size and are able to control for variation in each independent variable that might otherwise be obscured by missing data, or small sample sizes.

## ENROLLMENT PREDICTORS

Our study indicates that the following factors are predictive of enrollment at Idaho Law:

- **Approximate Distance to Idaho-Moscow:** As evinced by the negative marginal effect at the mean presented in Figure 3.1, an admitted applicant’s approximate distance to Idaho-Moscow is significantly associated with a lower likelihood of enrollment at Idaho Law. Specifically, we estimate that at an approximate distance of 600 miles from campus (the sample average), a 100 mile increase is associated with a 2.9 percentage-point decrease in the probability of enrollment.
- **Key Geographic Areas:** Focusing on the Geographic Indicator variable, Figure 3.1 presents evidence that areas more distant from campus are associated with lower probabilities of enrollment in a statistically significant manner. Further, after controlling for relevant covariates, this negative effect is weakest for applicants from Boise, compared to applicants from other locations outside of Moscow.
- **LSAT Score and Cumulative GPA:** Applicants with stronger academic profiles present a lower likelihood of enrollment at Idaho Law, as measured by higher LSAT and cumulative GPA scores. More specifically, one point above the average LSAT score of 154 is associated with a 0.04 percentage-point decrease in the likelihood of enrollment. In a similar fashion, one point above the cumulative GPA score is associated with a 25 percentage point decrease in the likelihood of enrollment.<sup>7</sup>

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<sup>7</sup> As discussed in Section I, for continuous variables, this approach calculates the *instantaneous rate of change* for the variable on the probability of enrollment or conversion, when compared to the predictor’s average. As we are using a logistic regression framework, the effects of continuous variables are not linear and therefore cannot be extrapolated linearly.

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- **Ethnicity:** Compared to admitted applicants who self-identified under every other ethnicity, those who reported being of White/Caucasian ethnicity present a significantly higher probability of enrollment at Idaho Law. This fact is evidenced by the negative and statistically significant coefficient for every non-white ethnicity.
- **Scholarship:** As could be expected, admitted applicants with larger scholarship offers are more likely to enroll at the College on average. Holding all other continuous and categorical factors constant at their means and reference categories, respectively, a scholarship offer \$1,000 above the average of \$5,553 is associated with a 1.7 percentage-point increase in the probability of enrollment.
- **Fee Waived:** Admitted applicants who did not receive an application fee waiver present a 7.7 percentage-point lower probability of admission, compared to peers.

Figure 3.1: Predictors of Enrollment

| VARIABLES  | MODEL 1 -<br>ALL FACTORS | MODEL 2 - BEST<br>PREDICTORS<br>(DISTANCE) |           | MODEL 3 - BEST<br>PREDICTORS<br>(KEY GEOGRAPHIC AREAS) |           |
|--|--------------------------|--|-----------|--|-----------|
|  |                          | MEANS                                      | MEMS      | MEANS  | MEMS      |
| Geographic Factors <sup>8</sup>                                  |                          |  |           |  |           |
| Approximate Distance to Idaho-Moscow (measured in 100 miles)     | -0.006                   | 6.03                                       | -0.029*** | —  | —         |
| Geographic Indicator, Idaho-Boise                                | -0.214**                 | —  | —         | 1.37%  | -0.189**  |
| Geographic Indicator, Idaho-Other                                | -0.213***                | —  | —         | 7.67%  | -0.216*** |
| Geographic Indicator, Neighbor State-Other                       | -0.586***                | —  | —         | 18.78%   | -0.634*** |
| Geographic Indicator, Neighbor State-Washington                  | -0.567***                | —  | —         | 20.72%   | -0.572*** |
| Geographic Indicator, Other States                               | -0.639***                | —  | —         | 17.52%   | -0.715*** |
| Geographic Indicator, Foreign                                    | —                        | —  | —         | 30.97%   | -0.737*** |
| Geographic Indicator, Unknown                                    | —                        | —  | —         | 0.29%  | -0.623*** |
| Academic Information <sup>9</sup>                                |                          |  |           |  |           |
| LSAT Score   | -0.039***                | 153.86                                     | -0.029*** | 153.90   | -0.040*** |
| Cumulative GPA   | -0.252***                | 3.28                                       | -0.207*** | 3.27   | -0.250*** |
| Top Undergraduate Institutions, Boise State University           | 0.046                    | —  | —         | —  | —         |
| Top Undergraduate Institutions, Brigham Young University         | -0.034                   | —  | —         | —  | —         |
| Top Undergraduate Institutions, Brigham Young University (Idaho) | -0.054                   | —  | —         | —  | —         |
| Top Undergraduate Institutions, Other Institution                | -0.06                    | —  | —         | —  | —         |
| Top Undergraduate Institutions, Washington State University      | 0.093                    | —  | —         | —  | —         |
| Demographics <sup>10</sup>                                       |                          |  |           |  |           |
| Age  | -0.003                   | —  | —         | —  | —         |
| Ethnicity, American Indian/Alaskan Native                        | -0.104**                 | 4.83%                                      | -0.078*   | 4.87%  | -0.116*** |
| Ethnicity, Asian   | -0.138***                | 3.83%                                      | -0.157*** | 4.24%  | -0.154*** |
| Ethnicity, Black/African American                                | -0.148***                | 2.42%                                      | -0.128**  | 2.46%  | -0.124**  |
| Ethnicity, Hispanic/Latino                                       | -0.106***                | 8.43%                                      | -0.101*** | 8.30%  | -0.104*** |
| Ethnicity, Other   | -0.143                   | 0.71%                                      | -0.109    | 0.74%  | -0.087    |
| Ethnicity, Did not Indicate                                      | 0.119                    | 2.65%                                      | 0.092     | 2.69%  | 0.124     |
| Ethnicity, Unknown   | 0.149                    | 2.95%                                      | 0.127     | 3.03%  | 0.158*    |
| Gender, Female   | -0.015                   | —  | —         | —  | —         |

<sup>8</sup> The reference category for the geographic indicator is set at Idaho-Moscow.

<sup>9</sup> The reference category for the top undergraduate institutions is set at the University of Idaho.

<sup>10</sup> The reference category for admitted applicant's self-reported ethnicity is set at white/Caucasian.

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| VARIABLES  | MODEL 1 -<br>ALL FACTORS | MODEL 2 - BEST<br>PREDICTORS<br>(DISTANCE) |           | MODEL 3 - BEST<br>PREDICTORS<br>(KEY GEOGRAPHIC AREAS) |           |
|--|--------------------------|--|-----------|--|-----------|
|  |                          | MEANS                                      | MEMS      | MEANS  | MEMS      |
| Financial  |                          |  |           |  |           |
| Scholarship (effect of \$1,000 USD increase) <sup>11</sup> | 0.016***                 | \$5,485                                    | 0.008**   | \$5,553  | 0.017***  |
| Fee Waived Indicator                                       | -0.067***                | 36.85%                                     | -0.086*** | 37.15%   | -0.077*** |
| Academic Year <sup>12</sup>                                |                          |  |           |  |           |
| 2011   | 0.232***                 | 19.22%                                     | 0.143***  | 19.40%   | 0.220***  |
| 2012   | 0.060*                   | 21.64%                                     | 0.016     | 21.24%   | 0.049     |
| 2013   | 0.077**                  | 19.75%                                     | 0.041     | 19.92%   | 0.059*    |
| 2014   | 0.025                    | 20.52%                                     | 0.006     | 20.44%   | 0.019     |
| Observations   | 1,696                    | 1,696                                      |           | 1,747  |           |

Note: Statistical Significance reported at three levels of confidence: "\*\*\*\*" at 99 percent, "\*\*\*" 95 percent, and "\*" at 90 percent.

<sup>11</sup> To accurately represent the effect of scholarship offers on enrollment for the full analytic sample, cases with blank records in this variable were recoded as zero (indicating that a given student did not receive a scholarship). Consequently, the average presented in the "Means" column of this figure is skewed downwards. Figure 2.5 in Section II indicates that the average scholarships for applicants *who received a scholarship* is roughly \$8,814 USD.

<sup>12</sup> The reference category for the academic year is set to the most recent 2015 cycle.

## APPENDIX: LOGISTIC REGRESSION RESULTS

The figures below display all regression results discussed in Section III, presented in the form of raw logistic regression coefficients.

Figure A.1: Predictors of Enrollment

| VARIABLES  | (ALL FACTORS) | MODEL 2 - BEST<br>PREDICTORS<br>(DISTANCE) | MODEL 3 - BEST<br>PREDICTORS<br>(KEY GEOGRAPHIC AREAS) |
|--|---------------|--|--|
| <b>Geographic Factors</b>  |               |  |  |
| Approximate Distance to Idaho-Moscow (measured in 100 miles)     | -0.033        | -0.153***                                  | —  |
| Geographic Indicator, Idaho-Boise                                | -0.970**      | —  | -0.950**   |
| Geographic Indicator, Idaho-Other                                | -0.964**      | —  | -1.064***  |
| Geographic Indicator, Neighbor State-Other                       | -2.710***     | —  | -2.993***  |
| Geographic Indicator, Neighbor State-Washington                  | -2.584***     | —  | -2.612***  |
| Geographic Indicator, Other States                               | -3.131***     | —  | -3.719***  |
| Geographic Indicator, Foreign                                    | —             | —  | -4.024***  |
| Geographic Indicator, Unknown                                    | —             | —  | -2.919**   |
| <b>Academic Information</b>                                      |               |  |  |
| LSAT Score   | -0.210***     | -0.156***                                  | -0.216***  |
| Cumulative GPA   | -1.353***     | -1.104***                                  | -1.362***  |
| Top Undergraduate Institutions, Boise State University           | 0.214         | —  | —  |
| Top Undergraduate Institutions, Brigham Young University         | -0.174        | —  | —  |
| Top Undergraduate Institutions, Brigham Young University (Idaho) | -0.278        | —  | —  |
| Top Undergraduate Institutions, Other Institution                | -0.313        | —  | —  |
| Top Undergraduate Institutions, Washington State University      | 0.419         | —  | —  |
| <b>Demographics</b>  |               |  |  |
| Age  | -0.018        | —  | —  |
| Ethnicity, American Indian/Alaskan Native                        | -0.625**      | -0.443                                     | -0.720**   |
| Ethnicity, Asian   | -0.897**      | -1.065***                                  | -1.056***  |
| Ethnicity, Black/African American                                | -0.983**      | -0.797*                                    | -0.789*  |
| Ethnicity, Did not Indicate                                      | 0.543         | 0.429                                      | 0.570  |
| Ethnicity, Hispanic/Latino                                       | -0.640**      | -0.594**                                   | -0.631***  |
| Ethnicity, Other   | -0.934        | -0.653                                     | -0.507   |
| Ethnicity, Unknown   | 0.669*        | 0.575                                      | 0.709**  |
| Gender, Female   | -0.080        | —  | —  |
| <b>Financial</b>   |               |  |  |
| Scholarship (measured in \$1,000 USD)                            | 0.085***      | 0.040**                                    | 0.093***   |
| Fee Waived Indicator   | -0.367**      | -0.475***                                  | -0.433***  |
| <b>Academic Year</b>   |               |  |  |
| 2011   | 1.172***      | 0.713***                                   | 1.108***   |
| 2012   | 0.372*        | 0.093                                      | 0.303  |
| 2013   | 0.460**       | 0.231                                      | 0.355*   |
| 2014   | 0.161         | 0.036                                      | 0.123  |
| <b>Constant</b>  | 38.217***     | 27.291***                                  | 38.471***  |
| <b>Observations</b>  | 1,696         | 1,696                                      | 1,747  |

Note: Statistical Significance reported at three levels of confidence: "\*\*\*\*" at 99 percent, "\*\*\*" 95 percent, and "\*" at 90 percent.

## **PROJECT EVALUATION FORM**

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**SUBJECT**

Higher Education Research Council Annual Update

**REFERENCE**

|               |   |
|---------------|---|
| October 2014  | The Board was provided the Performance Measure Report for the Higher Education Research Strategic Plan and a report on the Technology Transfer activities from the institutions |
| February 2015 | The Board approved changes to the Higher Education Research Strategic Plan  |
| October 2015  | The Board was provided the Performance Measure Report for the Higher Education Research Strategic Plan  |
| December 2016 | The Board approved changes to the Higher Education Research Strategic Plan  |

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies and Procedures, Section III.W., Higher Education Research

**BACKGROUND/DISCUSSION**

Board Policy III.W, Higher Education Research, recognizes the significant role research plays in innovation, economic development and enhanced quality of educational programs. By developing and leveraging the State's unique research expertise and strengths, Idaho's universities and college serve as catalyst to spur the creation of new knowledge, technologies, products and industries. This in turn leads to new advances and opportunities for economic growth.

The Board's Higher Education Research Council (HERC) provides recommendations to the Board regarding statewide collaborative efforts and initiatives to accomplish these goals and objectives. In addition, HERC provides direction for and oversees the use of the limited resources provided by the Legislature for research by promoting research activities that will have the greatest beneficial effect on the quality of education and the economy of the State.

The Statewide Strategic Plan for research assists in the identification of research areas that will enhance the economy of Idaho through the collaboration of academia, industry, and government and are in alignment with identified areas of strength at our public universities. Changes to the strategic plan were approved by the Board in December 2016.

The plan represents the role Idaho's research universities play in driving innovation; economic development, and enhancing the quality of educational programs in strategic areas. The plan identifies areas of strength among Idaho's research universities; research challenges and barriers facing the universities; research opportunities Idaho should capitalize upon to further build its research base; goals to build the research pipeline through engaging undergraduate

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students; and steps for achieving the research vision for Idaho's universities. Additional responsibilities of HERC include the management of the Incubation Fund and HERC Idaho Global Entrepreneurial Mission (IGEM) Fund programs, disbursement of Infrastructure Funds and the matching funds for our Idaho Experimental Programs to Stimulate Competitive Research (EPSCoR) Track 1 project (Managing Idaho's Landscapes for Ecosystem Services). Additional responsibilities include receiving annual reporting on the institutions activities in relation to the Center for Advanced Energy Studies (CAES).

Incubation Fund projects are single-year projects that are at the proof-of-concept stage. Through a competitive process, HERC awards funds to those projects where the Principal Investigator can rapidly move their project into the development stage. IGEM Fund projects are those that are designed to develop spin-off companies. While these awards may be for up to three years, the funding is contingent upon successful progress as determined by HERC at an annual review of the project.

CAES is a research and education consortium between the Idaho National Laboratory, the University of Wyoming, and the three Idaho public research institutions: Boise State University, Idaho State University, and the University of Idaho.

Dr. Mark Rudin, the current chair of HERC, will provide the Board with HERC's annual update.

**IMPACT**

Taking a strategic approach to invest in the state's unique research expertise and strengths will lead to new advances and opportunities for economic growth and enhance Idaho's reputation as a national and international leader in excellence and innovation. This update will provide the Board with the opportunity to provide HERC, through HERC's Chair, input on areas of focus or strategic direction.

**ATTACHMENTS**

|   |         |
|---|---------|
| Attachment 1 – Strategic Plan for Higher Education Research | Page 5  |
| Attachment 2 – FY16 Performance Measure Report              | Page 19 |
| Attachment 3 – FY16 Research Activity Report                | Page 27 |
| Attachment 4 – FY16 Infrastructure Summary Report           | Page 31 |
| Attachment 5 – FY17 Incubation Fund Summaries               | Page 41 |
| Attachment 6 – FY17 IGEM Fund Summaries                     | Page 67 |
| Attachment 7 – HERC FY17 Budget Allocation                  | Page101 |

**STAFF COMMENTS AND RECOMMENDATIONS**

In addition to the responsibility for the creation of the state's Higher Education Research Strategic plan for Board consideration, HERC is responsible for the distribution of approximately \$4.1M in funds used for the mission of HERC and to incentivize industry and institution research partnerships. Attachment 2 is the

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October 2016 performance measure report, Attachment 3, is the research institutions annual research activity reports, Attachment 4 through 6 summarizes the various funded programs, and attachment 7 outlines HERC's budget allocations.

The strategic plan is monitored annually and updated as needed based on the work of HERC and direction from the Board. HERC uses a competitive process for distributing funds from the Incubation Fund category and the HERC IGEN Fund category. All proposals that are considered must be in alignment with the Board's Higher Education Research Strategic Plan.

**BOARD ACTION**

This item is for informational purposes only. Any action will be at the Board's discretion.

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# STRATEGIC RESEARCH PLAN FOR IDAHO HIGHER EDUCATION

(2017-2021)

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## EXECUTIVE SUMMARY

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Research is being increasingly acknowledged by industry, government and education as a key factor in the future economic vitality of Idaho. The universities and colleges of Idaho's system of higher education understand the need for greater collaboration in order to be competitive in today's global environment. Recognizing the need to focus on and emphasize existing strengths and opportunities in Idaho's research community, the vice presidents for research and economic development developed the following statewide strategic plan for research to ensure the greatest potential for achieving a vital and sustainable research base for Idaho. The strategic plan identifies the key research areas (basic, translational and clinical) that will become the focal points for research and economic development through partnering among academia, industry and government in science, technology, and creative activity.



Research is fundamental to the mission of a university due to its role in knowledge discovery and in providing new ideas for technology commercialization via patents, copyright, licenses and startup companies. University faculty who engage in research and creative activity are at the leading edge of their respective fields. Research also enhances the national reputation of the faculty and the universities.



These faculty and their vibrant research programs attract the best graduate and undergraduate students by providing unique cutting-edge learning experiences in their research laboratories, studios, field sites and classrooms. On the most basic level, and also bolstered through collaborative, interdisciplinary and interprofessional research, such activities strengthen a

university's primary product — innovative, well-educated students ready to enter a competitive workforce.

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Research is the foundation of a university's economic development role. The influx of research dollars from external grants and contracts creates new jobs at the university, along with the attendant purchases of supplies, services, materials and equipment. The results of the research are new knowledge, new ideas, and new processes, which lead to patents, startup companies, more efficient businesses as well as a highly trained workforce prepared to tackle 21st century challenges.

Idaho's research universities have strengths and opportunities for economic development in 1) Energy Systems, 2) Natural Resource Utilization and Conservation, 3) Biomedical and Healthcare Sciences, 4) Novel Materials and 5) Systems Engineering and Cybersecurity.

By focusing collaborative efforts in these areas, the research universities will expand research success by:

- Helping Idaho institutions focus on their research strengths;
- Strengthening collaboration among Idaho institutions;
- Creating research and development opportunities that build relationships between universities and the private sector;
- Contributing to the economic development of the State of Idaho;
- Enhancing learning and professional development through research and scholarly activity – also by promoting interdisciplinary and interprofessional research; and
- Building and improving the research infrastructure of Idaho universities to meet current and future research needs.

This statewide Strategic Research Plan for Idaho Higher Education is a tool for identifying and attaining quantifiable goals for research and economic growth and success in Idaho. The plan will be reviewed and updated annually as needed amid the fast-changing pace of research discovery.





## **VISION**

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Idaho's public universities will be a catalyst and engine to spur creation of new knowledge, technologies, products and industries that lead to advances and opportunities for economic growth and enhance the quality of life in Idaho and the nation.

## **MISSION**

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The research mission for Idaho's universities is to develop a sustainable resource base by:

- Identifying, recruiting and retaining top faculty with expertise in key research areas;
- Building research infrastructure including facilities, instrumentation, connectivity and database systems to support an expanding statewide and national research platform;
- Attracting top-tier students to Idaho universities at the undergraduate and graduate levels and providing outstanding education and research opportunities that will prepare them to excel in future careers;
- Raising awareness among state, national and international constituencies about the research excellence and capabilities of Idaho's universities by developing and implementing targeted outreach, programs and policies; and
- Collaborating with external public, private, state and national entities to further the shared research agenda for the state, thereby promoting economic and workforce development and addressing the needs and challenges of the state, region and nation.



## GOALS AND OBJECTIVES

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**Goal 1: Increase research at, and collaboration among, Idaho universities and colleges to advance research strengths and opportunities pertaining to critical issues in Idaho, while also providing a vision for national and global impact.**

*Objective 1.A: Ensure growth and sustainability of public university research efforts.*

Performance Measure 1.A.1: Statewide amount of total annual research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey.  
Benchmark: 10% increase per year.

*Objective 1.B: Ensure the growth and sustainability of the existing collaborative research at the Center for Advanced Energy Studies (CAES).*

Performance Measure 1.B.1: Statewide amount of U.S. Department of Energy (DOE) research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey.  
Benchmark: 10% increase per year.

*Objective 1.C: Expand joint research ventures among the state universities.*

Performance Measure 1.C.1: Number of new fully sponsored project proposals submitted by an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).  
Benchmark: 50% increase per year.

Performance Measure 1.C.2: Number of new fully sponsored project awards to an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction). Benchmark: 30% increase per year.

Performance Measure 1.C.3: Establish/fund at least one HERC-directed research project per year which collaborates with one other Idaho university that directly addresses issues of particular importance to the State of Idaho.  
Benchmark: 1 per year

**Goal 2: Create research and development opportunities that strengthen the relationship between state universities and the private sector.**

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*Objective 2.A: Increase the number of sponsored projects involving the private sector.*

Performance Measure 2.A.1: Number of new sponsored projects involving the private sector.

Benchmark: 50% increase per year.

**Goal 3: Contribute to the economic development of the State of Idaho.**

*Objective 3.A: Increase the amount of university-generated intellectual property introduced into the marketplace.*

Performance Measure 3.A.1: Number of technology transfer agreements (as defined by AUTM [Association of University Technology Managers]).

Benchmark: 15% increase per year.

Performance Measure 3.A.2: Number of invention disclosures (including biomic varieties).

Benchmark: 1 for every \$2M of research expenditures.

Performance Measure: 3.A.3: Amount of licensing revenues.

Benchmark: 10% increase per year.

Performance Measure: 3.A.4: Number of startup companies.

Benchmark: 10% increase per year.

**Goal 4: Enhance learning and professional development through research and scholarly activity.**

*Objective 4.A: Increase the number of university and college students and staff involved in sponsored project activities.*

Performance Measure 4.A.1: Number of undergraduate and graduate students paid from sponsored projects.

Benchmark: 20% increase per year.

Performance Measure 4.A.2: Percentage of baccalaureate students who had a research experience.

Benchmark: 20% increase per year.

Performance Measure 4.A.3: Number of faculty and staff paid from sponsored projects.

Benchmark: 20% increase per year.

## **RESEARCH OPPORTUNITIES**

Idaho's research universities have developed statewide strengths in strategic research areas that have great potential to drive future economic growth and success. The criteria used to select these areas include: number of faculty and qualifications; peer-reviewed publications and impact; infrastructure (facilities, equipment, information technology, staff); external grant and contract funding; academic programs; student involvement; potential benefit to the State of Idaho; and technology transfer activity, including patents, licenses, and startup companies. By focusing collective research efforts and resources in these areas, the universities will be on the most efficient and effective route to research success and state-wide economic development. These high impact areas include 1) Energy Systems, 2) Natural Resource Utilization and Conservation, 3) Biomedical and Healthcare Sciences, 4) Novel Materials, and 5) Systems Engineering and Cybersecurity.

*Energy Systems:* Energy is a critical driver of any economy. The projected increases in the population of the world and increases in the standard of living will produce severe strains on the ability to meet the demands of the next few decades. In addition, finite reserves of fossil fuels and pollution from their combustion requires that alternative sources of energy production be developed. The combination of natural resources in Idaho and presence of the Idaho National Laboratory makes energy a natural area of emphasis. Indeed, the three universities with research capabilities already have extensive research projects in this area. The Center for Advanced Energy Studies (CAES) is an example of the significant investment the three Idaho universities, the University of Wyoming, and the Idaho National Laboratory have made to develop expertise in nuclear science and engineering, materials science and engineering, energy systems design and analysis, fossil carbon conversion, geological systems and applications, energy policy and cybersecurity, and environmental and resource sustainability. Further growth in these areas not only takes advantage of the strong base but strongly supports a positive economic impact through new markets for new product development

*Natural Resource Utilization and Conservation:* In the broad field of natural resource utilization and conservation, Idaho's universities have expertise in water resources, wildfire management and restoration, agriculture, forestry, recreation, and geophysics and geochemical detection, geographical information systems, and monitoring of groundwater pollutants. For example, university geologists, ecologists, and policy experts are collaborating on broad-ranging research projects that examine and predict the impact of climate change on Idaho's water resources. As water is essential to agriculture, recreation, the ecosystem, and human health, the universities have research strength in an area of tremendous societal and economic impact. Agriculture remains an important part of the economy of Idaho. Development of new biomic varieties with improved resistance to disease and climate change remain an area of importance as does the development of new

feeds for domestic fish production. The often competing demands for preservation and exploitation put on the environment require understanding of the various ecosystems in the state and region as well as societal, human health, and economic impacts of policy decisions. Recent national research imperatives, as particularly captured in National Science Foundation's Innovation at the Nexus of Food, Energy, and Water Systems (INFEWS) foundation-wide program and the Department of Energy's report Water-Energy Nexus: Challenges and Opportunities increasingly require multi-sectoral, multi-disciplinary approaches to problems in natural resource utilization and conservation. The depth and breadth of relevant research expertise in the biophysical, rural health and social science fields within Idaho's universities underscores an opportunity that a national emphasis on food, energy, and water security provides. Provided that enhanced coordination and collaboration between Idaho's universities can be successfully executed, we are particularly well-placed to exhibit national and international leadership at the nexus of food, energy, water system research. The future economic success of the state will rely on a deep understanding of these processes.

*Biomedical and Healthcare Sciences:* Idaho's universities have well-established research programs in selected areas of biological and biomedical sciences. University microbiologists and informatics experts, for example, study real-time change in pathogenic microorganisms that enable them to become resistant to drugs and chemical toxins thus resulting in worsening human disease and mortality rates. These effects are not restricted to humans, domestic and wild animals as well as food plants and trees are experiencing the same phenomena. Also, weeds are becoming resistant to herbicides. These phenomena are having a significant negative impact on Idaho's agriculture and forests. Further stress is being put on these important commercial sectors through climate variability. Research in these areas is critical for preserving important economic sectors of Idaho's economy while addressing future global needs.

The public health infrastructure in rural Idaho is not well understood but is potentially the most fragile aspect of the state's health care system. The rural environment, especially typical in Idaho where agriculture, manufacturing, and fishing are important or dominant parts of the economy, presents extraordinary threats to health. Agriculture brings the use of pesticides and herbicides as well as heavy and potentially dangerous machinery. Manufacturing – depending on the type – is a consistently hazardous industry, and employees involved in fishing and forestry are at much higher risks of trauma. Healthcare and in particular a focus on rural health, provides significant opportunities for economic development in Idaho. Partnerships with private entities in the healthcare industry, funding through the National Institutes of Health and other federal agencies utilize the natural laboratory of Idaho's rural population. Idaho's universities' contributions towards this emerging area of scholarship will add to the global competitiveness of the United States and the State.

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*Novel Materials:* The global materials industry is worth an estimated \$550 billion, conservatively. Materials revolutionize our lives by offering advanced performance and new possibilities for design and usage. For example, the market for biocompatible materials has grown from a few to \$60B in the past decade. Market size is growing for materials in emerging areas such as photonic materials, electronic and dielectric materials, functional coatings, and green materials. Materials research in Idaho is conducted by a wide range of scientists in diverse fields. Across the state, faculty members in Biology, Chemistry, Geosciences, Physics, Electrical Engineering, Mechanical Engineering, Nuclear Engineering and Materials Science and Engineering conduct research on improving and developing new materials. Current materials researchers in Idaho cover a broad spectrum of specializations, including semiconductor device reliability, microelectronic packaging, shape memory alloys, DNA machinery, environmental degradation, materials for extreme environments, biomaterials and bio-machinery, materials characterization, and materials modeling. Nanoscale materials and devices, functional materials and their uses and materials for energy applications are a focus of research throughout the state. These areas of research are highly synergistic with local industries and the Idaho National Laboratory (INL). Access to materials characterization equipment and processing laboratories has resulted in collaborations with small businesses and start-up companies.

*Systems Engineering and Cybersecurity:* Device control, information management, and cybersecurity are an essential part of 21<sup>st</sup> century life and, therefore, are an important part of educational requirements. For instance, large amounts of sensitive data are collected, processed, and stored electronically but must be accessed and moved in order to have any impact. In fact, many systems are computer controlled through networks. These include such things as the electric transmission grid and transportation in major cities. The universities are beginning to develop research expertise in software development and data management lifecycle design and operations and secure and dependable system design and operations. This area provides a significant area of opportunity for positive economic impact in Idaho, partnerships with the Idaho National Laboratory, and in improving the global competitiveness of the United States. There are already a significant number of firms in Idaho whose interests are in software development for device control, information management and processing. In addition, many of the major research projects being undertaken in the region by various state and federal agencies as well as the universities require the handling of significant amounts of data in a secure and dependable fashion. Currently, research funding in the universities from private and governmental sources is limited by the number of qualified personnel. In addition, within Idaho there is a high demand for graduates at all levels in computer science, hence workforce development in these areas should be a matter of urgency.

**EXTERNAL FACTORS: IDAHO RESEARCH ADVANTAGES AND CHALLENGES**

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There are unique advantages and challenges to research in Idaho. This document seeks to provide guidance on building upon the advantages present in Idaho and address the challenges through the goals in this strategic plan.

### Research Advantages

*The Idaho National Laboratory (INL) and the Center for Advanced Energy Studies:* Idaho is fortunate to be home to the Idaho National Laboratory, one of only 17 U.S. Department of Energy national laboratories in the U.S. The INL's unique history and expertise in nuclear energy, environmental sciences and engineering, alternative forms of energy, and biological and geological sciences and related fields provides an excellent opportunity for research collaboration with Idaho's university faculty in the sciences, engineering, business and other fields.

The Center for Advanced Energy Studies (CAES), established at the request of the U.S. Department of Energy, is a public-private partnership that includes Idaho's research universities (Boise State University, Idaho State University, and the University of Idaho), the University of Wyoming, and the Battelle Energy Alliance (BEA), which manages the INL. The CAES partners work together to create unique educational and research opportunities that blend the talents and capabilities of Idaho's universities and the INL. A 55,000 square-foot research facility in Idaho Falls supports the CAES energy mission with laboratory space and equipment for students, faculty, and INL staff in collaborative research projects. The State of Idaho invests \$3M per year in direct support of the three Idaho research universities.

*Natural Resources:* Idaho's beautiful natural resources are well known to fishermen, hunters, skiers, and other outdoor enthusiasts. Through its rivers, forests, wildlife, geological formations, and rangelands, Idaho itself is a unique natural laboratory for geological, ecological, and forestry studies. Idaho is home to some of the largest tracts of remote wilderness in the lower 48 states. In addition, the proximity of Yellowstone National Park and the Great Salt Lake provide additional one of a kind opportunities for ecology and geology research.

*Small Population:* Idaho's relatively small population of 1.6 million people enables every group in the state to be included in research surveys, providing more accurate information than a sampling of only some groups.

*Intrastate Networks:* The existing networks within the state, including agricultural extension services and rural health networks, provide a foundation for collecting research data from across the state, and rapidly implementing new policies and practices as a result of research discoveries.

### Research Challenges

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The goals set forth in this strategic plan are specifically designed to address challenges in Idaho. These challenges are identified below and include a description of the challenge and the goal from this strategic plan that addresses that specific challenge.

*Lack of Coordination Among Universities In Advancing Research and Economic Development (technology transfer):* By and large the research universities have not coordinated and shared their technology transfer and economic development activities among themselves. This not only decreases each university's competitiveness at the national and state level but also increases the costs for achieving a particular goal. There is some redundancy in programs, services and infrastructure between the universities. This duplication both limits the success that any one university can achieve and increases the cost.

*Historical Competition Between Universities:* One of the greatest problems with growing the research and economic development enterprise within the Idaho university arena has been the competitiveness between research universities. This problem existed at all levels within the universities themselves, extended through university administration to the state level, and was even prevalent in the press. While competition between the universities is to be expected when all are competing for a finite pot of money within the state and is even healthy at some level, the level of competition was counterproductive. The real competition that Idaho universities face is other universities in the United States when it comes to research dollars and attracting faculty and students. Economic development is also not a competition between the state universities but rather a competition with other states.

Goal 1 is designed to remedy these two challenges by "increas(ing) research at, and collaboration among Idaho universities and colleges to advance research strengths and opportunities pertaining to critical issues in Idaho, while also providing a vision for national and global impact."

*Competition from Other Universities:* In research, university faculty competes nationally for grant funds from federal agencies such as the National Science Foundation, Department of Energy, and the Department of Health and Human Services. Many other states' universities are well ahead of Idaho's universities in terms of state funding per student, patent royalty income, endowments, etc., and are able to move ahead at a faster pace, leaving Idaho universities further behind as time goes on.

Goals 1 and 2 are designed to make Idaho's research universities more competitive nationally and globally through collaboration with each other and by "(strengthening) the relationship between state universities and the private sector."

*University Culture:* Each of Idaho's research universities aspires to greater levels of achievement in research and creative activity, yet many faculty at each

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of the universities are not fully engaged on a national level in their respective fields. This is changing for the better under new leadership and with new research-active faculty hires at each institution, but these cultural differences remain, resulting in discomfort with change aimed at making the universities more nationally competitive.

While Goal 1 urges the researchers at Idaho's universities to keep a national and global vision for their research, Goal 4 aims to enhance the research capabilities of faculty by "(enhancing) learning and professional development."

*Private Sector Support:* Idaho has very little high-technology industry within its borders. This reduces the potential for developing an applied research initiative within the universities that, in many states, provides one important arm of economic development and technology transfer. This also means that it is much harder to develop those private/public partnerships that provide the universities with additional capital to construct research and technology transfer facilities.

The private sector plays a critical role in research. Goal 2 states that we will "create research and development opportunities that strengthen the relationship between state universities and the private sector."

*Fragmented Economic Development Initiatives:* There are seemingly too many economic development initiatives in Idaho and they are not well coordinated. It is imperative that state, university, and community initiatives work together toward common and agreed to goals. As it is, little progress is being made towards developing an economic strategy for the state that includes the research universities and little money has been secured to drive the economic development process. In fact, it is not uncommon to find that different entities in Idaho are competing against each other.

Positive economic impact is the result of well-organized and collaborative research. It requires strategic planning and execution. Goal 3 indicates that Idaho's research universities focus on "(contributing) to the positive economic impact of the State of Idaho."

### Conclusion

This statewide Strategic Research Plan for Idaho Higher Education provides a framework to mitigate these external challenges and help Idaho institutions continue to focus on their research strengths. Overcoming the challenges discussed in this document will require enhanced cooperation between the functional groups at each Idaho university, fueled by a desire to work together towards the common goal of improving Idaho's economy for future generations.

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**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

| Performance Measure  | FY 2013      | FY2014       | FY 2015      | FY 2016  | Notes   |
|--|--------------|--------------|--------------|----------|---|
| Statewide amount of total annual research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey                     | \$25,690,000 | \$26,568,000 | \$31,341,000 |          | as per NSF expenditure report for FY15. FY16 report will not be submitted until Jan 17. |
| Statewide amount of U.S. Department of Energy (DOE) research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey. | 4,156,000    | 4,307,000    | \$2,090,000  |          | as per NSF expenditure report for FY15. FY16 report will not be submitted until Jan 17. |
| Number of new fully sponsored project proposals submitted by an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction). [1]           | 30           | 33           | 26           | 44       |   |
| Number of new fully sponsored project awards to an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).[2]                         | 12           | 21           | 15           | 19       |   |
| Number of new sponsored projects involving the private sector. [3]   | 19           | 22           | 22           | 35       |   |
| Number of technology transfer agreements (as defined by AUTM [Association of University Technology Managers]).   | 22           | 27           | 38           | 29       |   |
| Number of invention disclosures (including plant varieties)  | 24           | 16           | 15           | 16       |   |
| Amount of licensing revenues.*   | \$37,582     | \$35,600     | \$21,475     | \$53,847 |   |
| Number of startup companies.   | 1            | 0            | 0            | 5        |   |
| Number of undergraduate students paid from sponsored projects.   | 916          | 607          | 807          | 836      |   |
| Number of graduate students supported by sponsored projects. **  |              |              |              |          |   |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

|   |              |              |              |              |
|---|--------------|--------------|--------------|--------------|
| Percentage of baccalaureate students who graduated in STEM disciplines and had a research experience.** |              |              |              |              |
| Number of faculty and staff paid from sponsored projects.   | 597          | 651          | 676          | 784          |
|   |              |              |              |              |
| <b>K-20 Statewide Strategic Plan Performance Measures</b>   |              |              |              |              |
| Percentage of students participating in undergraduate research.   | 31.10%       | 29%          | 29.40%       | 35.20%       |
| Total amount of research expenditures   | \$17,818,753 | \$17,340,489 | \$20,613,353 | \$18,865,799 |
| Institution expenditures from competitive Federally funded grants                                       | \$21,188,609 | \$17,384,273 | \$21,042,684 | \$19,306,479 |
| Institution expenditures from competitive industry funded grants  | \$1,931,149  | \$2,074,227  | \$1,966,183  | \$2,020,959  |
| private sector  | \$215,244    | \$134,010    | \$266,467    |              |
| private sector federal flow through   | \$1,715,905  | \$1,940,217  | \$1,699,716  |              |
| Measure of production of intellectual property:   |              |              |              |              |
| Number of startups  | 1            | 0            | 0            | 5            |
| Number of patents   | 7            | 6            | 3            | 4            |
| Number of Student internships [4]   | 449          | 411          | 438          | 489          |

[1] Represents the number of full proposal submissions that involved a financial relationship with another Idaho institution.

[2] Represents the number of new awards that involved a financial relationship with another Idaho institution or organization.

[3] Represents the number of new awards that involved a financial relationship with the private sector.

[4] Internship information is based on estimates by academic year (e.g., FY09=Academic year Summer 2008 through Spring 2009).

\* 2013, 2014 - Licensing revenue includes \$30k/year for Micron Licensing Restriction Agreement and is not considered net for OTT.

\*\*Undergraduate and Graduate student totals have been combined into one line as BSU does not have the ability to break this information out.

|  | 2013                                 | 2014                                 | 2015                                 | 2016                                 |
|--|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| Institution expenditures from competitive industry funded grants | a. \$215,243.91<br>b. \$1,715,905.10 | a. \$134,009.76<br>b. \$1,940,216.83 | a. \$266,467.06<br>b. \$1,699,715.80 | a. \$562,457.27<br>b. \$1,458,502.01 |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

|  | 2013 | 2014         | 2015         | 2016         |
|--|------|--------------|--------------|--------------|
| Number of new sponsored projects involving the private sector. [3] | 19   | a) 10; b) 12 | a) 10; b) 12 | a) 22; b) 13 |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

| Performance Measure  | FY 2013 | FY 2014      | FY 2015      | FY 2016 | Notes   |
|--|---------|--------------|--------------|---------|---|
| Statewide amount of total annual research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey                     |         | \$20,610,000 | \$17,866,000 |         | as per NSF expenditure report for FY15. FY16 report will not be submitted until Jan 17. |
| Statewide amount of U.S. Department of Energy (DOE) research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey. |         | \$4,625,000  | \$4,086,000  |         | as per NSF expenditure report for FY15. FY16 report will not be submitted until Jan 17. |
| Number of new fully sponsored project proposals submitted by an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).               | 29      | 20           | 18           | 30      |   |
| Number of new fully sponsored project awards to an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).                            | 16      | 22           | 13           | 27      |   |
| Number of new sponsored projects involving the private sector.   | 20      | 93           | 54           | 65      |   |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

|  |     |     |              |              |   |
|--|-----|-----|--------------|--------------|---|
| Number of technology transfer agreements (as defined by AUTM [Association of University Technology Managers]). |     |     | 1            | 2            |   |
| Number of invention disclosures (including plant varieties)  | 3   | 13  | 0            | 6            |   |
| Amount of licensing revenues.  | 0   | 0   | 0            | \$100,000    |   |
| Number of startup companies.   | 0   | 0   | 0            | 3            |   |
| Number of undergraduate students paid from sponsored projects.   | 210 | 287 | 317          | 150          |   |
| Number of graduate students supported by sponsored projects  | 246 | 372 | 74           | 173          |   |
| Percentage of baccalaureate students who graduated in STEM disciplines and had a research experience.          |     |     | 71%          | 13%          |   |
| Number of faculty and staff paid from sponsored projects.  | 505 | 246 | 524          | 257          |   |
|  |     |     |              |              |   |
| K-20 Statewide Stratgic Plan Performance Measures  |     |     |              |              |   |
| Percentage of students participating in undergraduate research.  |     |     | 41%          | 45%          |   |
| Total amount of research expenditures  |     |     | \$26,262,144 | \$27,670,658 |   |
| Institution expenditures from competitive Federally funded grants  |     |     | \$21,438,821 | \$22,215,191 | FY16 report will not be submitted until Jan 17. |
| Institution expenditures from competitive industry funded grants   |     |     |              | \$1,411,000  |   |
| Measure of production of intellectual property:  |     |     |              |              |   |
| Number of startups   | 2   | 0   | 0            | 3            |   |
| Number of patents  | 0   | 0   | 0            | 11           |   |
| Number of Student internships  | 246 | 372 | 888          | 896          |   |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

| Performance Measure  | FY 2013      | FY2014       | FY 2015      | FY2016        | Notes |
|--|--------------|--------------|--------------|---------------|-------|
| Statewide amount of total annual research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey (See Note B below)  | \$95,890,993 | \$95,593,851 | \$97,492,825 | \$102,457,123 |       |
| Statewide amount of U.S. Department of Energy (DOE) research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey. | \$6,106,639  | \$4,613,198  | \$3,940,040  | \$3,694,218   |       |
| Number of new fully sponsored project proposals submitted by an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).               | 47           | 24           | 25           | 18            |       |
| Number of new fully sponsored project awards to an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).                            | 20           | 10           | 14           | 12            |       |
| Number of new sponsored projects involving the private sector (see Note A below).  | 69           | 68           | 57           | 65            |       |
| Number of technology transfer agreements (as defined by AUTM [Association of University Technology Managers]).   | 6            | 7            | 11           | 13            |       |
| Number of invention disclosures (including plant varieties)  | 16           | 18           | 14           | 18            |       |
| Amount of licensing revenues.  | \$366,571    | \$1,156,407  | \$419,596    | \$570,469     |       |
| Number of startup companies.   | 2            | 0            | 0            | 0             |       |
| Number of undergraduate students paid from sponsored projects.   | 572          | 489          | 575          | 697           |       |
| Number of graduate students supported by sponsored projects  | 453          | 488          | 574          | 463           |       |
| Percentage of baccalaureate students who graduated in STEM disciplines and had a research experience. (*Note B*)   | 64.10%       | 58.80%       | 57.85%       | 60.40%        |       |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
Boise State University**

|  |              |              |              |              |
|--|--------------|--------------|--------------|--------------|
| Number of faculty and staff paid from sponsored projects.                            | 1,208        | 1,153        | 1,175        | 1,231        |
|  |              |              |              |              |
| <b>K-20 Statewide Strategic Plan Performance Measures</b>                            |              |              |              |              |
| Percentage of students participating in undergraduate research. (*Note B*)           | 63.95%       | 59.60%       | 61.13%       | 58.80%       |
| Total amount of research expenditures  | \$57,426,119 | \$56,385,826 | \$54,955,421 | \$55,893,584 |
| Institution expenditures from competitive Federally funded grants                    | \$67,910,558 | \$64,567,276 | \$63,565,943 | \$63,328,954 |
| Institution expenditures from competitive industry funded grants (see Note A below). | \$7,322,692  | \$5,674,316  | \$5,422,896  | \$5,300,451  |
| private sector   | \$1,898,229  | \$1,452,711  | \$1,527,156  |              |
| private sector federal flow through  | \$5,424,463  | \$4,221,605  | \$3,895,740  |              |
| Measure of production of intellectual property:                                      |              |              |              |              |
| Number of startups   | 2            | 0            | 0            | 0            |
| Number of patents  | 23           | 7            | 7            | 3            |
| Number of student internships  | 1,784        | 1,326        | 764          | 909          |

**Performance Measure Explanatory Notes:**

Note A - Activity with private sector/industry - (a) is funding from private sector, and (b) is funding from private sector, federal flow through.

Note B - Due to process improvement, previous years have been corrected to reflect correct figures.

|  | 2013                                | 2014                                | 2015                                | 2016                                |                     |
|--|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|---------------------|
| Institution expenditures from competitive industry funded grants (Note A)        | \$1,898,229 (a);<br>\$5,424,463 (b) | \$1,452,711 (a);<br>\$4,221,605 (b) | \$1,527,156 (a);<br>\$3,895,740 (b) | \$1,825,722 (a);<br>\$3,474,729 (b) | \$7.2M annually     |
|  | 2013                                | 2014                                | 2015                                | 2016                                |                     |
| Number of new sponsored projects involving the private sector (See Note A above) | 53 (a); 16 (b)                      | 53 (a); 15 (b)                      | 45 (a); 12 (b)                      | 47 (a); 18 (b)                      | 50% annual increase |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS**  
**FEBRUARY 16, 2017**  
**Boise State University**

| Performance Measure  | FY 2013          | FY 2014          | FY 2015          | FY 2016                         | Benchmark                                 |
|--|------------------|------------------|------------------|---------------------------------|---|
| Statewide amount of total annual research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey                     | \$121,580,993.00 | \$142,771,851.00 | \$146,699,825.00 | Not reported until January 2017 | 10% annual increase                       |
| Statewide amount of U.S. Department of Energy (DOE) research and development expenditures as reported in the National Science Foundation (NSF) Higher Education Research and Development Survey. | \$10,262,639.00  | \$13,545,198.00  | \$10,116,040.00  | Not reported until January 2017 | 10% annual increase                       |
| Number of new fully sponsored project proposals submitted by an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).               | 106              | 77               | 69               | 92                              | 50% annual increase                       |
| Number of new fully sponsored project awards to an Idaho University that involve a subaward with another Idaho institution of higher education (in either direction).                            | 48               | 53               | 42               | 58                              | 30% annual increase                       |
| Number of new sponsored projects involving the private sector.   | 108              | 183              | 133              | 165                             | 50% annual increase                       |
| Number of technology transfer agreements (as defined by AUTM [Association of University Technology Managers]).   | 28               | 34               | 50               | 44                              | 15% annual increase                       |
| Number of invention disclosures (including plant varieties)  | 43               | 47               | 29               | 40                              | 1 for every \$2M of research expenditures |
| Amount of licensing revenues.  | \$404,153        | \$1,192,007      | \$441,071        | \$724,316                       | 10% annual increase                       |
| Number of startup companies.   | 3                | 0                | 0                | 8                               | 10% annual increase                       |
| Number of undergraduate students paid from sponsored projects.   | 1,698            | 1,383            | 1,699            | 1,683                           | 20% annual increase                       |
| Number of graduate students paid from sponsored projects.  | 699              | 860              | 648              | 636                             | 20% annual increase                       |
| Percentage of baccalaureate students who graduated in STEM disciplines and had a research experience.  | N/A              | N/A              | N/A              | N/A                             | 20% annual increase                       |
| Number of faculty and staff paid from sponsored projects.  | 2,310            | 2,050            | 2,375            | 2,272                           | 20% annual increase                       |
| <b>K-20 Statewide Stratgic Plan Performance Measures</b>   |                  |                  |                  |                                 |   |
| Percentage of students participating in undergraduate research.  | N/A              | N/A              | N/A              | N/A                             | 30%                                       |
| Total amount of research expenditures  | 75,244,872       | 73,726,315       | 101,830,918      | 102,430,041                     |   |
| Institution expenditures from competitive Federally funded grants  | \$89,099,167     | \$81,951,549     | \$106,047,448    | \$104,850,624                   | \$112M annually                           |
| Institution expenditures from competitive industry funded grants   | \$9,253,841      | \$7,748,543      | \$7,389,079      | \$8,732,410                     | \$7.2M annually                           |
| Measure of production of intellectual property:  |                  |                  |                  |                                 |   |
| Number of startups   | 5                | 0                | 0                | 8                               | 10% annual increase                       |
| Number of patents  | 30               | 13               | 10               | 18                              | 10% annual increase                       |
| Number of student internships  | 2,479            | 2,109            | 2,090            | 2,294                           |   |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

**BSU**

**Sponsored Project Activity Report  
FY2016**

*Awards for the Period July 1, 2015 through June 30, 2016*

| Activity Type                      |   | Federal       | State         | Industry     | Other        | Total         | % of Grand Total |
|------------------------------------|---|---------------|---------------|--------------|--------------|---------------|------------------|
| <b>Instruction:</b>                |   |               |               |              |              |               |                  |
|                                    | Sponsored Programs                              | \$ 3,614,127  | \$ 829,186    | \$ 3,000     | \$ 40,299    | \$ 4,486,612  |                  |
|                                    | State Instruction Appropriations                | \$ -          | \$ 1,400,000  | \$ -         | \$ -         | \$ 1,400,000  |                  |
|                                    | <b>Subtotal Instruction</b>                     | \$ 3,614,127  | \$ 2,229,186  | \$ 3,000     | \$ 40,299    | \$ 5,886,612  | 14.23%           |
| <b>Research:</b>                   |   |               |               |              |              |               |                  |
|                                    | Sponsored Programs                              | \$ 18,941,895 | \$ 1,462,732  | \$ 713,198   | \$ 868,952   | \$ 21,986,777 |                  |
|                                    | State Research Appropriations                   | \$ -          | \$ 1,283,000  | \$ -         | \$ -         | \$ 1,283,000  |                  |
|                                    | <b>Subtotal Research</b>                        | \$ 18,941,895 | \$ 2,745,732  | \$ 713,198   | \$ 868,952   | \$ 23,269,777 | 56.24%           |
| <b>Other Sponsored Activities:</b> |   |               |               |              |              |               |                  |
|                                    | Sponsored Programs                              | \$ 8,555,150  | \$ 1,687,692  | \$ 157,980   | \$ 1,782,123 | \$ 12,182,945 |                  |
|                                    | State Other Sponsored Activities Appropriations | \$ -          | \$ 35,000     | \$ -         | \$ -         | \$ 35,000     |                  |
|                                    | <b>Subtotal Other Sponsored Activities</b>      | \$ 8,555,150  | \$ 1,722,692  | \$ 157,980   | \$ 1,782,123 | \$ 12,217,945 | 29.53%           |
| <b>Grand Totals</b>                |   | \$ 31,111,172 | \$ 6,697,610  | \$ 874,178   | \$ 2,691,374 | \$ 41,374,334 |                  |
| <b>Percent of Grand Total</b>      |   | <b>75.19%</b> | <b>16.19%</b> | <b>2.11%</b> | <b>6.50%</b> | <b>100%</b>   | <b>100%</b>      |

*Expenditures for the Period July 1, 2015 through June 30, 2016*

| Activity Type                      |   | Federal          | State           | Industry      | Other           | Totals           | % of Grand Total |
|------------------------------------|---|------------------|-----------------|---------------|-----------------|------------------|------------------|
| <b>Instruction:</b>                |   |                  |                 |               |                 |                  |                  |
|                                    | Sponsored Programs                              | \$ 2,793,959.40  | \$ 1,271,032.16 | \$ -          | \$ 66,621.24    | \$ 4,131,612.80  |                  |
|                                    | State Instruction Appropriations                | \$ -             | \$ 700,000.00   | \$ -          | \$ -            | \$ 700,000.00    |                  |
|                                    | <b>Subtotal Instruction</b>                     | \$ 2,793,959.40  | \$ 1,971,032.16 | \$ -          | \$ 66,621.24    | \$ 4,831,612.80  | 13.51%           |
| <b>Research:</b>                   |   |                  |                 |               |                 |                  |                  |
|                                    | Sponsored Programs                              | \$ 16,457,016.13 | \$ 942,137.88   | \$ 513,001.46 | \$ 953,643.71   | \$ 18,865,799.18 |                  |
|                                    | State Research Appropriations                   | \$ -             | \$ 620,867.56   | \$ -          | \$ -            | \$ 620,867.56    |                  |
|                                    | <b>Subtotal Research</b>                        | \$ 16,457,016.13 | \$ 1,563,005.44 | \$ 513,001.46 | \$ 953,643.71   | \$ 19,486,666.74 | 54.47%           |
| <b>Other Sponsored Activities:</b> |   |                  |                 |               |                 |                  |                  |
|                                    | Sponsored Programs                              | \$ 8,272,065.40  | \$ 1,248,590.70 | \$ 16,590.29  | \$ 1,778,599.98 | \$ 11,315,846.37 |                  |
|                                    | State Other Sponsored Activities Appropriations | \$ -             | \$ 141,521.94   | \$ -          | \$ -            | \$ 141,521.94    |                  |
|                                    | <b>Subtotal Other Sponsored Activities</b>      | \$ 8,272,065.40  | \$ 1,390,112.64 | \$ 16,590.29  | \$ 1,778,599.98 | \$ 11,457,368.31 | 32.03%           |
| <b>Grand Totals</b>                |   | \$ 27,523,040.93 | \$ 4,924,150.24 | \$ 529,591.75 | \$ 2,798,864.93 | \$ 35,775,647.85 |                  |
| <b>Percent of Grand Total</b>      |   | <b>76.93%</b>    | <b>13.76%</b>   | <b>1.48%</b>  | <b>7.82%</b>    | <b>100%</b>      | <b>100%</b>      |

## INSTRUCTION, RESEARCH AND STUDENT AFFAIRS

Idaho State University  
FEBRUARY 16, 2017

Office for Research

BSU

## Award Breakdown by Funding Agency Type and Project Type

July 1, 2015 through June 30, 2016

|                          | Federal    | State      | Industry  | Other/Foundation | Totals     | Percent of Total |
|--------------------------|------------|------------|-----------|------------------|------------|------------------|
| Research                 | 7,278,593  | 6,149,729  | 5,778,711 | 700,629          | 19,907,662 | 54%              |
| Training and Instruction | 5,339,597  | 7,213,757  | 1,185,985 | 485,487          | 14,224,826 | 38%              |
| Other/Public Service     | 118,951    | 1,583,037  | 578,496   | 566,215          | 2,846,699  | 8%               |
| Totals                   | 12,737,141 | 14,946,523 | 7,543,192 | 1,752,331        | 36,979,187 | 100%             |
| Percent of Total         | 34%        | 40%        | 20%       | 5%               | 100%       |                  |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

**BSU**

**IDAHO STATE UNIVERSITY**

8/24/2016

**SPONSORED PROJECT EXPENDITURE REPORT  
FY2016**

Expenditures for the Period July 1, 2015 through June 30, 2016

|                          | Federal      | State       | Industry    | Other     | Totals       |      |
|--------------------------|--------------|-------------|-------------|-----------|--------------|------|
| Training and Instruction | \$6,035,700  | \$1,539,219 | \$311,556   | \$328,239 | \$8,214,714  | 30%  |
| Research                 | \$11,926,478 | \$414,672   | \$1,788,973 | \$248,465 | \$14,378,588 | 52%  |
| Other/Public Service     | \$4,253,014  | \$344,806   | \$336,699   | \$142,838 | \$5,077,357  | 18%  |
| Totals                   | \$22,215,191 | \$2,298,697 | \$2,437,228 | \$719,542 | \$27,670,658 |      |
| Percent of Total         | 80%          | 8%          | 9%          | 3%        | 100%         | 100% |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS**  
 University of Idaho - FY2016 Research Activity Report  
**FEBRUARY 16, 2017**  
 Awards for the Period July 1, 2015 through June 30, 2016

**BSU**

|  | Federal                 | State of Idaho          | Industry               | Other                  | Total                    | % of Grand Total | % of Sponsor Total |
|--|-------------------------|-------------------------|------------------------|------------------------|--------------------------|------------------|--------------------|
| <b>Instruction:</b>                            |                         |                         |                        |                        |                          |                  |                    |
| Sponsored Programs                             | \$ 2,874,941.00         | \$ 244,341.00           | \$ 60,657.50           | \$ 81,667.24           | \$ 3,261,606.74          |                  | 3.97%              |
|  | \$ 2,874,941.00         | \$ 244,341.00           | \$ 60,657.50           | \$ 81,667.24           | \$ 3,261,606.74          | 2.75%            |                    |
| <b>Research:</b>                               |                         |                         |                        |                        |                          |                  |                    |
| Sponsored Programs                             | \$ 51,916,450.32        | \$ 2,018,093.33         | \$ 1,908,862.76        | \$ 3,442,306.21        | \$ 59,285,712.62         |                  | 72.20%             |
| Federal Land Grant Appropriations (FFY16)      | 2,734,257.00            |                         |                        |                        | 2,734,257.00             |                  |                    |
| State Research/Endowment Appropriations        |                         | 20,200,019.67           |                        |                        | 20,200,019.67            |                  |                    |
| <b>Subtotal Research:</b>                      | \$ 54,650,707.32        | \$ 22,218,113.00        | \$ 1,908,862.76        | \$ 3,442,306.21        | \$ 82,219,989.29         | 69.42%           |                    |
| <b>Public Service:</b>                         |                         |                         |                        |                        |                          |                  |                    |
| Sponsored Programs                             | \$ 16,899,636.04        | \$ 1,283,151.30         | \$ -                   | \$ 1,384,674.01        | \$ 19,567,461.35         |                  | 23.83%             |
| Federal Land Grant Appropriations (FFY16)      | 2,943,272.00            |                         |                        |                        | 2,943,272.00             |                  |                    |
| State Extension Appropriations                 |                         | 10,439,180.33           |                        |                        | 10,439,180.33            |                  |                    |
| <b>Subtotal Public Service:</b>                | \$ 19,842,908.04        | \$ 11,722,331.63        | \$ -                   | \$ 1,384,674.01        | \$ 32,949,913.68         | 27.82%           |                    |
| <b>Construction:</b>                           |                         |                         |                        |                        |                          |                  |                    |
| Sponsored Programs                             | -                       | -                       | -                      | -                      | -                        | 0.00%            | 0.00%              |
| <b>Total Sponsored Programs Funding</b>        | <b>\$ 71,691,027.36</b> | <b>\$ 3,545,585.63</b>  | <b>\$ 1,969,520.26</b> | <b>\$ 4,908,647.46</b> | <b>\$ 82,114,780.71</b>  |                  |                    |
| <b>Percent of Total Sponsored Programs</b>     | <b>87.31%</b>           | <b>4.32%</b>            | <b>2.40%</b>           | <b>5.98%</b>           | <b>100%</b>              |                  | <b>100%</b>        |
| <b>Grand Total of All Funding Per Category</b> | <b>\$ 77,368,556.36</b> | <b>\$ 34,184,785.63</b> | <b>\$ 1,969,520.26</b> | <b>\$ 4,908,647.46</b> | <b>\$ 118,431,509.71</b> |                  |                    |
| <b>Percent of All Funding</b>                  | <b>65.33%</b>           | <b>28.86%</b>           | <b>1.66%</b>           | <b>4.15%</b>           | <b>100%</b>              | <b>100%</b>      |                    |

**Expenditures for the Period July 1, 2015 through June 30, 2016**

|   | Federal                 | State of Idaho          | Industry               | Other                  | Institutional           | Total                    | % of Grand Total | % of Sponsor Total |
|---|-------------------------|-------------------------|------------------------|------------------------|-------------------------|--------------------------|------------------|--------------------|
| <b>Instruction:</b>   |                         |                         |                        |                        |                         |                          |                  |                    |
| Sponsored Programs  | \$ 2,102,133.76         | \$ 171,032.51           | \$ 78,900.47           | \$ 277,658.46          | \$ 216,082.07           | \$ 2,845,807.27          |                  | 3.28%              |
| Other Sources   |                         | -                       |                        |                        | 4,860.62                | 4,860.62                 |                  |                    |
|   | \$ 2,102,133.76         | \$ 171,032.51           | \$ 78,900.47           | \$ 277,658.46          | \$ 220,942.69           | \$ 2,850,667.89          | 2.06%            |                    |
| <b>Research:</b>  |                         |                         |                        |                        |                         |                          |                  |                    |
| Sponsored Programs  | \$ 47,700,435.87        | \$ 1,940,538.34         | \$ 1,900,651.01        | \$ 4,175,269.70        | \$ 7,998,193.60         | \$ 63,715,088.52         |                  | 73.41%             |
| Federal Land Grant Appropriations                               | 3,250,481.27            |                         |                        |                        |                         | 3,250,481.27             |                  |                    |
| State Research Appropriations (D11311,D51346,D51360)            |                         | 20,305,630.77           |                        |                        |                         | 20,305,630.77            |                  |                    |
| State Endowment/Other Appropriations                            |                         | 4,787,860.97            |                        |                        |                         | 4,787,860.97             |                  |                    |
| Other Sources   | 344,318.95              |                         | 334,991.84             | 2,767,015.58           | 6,951,735.21            | 10,398,061.58            |                  |                    |
| <b>Subtotal Research:</b>                                       | \$ 51,295,236.09        | \$ 27,034,030.08        | \$ 2,235,642.85        | \$ 6,942,285.28        | \$ 14,949,928.81        | \$ 102,457,123.11        | 73.93%           |                    |
| <b>Public Service:</b>  |                         |                         |                        |                        |                         |                          |                  |                    |
| Sponsored Programs  | \$ 15,587,713.16        | \$ 837,525.17           | \$ 122,179.26          | \$ 1,204,492.01        | \$ 2,486,306.16         | \$ 20,238,215.76         |                  | 23.32%             |
| Federal Land Grant Appropriations                               | 2,272,391.31            |                         |                        |                        |                         | 2,272,391.31             |                  |                    |
| State Extension Appropriations                                  |                         | 10,547,233.38           |                        |                        |                         | 10,547,233.38            |                  |                    |
| Other Sources   |                         |                         |                        | 2,991.05               | 218,629.90              | 221,620.95               |                  |                    |
| <b>Subtotal Public Service:</b>                                 | \$ 17,860,104.47        | \$ 11,384,758.55        | \$ 122,179.26          | \$ 1,207,483.06        | \$ 2,704,936.06         | \$ 33,279,461.40         | 24.01%           |                    |
| <b>Construction:</b>  |                         |                         |                        |                        |                         |                          |                  |                    |
| Sponsored Programs  | \$ -                    | \$ -                    | \$ -                   | \$ -                   | \$ -                    | \$ -                     | 0.00%            | 0.00%              |
| <b>Total Sponsored Programs Funding &amp; ARRA Funding Only</b> | <b>\$ 65,390,282.79</b> | <b>\$ 2,949,096.02</b>  | <b>\$ 2,101,730.74</b> | <b>\$ 5,657,420.17</b> | <b>\$ 10,700,581.83</b> | <b>\$ 86,799,111.55</b>  |                  |                    |
| <b>Percent of Total Sponsored Programs</b>                      | <b>75%</b>              | <b>3%</b>               | <b>2%</b>              | <b>7%</b>              | <b>12%</b>              | <b>100%</b>              |                  | <b>100%</b>        |
| <b>Grand Total of All Funding Per Category</b>                  | <b>\$ 71,257,474.32</b> | <b>\$ 38,589,821.14</b> | <b>\$ 2,436,722.58</b> | <b>\$ 8,427,426.80</b> | <b>\$ 17,875,807.56</b> | <b>\$ 138,587,252.40</b> | <b>100%</b>      |                    |
| <b>Percent of All Funding</b>                                   | <b>51%</b>              | <b>28%</b>              | <b>2%</b>              | <b>6%</b>              | <b>13%</b>              | <b>100%</b>              |                  |                    |

**BSU**

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# INSTRUCTION, RESEARCH AND STUDENT AFFAIRS

FEBRUARY 16, 2017

## BSU FY 2016 INFRASTRUCTURE REPORT SUMMARY

|   | Total \$  | Detailed Allocations                                       |
|---|-----------|--|
| <i>Library Support</i>  |           |  |
| <i>Graduate Research Assistantships / Research Associates</i> | \$23,932  | Graduate Assistant for Tech Transfer / Salary / Fees       |
| <i>Post-Doctoral Fellows</i>                                  |           |  |
| <i>Technician Support</i>                                     | \$41,000  | Glenn Lab Technician Salary/Fringe                         |
| <i>Maintenance Contracts</i>                                  | \$11,000  | Export Control software                                    |
| <i>Research Equipment / Project Support</i>                   | \$50,000  | \$50000 Quantum Coherence project                          |
| <i>Competitively Awarded Summer Research Support</i>          | \$8,000   | REU / Belthoff Raptors                                     |
| <i>Start-Up Funds for New Hires</i>                           |           |  |
| <i>Incentives to Reward Faculty for Research Achievements</i> |           |  |
| <i>Other</i>  | \$115,257 | Salary /Fringe for Tech Transfer Director / Patent officer |
| <i>Total Allocation</i>                                       | \$249,189 |  |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
BSU FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|  | Detailed Allocations |
|--|----------------------|
| <i>Publications in Refereed Journals</i>                     |                      |
| <i>Presenations at Professional Meetings and Conferences</i> |                      |
| <i>Grants Received as a Result</i>                           |                      |
| <i>Grants Pending</i>  |                      |
| <i>Student Participation</i>                                 |                      |
| <i>Faculty Participation</i>                                 |                      |
| <i>Other Participation</i>                                   |                      |
| <i>Patents Awarded</i>                                       |                      |
| <i>Patents Pending</i>                                       |                      |

## INSTRUCTION, RESEARCH AND STUDENT AFFAIRS

FEBRUARY 16, 2017

## ISU FY 2016 INFRASTRUCTURE REPORT SUMMARY

|   | Total \$  | Detailed Allocations   |
|---|-----------|--|
| <i>Library Support</i>  |           |  |
| <i>Graduate Research Assistantships /<br/>Research Associates</i> |           |  |
| <i>Post-Doctoral Fellows</i>                                      |           |  |
| <i>Technician Support</i>   |           |  |
| <i>Maintenance Contracts</i>                                      |           |  |
| <i>Research Equipment</i>   | \$250,000 | This HERC funding was used to purchase three state-of-the-art Dell research servers, network attached blade storage, network switches, racks, and associated equipment that will be located in ISU's new dedicated Research Data Center (to be completed and operation early in 2017). |
| <i>Competitively Awarded Summer<br/>Research Support</i>          |           |  |
| <i>Start-Up Funds for New Hires</i>                               |           |  |
| <i>Incentives to Reward Faculty for<br/>Research Achievements</i> |           |  |
| <i>Other</i>  |           |  |
| <i>Total Allocation</i>   | \$250,000 |  |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
ISU FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|  | Detailed Allocations |
|--|----------------------|
| <i>Publications in Refereed Journals</i>                     |                      |
| <i>Presenations at Professional Meetings and Conferences</i> |                      |
| <i>Grants Received as a Result</i>                           |                      |
| <i>Grants Pending</i>  |                      |
| <i>Student Participation</i>                                 |                      |
| <i>Faculty Participation</i>                                 |                      |
| <i>Other Participation</i>                                   |                      |
| <i>Patents Awarded</i>                                       |                      |
| <i>Patents Pending</i>                                       |                      |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
LCSC FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|   | Total \$ | Detailed Allocations   |
|---|----------|--|
| <b>Library Support</b>  | \$41,141 | Digital reference materials for LCSC Library: American Indians and American West Digital; Women's Rights 1 & 2; Politics and Society.  |
| <b>Graduate Research Assistantships / Research Associates</b> | \$11,482 | 10th Annual Lewis-Clark State College Research Symposium; research on the ecological relationship between <i>Thamnophis spp</i> and their prey; KRUMP research on physical activity levels in at-risk teens. |
| <b>Post-Doctoral Fellows</b>                                  | \$1,454  | Micheal Edgehouse research on the ecological relationship between garter snakes and their prey.  |
| <b>Technician Support</b>                                     | \$35     | Edweek subscription.   |
| <b>Maintenance Contracts</b>                                  | \$0      |  |
| <b>Research Equipment</b>                                     | \$0      |  |
| <b>Competitively Awarded Summer Research Support</b>          | \$0      |  |
| <b>Start-Up Funds for New Hires</b>                           | \$0      |  |
| <b>Incentives to Reward Faculty for Research Achievements</b> | \$18,253 | Grant-writing incentive stipends.  |
| <b>Other</b>  | \$2,635  | Uniformed Guidance Fall Conference, provided by Brustein & Manasevit PLLC.   |
| <b>Total Allocation</b>                                       | \$75,000 |  |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS**  
**FEBRUARY 16, 2017**  
**LCSC FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|   | Detailed Allocations   |
|---|--|
| <i><b>Publications in Refereed Journals</b></i>                     |  |
| <i><b>Presenations at Professional Meetings and Conferences</b></i> | <b>KRUMP Project (3 total):</b> 1) National SHAPE America Conference, Minneapolis, MN, April 5-9, 2016; 2) Idaho Conference on Undergraduate Research, Boise, ID, July 27-29, 2016; 3) National Dance Society Conference, Texas A&M University, College Station, TX, August 4-7, 2016.   <b>10th Annual Lewis-Clark State College Research Symposium (1 total):</b> Lewiston, ID, May 4-6, 2016.   |
| <i><b>Grants Received as a Result</b></i>                           | <b>Incentives (10 total):</b> Debi Fitzgerald, Idaho Heritage Trust Exhibit; Amy Page, SDE Secondary Math Support; Taryn Cadez-Smith, ICF Sports Medicine Equipment; Jenni Light, Lewis-Clark Valley Metropolitan Planning Organization Traffic Count; Angie Weiland-Light, US Bancorp Exhibits; Barbara Leachman, Evergreen Foundation for SBDC; Vonda Mulroney, Millennium Fund for Dental Hygiene; Marlowe Daly-Galeano, The Lightfoot Foundation for Hells Canyon Institute; Traci Birdsell, TRIO Student Support Services; Traci Birdsell, TRIO Educational Talent Search |
| <i><b>Grants Pending</b></i>  |  |
| <i><b>Student Participation</b></i>                                 | <b>KRUMP (2 total):</b> Deanri Human, LCSC Undergraduate Student; Jessi Brown, UI Undergraduate Student   <b>Behavioral Ecology of Snakes (2 total):</b> Alex Heimerdinger and Randi Bowman, LCSC Undergraduate Students   <b>Library (3,633 total headcount for AY15-16):</b> project open to all LCSC students   <b>Research Symposium (263 students total):</b> 20 Social Work; 35 Kinesiology; 48 Business; 32 Nursing; 63 Natural Sciences; 8 Social Sciences; 13 Hells Canyon Institute; 14 Psychology; 14 English; 16 Communication Arts                                |

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

**LCSC FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|                              |  |
|------------------------------|--|
| <b>Faculty Participation</b> | <b>KRUMP (2 total):</b> Christa Davis, Ph.D., Assistant Professor of Kinesiology; Dr. Lee Ann Wiggin, Assistant Professor<br><b>  Behavioral Ecology of Snakes (1 total):</b> Michael Edgehouse, Ph.D., Assistant Professor <b>  Library (187 total faculty, including adjunct):</b> project open to all LCSC faculty <b>  Research Symposium (11 total):</b> Dr. Laura Earles, Associate Professor of Sociology; Dr. Rachel Jameton, Professor of Chemistry; Dr. Nancy Johnston, Assistant Professor of Chemistry; Dr. Peter Remien, Assistant Professor of English; Dr. Michael Edgehouse, Natural Science; Judy Aiello, Business; Dr. Elizabeth Martin, Assistant Professor of Natural Sciences & Mathematics; Dr. Gwen Sullivan, Assistant Professor of English; Dr. Holly Tower, Assistant Professor of Elementary Education; Dr. Heather Van Mullem, Professor of Kinesiology; Brenda Volk, Humanities; Dr. Kerensa Allison; Assistant Professor of Social Sciences; Dr. Rachelle Genthos, Assistant Professor of Social Science; Ms. Marcy Halpin, Assistant Professor of Humanities; Dr. Leif Hoffman, Assistant Professor of Social Sciences; Dr. Okey Goode, Professor of Humanities; Dr. Darcy Graves, Assistant Professor of Social Work; Dr. Susan Odom, Professor of Nursing and Health Sciences; Dr. Clay Robinson, Professor of Education and Kinesiology; Jill Thomas-Jorgenson, Assistant Professor of Business; Pamela Walton, Nursing and Health Sciences; Dr. H. Marlowe Daly-Galeano, Hells Canyon Institute <b>  Incentives: 11 total</b> |
| <b>Other Participation</b>   | <b>KRUMP (1 total):</b> Robin Hechtner, Northwest Childrens Home <b>  Research Symposium (3 total):</b> Christina Geithner, Ph.D.; Erin Logue, Ph.D., Clinical Neuropsychologist; Dani Buzzuto, Orchards Elementary  |
| <b>Patents Awarded</b>       |  |
| <b>Patents Pending</b>       |  |

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
 FEBRUARY 16, 2017  
**FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|   | Total \$  | Detailed Allocations  |
|---|-----------|---|
| <b>Library Support</b>  |           |   |
| <b>Graduate Research Assistantships / Research Associates</b> | \$27,975  | 1 Graduate Assistant  |
| <b>Post-Doctoral Fellows</b>                                  | \$56,326  | 1 Post Doctoral Fellow  |
| <b>Technician Support</b>                                     | \$43,582  | \$32,354 - Glassblower provides repair and construction services to UI labs;<br>\$11,228 - Mass Spectrometry Director provides research support to UI labs.               |
| <b>Maintenance Contracts</b>                                  |           |   |
| <b>Research Equipment</b>                                     |           |   |
| <b>Competitively Awarded Summer Research Support</b>          |           |   |
| <b>Start-Up Funds for New Hires</b>                           |           |   |
| <b>Incentives to Reward Faculty for Research Achievements</b> |           |   |
| <b>Other</b>  | \$70,039  | \$51,912 data storage hardware; \$16,630 Idaho Water Resources Research Institute (IWRRI) Associate Director; \$1,497 conference room operating and improvement expenses. |
| <b>Total Allocation</b>                                       | \$197,922 |   |

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017  
**FY 2016 INFRASTRUCTURE REPORT SUMMARY**

|   | Detailed Allocations  |
|---|---|
| <b><i>Publications in Refereed Journals</i></b>                     | 3, with an additional publication in review.  |
| <b><i>Presenations at Professional Meetings and Conferences</i></b> | 9   |
| <b><i>Grants Received as a Result</i></b>                           | 2   |
| <b><i>Grants Pending</i></b>  | 1   |
| <b><i>Student Participation</i></b>                                 | 1 undergraduate mentee at UI-CDA.   |
| <b><i>Faculty Participation</i></b>                                 | 7 faculty engaged in NSF proposal development and research.   |
| <b><i>Other Participation</i></b>                                   | The Post Doctoral Fellow judged middle school student finalists in a Future City science program. He also developed co-taught a MOSS McCology summer program for middle and high school students. |
| <b><i>Patents Awarded</i></b>                                       | 0   |
| <b><i>Patents Pending</i></b>                                       | 0   |

**NOTE:** The glassblower and Mass Spectrometry Core provide services to research laboratories, which affects research activities of students, faculty and staff, including publications, presentations, grant and patents. The Post Doctoral Fellow trained students and faculty using the new RTK GPS in field surveying as well as the use of an acoustic Doppler current profiler.

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## Idaho Incubation Fund Program

### Progress Report Form

|                      |  |
|----------------------|--|
| Proposal No.         | IF17-001                                 |
| Name:                | Kevin Feris                              |
| Name of Institution: | Boise State University                   |
| Project Title:       | Pilot Scale Algae Resource Recovery Unit |
| Reporting Period:    | July 1, 2016 to December 31, 2016        |

Information to be reported in your progress report is as follows (attach additional information as needed):

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

**Project accomplishments for the reporting period 7-1-16 to 12-31-16:**

**ARRU system design, cultivation of algal cultivars for inoculation of ARRU, identification of a field site for ARRU system deployment, and personnel changes:**

System design: We have designed the major components and scale of the ARRU. We are currently making modifications to the design based on modeled rates of CO<sub>2</sub> delivery, nutrient availability in the wastewater stream, estimated productivity rates for the system, and site specific criteria to match the power, plumbing, and space availability at the UI dairy location. The ARRU will consist of 2 to 3 replicate raceways with an areal surface area of approximately 15-30 m<sup>2</sup>. Based on our prior work and our literature survey an areal footprint of this size will be sufficient to sequester the majority of nitrogen and phosphorus released in the effluent from Dr. Coats' PHA reactor on a daily basis. Current design work is targeted towards minimizing pump size and energy requirements for system operation without limiting the algal cultivation potential of the design.

Cultivation of algae for inoculation of the ARRU: Dr. Feris and the BSU undergraduate research assistant (Gary Dunn) have selected and initiated cultivation and out-growth of a suite of 12 algal cultivars that our prior work established as good candidates for field deployment in the ARRU. This suite of organisms includes a variety of green algae and cyanobacteria that have relatively high growth rates in PHA effluent and are able to be cultivated in untreated dairy wastewater under laboratory and greenhouse conditions. We are initiating greenhouse outgrowth/expansion of these populations in the presence of the colonization substrates we will deploy in the ARRU at the UI dairy. The purpose of these efforts is to generate "pre-colonized" growth substrates that will be deployed in the ARRU to act as source populations and communities of algae that will be able to expand and completely colonize the cultivation surfaces in the ARRU. This work is on-going in the BSU greenhouse. We expect to have up to 15m<sup>2</sup> of pre-colonized growth substrates by the time the ARRU is fully constructed. These pre-colonized substrates will then be transported to the UI dairy and deployed in the ARRU to initiate our pilot-scale experiments.

Siting the ARRU: During the first couple of months of the project Dr. Feris contacted a number of local dairies to pursue potential locations for siting the ARRU. Dairy operators were interested in the project outcomes but were not ready to commit space at their operations for construction and testing of the ARRU for the duration of the project period. Based on this outcome and the fact that it occurred as the growing season in our region was drawing to a close (i.e. mid to late September) we made the decision to pursue a collaboration with Dr. Erik Coats at the University of Idaho and siting of the ARRU at the UI dairy.

Building upon a collaboration with Dr. Erik Coats at the University of Idaho: We recently requested and received approval to create a sub-contract from BSU to UI to facilitate timely and successful completion of this project. One of the sites we initially pursued for deployment our algal resource recovery unit (ARRU) is at the University of Idaho Dairy. All of the necessary site attributes are available at the UI Dairy (i.e. a readily available waste stream, power, water, a relatively secured site on which to perform our study, etc.). By deploying our algal system at this site we will be able to leverage this SBOE funding to co-deploy our ARRU alongside Dr. Coats' bioplastics process. We noted this possibility in our original proposal as something we'd like to pursue as both systems are driven by nutrients and energy in dairy waste streams. Dr. Coats and I have collaborated for a number of years on related projects and he is excited about this opportunity. Such a collaboration between Boise State and the University of Idaho would allow us to simultaneously demonstrate the proposed value of the ARRU and Dr. Coat's bioplastics process at commercially relevant scales, as an integrated suite of technologies, and as separate systems. In addition, co-deployment at UI would allow us to leverage some of the highly trained staff in Dr. Coat's research group, in partnership with our own, to further increase the likelihood of success for our project.

Effect of our collaboration with Dr. Coats on project objectives: The sub-contract will allow us to complete the project as originally proposed while simultaneously building collaboration between Boise State University and the University of Idaho. It will also allow us to generate data comparing ARRU yields when coupled to a dairy manure driven bio-plastics process vs. deriving nutrients for algal cultivation directly from a holding pond. Additionally, Dr. Coats is well connected with the Idaho Dairy Industry and has presented on and discussed the potential of his bio-plastics process with this group for a number of years. We are hopeful that that pairing of the ARRU with Dr. Coats' process will only enhance the likelihood of both technologies being adopted for resource recovery by dairies in Idaho as well as by similar industries in other states. Therefore, expanding our project to incorporate a collaboration with Dr. Coats at the University of Idaho provides the opportunity to demonstrate the value of co-deployment of multiple integrated and optimized resource recovery systems in the dairy industry.

Personnel changes: At the start of the project we had a significant change in personnel. Maxine Passero left the university for a position in private industry. After Mrs. Passero's departure we spent approximately 6 weeks looking for a replacement scientist to continue the project. Based on our search for replacement personnel and the ultimate siting location for

the ARRUs we decided the most efficient use of project resources would be to support a PhD student at the University of Idaho, undergraduate research assistants at Boise State University and UI, and research time for PI Feris and our new co-PI Dr. Erik Coats.

**Project plans for reporting period 1-1-17 to 6-30-17:** During the final six months of this project we will construct replicate ARRUs (minimum of 2 replicates) at the UI Dairy to be fed with nutrient/resource inputs from either Dr. Coat's bioplastics process or diluted wastewater from the manure holding pond at the UI dairy. Both ARRUs will be inoculated with pre-colonized algal support matrices (colonized with algal communities cultivated at BSU), operated under identical conditions or as closely as possible on a per-nutrient load basis, and the resultant algal productivity and associated resource recovery characterized for each system. It is our intent to operate the systems as continuously as possible given weather and logistical constraints through the end of the project period. If possible we will leverage non-SBOE resources to continue operation beyond the project period in an attempt to acquire data from as long of a cultivation/operational period as is feasible. This additional operational data should prove useful in determining the utility of the ARRUs system for as close to a full growing season as possible.

2. Summary of budget expenditures for the period just completed (include project burn rate):

As of December 31<sup>st</sup>, 2016 project expenditures are equal to \$0. However, as described in #1 above we have been able to leverage other student and faculty support resources for finalizing the ARRUs system design, determining a siting location, identifying and recruiting personnel for system construction and operation, and growing up and colonizing the colonization matrix for the ARRUs by select cultivars. This leveraging strategy will allow us to focus our expenditures during the latter 6 months of the project for system construction, operation, testing and optimization. In addition, we have developed a strong collaborative relationship with Dr. Erik Coat's lab at the University of Idaho to co-deploy our ARRUs along-side his bioplastics process such that we will be able to compare ARRUs performance with inputs from both direct from manure holding ponds and with inputs from Dr. Coats' bioplastics process. This comparison will allow us to quantify both algal biomass yield as well as net resource recovery differences by the ARRUs depending on the pre-treatment of the nutrient streams employed. We believe this data will be key in allowing us to demonstrate the utility of both stand-alone algal ARRUs systems and that of coupled bio-plastics/ARRUs systems.

3. Numbers of faculty and student participation resulting from the funding, including internships:

As of December 31, 2016 participation is as follows:

- 2 Faculty members: Kevin Feris, Boise State University and Erik Coats, University of Idaho
- 1 undergraduate student: Gary Dunn (Boise State University, Biological Sciences Major)

Participation beginning 1-9-17:

- 2 Faculty member: Kevin Feris, Boise State University and Erik Coats, University of Idaho

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

- 1 PhD Student: Nick Guho, University of Idaho
  - 3 undergraduate students: 1 at Boise State University and 2 at the University of Idaho
  - 1 Research scientist: Cindy Brinkman, University of Idaho
4. List patents, copyrights, plant variety protection certificates received or pending:  
None pending.
5. List technology licenses signed and start-up businesses created:  
N/A
6. Status of private/industry partnerships (include enough information to judge level of engagement):
7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

**History of successful collaboration between Drs. Feris and Coats:** Dr. Feris and Dr. Coats have been collaborating for approximately 10 years on wastewater to biopower-bioplastics-algae systems. We have received funding through the US Department of Agriculture (USDA), Idaho National Laboratory (INL) and the Center for Advanced Energy Studies (CAES), and the Environmental Protection Agency (EPA) in support of this work. Moreover, Dr. Coats bioplastic pilot-scale system with which we will co-locate was previously funded by a HERC grant. Collectively, this research has yielded multiple externally funded projects, graduate students, publications, and a pending patent. We have published a diverse array of scholarly publications from this work and we are positioned to be successful with this project as well.

## Idaho Incubation Fund Program

### Progress Report Form

Proposal No. IF17-002  
Name: Peter Mullner  
Name of Institution: Boise State University  
Project Title: Solid State Positioning Device  
Reporting Period: July 1, 2016 to December XX, 2016

Information to be reported in your progress report is as follows (attach additional information as needed):

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

For the third version of the solid state drive system (SSDS3), we constructed the new ferromagnetic yoke assembly out of Vacoflux 50, a cobalt-iron-vanadium alloy. We machined 1.5mm air-gaps between magnetic circuit pole and yoke. 4 coils are wound with 95 turns of 36 AWG copper wire and individually controllable with a DC switching circuit. Figure 1 demonstrates the magnetic field lines and geometry of the manufactured device. Figure 2 is a picture of the manufactured device before (to be attached) (Figure X.1) and after (Figure X.2) final electric discharge machining. The electric discharge machining removed 0.25mm of material from the yoke, reducing the air gap from 1.6 mm to 1.35 mm, and despite the interfacial boundary introduced, the magnetic flux *increased* 15% in simulations and 14.5% experimentally, corresponding to the 15% *decrease* in air gap distance, as shown in figures 2 and 3.

What we took away from the Figure 1 simulations is that: the flux leakage to neighboring poles does not affect significantly the overall flux magnitude directed up to the MSM element. Overall, generated EMF increases, but the flux magnitude directed upward remains constant.

In Figure 2, activation of the left pole (coils 1,2; opposed) , and right pole (coils 3, 4; opposed) resulted in lower flux directed upward through the air gap than the center pole (coils 2, 3; opposed). The reason for this was not fully investigated. The variance of the right and left pole could be a result of unsymmetrical electronic switching hardware or variance in probe placement.

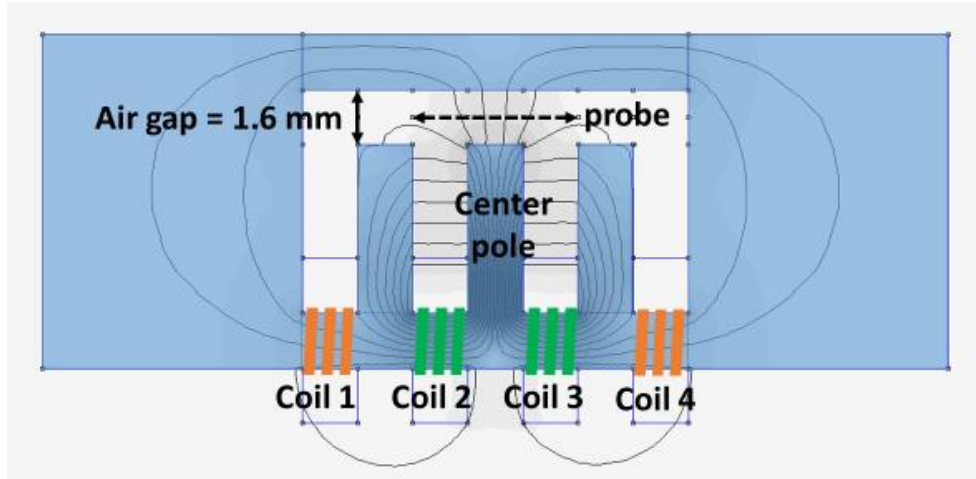


Figure 1. Finite Element Method Magnetics simulation of third solid-state drive prototype. This design decreases the spacing between poles as compared to earlier designs. The prototype tests whether a 1:1 ratio between pole width and gap between poles is too great to allow shrinkage propagation via successive pole activation. The design also tests the magnetic properties of the iron-cobalt alloy Vacoflux, which is composed of 49% Fe, 49% Co, and 2% V. In this figure, the air gap between pole tips and the underside of the Vacoflux yoke is 1.6 mm. Coils 2 and 3 (colored green) each have 95 turns and carry 4.5 amps. Coils 1 and 4 (colored orange) each have 95 turns and do not carry any current. The path of the magnetic flux is up the center pole, across the air gap into the Vacoflux yoke, and back to the coils through the Vacoflux core. There is significant flux leakage from the center pole into the two adjacent poles, but the flux density above the active pole is still expected to be enough to cause twinning in the MSM element. The dashed line shows where the flux density was measured during this simulation.

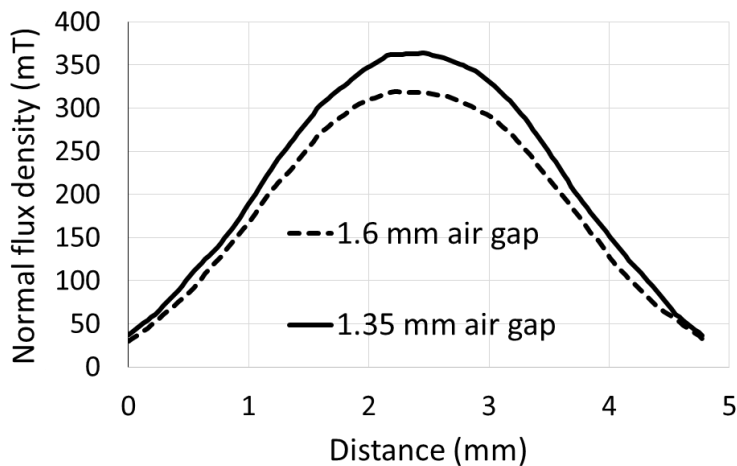


Figure 2. Simulated magnetic flux density in air gap above center pole when coils 2 and 3 carry 4.5 amps. The solid line represents the case when the air gap is 1.6 mm; for this case the maximum flux density is 318 mT. The dashed line represents the case when the air gap has been reduced to 1.35 mm; for this case the maximum flux density is 364 mT. The reduction of the air gap from 1.6 mm to 1.35 mm represents the physical decrease of the air gap due to electrical discharge machining, during which process 0.25 mm of material is removed.

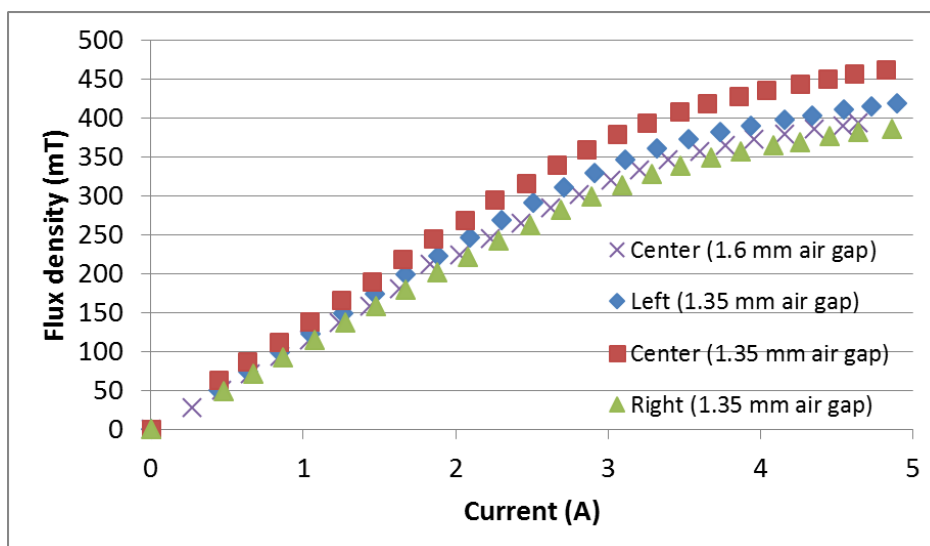


Figure 3. Experimental results of third solid-state drive prototype comparing flux density before (1.6 mm air gap) and after (1.35 mm air gap) electrical discharge machining. The relative strength of the three poles is also compared. When coils 2 and 3 carry 4.5 amps it can be seen that, when the air gap is 1.6 mm, the flux density above the center pole is about 390 mT. When the air gap is 1.35 mm, the flux density above the center pole is about 450 mT. The relative strength of the three poles was tested after electrical discharge machining, and it was found that the center pole was stronger than the other two poles. The difference between the strongest pole (center) and the weakest pole (right) was about 75 mT.

### Control circuit improvements

Our control circuit exists as a large breadboard with a multitude of components controlled with a microcontroller. It is cumbersome to add new coil control modules. There is variability introduced by the varying contact resistance along the circuit paths. To improve our circuit, we tested H-bridges (a common integrated-circuit chip) to control a coil, which led us to design a discrete Modular H bridge design and PCB to improve reliability. We have purchased the necessary components.

### New FEA software: Ansys Maxwell

We are learning to use ANSYS Maxwell to run 3-Dimensional simulations of our model. This is an important step before spending resources machining. The software has allowed analysis of several three-dimensional designs that include permanent magnets. We have used these results to decide against the pursuit of one concept in favor of other more promising concepts.

Figures 4 and 5 show magnetic field vectors and field lines of our new concept in ANSYS Maxwell. We are still working to dial in our understanding of Maxwell to be confident of returned results. Both figures depict the green coil (250 Amp-turns) energized to oppose magnetic flux generated by 2 permanent magnets.

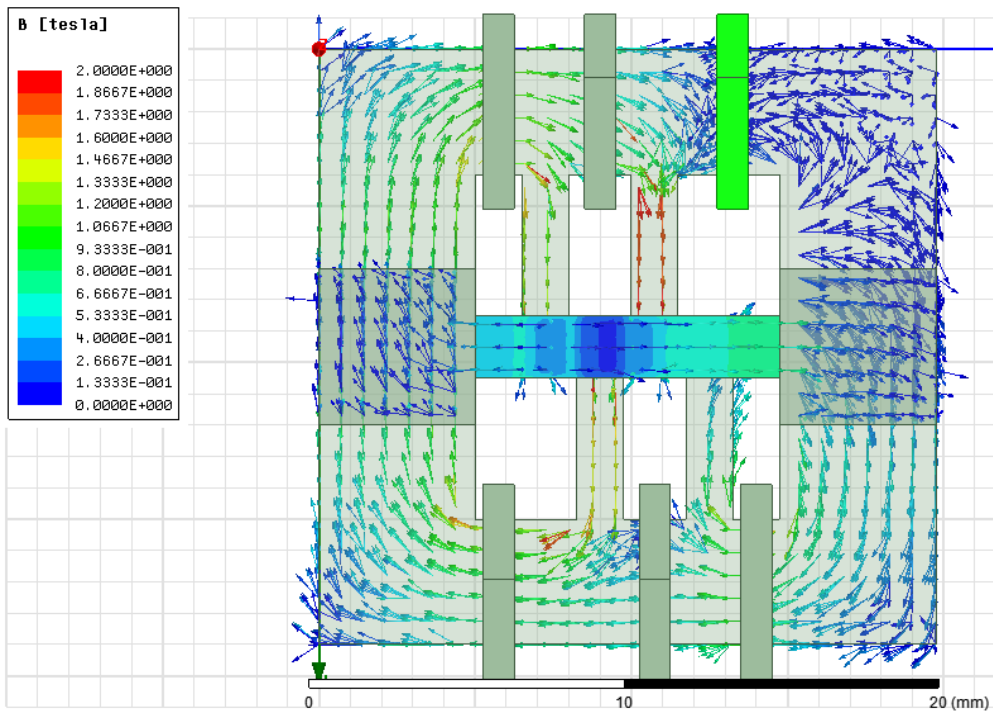


Figure 4: 250 amp-turns simulated on a MSM element in Ansys Maxwell. The green coil opposes flux generated by 2 permanent magnets. Parts of this simulation still need to be further understood.

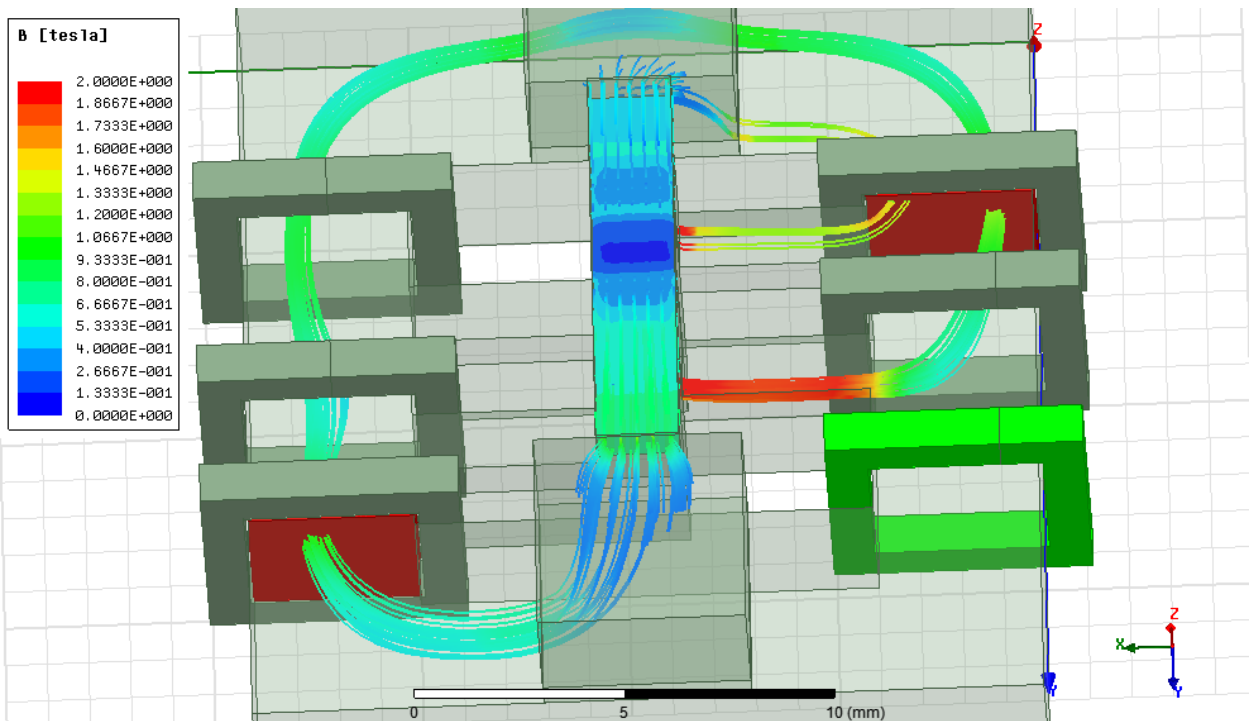


Figure 5: 250 amp-turns simulated on a MSM element in Ansys Maxwell. The green coil opposes flux generated by 2 permanent magnets. Parts of this simulation still need to be further understood.

2. Summary of budget expenditures for the period just completed (include project burn

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rate):

|               | <u>Original</u><br><u>Budget</u> | <u>PPM</u><br><u>Budget</u> | <u>Life To Date</u><br><u>Expense</u> |
|---------------|----------------------------------|-----------------------------|---------------------------------------|
| -             |                                  |                             |                                       |
| Reg Sal       | \$ -                             | \$ -                        | \$ -                                  |
| Irr Sal       | -                                | -                           | -                                     |
| Sum Sal       | 12,566.00                        | 12,566.00                   | 2,999.83                              |
| Stu Sal       | 32,250.00                        | 32,250.00                   | 14,819.39                             |
| Fringe        | 8,852.00                         | 8,852.00                    | 1,255.03                              |
| OE            | 11,758.00                        | 11,758.00                   | 2,240.82                              |
| Travel        | 1,000.00                         | 1,000.00                    | -                                     |
| Capital       | -                                | -                           | -                                     |
| Subcontracts  | -                                | -                           | -                                     |
| Student Costs | 8,574.00                         | 8,574.00                    | -                                     |
| Total Direct  | 75,000.00                        | 75,000.00                   | 21,315.07                             |

The current burn rate is \$5,000 per month. We have been saving \$8,574 since we were able to cover the student fees for the graduate student from university funds. We would like to use these funds for purchasing a characterization tool (a laser displacement sensor) that will allow us to characterize the functionality and efficiency of the solid state drive system. We also would like to increase the participation of undergraduate students to further accelerate this project. We will submit a request for re-budgeting shortly.

3. Numbers of faculty and student participation resulting from the funding, including internships:

Dr. Peter Mullner (PI)  
 Dr. Nadar Rafla (co-PI)  
 Dr. Paul Lindquist (senior research engineer)  
 Andrew Armstrong (graduate student)  
 Kevin Finn (UG student)  
 Tammy Jackson (UG student)  
 Justina Freilich (UG student)  
 Kyle Ostrem (UG student)

4. List patents, copyrights, plant variety protection certificates received or pending:

Electrically driven magnetic shape memory apparatus and method, Peter Mullner, US 2016/0087553 A1, published March 24, 2016 (BSU file 158)

Electrically driven magnetic shape memory apparatus and method, Peter Mullner, Andrew Armstrong, Kevin Finn, Nader Rafla, CIP to US 2016/0087553 A1 (BSU file

188)

5. List technology licenses signed and start-up businesses created:

Shaw Mountain Technology LLC licensed the above listed intellectual property from Boise State University on July 14, 2016.

6. Status of private/industry partnerships (include enough information to judge level of engagement):

Our primary industry partner is Shaw Mountain Technology LLC (SMT) in Boise, Idaho. Here is a summary of SMT's recent activities related to our technology:

- 1) SMT sponsors a senior project for ECE students to further develop the licensed technology.
- 2) SMT received an NSF STTR Phase I grant to further develop a related technology (the MSM micropump) which they also licensed from Boise State University.
- 3) SMT develops a partnership with a German company which supplies small pumps to a diverse market. SMT aims to partner with this company as a supplier of micropumps for their pumping systems.
- 4) SMT prepares a grant proposal to uFluidix for scaling up to pilot production.

7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

SMT was a finalist of the 2016 Idaho Innovation Award category early stage innovation.

Our Boise State research team was recently joined by two visiting scientists from China (1 year) and Mexico (3 months) who will contribute to further enhancing the materials science and material performance aspects related to this project.

## Idaho Incubation Fund Program

### Progress Report Form

Proposal No. IF17-003  
Name: Gaby Dagher  
Name of Institution: Boise State University  
Project Title: Cyber Forensic Investigation Toolkit (CFIT): Next  
Generation Evidence-gathering for Law Enforcement  
Reporting Period: July 1, 2016 to December 30, 2016

Information to be reported in your progress report is as follows (attach additional information as needed):

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

Per our project plan, there are two main tasks to be completed in the first half of the project: *user-centric interface* and *quality assurance*.

| Task# | Task                   | Description   | Completeness % |
|-------|------------------------|---|----------------|
| 1     | User-centric Interface | Design and implement a user-centric interface for each of the CFIT engines:<br>1. Indexing Engine<br>2. Clustering Engine<br>3. Search Engine   | 100%           |
| 2     | Quality Assurance      | Design test cases, define quality measures, and construct and execute a quality assurance plan to thoroughly test CFIT, including the new user interface, and ensure it meets the defined quality measures. | 80%            |

The plan for the coming reporting period is as follows:

| Task# | Task              | Description   | Timeline        |
|-------|-------------------|---|-----------------|
| 1     | Quality Assurance | Complete the testing and bug fixing phase   | January         |
| 2     | Benchmarking      | 1. Benchmark (Jan-Mar): Measure CFIT accuracy, efficiency and scalability against existing state-of-the art cyber forensic tools, including | January - March |

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|   |                   |  |                    |
|---|-------------------|--|--------------------|
|   |                   | Forensic Toolkit® by<br>AccessData Group, Inc., and<br>EnCase® by Guidance<br>Software, Inc.   |                    |
| 3 | Marketing         | <p>Execute the following plan to market the CFIT to cybersecurity companies, and to law enforcement agencies at the local, state, and federal levels:</p> <ol style="list-style-type: none"> <li>1. Business Summary: define KPIs, identify market and target customers, poll customers, identify competition, and define CFIT value proposition.</li> <li>2. Product Strategy: identify the key features to launch in CFIT portfolio, along with any bundling plans, determine special promotions or other strategies that will help sell CFIT.</li> <li>3. Channel Strategy: identify primary channels to sell CFIT and to educate and support customers, identify resources and training that will drive channel performance.</li> <li>4. Marketing Strategy: define the activities to drive awareness and generate leads for CFIT.</li> <li>5. Customer Experience: anticipated customer journey, starting with how customers first hear about CFIT, their purchase, activation, and renewal.</li> <li>6. Technical Requirements: document the technical requirements needed to support CFIT.</li> <li>7. Evaluation: prioritize the factors to measure success, such as reaching a certain volume of sales of CFIT in specific channels.</li> <li>8. Timeline and Execution: identify the timeline for execution, including next steps, the critical path for decisions, and key milestones.</li> </ol> | March - June       |
| 4 | Online Capability | Explore how to expand CFIT capability to analyze webpages, blogs and chat rooms.   | January - February |

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2. Summary of budget expenditures for the period just completed (include project burn rate):

The \$17,335.71 that has been spent, and the 5 months it was spent in (July through Dec.) (Note payroll has posted for pay period ending 12/17/16), the burn rate is \$3,151.95 per month.

3. Numbers of faculty and student participation resulting from the funding, including internships:

# faculty: 2

# student: 8

| Name            | Position                         |
|-----------------|----------------------------------|
| Gaby Dagher     | Faculty                          |
| Jyh-haw Yeh     | Faculty                          |
| Tyler Enderson  | Undergraduate Research Assistant |
| Tara Felzien    | Undergraduate Research Assistant |
| Kevin Kirchhoff | Undergraduate Research Assistant |
| Anthony Machado | Undergraduate Research Assistant |
| James Murray    | Undergraduate Research Assistant |
| Monica Robison  | Undergraduate Research Assistant |
| Patrick Spence  | Undergraduate Research Assistant |
| Trevor Rice     | Undergraduate Research Assistant |

4. List patents, copyrights, plant variety protection certificates received or pending:

N/A

5. List technology licenses signed and start-up businesses created:

N/A

6. Status of private/industry partnerships (include enough information to judge level of engagement):

Per the project plan, we will conduct market research and pursue industry partnership in the second half of the project.

7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

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We have already done a quick market research and found out that there is a huge demand for online evidence extraction tools. We are currently exploring how to expand CFIT to analyze blogs and chat rooms.

## Idaho Incubation Fund Program

### Progress Report Form

Proposal No. 17-004  
Name: Daniel S. Dale  
Name of Institution: Idaho State University  
Project Title: Commercialization of Trace Element Detection Technology  
Reporting Period: 7/1/2016-12/30/2016

**Information to be reported in your progress report is as follows (attach additional information as needed):**

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

(1) A nuclear engineering M.S. student, Nate Gardner, was recruited for the project.

(2) During this reporting period, we have made significant progress in developing a database for use in identifying elements and nuclides with photon activation analysis. 48 out of a planned 75 elements have been entered, with a total of 598 photon lines.

(3) We have also made significant progress on a web page which will advertise the technique to potential customers. It can be found at:

<http://www2.cose.isu.edu/~dale/research.html>

(4) Samples of coal ash and fly ash obtained from Rocky Mountain Power have been analyzed with photon activation analysis to identify the potential presence of rare earth elements. Rare earth elements consist of 17 metals with atomic numbers between 57 and 71 plus scandium and yttrium. Used in high-tech equipment for health care, transportation, national defense, aerospace, green energy, and other industries – computers, smart phones, rechargeable batteries, electric vehicles, magnets, chemical catalysts. They support \$329 billion in economic output in North America. US Geological Survey expects worldwide demand to grow 5% annually through 2020. China produces more than 85% of the world's rare earths. US is second with just over 6%. Clear signatures of scandium, yttrium and other rare earth elements were observed.

(5) In conjunction with National Security Technologies, LLC, two samples of uranium compounds of different enrichment were irradiated. The goal of this research is to establish the effectiveness of photon activation analysis as a tool to measure uranium enrichment for homeland security and nuclear fuel cycle application. The data is under analysis.

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- (6) A high purity germanium detector was obtained from colleagues at the Pacific Northwest National Laboratory, and has been assembled and commissioned.
- (7) The next planned experiments will involve using photon activation analysis to do lead isotope fingerprinting for forensics purposes. Initial experiments will involve analyzing lead bullets from different sources. Samples from the US, Russia, Bosnia Hertzegovina, Romania, and Germany have been procured. A vendor for separated isotope sample of lead has been identified.
- (8) In conjunction with item (7) experiments are planned to analyze soil samples for selenium.

2. Summary of budget expenditures for the period just completed (**include project burn rate**):

Total remaining funds are \$59,714.35 amounting to 20% of the funds spent. Expenditures include faculty support, and some initial sample procurement.

Major expenditures including beam time, and separated isotope lead calibration samples will occur within the next month.

3. Numbers of faculty and student participation resulting from the funding, including internships:

M.S. student: Nate Gardner

Faculty: Dan Dale, Tony Forest, Frank Harmon

Scientific staff: Jon Stoner

4. List patents, copyrights, plant variety protection received or pending:

None.

5. List technology licenses signed and start-up businesses created:

None.

6. Status of private/industry partnerships (include enough information to judge level of engagement):

Discussions of future collaborations with Diego Fernandez of Isoforensics, Inc. in Salt

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Lake City.

Data taking run performed with David Schwellenbach from National Security Technologies, LLC. Two NSTech personnel visited the Idaho Accelerator Center for a week to perform these experiments.

7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

Training of M.S. student, Nate Gardner, on the photon activation analysis technique is well underway. Significant data taking operations are in advanced stages of planning.

**FINAL REPORT  
TO  
Idaho State Board Of Education**

**DROUGHT MAPPING USING A SMALL UNMANNED AERIAL SYSTEM  
(SUAS) FOR PRECISION AGRICULTURE IN IDAHO**

Submitted by:

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College of Agriculture and Life Sciences/  
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Research Periods

July 1, 2017 to December 31, 2016

**Incubation Fund: IF17-005**

**Progress Report**

**Project Title: Drought Mapping Using a Small Unmanned Aerial System (sUAS) for Precision Agriculture in Idaho**

**Abstract:** Drought increasingly threatens the sustainability of regional water resources in many states in the United States. The U.S. Department of Commerce's National Climatic Data Center has recorded 17 drought years in the country from 1980 to 2012 that have exceeded \$144 billion in damages and costs (Lott et al., 2013), equivalent to average annual loss of about \$8.5 billion. Given current trends in climate variability and change, population growth, and urbanization, economic losses from drought are likely to continue and increase. One very effective way to mitigate some of these costs and potential catastrophic losses may be to use Unmanned Aerial System (UAS) technology to improve understanding of the factors that drive the onset and development of drought conditions at local and regional scales that would enable planners and end users to more effectively manage and meter out limited water resources.

During this project period, July 1, 2016 – December 31, 2016, the PI put efforts to investigate how a small UAS can be used to mitigate drought impacts for western agriculture. Working with research group, the PI found that a UAS-based drought index (UDI) is promising in the sense that the advanced drought monitoring and evaluation is critical to better monitor and manage drought for irrigated agriculture. The Normalized Difference Vegetation Index (NDVI) retrieved from UAS data products, in particular, will be valuable assets to advance drought monitoring and forecasting research for western agriculture.

**Description of Problem**

Recent droughts in the United States continue to reveal a wide variety of environmental and socio-economic interests that are vulnerable to water shortages. In fact, the U.S. Department of Commerce's National Climatic Data Center has recorded 13 drought years in the United States from 1980 to 2007 that have exceeded \$1.0 billion in damages/costs (Lott and Ross, 2006). The total cost for the droughts and associated heat waves has been estimated at nearly \$157 billion. Although a rough estimate, this estimate represents an annual average direct drought loss of \$5.6 billion dollars.

Given current climate change projections, this trend in losses is likely to continue or increase. Increasing temperatures are likely to modify the timing, form, and intensity of precipitation events, which will alter regional and local hydrologic cycles. As a result, drought, water shortages, and subsequent water conflicts may become an increasing threat in several regions of the United States, especially in the western and southwestern areas (*Fig. 1*). To maintain reliable and sustainable water resources and stable economies in the face of uncertain climatic and hydrologic conditions, it is imperative that systems be in place to forecast, monitor, and evaluate drought.

**Fig. 1:** The weekly US Drought Monitor map depicting drought occurrence and severity across the United States. Drought occurrence is expected to increase in many areas of the United States under climate change scenarios.

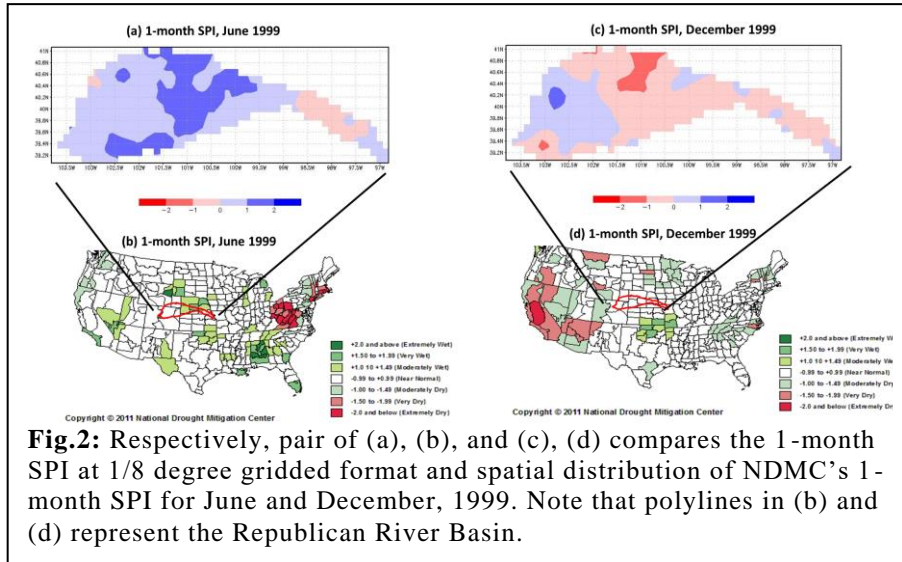
### Approach and method

Much previous research has demonstrated monitoring and predicting particular drought events at national and international scales (Dai, 2011; Luo and Wood, 2007; Lyon et al., 2012; Quan et al., 2012; Vicente-Serrano et al., 2010a; Vicente-Serrano et al., 2010b). Some articulated models provide results that are dependent on drought conditions associated with regional and global climate modeling parameterization (Koster et al., 2009; Mavromatis, 2007) so that utilization of those products is limited for local applications due to coarse resolutions. The WestWide Drought Tracker available at the Desert Research Institute (DRI) visualizes drought conditions in the western states, but drought evaluation processes and quality control have not been implemented. Thus, drought validation efforts do not ensure that such information will indicate local drought conditions as opposed to historical drought records at the local scale. The proposed research will help to account for the validity of temporal and spatial drought information using UAS-based drought monitoring and forecasting along with the skill score at finer spatial resolution.

The proposed research seeks to the tremendous efforts that have been made to monitor and evaluate the inception and termination of drought at national and regional scales, through such projects as the National Integrated Drought Information System (NIDIS). The NIDIS is a comprehensive drought monitoring, forecasting and management effort between the federal agencies: USDA/NRCS and NOAA/CPC. The NIDIS highlights the best available information and tools to assess the potential impacts of drought, and helps interagency collaboration to mitigate the effects of drought (NIDIS, 2007).

As shown in **Fig. 2**, the currently existing monitoring maps, part of NIDIS at NDMC may be too coarse to provide sufficient information to mitigate localized drought impacts. In **Fig. 2b**, NDMC's map at climate-division scale indicates more precipitation than normal in June across the Republican River Basin (RRB, highlighted in red) located in Colorado, Nebraska, and Kansas, but

the higher resolution gridded map available at my lab indicates below normal precipitation in the lower portion of the RRB (see **Fig. 2a**). The NDMC map in December (**Fig. 2d**) shows normal precipitation in across the RRB in a given drought month reported by the responsible agency (e.g., Nebraska Department of Natural Resources), while **Fig. 2c** from PI's lab indicates below normal precipitation in December across most of the basin.



**Fig.2:** Respectively, pair of (a), (b), and (c), (d) compares the 1-month SPI at 1/8 degree gridded format and spatial distribution of NDMC's 1-month SPI for June and December, 1999. Note that polylines in (b) and (d) represent the Republican River Basin.

Some may ask what scale of spatial resolution would be best for drought monitoring. Perhaps finer resolution would be promising in the sense that it can lay out detailed drought

information, but it is not necessarily valuable because local variability increase as spatial resolution increases. During the course of the project, therefore, the PI investigates **how detailed drought maps using UAS at the local scale could contribute to better drought management** for sustainable agriculture in Idaho.

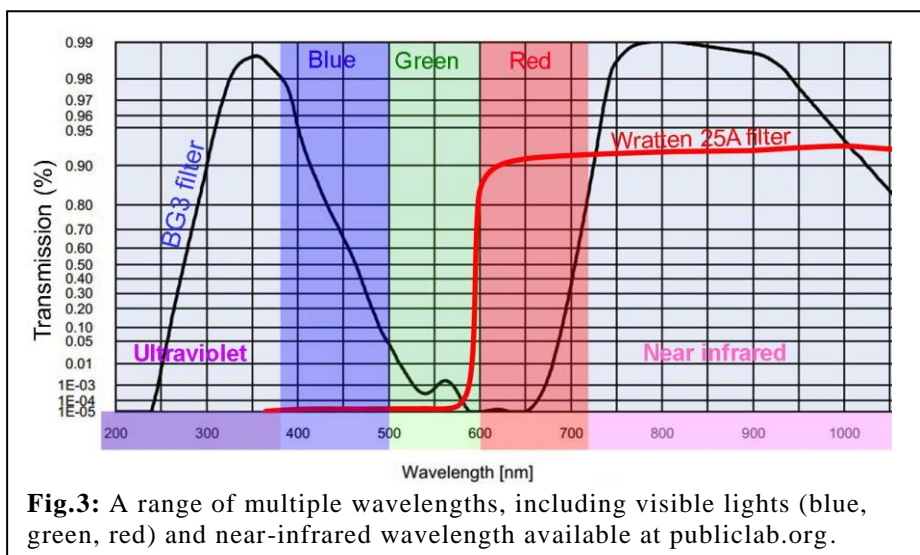
### **Configuration of UAS system**

**UAS:** The DJI Phantom II, a small UAS, was used for this research. The specification of DJI Phantom II UAS includes: 1) an unmanned quad-rotor aircraft and a transportable ground station, 2) a maximum gross weight of approximately 4.4 pounds (2,000 grams), while having a diagonal length of 13.7 inches (350 mm), 3) equipped with four independent electric motors turning fixed pitch rotors powered by a single Lithium Polymer battery. The DJI Phantom II UAS is a common, commercially available, model of remote multi-rotor aircraft. It is currently operating safely within the National Airspace Space (NAS) and the DJI Phantom family of aircraft has been operating worldwide since 2006.

**Sensor:** For a multi-spectral camera, the ADC Micro available at [www.tetracam.com](http://www.tetracam.com) was used to differentiate visual light (RGB) wavelengths and near-infrared wavelengths, which are critical components to compute NDVI. The ADC Micro is very light and small enough to attach to the DJI Phantom II UAS and capable of taking spectral images to be used for further imaging processes. The sensor equipped with three filters limiting the radiation to enter multiple bands (e.g., red, green, blue and near-infrared) to be used for NDVI computation.

**Fig. 3** shows the range of multiple spectral wavelengths to be used for UAS research and applications.

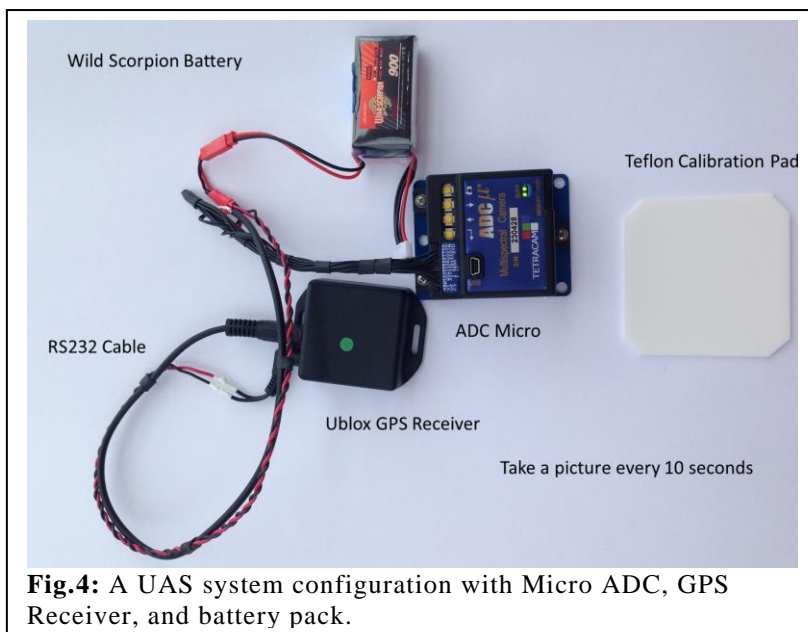
**Sensor package:** The sensor package consists of Micro ADC, GPS receiver, and Battery pack for UAS as shown in **Fig. 4**. GPS coordinates and



other data are saved in the sensor's image memory as metadata in ASCII format. Teflon calibration pad was also used to minimize image distortion affected by sunlight before the UAS takes off. Since

safety is the first priority during UAS test flights, authorized and qualified personnel was on the site so that regulations and guidelines were strictly enforced.

### ***Normalized Difference Vegetation Index (NDVI)***



To improve drought early warning system using UAS-based drought index, the normalized difference vegetation index (NDVI) is selected. The basic concept of NDVI is simple and straightforward in the sense that it can detect vegetation stress caused by drought using different color bands. Thus, two light bands, visible light (0.58 – 0.68 micro

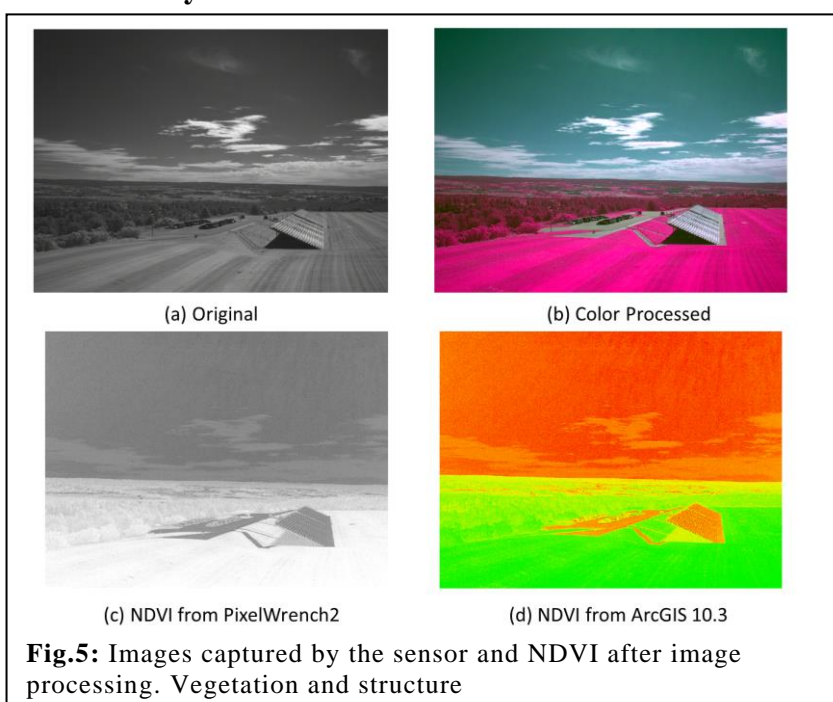
meter) and near infrared (0.725-1.1 micro meter) are used to compute NDVI using the equation below.

$$NDVI = \frac{IR - VR}{IR + VR}$$

Where, NDVI= Normalized Difference Vegetation Index, IR= Near Infrared Light, VR= Visible Red Light.

Basically, healthy vegetation (e.g., high chlorophyll) absorbs most of the visible light from sunlight, while unhealthy vegetation (e.g., low chlorophyll) reflects a large portion of the near-infrared light. Note that the index IR/VR (aka, the simple ration) is often closely correlated to the leaf area index (LAI), whereas NDVI is closely correlated to green biomass (Nilsson, 1995).

### Preliminary results



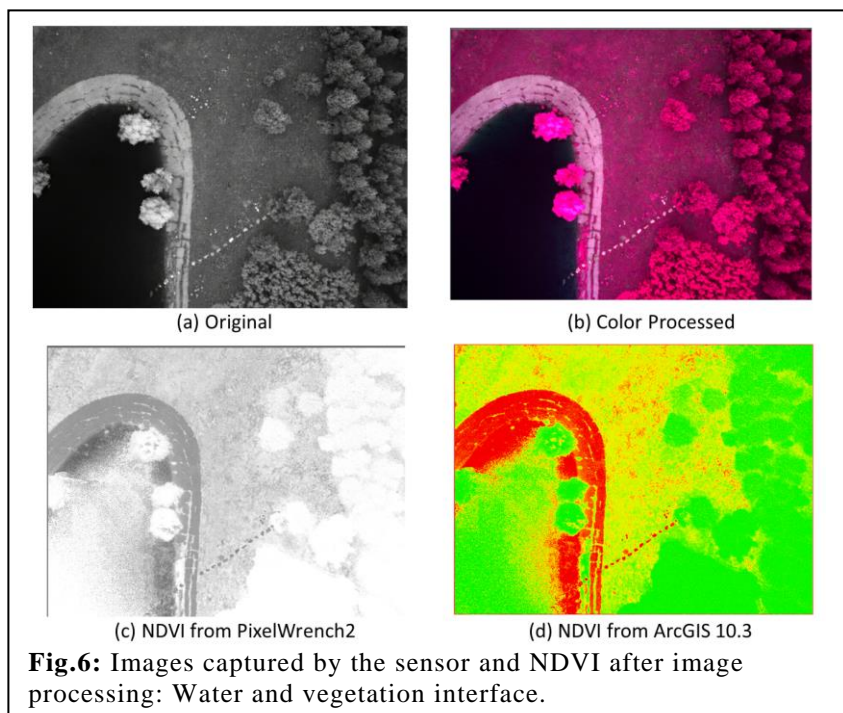
The NDVI is a parameter used to separate healthy plant from non-healthy plant or pervious land segments, such as parking lot, bench, and roads. **Fig. 5** shows multiple images from the original to the NDVI via image processing. First, an image is taken by Micro ADC sensor and then necessary image processing undergoes using PixelWrench 2 software. And two

light bands, including visible red (VR) and near-infrared (NIR) are then retrieved from the image to compute NDVI as shown in Fig. 5(c). Finally, the color used in Fig. 5(c), is then reclassified to represent NDVI in more realistic ways by showing vegetation in green and non-vegetation in red. Note that the final product as shown in Fig. 5 (d) was generated using ArcGIS 10.3 software (ESRI, 2015).

The validity of drought maps from UAS data products will be examined later to ensure that the current drought information is valuable for stakeholder groups to mitigate drought impacts at the local level. If this is feasible, UAS-based drought monitoring and forecasting, the methodology and tools developed here will provide valuable information that can be used to mitigate the associated drought impacts on water demand, consequently contributing to more conservative and

effective use of water resources in western agriculture.

Another experiment was carried out to evaluate how the sensor responds to water and vegetation interface. The PI's research team deployed the UAS to fly over water and vegetation nearby. The UAS maintains the same altitude (400 feet) and navigate to take pictures with a constant frame



rate (e.g., 3 seconds per picture). The result also indicates that vegetation has high reflectance in near-infrared spectral band, whereas dry land segments tends to low index values representing red color.

### Additional work and future direction

This project will be a stepping stone to result in the development of a spatially distributed drought map in higher spatial resolution using UAS to provide observations of drought's onset, continuation, termination and its impacts on irrigated agriculture in the west. Unmanned aerial sensing technologies are the future of *in-situ* natural resources monitoring and will dramatically increase spatial coverage, reliability and cost efficiency. It is critical that a prototype of UAS system is robust enough to perform in the world's critical food production region. The proposed UAS application for water management will also provide near-real time data for many other applications, including pest management, disease control, weed monitoring, improved site-specific irrigation water management, non-consumptive water use, and identification of water loss to poor irrigation system maintenance, pipe and canal leaks. Additionally, applications of UAS will foster multidisciplinary research activities beyond agriculture. Interacting with many agriculture producers

advocating UAS technology is another avenue to maximize net profits by minimizing risks using UAS data products. Precision agriculture, for example, is the use of technology to optimize farm's production and increase their sustainability by responding to real-time variations within fields at 50 centimeter resolution which is legally limited to measure crop greenness via satellite applications. Note that satellite imagery is also hampered by cloud cover. Its implementation cost and image processing time often limit its ability to identify a range of agricultural problems, including real-time irrigation scheduling, pest management, disease and weed control, fertilizer applications, and more. Potential uses of UAS technology for agriculture and beyond will also galvanize regional collaborations between academia and UAS industries in the next years to come.

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# ***IGEM# 16-01***

## ***Computer Science at Boise State University: An Investment in Idaho's Future 1<sup>st</sup> July 2016 – 1<sup>st</sup> January 2017 Progress Report***



BOISE STATE UNIVERSITY

## ***IGEM #16-01***

***Computer Science at Boise State University:***

***An Investment in Idaho's Future***

***1<sup>st</sup> July 2016 – 1<sup>st</sup> January 2017, Progress Report***

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## IGEM 16-01: Computer Science at Boise State University:

## An Investment in Idaho's Future

*1<sup>st</sup> July 2016– 1<sup>st</sup> Jan 2017 Progress Report*

## Project Summary

The Idaho Global Entrepreneurial Mission (IGEM) and State Board of Education Higher Education Research Council (HERC) have provided three years of funding to continue the strategic forward momentum of the Boise State University Computer Science Department to help meet compelling state economic development, research, and workforce needs.

This progress report summarizes the activities of the first six months during the second year of the project.

## Project Accomplishments

The project plan identified four primary strategies to achieve this goal:

- 1. Sustain current faculty lines and continue forward trajectory.*
- 2. Increase partnerships with local companies to facilitate knowledge development and transfer*
- 3. Increase CS related research and economic development activity.*
- 4. Produce more computer science graduates that qualify for software and related technical positions in Idaho*

Progress to date toward implementing these strategies is detailed in the following subsections.

### Strategy One: Sustain Current Faculty Lines and Continue Forward Trajectory

The current IGEM grant supports four faculty (one full professor, one associate professor, and two assistant professors) – Dianxiang Xu, Steve Cutchin, Elena Sherman, and Edoardo Serra. Two of the faculty are in the area of software engineering while one is in the area of data science (and databases) and another in visualization. Dr. Xu has taken leadership role as Graduate Program Coordinator and led the effort to create the PhD program. Dr. Cutchin recently became the Director of Research Computing, which is allowing him to increase the reach of his research efforts to more researchers across the campus and beyond. Dr. Sherman and Dr. Serra have also taken appropriate leadership roles.

Another strong impact of the IGEM grant has been in the additional hiring that the department has done in the last year. Using the eight lines provided by JFAC funding and other funding, the department has **successfully hired ten faculty in less than one year!** Overall, the department now stands at **26**

**faculty**, more than three times the size from four years ago. In each case, the faculty hired were among the top choices in the respective areas. Given the extremely competitive nature of hiring in computer science, that has been very gratifying. Since the last report six months ago, the department has added two more faculty (one Assistant Professor and one Lecturer) as listed below.

- *Dr. Hoda Mehrpouyan* (Ph.D., Oregon State University)
  - *Dr. Mehrpouyan's* research focuses on privacy, security, and robustness of mission-critical cyber-physical systems. She is active in the effort to create a cybersecurity research lab that will operate in partnership with the Idaho National Lab.
  - She also recently received a Career Initiation Award from the National Science Foundation.
- *Lucas Hindman* (B.S and M.S. in CS, Boise State University)
  - New lecturer that will bring depth to many areas of teaching in the department
  - 10+ years of industry experience in *DevOps* and *systems engineering*.

### Strategy Two: Industry Partnerships

The CS Department continues to increase its formal and informal connections with industry and the IGEM hires are integral to the following initiatives and connections. The new downtown location has been particularly conducive to growing partnerships with industry.

*Growing partnerships with industry.* Boise State University will support and encourage CS faculty to establish partnerships with industry via joint research projects, service on industrial boards, consulting and faculty and student involvement. We have several ongoing examples of faculty working with our industry partners:

- The department recently received a \$2 million award from NSF to revolutionize the middle two years of the undergrad computer science program. It was one of seven awards out of 80+ proposals received from across the country. A major goal of this five-year project (titled: *CS Professionals Hatchery*) is to create unique learning experiences (named *Hatchery Units*) for our students in conjunction with industry so students graduate with better professional skills and are able to hit the road running in a way that is an exemplar for other programs everywhere. During Fall of 2016, we have already involved dozens of industry representatives in the design of the hatchery units and integration with the curriculum.
- The new downtown location has led to many informal and formal meetings and visits from industry. For example, BVEP brought in a company considering relocation to Idaho to the department to meet faculty and students. That visit turned out to be crucial in their decision to locate their branch in Boise. This story has repeated several times in the last six months!
- Dr. Tim Andersen has continued as a consultant at Micron, and is also currently working as a consultant at AppDetex, a local startup company.

- Dr. Sole Pera is working on the advisory board at ReleVent City, a recent Boise startup.
- Dr. Sole Pera has also volunteered as an advisor/mentor for B-launch.
- Dr. Steve Cutchin is working as a consultant for Digital Mechanics, a 3D capture and reconstruction startup.
- Drs. Andersen, Cutchin, Serra, and Spezzano are working with the J.R. Simplot Co. on a joint IGEM funded research project in Precision Agriculture, helping them to fuse information from multiple sources (such as historical yield data, satellite imagery, sensor data, and etc.) to assist farmers in intelligent decision making. This project also involves multiple graduate students and a post-doc.
- 6 Industry partners committed to donate an additional \$60,000 to the Expand.CS Scholarships program, which has allowed us to offer at least 12 new scholarships to students for the 2016-2017 academic year. These scholarships are designed to encourage and help students to finish their degree faster. The industry partners who donated are AppDetex, Clearwater, HP, Impact Sales, MetaGeek, and Whitecloud.

*Community Events.* The CS Department continues to host *Boise Code Camp* and participate in *develop.idaho* and *Hackfort* to strengthen connections with industry and entrepreneurs. Code camp has grown to over 1000 participants in 2016 and continues to be one of the largest code camps in the Northwest.

*Senior Design Projects.* **In Fall 2016, there were 55 students in 11 new senior capstone projects sponsored by local industry partners and startups.** We are working with companies from multiple sectors including high-tech, health care, government, finance, transportation, marketing, merchandising and agriculture.

*Industrial Advisory Board.* Alden Sutherland, VP and Chief Information Security Officer at AmerisourceBergen (a Fortune-16 company that recently bought multi-billion dollar local company MWI), currently heads the board. The board meets at least twice yearly with the department and provides feedback and strong support for curriculum, facilities, and hiring.

### Strategy three: Increase research

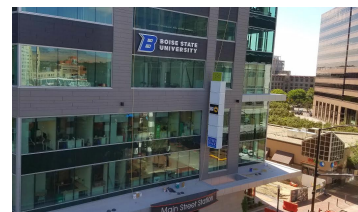
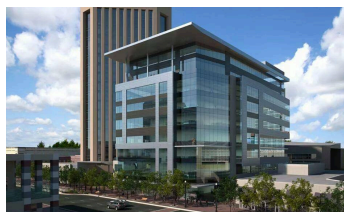
The rate of research grant submissions and awards continue to increase, with **22 submitted** grants and **12 funded** during the last 6 months of 2016. **The twelve funded awards total \$3.71 million**, of which five have PI or Co-PIs that are faculty on the HERC IGEM grant. Eight of these awards were from the National Science Foundation and one from J. R. Simplot.

As a comparison, during the same six months in 2015, the department submitted 11 grants and 4 were funded for a total of \$1.12 million. The number of submissions has doubled, while the awards have tripled!

The PhD program has started in Fall 2016. The program has tracks in CS, Cyber-Security, and Computational Science and Engineering, and with an eventual track in Big Data Analytics.

### **Strategy Four: Enhancing the Student Pipeline**

In Fall of 2016, the entire department moved to the new City Center Plaza building in downtown Boise. Located at 777 West Main Street in Downtown Boise, adjacent to the Grove Plaza, City Center Plaza (CCP) is in the heart of Boise's technology ecosystem. The Department of Computer Science occupies a first floor lobby that connects by elevator/stairway to the second and third floors where classrooms, offices and labs are located.



This new location provides computer science students with an unparalleled opportunity for internships and other interactions with industry in a modern and inviting learning environment. The new location is already causing an increased interest from potential students, both in-state and out-of-state, in the Computer Science department.

The undergraduate program continues to grow each year with 700+ students in Fall of 2016. We estimate the number of graduates in 2016-2017 year to be around 80, a significant increase from last year. The Computer Science major was the third largest choice of major for incoming freshmen in Fall of 2016 and is expected to become the largest in the next year or two. Another interesting statistics is that last year 95% of graduates accepted jobs in Idaho versus around 80% historically. So not only is the output increasing, the retention after graduation in the state has also improved.

The department also started a new inter-disciplinary PhD in Computing program in Fall of 2016. It already has four students in it. The PhD program has the potential to significantly increase the research profile of the department and to draw top-notch talent to come to Boise State University and potentially end up in local industry.

The IDoCode project (funded by the National Science Foundation) to introduce high quality computer science in high schools is in its third year and has been recently funded by the National Science Foundation for the fourth year. We now have 54 teachers in three cohorts and are recruiting for the fourth cohort to start in Summer'2017. These teachers are offering eleven new sections of AP Computer Science Principles course in Fall'2016. This new national course is designed to get a diverse group of students excited about computer science, which will lead to a bigger and better-prepared pipeline of students going on to college. As a result of the work of the PIs and their partners, we have around 1200 students taking computer science courses in Boise and West Ada school districts alone, which is more than order of magnitude increase from three years ago.

All of the above point towards a booming student pipeline that promising to increase the computer science workforce in Idaho significantly.

## Future Plans

The department is well on its way to further sustained growth in all areas. **We expect the number of graduates to be over 80 this year, which would be a 320% increase from four years ago!** The research activity has hit at an all-time high and the interaction with industry continues to increase and deepen with the new downtown location.

## Faculty and Student Participation

Four faculty and six graduate research assistants were supported directly on this grant. The supported faculty has in turn worked with more students and staff because of grants they received. As a result there were a total of **four faculty, 27 students** that were supported directly or indirectly (excluding the three PIs). Additionally, several additional students have started internships at local companies because of the renewal of the Expand.CS program this fall.

| Name          | Undergraduate | Graduate  | Post-docs |
|---------------|---------------|-----------|-----------|
| Steve Cutchin | 6             | 4         | 0         |
| Edoardo Serra | 0             | 5         | 0         |
| Elena Sherman | 0             | 2         | 0         |
| Dianxiang Xu  | 1             | 9         | 0         |
| <b>Total</b>  | <b>7</b>      | <b>20</b> | <b>0</b>  |

## Patents and Copyrights

There are no patents or copyrights to report at this time.

## Startups and Technology Licenses

CS faculty were directly involved in no new startups in Fall of 2016.

Students were directly involved in the following **four** new startups, supported by Co-PI Jim Conrad via the Senior Design course. Several of these startups are in conjunction with Boise State Venture College.

- PayDayly — newstartup. Allow employees to draw wages before receiving their paychecks.
- JumpRope — new startup. Automated tracking of jump rope competitions.
- WeaverDesign — new startup. A life-like football blocking sled in virtual platform.
- LittleAuthors — new startup. Story-telling/creation app for children

## Expenditure Report

Four faculty and six graduate assistants were directly supported via the IGEM grant during this period.

| Budget for July 2016 to December 2016 |                     |                    |                    |                     |
|---------------------------------------|---------------------|--------------------|--------------------|---------------------|
| Category                              | Salary              | Fringe             | Tuition            | Total               |
| Faculty                               | \$200,724.79        | \$58,580.64        |                    | \$259,305.43        |
| Graduate Assistants                   | \$44,371.30         | \$7,297.51         |                    | \$51,668.81         |
| Operating Costs                       |                     |                    | \$16,880.00        | \$16,880.00         |
|                                       | <b>\$245,096.09</b> | <b>\$65,878.15</b> | <b>\$16,880.00</b> | <b>\$327,854.24</b> |

## Idaho IGEM Program

### Progress Report Form

Proposal No. IGEM16-02  
Name: Kurtis Cantley  
Name of Institution: Boise State University  
Project Title: Enhancing Capabilities in Microfabrication at Boise State  
Reporting Period: July 1, 2016 to January 1, 2017

**Information to be reported in your progress report is as follows (attach additional information as needed):**

1. Summary of project accomplishments for the period just completed and plans for the coming reporting period:

Since the last report submitted at the end of June 2016, we have continued work on facility infrastructure improvements, installation of new equipment, and upgrades and critical maintenance on existing equipment. A list of specific project objectives and related outcomes during this period is given below.

- As outlined in the previous report, purchase and setup of the Fuji Dimatix materials inkjet printer originally scheduled for year 3 was moved forward. This system is now fully operational, being used heavily by two different faculty research groups, and is the central tool enabling submission of multiple grant proposals by these faculty.
- In place of the ion mill end point detector (which was declared infeasible), we have moved forward with critical maintenance and upgrades to the Oxford PlasmaLab 180 Inductively Coupled Plasma (ICP) etching system. One of these upgrades is the addition of Argon gas line to effectively allow the tool to run as another ion mill. The other is the addition of an Ocean Optics USB3000 optical endpoint detector with control software integration for tight process control during etching.
- Major facility projects include continued upgrades to air handling equipment and HVAC to ensure the clean room areas stay at positive pressure relative to outside. We have also committed to share \$25k cost on a significant chilled water upgrade project being led by Boise State Facilities Operations and Maintenance.
- Supplies and safety purchases have included a corrosive chemical storage cabinet for the base chemical processing station purchased last year. Also, we moved forward with the purchase of new clean room garments that are safer for users and also ensure better cleanliness of the environment compared to the very old suits being used previously.
- Finally, we moved the purchase of a new ashing/reactive ion etching system from year 3 into year 2, due to the lower than expected expenditure rate of the new faculty startup. It was also decided to purchase a more powerful and cheaper PVA TePLA Ion 40 system over the originally proposed Samco 1-C.

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

2. Summary of budget expenditures for the period just completed (include project burn rate):

As of December 31<sup>st</sup> 2016, 87% (or \$435,000) of the \$500,000 year 2 budget has been encumbered (including remaining salaries) or spent. This corresponds to a **burn rate (excluding remaining salaries) of approximately \$51,000/month** over the 6 months (July through December). Major purchases and expenditures include:

- \$44,720 for the new asher/reactive ion etching system
- Approximately \$100,000 in salary and benefits for technical support engineering Travis Gabel (for the year)
- Approximately \$115,000 in salary and benefits for ECE faculty Dr. Harish Subbaraman (for the year)
- Graduate student stipends and benefits totaling approximately \$62,000 for the year
- \$25,000 for endpoint detection and Argon gas upgrades to the Oxford PlasmaLab ICP etcher
- \$25,000 dedicated to lab chilled water supply upgrade (joint project with Boise State Facilities Operations and Maintenance)
- \$65,000 in total for supplies, and facility and equipment upgrades and installation

3. Numbers of faculty and student participation resulting from the funding, including internships:

Currently, there is one full-time PhD candidate (Sumedha Gandharava) and one master's student (Binay Joshi) supported by the project. The new ECE faculty (Harish Subbaraman) and technical support engineer (Travis Gabel) are also supported with salary and fringe benefits. Funds provided through the grant include \$100,000 in research start-up needs to Dr. Subbaraman, which will be split between years 2 and 3.

4. List patents, copyrights, plant variety protection certificates received or pending:

None at the current time.

5. List technology licenses signed and start-up businesses created:

At this time there are no start-up businesses created as a result of the funding. However, memristor (resistive memory) technology developed by Prof. Kris Campbell in the ECE department has been licensed by Knowm, Inc. and M. Alexander Nugent Consulting (MANC) of Santa Fe, NM. If their projects proceed as expected, use of the IML by MANC could generated up to \$100,000 in revenue.

6. Status of private/industry partnerships (include enough information to judge level of engagement):

**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

Several new agreements with Idaho businesses have been put in place since the start of the project to use the IML and new equipment and processes contained in it. These include:

- American Semiconductor, Inc. (Boise, ID) has heavily used the new Bruker stylus profilometer and presented results at multiple conferences and workshops with credit to the IML at Boise State. They are also working to expand contract usage with lithography and chemical processing.
  - Fiberguide, Inc. (Caldwell, ID) was previously using the old wet bench for process development and anticipates heavy use of the new benches in the coming months.
  - Collaborative use of the Bruker stylus profilometer for a joint project with Idaho National Laboratory (INL), with additional use planned for the future.
  - A new non-disclosure agreement (NDA) has been put in place between Boise State and PakSense, Inc. to initiate and protect collaborative research, particularly with the new ECE faculty member, Dr. Harish Subbaraman.
7. Any other pertinent information that will indicate to the council that the project is meeting satisfactory progress.

**Security Management of Cyber Physical Control Systems  
July 2016-June 2019**

**State Board of Education  
Higher Education Research Council  
Idaho Global Entrepreneurial Mission (IGEM) Initiative Grant**

**Grant Number IGEM17-001**

University of Idaho, College of Engineering

Project Director and PI: Larry Stauffer, Dean

Co-PI's: Fredrick Sheldon, Chair and Professor, Computer Science  
Brian Johnson, SEL Endowed Chair, Electrical & Computer Engineering  
Michael Haney, Assistant Professor, Computer Science  
Daniel Conte de Leon, Assistant Professor, Computer Science

**Executive Summary**

Cyber-attacks and intrusions are nearly impossible to reliably prevent given the openness of today's networks and the growing sophistication of advanced threats. Knowing the vulnerabilities is not adequate, as the evolving threat is advancing faster than traditional cyber solutions can counteract. Accordingly, the practice of cyber security should focus on ensuring that intrusion and compromise do not result in business damage or loss through more resilient solutions. We are creating a platform to facilitate and build complementary and multidisciplinary R&D capabilities to address these pressing problems. Our platform will incubate innovative products and services for safeguarding cyber physical control systems (CPCSs) that are ubiquitous and underpin key sectors of our economy. Early participation of industry will aid in vetting promising technologies. Better methods for assessment combined with more resilient systems design will safeguard against potentially immense economic impact currently being faced by Idahoan stakeholders.

Idaho SBOE Contact:  
Caron Howell  
(208) 332-1563  
[Carson.howell@osbe.idaho.gov](mailto:Carson.howell@osbe.idaho.gov)

**Security Management of Cyber Physical Control Systems  
July 1-December 31, 2017**

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**INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017**

## **I. Summary of Project Accomplishments and Plans**

This report provides the status of the project titled “Security Management of Cyber Physical Control Systems” which is an Idaho Global Entrepreneurial Mission (IGEM) Initiative Grant # IGEM17-001 sponsored by the Higher Education Research Council (HERC) of the Idaho State Board of Education (ISBOE). We are concluding the first six-months (July 1-December 31, 2016) of this three-year project. As we are just initiating the project most of the effort has been towards planning and building capabilities of cyber physical control systems (CPCS).

During the next six-month period, January 1-June 30, 2017, we plan to continue with our work plan as described in the proposal. Specifically we plan to complete the hiring of faculty and graduate students. With regard to infrastructure enhancements we plan to complete the video technology room in Idaho Falls and initiate improvements to the laboratories. We will also make preparations for year two activities.

## **II. Budget Expenditures**

| <b>Expenditures July 1 - December 16 2016</b> |           |             |            |             |   |
|---|-----------|-------------|------------|-------------|---|
| Category                                      | Approved  | Expenditure | Encumbered | Remaining   | Notes   |
| Faculty Salaries                              | \$180,029 | \$ 69,818   |            | \$ 110,211  |   |
| Fringe Benefits                               | \$ 41,439 | \$ 20,410   |            | \$ 21,029   |   |
| Travel  | \$ 18,500 | \$ 10,290   |            | \$ 8,210    |   |
| Operating                                     | \$141,732 | \$ 2,149    | \$ 175,200 | \$ (35,617) | VT instalations in Moscow and Idaho Falls; note 1 |
| Capital Outlay                                | \$297,000 |             | \$ 304,000 | \$ (7,000)  | Power lab enhancements; note 2                    |
| Tuition                                       | \$ 21,300 | \$ 5,194    |            | \$ 16,106   |   |
| Total   | \$700,000 | \$ 102,667  | \$ 479,200 | \$ 118,133  |   |

Note 1: The \$175,200 is the set aside amount for the Video Technology installations. The entire project is not scheduled to be completed until March 15, 2017 at which time an accurate expenditure will be recorded. We may be requesting adjustments between the Operating and Capital Outlay categories at a later date. Regardless, we will not exceed the budgeted amount.

Note 2: The \$304,000 is the initial estimate towards the Murdock proposal (discussed later in this report). We won't know the exact amount until the end of May. We may be requesting adjustments between the Operating and Capital Outlay categories at a later date. Regardless, we will not exceed the budgeted amount.

## **III. Demonstration of Economic Development/Impact**

In this section we detail our accomplishments, organized by the four Objectives of the project.

### **(1) Strengthen our capacity by adding key faculty and enhancing laboratories.**

In this first six months of the project we have made substantial progress on video technology infrastructure additions and initiated laboratory enhancement projects. We have been able to add one new faculty member and assign an additional portion of time for three existing faculty

members. We also initiated a search for the other three faculty members called for in the proposal and hired a graduate student. A summary is as follows:

### **III.1.A Faculty Searches**

Our work plan calls for the hiring of four faculty members. We have been fortunate to already have completed one of the hires in Electrical and Computer Engineering (ECE) in Moscow. Yacine Chakhchoukh is an expert in signal processing with experience in power systems cyber security operations. He earned a PhD in 2010 from Paris-Sud XI University/Superior School of Electricity, Supélec (Paris, France) with highest honors. Prior to joining the UI he was an assistant professor at the Tokyo Institute of Technology.

We are currently conducting searches for the following three remaining positions. They will all begin work fall semester 2017 if the searches are successful.

- Assistant Professor in Computer Science in Idaho Falls; expertise in security in internet of things.
- Assistant Professor in Electrical and Computer Engineering in Idaho Falls; expertise in SCADA.
- Associate Professor in Computer Science in Moscow; expertise in cyber security of cyber-physical controls systems.

### **II.1.B Graduate Students**

Currently one graduate student has been hired for the project, Krishna Koganti. He is currently working on the VMWare based Industrial Control Systems (ICS) Testbed project (described below). A new PhD student in CS, Mohammad Ashrafuzzaman, is assisting Krishna and will assume responsibility for conducting the first research on this testbed this coming summer.

### **III.1.C Video Technology and Laboratory Enhancements**

In our proposal we projected to enhance equipment and facility improvements to better connect UI faculty and laboratories in Moscow and Idaho Falls and faculty at Boise State University.

#### **Video Technology Connected Classrooms and Laboratories**

Through an unrelated initiative we are expanding our computer science program to the UI's Coeur d' Alene campus which contains a sub-area of cyber security. So we are coordinating this expansion with our IGEN initiative to create a state-wide video technology system with these four locations and utilizing the Idaho Regional Optical Network (IRON) network. In this system we will have connected classrooms for sharing courses and seminars between UI Moscow, Idaho Falls, and Coeur d' Alene and Boise State University. We will also have connected cyber security laboratories for shared resources and collaboration between these same sites. Figure 1 demonstrates this concept. Figure 2 shows the operational classroom in Moscow with a similar classroom in Coeur d' Alene which became operational December 1, 2016. The other locations are scheduled to become operational in 2017.

# INSTRUCTION, RESEARCH AND STUDENT AFFAIRS FEBRUARY 16, 2017

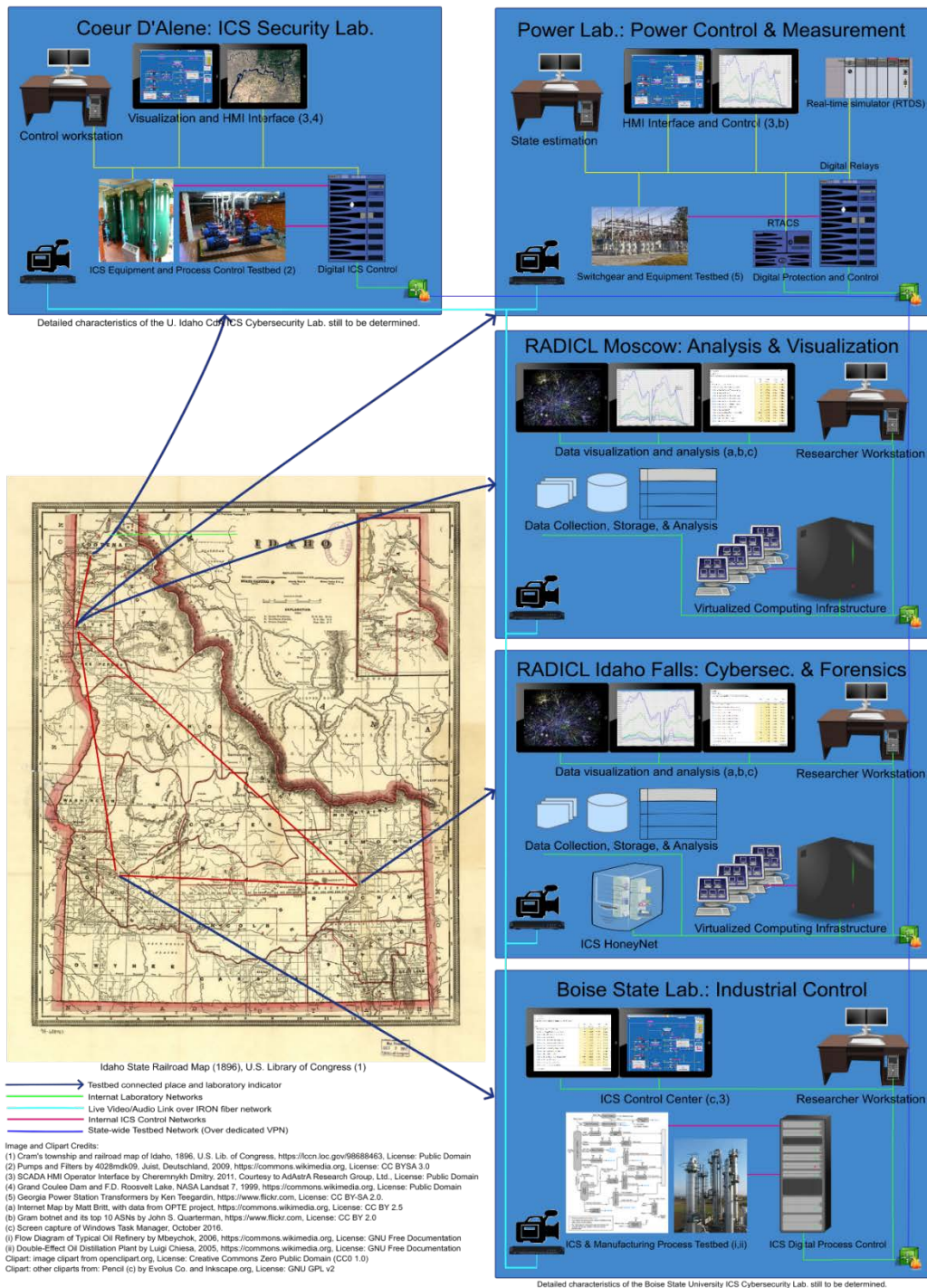


Figure 1: Conceptual View of the New Connected Idaho CPS Cybersecurity Laboratories



Figure 2: View of Front of the New Video Enhanced Classrooms at UI

**The Power Systems Laboratory** in Moscow is undergoing a major expansion from about 1,500 sq.ft. to 2,200 sq.ft. (see Figure 3) We have worked with the Schweitzer Engineering Laboratory (SEL) Engineering Services Division to design a testbed for performing research on cybersecurity of power and industrial control systems. This testbed will allow research and development of novel and secure techniques and algorithms for securing today and tomorrow's Power Grid (PG) along with other types of Industrial Control Systems (ICS). The major advantage of this testbed is that it will enable researchers and engineers to perform and collaborate on ICS-specific cybersecurity research, development, and testing on a system that closely resembles current distributed critical infrastructure cyber-physical control systems. The proposed testbed will expose hardware-in-the-loop, enable the capture and use of real operational data, integrate current and future components of the power grid and other industrial control systems, and enable realistic attack-defend scenarios for research, evaluation, and testing. It will integrate with the current Real Time Digital Simulator (RTDS) and be accessible from the other UI locations as well as BSU. This capability will significantly enhance our ability to demonstrate (in-situ) advanced PG/ICS technology to Idaho industry partners. The expansion is illustrated in Figure 3 below. The estimated cost of this enhancement and expansion is about \$925,000. This cost will be funded by a combination of funding from this IGEM project, the Murdock Foundation, and other COE funds. In case we are not successful with the Murdock Foundation request, we are developing a "Plan B" for a significantly scaled back test bed. We will still expand the size of the Power Systems Laboratory but will have to keep the scope of the test bed more focused initially and build out the other equipment over time.

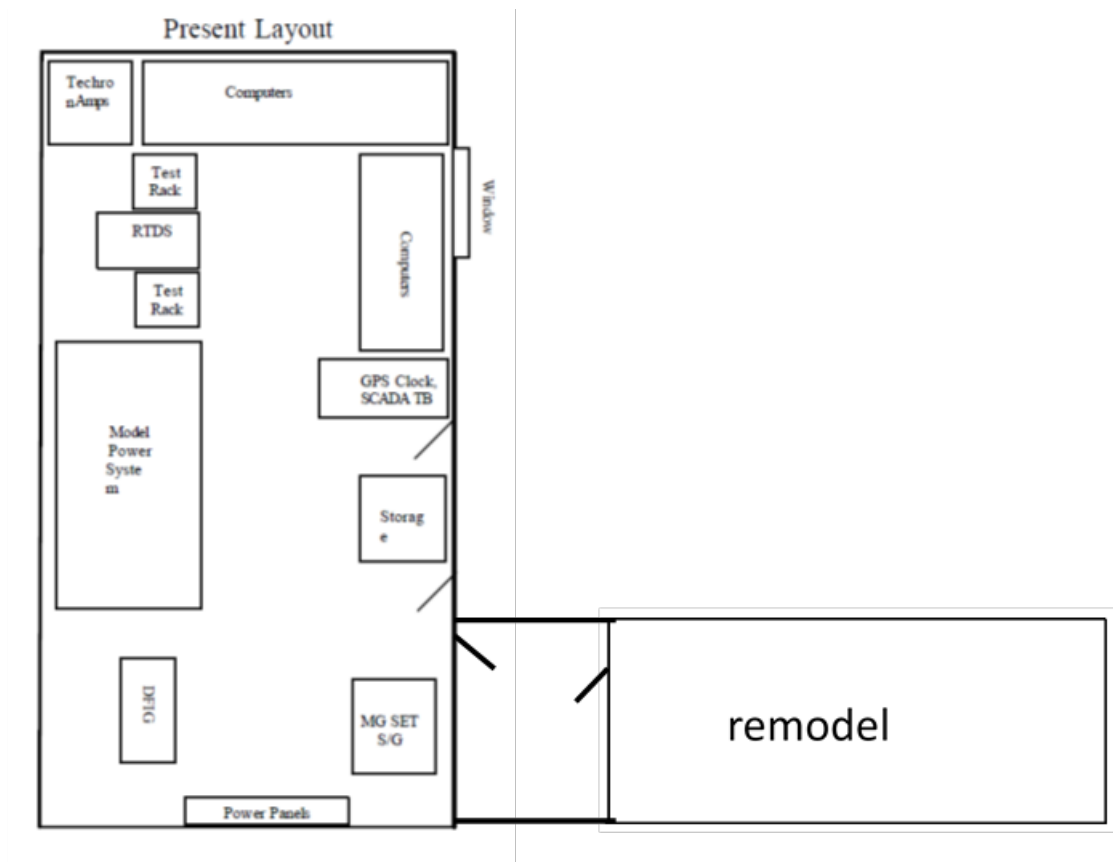


Figure 3: Illustration of Power Systems Laboratory Expansion

### **VMware based Industrial Control Systems (ICS) Testbed**

We have developed plans to install a VMware based Industrial Control Systems (ICS) Testbed – Including datasets from DHS/NSF Sponsored Predict/Impact. This step is planned for March in conjunction with a visit from Prof. Q. Chen who will give a colloquium and provide technical assistance installing software for this purpose. In anticipation of these facilities we are working with students from the Power Systems Laboratory to develop a strategy to collect data that can be used for the purpose of applying machine learning techniques to forewarn of failures including security breaches and insider threats. Two students are working on this effort Krishna Koganti (MSCS) and Mohammad Ashrafuzzaman (PhD in CS). We have established an IMPACT account with the DHS sponsored site <https://www.impactcybertrust.org/>.

### **(2) Strengthen collaboration with Idaho industry and other Idaho universities**

#### **III.2.A Industry Collaborations**

September 16, 2016: Rear Admiral Kevin Kovacich. RADM Kovacich is the Director of Plans and Policy (J5) at the United States Cyber Command, Headquarters, at Fort Meade Maryland. During his visit to the University of Idaho he met the faculty and gave a presentation to faculty and cybersecurity students.

September 28, 2016 Idaho National Laboratory (INL), Homeland Security Division (Agenda in Appendix A). Our IGEN team met with members of the INL to review the objectives of the

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IGEM project, learn more about the mission of the INL in this area, and identify opportunities for collaboration. The outcomes of this meeting are still on-going.

November 9-10, 2016, with follow up visit on December 1: James Brainerd of Inergy Solar of Pocatello Idaho. The objectives of this visit included (1): progress review on existing Idaho Department of Commerce IGEN grant, (2) tour of RADICL and ECE labs as part of discussions for future research proposals. Drafted letter of intent for SBIR proposal to US-DOE.

December 15-17, 2016: Hideaki Ishii, Associate Professor, Tokyo Institute of Technology (Japan). The objective of the visit was to strengthen our collaboration on research, publications, and supervising students in the cybersecurity area.

Michael Haney partnered with Idaho Falls Power to establish Memorandum of Understanding for course offerings and future research partnerships.

Brian Johnson has had weekly meetings with Craig Rieger and Tim McJunkin from INL related resilient control of critical infrastructure. Efforts included (1) ongoing research project as part of DOE Grid Modernization Lab program (2) collaboration course on Resilient Control Systems with collaboration between UI, BSU and INL. Some interaction with Colorado State University and Idaho State University as well.

### **III.2.B University Collaborations**

July 2016: nuclear cybersecurity research meeting in Idaho Falls with University of Tulsa and the INL led to two NEUP proposals with Michael Haney as the PI.

September 27, 2016: Boise State University (BSU) College of Engineering (Appendix A) Our IGEN team met with faculty and staff at BSU to review the objectives of the IGEN project, identify opportunities for collaboration, discuss how to enhance labs at both schools, and increase connectivity. At the conclusion of this meeting we agreed to visit again in Moscow.

November 10, 2016: Boise State University (BSU) College of Engineering (Appendix A) Faculty and staff from BSU met with our IGEN team in Moscow to review work done since the last meeting, tour labs, and identify swim lanes for developing complementary laboratory focus areas. Some decisions made were to duplicate our RADCL lab at BSU, develop a common policy and protocol for remote lab operation at both programs. While we will focus on power systems security, especially regarding transmission and distribution, BSU expressed an interest to focus on security of alternative power generation. Additional outcomes of this meeting are still on-going. BSU will also plan to implement video technology to be compatible to our system being installed in order to create a broader state-wide system as described above.

### **(3) Foster technology transfer and commercialization through technology incubation**

In our proposal we stated that accomplishments in this Objective would not occur in the first year. However, our team has already made some progress, namely:

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**III.3.A Proposals**

**ACCEPTED**

1. B.K. Johnson, "Resilient Scalable Cyber State Awareness of Industrial Control System Networks to Threat: Power System Design and Testing," Idaho National Laboratory, January 11, 2017-January 10, 2020, \$75,000.
2. B.K. Johnson, "HVDC System Control Threat Model and Mitigation Method for Cyber Attack Resilient HVDC Systems," ABB Corporation (Subcontract of DOE CEDS grant). January 11, 2017-August 30, 2019, \$199,628 (plus an additional \$50,364 cost share).

**SUBMITTED**

"Idaho Industrial Control Systems (ICS) Cybersecurity Testbed"

*Amount Requested:* \$463,208

*Proposed Period:* June 1, 2017 to May 31, 2018 (1 year).

*Proposed Source:* M.J. Murdock Charitable Trust ([www.murdocktrust.org](http://www.murdocktrust.org)).

*Location:* University of Idaho, Multi-site: Moscow, Idaho Falls, Coeur D'Alene, Idaho.

*PI:* Johnson, Brian; Ph.D., P.E., Electrical and Computer Eng., University of Idaho.

*CoPI:* Chakhchoukh, Yacine; Ph.D., Electrical and Computer Eng., University of Idaho.

*CoPI:* Conte de Leon, Daniel; Ph.D., Computer Science, University of Idaho.

*Note:* Total project cost is \$872,405 with match from the University of Idaho.

*Note:* This is a major instrumentation proposal to build a specialized Industrial Control Systems (ICS) Cybersecurity research, development, and testing distributed testbed. It includes no direct financial support for PI salaries. The testbed will be distributed across the state of Idaho with sites in Moscow, Idaho Falls, and Coeur d' Alene.

"Univ. of Idaho GenCyber 2017 Residential Cybersecurity and Coding Camps"

*Amount Requested:* \$79,813

*Proposed Period:* March 15, 2017 to March 14, 2018 (1 year).

*Proposed Source:* GenCyber Summer Camps Program, U.S. National Security Agency.

*Location:* University of Idaho, Moscow, Idaho, U.S.A.

*Project Director:* Conte de Leon, Daniel; Computer Science, Moscow, Univ. of Idaho.

*Lead Instructor:* Soule, Terry; Computer Science, University of Idaho.

*Certified High-School Instructor:* LaPaglia, Kirsten; TRIO Program, U. of Idaho.

*Instructor:* Heckendorn, Robert; Computer Science, University of Idaho.

"SaTC: EDU: Development of Reverse Engineering Lab and Curriculum"

*Amount Requested:* \$271,279

*Proposed Period:* October 1, 2017 to September 30, 2019 (2 years).

*Proposed Source:* NSF, Secure and Trustworthy Cyberspace, Education: SaTC:EDU.

*Location:* University of Idaho, Idaho Falls, Idaho, U.S.A.

*PI:* Haney, Michael; Computer Science, Idaho Falls, University of Idaho.

*CoPI:* Conte de Leon, Daniel; Computer Science, Moscow, University of Idaho

"NEUP NE-1: Analysis and Design of Future Digital Instrumentation and Controls for Nuclear Reactors"

*Amount to be requested (approximate):* \$800,000.

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*Proposed Period:* July 01, 2017 to June 30, 2020 (3 years).

*Proposed Funding Agency:* Department of Energy Nuclear Energy University Programs (DOE NEUP).

*Proposed Technical Workscope Identification:* NE-1: Cybersecurity Research Topics

*Submission Deadline:* March 1, 2017.

*Location:* Center for Advanced Energy Studies, Idaho Falls, Idaho, U.S.A.

*Planned Person-Months:* for PI Haney: Academic Year: 0.50 month.

*PI:* Haney, Michael; Computer Science, University of Idaho, Idaho Falls, ID.

*CoPI:* Borrelli, R. A.; Nuclear Engineering, University of Idaho, Idaho Falls, ID.

*CoPI:* Hawrylak, Peter; Electrical Engineering, University of Tulsa, Tulsa, OK.

*CoPI:* Papa, Mauricio; Computer Science, University of Tulsa, Tulsa, OK.

*CoPI:* Hale, John; Computer Science, University of Tulsa, Tulsa, OK.

"NEUP NE-1: A Cyber-Secure Operator-in-the-Loop Nuclear I&C Architecture for Supply Chain Risk Management"

*Amount Requested (approximate):* \$750,000.

*Proposed Period:* July 01, 2017 to June 30, 2020 (3 years).

*Proposed Funding Agency:* Department of Energy Nuclear Energy University Programs (DOE NEUP).

*Proposed Technical Workscope Identification:* NE-1: Cybersecurity Research Topics

*Submission Deadline:* March 1, 2017.

*Location:* Center for Advanced Energy Studies, Idaho Falls, Idaho, U.S.A.

*Planned Person-Months:* for PI Haney: Academic Year: 0.50 month.

*PI:* Haney, Michael; Computer Science, University of Idaho, Idaho Falls, ID.

*CoPI:* Hiromoto, Robert; Computer Science, University of Idaho, Idaho Falls, ID.

*CoPI:* Vakanski, Alex; Industrial Technology, University of Idaho, Idaho Falls, ID.

*CoPI:* Ladendorff, Marlene; Idaho National Laboratory, Idaho Falls, ID.

### **III.3.B Publications**

#### **ACCEPTED**

Stuart Steiner, Daniel Conte de Leon, and Jim Alves-Foss, "A Structured Analysis of SQL Injection Runtime Mitigation Techniques," **Proceedings of the 50th Hawaii International Conference on System Sciences (HICSS-50)**, 04-07 January 2017, Big Island, HI, U.S.A. IEEE Computer Society, 2017. <http://dx.doi.org/10.1109/HICSS.2017.TBD>.

Ananth A. Jillepalli, Daniel Conte de Leon, Stuart Steiner, and Frederick T. Sheldon, "*HERMES: A High-Level Policy Language for High-Granularity Enterprise-wide Secure Browser Configuration Management*," **Proceedings of the 2016 IEEE Symposium Series on Computational Intelligence (SSCI-2016)**, 06-09 December 2016, Athens, Greece, IEEE Computer Society, 2016. <http://dx.doi.org/10.1109/SSCI.2016.TBD>

Daniel Conte de Leon, Venkata A. Bhandari, Ananth A. Jillepalli, and Frederick T. Sheldon, "Using a Knowledge-based Security Orchestration Tool to Reduce the Risk of Browser Compromise," **Proceedings of the 2016 IEEE Symposium Series on Computational Intelligence (SSCI-2016)**, 06-09 December 2016, Athens, Greece, IEEE Computer Society, 2016. <http://dx.doi.org/10.1109/SSCI.2016.TBD>

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Y. Chakhchoukh; V. Vittal; G. T. Heydt and H. Ishii, "*LTS-based Robust Hybrid SE Integrating Correlation*," to appear in **IEEE Transactions on Power Systems**, IEEE 2017.

P. Penkey, M. Alla, B.K. Johnson, T.R. McJunkin, "Improving transmission system resilience using an automation controller and Distributed Resources," **Resilience Week 2016**. Chicago IL, August 2017

K. Eshghi, B.K. Johnson, C.G. Rieger, "Metrics Required for Power System Resilient Operations and Protection," **Resilience Week, 2016**.  
Chicago IL, August 2017

***SUBMITTED***

Mohammad Ashrafuzzaman, Venkata Sreekrishna Koganti, Daniel Conte de Leon, and Frederick T. Sheldon, "*Conceptual Design of an ICS Test-bed for Full Life-Cycle Cyber Security Management*." Submitted to: **8th ACM/IEEE International Conference on Cyber-Physical Systems**.

***IN PREPARATION***

"Ananth A. Jillepali, Daniel Conte de Leon, Michael Haney and F. T. Sheldon, "A Computational Model for Risk Assessment and Security Management of Cyber Physical Control Systems Using NIST SP 800-80r2," Submitting to: INFOCOM 2017 (6<sup>th</sup> IEEE Ann. Int'l Workshop on Mission-Oriented Wireless Sensor and Cyber-Physical System Networking (MiSeNet 2017)).

Michael Haney, "DUKPT+AES: A Key Management Scheme with Application to Large Data Sets".

Michael Haney, "Encrypted PCAP for Preserving Privacy in Network Surveillance".

Michael Haney, "CPS Honeypots with IMUNES and Sebek".

Nagarjuna Nuthalapati and Michael Haney, "Taxonomy of Attacks in WAMS (Wide-Area Measurement Systems).

James Peters and Michael Haney, "Survey of Password Mnemonics for Meeting Complexity Requirements".

Ryan Hruska and Michael Haney, "Security Data Analysis with SciDB".

**III.3.C Presentations**

**Title:** Electric Grid Modernization and Substation Automation

**Day & Time:** November 16, 2016 at 2:30 PM presentation and 3:30 social event.

**Place:** Vandal Ballroom, Bruce M. Pitman Center, University of Idaho.

Co-sponsored by the IEEE Palouse Section and the University of Idaho.

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**Speaker:** John D. McDonald, P.E., IEEE Fellow and Smart Grid Business Development Leader, North America, General Electric (GE) Energy Connections, Grid Solutions

The purpose of this talk is to familiarize participants with a vision for the future of substation automation, within the context of grid modernization.

**(4) Strengthen and expand the workforce**

In our proposal we stated that accomplishments in this Objective would not occur in the first year. However, our team has already made some progress, namely:

Sheldon and Stauffer made four trips to the Coeur d' Alene area to talk with industry partners and conducted an Industry Stakeholder Summit on September 11<sup>th</sup> regarding opportunities for improving the talent pipeline with Computer Science and Engineering graduates. We discussed plans for increasing computer science graduates--including expertise in cyber security--and on establishing cooperative internships in the area. A list of organizations visited is included in Appendix B.

Sheldon was an invited Speaker for the IEEE Computer Society Technical Lecture 2016, IEEE Region 6 (Palouse Section), "Quantifying the Impact of Unavailability in Cyber-Physical Environments" October 31, 2016.

**V. Description of Future Project Plans**

Plans for the future are to accomplish the deliverables of the four objectives. Specifically for the second half of year one we plan to:

- Complete the hires of listed in III.1.A above.
- Complete the video technology enhancements in Idaho Falls described in III.1.C above.
- Begin the enhancements to the Power Systems Laboratory and RADCL. The extent of the enhancements will depend on the success of the proposal to the Murdock Foundation
- Host the Cybersecurity Symposium 2017, April 17-19 in Coeur d' Alene, organized by the University of Idaho and sponsored by the Center for Secure and Dependable Systems in the College of Engineering.
- Participate in the National Cyber Security Summit in Huntsville Alabama June 6-8.

**Appendix A  
Agendas**

**University of Idaho/College of Engineering  
Boise State University  
Location: City Center Plaza  
Joint Meeting  
Tuesday, September 27, 2016  
Agenda**

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- 10:30am Introduction of the University of Idaho Team
- 10:45am Review Location of the Video Conferencing at BSU
- Brainstorming UI/BSU's focus on their security lab
  - UI planned additions to enhance power lab
  - Establish strategic focus (e.g. food processing/agricultural asset protection)
- 11:45am Break for Lunch – at downtown location tbd
- 1:00pm Overview of Current Facilities at UI/INL/BSU
- How can UI/BSU collaborate toward leveraging INL facilities and expertise?
- 1:45pm UI/BSU Collaborations
- Brainstorm Ideas for Joint Projects
- 2:30pm Adjourn

**Attendees**

**BSU**

Amy Moll—Dean  
Tim Andersen -- Chair, CS  
John Stubben -- Research Faculty, ECE  
Hoda Mehrpouyan -- Asst. Professor CS  
Rex Oxford -- Asst. Dean, COEN  
Ben Petersen, IT Systems Engineer

**UI**

Larry Stauffer – Dean  
Rick Sheldon – Chair, CS  
Yacine Chakhchoukh, Asst. Professor, ECE  
Brian Johnson – Professor, ECE  
Barry Willis – Assoc Dean Outreach

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**University of Idaho (UI) Visit  
September 28, 2016**

**UI Participants:**

Larry Stauffer, Dean of the College of Engineering, Professor, and Professional Engineer Frederick Sheldon, Professor and Chair of Computer Science  
Barry Willis, Professor and Associate Dean for Outreach  
Brian Johnson, Professor, Electrical and Computer Engineering  
Michael Haney, Assistant Professor, Computer Science

**INL Participants:**

Brent Stacey, Associate Laboratory Director, National & Homeland Security Dan Elmore, Director, Critical Infrastructure Protection  
Wayne Austad, Director, Cybercore Integration Center  
Joseph Price, Deputy Director, Critical Infrastructure Protection  
Michelle Bingham, Manager, University Partnership & Education Outreach  
Craig Rieger, Principal Control Systems Research Engineer

Host: Joseph Price, 208 932-5370 (cell) or 208 526-6004  
Meeting Coordinator: Julie Irving, 208 526-8722

Willow Creek Building (WCB), 1955 Fremont Ave. Idaho Falls, ID

07:45 a.m. Guest Badging

WCB Lobby..... Julie Irving

Energy Innovation Laboratory (EIL), Room A110, 775 University Blvd. Idaho Falls, ID

8:00 a.m. Welcome and Introductions ..... Dan Elmore

8:15 a.m. Objective Overview and Desired Outcomes ..... Brent Stacey and Larry Stauffer

8:30 a.m. Idaho Global Entrepreneurial Mission (IGEM) Program Overview and Path

Forward..... University of Idaho

9:10 a.m. CyberCore ..... Wayne Austad

9:50 a.m. Break

10:10 a.m. UI/INL MOU Update..... Joseph Price

11:00 a.m. Curriculum Overview: UI & Idaho Falls Extension.. Michael Haney

11:40 a.m. Working Lunch..... EIL, Room A110

12:45 p.m. Meetings Conclude/Wrap-up ..... Joseph Price

Critical Infrastructure, Protection & Resilience Building (UB4), 684 University Blvd. Idaho Falls, ID

1:00 p.m. (Optional) Tour of UB4 ..... Joseph Price

1:30 p.m. (Optional) Follow on Discussion ..... UI and INL

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**Agenda  
November 10, 2016  
BSU visit to UI regarding cybersecurity**

9:00 Tour of college facilities with BSU

9:30 Introductions and Recap

10:00 Tour Power Systems Lab

10:45 Tour RADICL Lab

11:30 Working lunch: next steps

1:15 Adjourn

**Attendees**

**BSU**

Tim Andersen -- Chair, CS

John Stubben -- Research Faculty, ECE

Hoda Mehrpouyan -- Asst. Professor CS

John Gardner -- Professor MBE and Director CAES Energy Efficiency Research Institute

Rex Oxford -- Asst. Dean, COEN

Ben Petersen, IT Systems Engineer

**UI**

Larry Stauffer -- Dean

Rick Sheldon -- Chair, CS

Daniel Conte de Leon, Asst. Professor, CS

Yacine Chakhchoukh, Asst. Professor, ECE

Brian Johnson -- Professor, ECE

Ray Anderson -- IT Manager

Barry Willis -- Assoc Dean Outreach

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**Appendix B  
List of Organizations Visited in Northern Idaho**

|                         |                             |                              |
|-------------------------|-----------------------------|------------------------------|
| 14 Four Inc.            | Hagadone Digital            | Parkwood Business Properties |
| Avista Corporation      | Idaho National Laboratories | Percussionaire               |
| Ednetics                | Idaho Technology Council    | Perfution                    |
| Empire Airlines         | Innovation Collective       | Protellget                   |
| Empire Unmanned         | Intermax Networks           | Rohinni                      |
| Extratech               | ltron                       | Salesforce                   |
| F5                      | JUB Engineers               | Tedder industries            |
| Farb Guidance Systems   | Kochava                     | Triple E Technologies        |
| Fatbeam                 | Kootenai Health             | Xcraft                       |
| Frontier Communications | Litehouse Inc.              |                              |

## IGEM/HERC Final Report

**Proposal Name:** LCSC Bioinformatics Laboratory  
**Name (s):** Dr. Heather Henson-Ramsey, Chair, Natural Sciences and Mathematics  
Dr. Seth Long, Professor, Computer Science and Mathematics  
**Name of Institution:** Lewis-Clark State College

### 1. Summary of Project Accomplishments

This grant provided LCSC the funds to acquire state of the art workstations that are capable of the computational power necessary for Bioinformatics research.

#### **Project Objectives/Outcomes**

Objective #1: Purchase the workstations

Outcome- Objective completed.

The computers were purchased during the Fall 2016 semester and are currently in use.

Objective #2: Offer an upper division Bioinformatics Course

Outcome- Objective completed.

CS 492: Bioinformatics was offered during the Fall 2016 semester. There were 10 student enrolled in the course. A curriculum proposal has been submitted for 3 bioinformatics courses: an introductory general education course (BIOF 100), a course genomics course (BIOF 301), and an image analysis course (BIOF 350).

Objective #3: Increase the number of students who participate in bioinformatics research.

Outcome- objective ongoing. We will continue to measure this objective.

We currently have 3 faculty who do bioinformatics related research projects.

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Dr. Seth Long (Computer Science)- Dr. Long works on image analysis and currently has 3 student researchers. He is working on a collaborative NIH proposal with the University of Idaho.

Dr. Charles Addo-Quaye (Computer Science)- Dr Addo-Quaye is new faculty at LCSC (started in January 2017) and as of yet is not doing student research. His specialty is the genomics of crops.

Dr Leigh Latta (Biology)- Dr. Latta works with *Daphnia* genetics. He currently has 5 research students.

Objective #4: Develop a bioinformatics program.

Outcome- completed pending approvals

LCSC has submitted to the SBOE and our internal curriculum committee, a proposal for a new Bioinformatics program which integrates biology, computer science, and mathematics courses. The degree is designed to provide the experience necessary to become a information technician (B.S. level job) or to proceed onto graduate programs (for example, at the University of Idaho).

## **2. Summary of Budget Expenditures**

The budget for this proposal was \$75,000. We spent a total of \$79,124.75. See the table below for full expenditure details. The overage was due to an increase in the cost of the student workstations (cost- \$959.76 covered by the LCSC) and the purchase of a teaching station ( cost - \$3,164.99 covered by the Division of Natural Science and Mathematics).

In addition to the workstations, LCSC has hired a new full time Bioinformatics faculty member (Dr. Charles Addo-Quaye- Salary plus fringe- XXXXX). Dr. Samuel Long is also a Bioinformatics specialist and his salary plus fringe is \$77, 105). Student workers have been paid to assemble the workstations to an approximate cost of \$1500.

## **3. Potential Economic Impact**

The purchase of these workstations has allowed LCSC to have the infrastructure to proceed with plans to start a B.S. in Bioinformatics. Bioinformatics is a growing career field with an estimated 1500 jobs in Idaho currently and a national forecasted job growth rate of at least 20%.

## **4. Numbers of Faculty & Students Involved**

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Number of faculty directly impacted: We anticipate that the following faculty may use the bioinformatics workstations.

Computer Science- Drs Charles Addo-Quaye, Seth Long, Nina Peterson

Biology- Drs. Leigh Latta, Eric Stoffregen

Math – Dr. Heather Moon

Number of students directly impacted:

Research students- currently 8 students are doing bioinformatics research. We would like to increase this number to at least 12-15 students.

Courses- We are aiming for 20-25 students (not repeated) to be taking bioinformatics course work.

## **5. Future Plans for Project Continuation**

LCSC's proposal for a Bioinformatics Degree is pending approval at both the SBOE and our internal curriculum committee. We hope to offer this new degree in Fall 2017. We look forward to a collaborative relationship with the University of Idaho, both in using their INBRE sponsored server space and in providing well trained graduates for their Bioinformatics graduate programs.

Plans also include internships and cooperative projects with local and statewide businesses so that our students gain applied job skills in bioinformatics.

## **6. Final Expenditure Report**

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**FINAL EXPENDITURE REPORT**

| <b>A. FACULTY AND STAFF</b>   |                     |   |
|---|---------------------|---|
| Name/Title  | \$ Amount Requested | Actual \$ Spent                             |
| Dr. Samuel Long   | 0                   | 77, 105                                     |
| Dr. Charles Addo-Quaye  | 0                   | XXX   |
|   |                     |   |
| <b>B. VISITING PROFESSORS</b>   |                     |   |
| Name/Title  | \$ Amount Requested | Actual \$ Spent                             |
|   |                     |   |
|   |                     |   |
| <b>C. POST DOCTORAL ASSOCIATES/OTHER PROFESSIONALS</b>                |                     |   |
| Name/Title  | \$ Amount Requested | Actual \$ Spent                             |
|   |                     |   |
|   |                     |   |
| <b>D. GRADUATE/UNDERGRADUATE STUDENTS</b>                             |                     |   |
| Name/Title  | \$ Amount Requested | Actual \$ Spent                             |
| Student workers (computer assembly)                                   | 0                   | \$1500                                      |
|   |                     |   |
|   |                     |   |
| <b>E. FRINGE BENEFITS</b>   |                     |   |
| Rate of Fringe (%)  | \$ Amount Requested | Actual \$ Spent                             |
| Fringe is included above  |                     |   |
|   |                     |   |
| <b>PERSONNEL SUBTOTAL:</b>  |                     |   |
| <b>F. EQUIPMENT: (List each item with a cost in excess of \$1000)</b> |                     |   |
| Item/Description  | \$ Amount Requested | Actual \$ Spent                             |
| 25 workstations (24 student plus one teaching station)                | 75,0000             | 79,124.75                                   |
| <b>EQUIPMENT SUBTOTAL:</b>  | <b>75,000</b>       | 79, 124.75<br>expensed to grant<br>\$75,000 |
| <b>G. TRAVEL</b>  |                     |   |
| Description   | \$ Amount Requested | Actual \$ Spent                             |
| 1.  |                     |   |
| 2.  |                     |   |
| 3   |                     |   |
| <b>TRAVEL SUBTOTAL:</b>   |                     |   |

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| <b>H. PARTICIPANT SUPPORT COSTS:</b>       |  |                     |   |
|--|--|---------------------|---|
| Description                                |  | \$ Amount Requested | Actual \$ Spent                         |
| 1.   |  |                     |   |
| 2.   |  |                     |   |
| 3.   |  |                     |   |
| <b>PARTICIPANT SUPPORT COSTS SUBTOTAL:</b> |  |                     |   |
| <b>F. OTHER DIRECT COSTS:</b>              |  |                     |   |
| Description                                |  | \$ Amount Requested | Actual \$ Spent                         |
| 1.   |  |                     |   |
| 2.   |  |                     |   |
| 3.   |  |                     |   |
| <b>OTHER DIRECT COSTS SUBTOTAL:</b>        |  |                     |   |
| <b>TOTAL COSTS (Add Subtotals):</b>        |  |                     |   |
| <b>TOTAL AMOUNT REQUESTED:</b>             |  |                     | 75,000                                  |
| <b>TOTAL AMOUNT SPENT:</b>                 |  |                     | 79,124.75<br>expensed to grant \$75,000 |

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## FY 2017 Allocation of HERC Funds

|   |                     |                               |
|---|---------------------|-------------------------------|
|   |                     | <b>Total Proposed</b>         |
|   |                     | <b>\$4,160,500 Allocation</b> |
| <b>HERC IGEN</b>  |                     | 2,000,000                     |
| <b>Infrastructure Funds</b>   |                     | 825,000                       |
| <b>Matching Grants (EPSCoR Match)</b>                                   |                     | 800,000                       |
| <b>Incubation Fund</b>  |                     | 333,000                       |
| <b>Undergraduate Research</b>   |                     | 200,000                       |
| <b>Administrative Costs</b>   |                     | 2,500                         |
| Total   |                     | <b>\$4,160,500</b>            |
| Balance   |                     | \$0                           |
| <hr/>   |                     |                               |
| <b>IGEM Funds</b>   |                     | \$0                           |
| BSU   | IGEM16-01/IGEM16-02 | \$1,200,000                   |
| ISU   |                     | \$0                           |
| UI  |                     | \$700,000                     |
| LCSC  |                     | \$75,000                      |
| Transfer to Targeted Research   |                     | \$25,000                      |
| <b>Total IGEN</b>   |                     | <b>\$2,000,000</b>            |
| <hr/>   |                     |                               |
| <b>Research Infrastructure Funds</b>                                    |                     | \$0                           |
| BSU   |                     | \$250,000                     |
| ISU   |                     | \$250,000                     |
| UI  |                     | \$250,000                     |
| LCSC  |                     | \$75,000                      |
| <b>Total Infrastructure</b>   |                     | <b>\$825,000</b>              |
| <hr/>   |                     |                               |
| <b>Matching Award Grants</b>  |                     |                               |
| NSF-EPSCoR (Managing Idaho's Landscapes for Ecosystem Services - \$20M) |                     | \$800,000                     |
| (2013 - 2018)   |                     |                               |
| <b>Total Matching Grants</b>  |                     | <b>\$800,000</b>              |
| <hr/>   |                     |                               |
| <b>Targeted Research</b>  |                     | \$0                           |
| Idaho Incubation Fund (7th round)                                       |                     |                               |
| BSU   |                     | \$208,000                     |
| ISU   |                     | \$75,000                      |
| UI  |                     | \$75,000                      |
| Transfer in   |                     | \$25,000                      |
| <b>Total Targeted Research</b>  |                     | <b>\$358,000</b>              |
| <hr/>   |                     |                               |
| <b>Undergraduate Research</b>   |                     |                               |
| <b>Total Undergraduate Research</b>                                     |                     | <b>\$200,000</b>              |

INSTRUCTION, RESEARCH AND STUDENT AFFAIRS  
FEBRUARY 16, 2017

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|                                   |                |
|-----------------------------------|----------------|
| <b>Administrative Costs</b>       |                |
| FY17 Administrative Costs         | \$2,500        |
| <b>Total Administrative Costs</b> | <b>\$2,500</b> |

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|                                  |                    |
|----------------------------------|--------------------|
| <b>Total Budget / Allocation</b> | <b>\$4,160,500</b> |
|----------------------------------|--------------------|

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*NOTES*