

**PLANNING, POLICY AND GOVERNMENTAL AFFAIRS  
DECEMBER 12, 2012**

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| <b>TAB</b> | <b>DESCRIPTION</b>                           | <b>ACTION</b>     |
|------------|--|-------------------|
| A          | STATE BOARD OF EDUCATION STRATEGIC PLAN      | Motion to Approve |
| B          | STRATEGIC PLAN FOR HIGHER EDUCATION RESEARCH | Motion to Approve |

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**SUBJECT**

Idaho State Board of Education 2013-2017 Strategic Plan

**REFERENCE**

|               |   |
|---------------|---|
| March 2008    | Board reviewed initial Strategic Plan proposal                    |
| April 2008    | Board approved the 2009-2013 Strategic Plan and Planning Calendar |
| January 2009  | Board provided input on need for further in-depth planning        |
| February 2009 | Board approved 2010-2014 Strategic Plan                           |
| November 2009 | Board met to develop 2011-2015 Strategic Plan                     |
| December 2009 | Board discussion on strategic plan direction                      |
| February 2010 | Board approved Goals and Objectives for 2011-2015 Strategic Plan  |
| April 2010    | Board postponed strategic plan approval to June 2010 meeting      |
| June 2010     | Board approved 2011-2015 State Board of Education Strategic Plan  |
| December 2010 | Board approved 2011-2015 State Board of Education Strategic Plan  |
| December 2011 | Board approved 2012-2016 State Board of Education Strategic Plan  |

**APPLICABLE STATUTE, RULE, OR POLICY**

Idaho State Board of Education Governing Policies & Procedures, Section I.M.1. Section 67-1903, Idaho Code.

**BACKGROUND/ DISCUSSION**

The Board's strategic plan is used to define the vision and mission of Idaho's K-20 educational system. The strategic plan is used to guide future growth and development, and establish priorities for resource distribution. Strategic planning provides a mechanism for continual review to ensure excellence in education throughout the state. The strategic plan not only defines the Board's purpose, but establishes realistic goals and objectives that are consistent with its governing ideals, and communicates those goals and objectives to the agencies and institutions under the Board, the public, and other stakeholder groups.

According to the Board's master planning calendar, the Board is scheduled to review and approve its strategic plan annually in December. The institutions and agencies then use the Board's approved strategic plan to inform their annual updates to their own strategic plans. The agencies and institutions bring their strategic plans forward for approval in April of each year with an option for final approval in June.

At the October 2012 Regular Board meeting the Board had an opportunity to review performance measure and discuss potential changes in performance

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measure and benchmarks for the December 2012 approval of the updated strategic plan. During the October meeting Board members had requested some amendments to the performance measures contained with the Boards strategic plan, those changes have been incorporated into the attached document.

**IMPACT**

Once approved, the institutions and agencies under the Board can align their strategic plans to the Board's strategic plan. The Board will use the strategic plan to prioritize its direction for education in Idaho. It will also use the plan to determine how progress will be measured in meeting the goals of the plan. By focusing on critical priorities, Board staff, institutions and agencies can direct limited resources to maximum effect. Institutions and agencies will then submit their strategic plans for initial input and approval at the April 2012 Board meeting.

**ATTACHMENTS**

Attachment 1 – 2013–2017 Idaho State Board Education Strategic Plan Page 3  
Attachment 2 – Performance Measure Report Page 8

**STAFF COMMENTS AND RECOMMENDATIONS**

There have been minor wording changes to a couple of the performance measures to further define the data being collected in addition to the changes requested by Board members at the October 2012 Board meeting. Additionally the two statewide Performance Based Funding Measures have been incorporated into the strategic plan. Additional work will be required over the next year to determine a statewide benchmark for these two measures.

In addition to the broader statewide strategic plan for Education, the Board also has a Higher Education Research Strategic Plan and staff are working with a group of stakeholders to develop a statewide plan for Science, Technology, Engineering, and Math (STEM) education. The research strategic plan will be updated and presented to the Board for approval at this meeting. The STEM Education strategic plan is scheduled to be brought forward at the February Board meeting for consideration by the Board. These two more specific plans allow for more detail in their respective emphasis areas and will be in alignment with the Board's broader statewide K-20 education strategic plan. The Complete College Idaho plan approved by the Board is in alignment with and operationalizes the Board's Strategic Plan.

Board staff recommends approval.

**BOARD ACTION**

I move to approve the 2013-2017 Idaho State Board of Education Strategic Plan as submitted and to authorize the Executive Director to finalize performance measures and benchmarks as necessary.

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



**IDAHO STATE BOARD OF EDUCATION  
2013-2017  
Strategic Plan**

An Idaho Education: High Potential – High Achievement



**VISION**

The State Board of Education envisions an accessible, seamless public education system that results in a highly educated citizenry.

**MISSION**

To provide leadership, set policy, and advocate for transforming Idaho's educational system to improve each Idaho citizen's quality of life and enhance global competitiveness.

**AUTHORITY AND SCOPE:**

The Idaho Constitution provides that the general supervision of the state educational institutions and public school system of the State of Idaho shall be vested in a state board of education. Pursuant to Idaho Code, the State Board of Education is charged to provide for the general supervision, governance and control of all state educational institutions, and for the general supervision, governance and control of the public school systems, including public community colleges.

**State Board of Education Governed  
Agencies and Institutions:**

| <b>Educational Institutions</b>                  | <b>Agencies</b>                              |
|--|--|
| Idaho Public School System                       | Office of the State Board of Education       |
| Idaho State University                           | Division of Professional-Technical Education |
| University of Idaho                              | Division of Vocational Rehabilitation        |
| Boise State University                           | Idaho Public Broadcasting System             |
| Lewis-Clark State College                        | State Department of Education                |
| Eastern Idaho Technical College                  |  |
| College of Southern Idaho*                       |  |
| North Idaho College*                             |  |
| College of Western Idaho*                        |  |
| *Have separate, locally elected oversight boards |  |

**GOAL 1: A WELL EDUCATED CITIZENRY**

*The educational system will provide opportunities for individual advancement.*

**Objective A: Access** - Set policy and advocate for increasing access for individuals of all ages, abilities, and economic means to Idaho's P-20 educational system.

**Performance Measures:**

- Annual number of state funded scholarships awarded and total dollar amount.  
**Benchmark:** 20,000, \$16M
- Amount of need-based aid per student.  
**Benchmark:** undergraduate FTE WICHE Average
- Postsecondary student enrollment by race/ethnicity/gender as compared against population.  
**Benchmark:** 85,000 students for White & White, non-Hispanic; 30,000 students for all other race/ethnicities.
- Percentage of Idaho graduates (secondary) meeting placement test college readiness benchmarks.  
**Benchmark:** SAT – 60%  
ACT – 60%

**Objective B: Higher Level of Educational Attainment** – Increase the educational attainment of all Idahoans through participation and retention in Idaho's educational system.

**Performance Measures:**

- High School Graduation rate as defined in the Accountability Workbook.  
**Benchmark:** 95%
- Percent of Idaho public high school graduates who enroll in an Idaho public postsecondary institution within 12 months of graduation  
**Benchmark:** 60%
- Percent of Idahoans (ages 25-34) who have a college degree or certificate of one academic year or more.  
**Benchmark:** 60% by 2020
- Number of postsecondary unduplicated students receiving awards (AA, BA, MA PhD, professional) during the academic year (Summer-Fall-Spring)(PBFM).  
**Benchmark:** TBD (2yr institutions/4yr institutions)
- Percentage of high school students enrolled in advanced opportunities.  
**Benchmark:** 30%
- Percent of high school students enrolled and number of credits earned in Dual Credit (tied to HS enrollment, based on trend):
  - Dual credit  
**Benchmark:** 25% students per year  
**Benchmark:** 75,000 credits per year
  - Tech prep  
**Benchmark:** 27% students per year

- Percent of high school students taking Advanced Placement (AP) exams and number of exams taken each year.  
**Benchmark:** 10% students per year  
**Benchmark:** 10,000 exams taken per year
- Percentage of first-year full-time freshmen returning for second year.  
**2-year Institution Benchmark:** 60%  
**4-year Institution Benchmark:** 70%

**Objective C: Adult learner Re-Integration** – Improve the processes and increase the options for re-integration of adult learners into the education system.

**Performance Measures:**

- Number of Bridge programs.  
**Benchmark:** 7
- Number of adults enrolled in upgrade and customized training (including statewide fire and emergency services training programs).  
**Benchmark:** 52,500
- Percentage of first-year part-time freshmen returning for second year.  
**2-year Institution Benchmark:** 50%  
**4-year Institution Benchmark:** 50%

**Objective D: Transition** – Improve the ability of the educational system to meet educational needs and allow students to efficiently and effectively transition into the workforce.

**Performance Measures:**

- Number of degrees conferred in STEM fields (CCA/IPEDS Definition of STEM fields).  
**Benchmark:** 2,177 degrees
- Number of University of Utah Medical School graduates who are residents in one of Idaho's graduate medical education programs.  
**Benchmark:** 8 graduates at any one time
- Percentage of Boise Family Medicine Residency graduates practicing in Idaho.  
**Benchmark:** 60%
- Percentage of Psychiatry Residency Program graduates practicing in Idaho.  
**Benchmark:** 50%

**GOAL 2: CRITICAL THINKING AND INNOVATION**

*The educational system will provide an environment for the development of new ideas, and practical and theoretical knowledge to foster the development of individuals who are entrepreneurial, broadminded, think critically, and are creative.*

**Objective A: Critical Thinking** – Increase research and development of new ideas into solutions that benefit society.

**Performance Measures:**

- Institution expenditures from competitive Federally funded grants  
**Benchmark:** \$112M
- Institution expenditures from competitive industry funded grants  
**Benchmark:** \$7.2M
- Number of sponsored projects involving the private sector.  
**Benchmark:** 10% increase
- Total amount of research expenditures  
**Benchmark:** 20%increase

**Objective B: Innovation and Creativity** – Educate students who will contribute creative and innovative ideas to enhance society.

**Performance Measures:**

- Percentage of students participating in internships and undergraduate research  
**Benchmark:** 30%  
Percentage of student who performed at or above the NAEP proficient levels in math and science.  
**Benchmark:** Science - 50%  
Math – 50%

**Objective C: Quality Instruction** – Increase student performance through the recruitment and retention of a diverse and highly qualified workforce of teachers, faculty, and staff.

**Performance Measures:**

- Percent of student meeting proficient or advance placement on the Idaho Standards Achievement Test, broken out by section.  
**Benchmark:** 100% for both 5<sup>th</sup> and 10<sup>th</sup> Grade students, broken out by subject area (Reading, Language Arts, Mathematics, Science)
- Average composite college placement score of graduating secondary students.  
**Benchmark:** ACT - 24.0  
SAT - TBD
- Percent of elementary and secondary schools meeting adequate yearly progress (AYP) in each of Reading, Mathematics, and Language subject areas.  
**Benchmark:** 100%
- Percentage of first-time students from public institution teacher training programs that pass the Praxis II.  
**Benchmark:** 90%

**GOAL 3: Effective and Efficient Delivery Systems** – *Ensure educational resources are used efficiently.*

**Objective A: Cost Effective and Fiscally Prudent** – Increased productivity and cost-effectiveness.

**Performance Measures:**



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- Cost per successfully completed weighted student credit hour (PBFM)  
**Benchmark:** TBD
- Average number of credits earned at completion of a degree program.  
**Benchmark:** Associates - 80  
Transfer Students: TBD  
**Benchmark:** Bachelors – 136  
Transfer Student: TBD
- Percent of postsecondary first time freshmen who graduated from an Idaho high school in the previous year requiring remedial education in math and language arts.  
**Benchmark:** 2 year – less than 55%  
**Benchmark:** 4 year – less than 20%
- Institutional reserves comparable to best practice.  
**Benchmark:** A minimum target reserve of 5% of operating expenditures.

**Objective B: Data-informed Decision Making** - Increase the quality, thoroughness, and accessibility of data for informed decision-making and continuous improvement of Idaho's educational system.

**Performance Measures:**

- Develop P-20 to workforce longitudinal data system with the ability to access timely and relevant data.  
**Benchmark:** Completed by 2015.  
Phase Two completed by June 30, 2013  
Phase Three completed by June 30, 2014  
Phase Four completed by June 30, 2015
- Implementation of Data Quality Campaign "Actions Met" items.  
**Benchmark:** Operationalized 100% by 2015

**Objective C: Administrative Efficiencies** – Create cross institutional collaboration designed to consolidate services and reduce costs in non-competitive business processes.

**Performance Measures:**

- Number of sponsored proposals submitted by an Idaho University that involved a subaward with another Idaho institution of higher education  
**Benchmark:** 10% Increase
- Number of sponsored projects awarded to an Idaho University that involved a subaward with another Idaho institution of higher education  
**Benchmark:** 10% Increase  
Amount of ongoing state funding received annually at each university to support CAES activities (broken out by funding sources)  
**Benchmark:** 10% Increase

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| Goal/Objective                           | Performance Measure   | 2016<br>Benchmark | Benchmark<br>Perspective   |             |             |             |             |             | Calculation Formula (or Element<br>Definition)   |
|--|---|-------------------|--|-------------|-------------|-------------|-------------|-------------|--|
|  |   |                   |  | 2008        | 2009        | 2010        | 2011        | 2012        |  |
| <b>Goal 1: A Well Educated Citizenry</b> |   |                   |  |             |             |             |             |             |  |
| Goal 1, Objective A: Access.             | Annual amount of State-generated need-based financial aid from Opportunity, LEAP, & SLEAP Scholarships.<br>...amount from the Opportunity Scholarship.<br>...amount from the LEAP Scholarship.<br>...amount from the SLEAP Scholarship. | \$10,000,000      | \$8.3M above 2010; a 492% increase when the trend is decreasing              | \$2,635,400 | \$2,488,700 | \$1,687,600 | \$953,200   | \$1,711,700 |  |
|  |   |                   |  | \$1,923,700 | \$1,777,000 | \$976,000   | \$248,000   | \$1,000,000 |  |
|  |   |                   |  | \$611,700   | \$611,700   | \$611,700   | \$606,100   | \$711,700   |  |
|  |   |                   |  | \$100,000   | \$100,000   | \$99,900    | \$99,100    | \$0         |  |
|  | Annual number of merit & need based state-funded scholarships awarded.  | 20,000            | 9,122 scholarships more than 2009; an 84% increase                           | 9,089       | 10,878      | 10,956      | 7,904       | 7,740       | In following years (2011) this measure needs to be in sync with the "Dollar Amount of state-funded scholarships" measure, so that \$\$\$'s per scholarship meets policy, statute, etc. |
|  | Annual total dollar amount of merit & need based state-funded scholarships awarded.   | \$16,000,000      | \$8.0M more scholarship dollars than 2009, which is double the dollar amount | \$8,816,132 | \$9,610,456 | \$7,439,092 | \$5,934,857 | \$7,627,099 |  |
|  | Amount of need-based aid per undergraduate student.   | \$489             | WICHE Average  | \$51        | \$46        | \$31        | \$22        |             | Defined as estimated need-based state grant dollars per FTE enrollment, restricted to undergraduates.  |
|  | Percent of met need based on FAFSA calculation and state funded aid.  | TBD               |  |             |             | N/A         |             |             | These data should be first be available in 2013.   |
|  | Total Postsecondary student enrollment by race/ethnicity for White/White, non-Hispanic.   | 65,000            |  | 67,927      | 66,862      | 75,634      | 77,267      |             |  |
|  | Total Postsecondary student enrollment by race/ethnicity for all other race/ethnicities.  | 21,000            |  | 17,968      | 22,448      | 22,221      | 25,385      |             |  |

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Goal 1, Objective B: Higher Level of Educational Attainment

|  |             |  |        |        |        |        |   |   |
|--|-------------|--|--------|--------|--------|--------|---|---|
| High School graduation rate as defined in the Accountability Workbook.   | 90.00%      | which is 0.30% above 2008                                | 89.70% | 91.69% | 92.40% | 93.00% | Per the Idaho Accountability Workbook...the graduation rate = the # of high school completers at year t divided (by the # of grade 12 dropouts at year t, + the # of grade 11 dropouts at year t-1, + the # of grad 10 dropouts at year t-2, + the # of grade 9 dropouts at year t-3). The graduation rate is the proportion of students who begin in ninth grade and go on to complete twelfth grade with a diploma. A General Education Development (GED) certificate does not count toward a district's graduation rate. |   |
| Percent of Idaho Public & Charter high school students who enrolled in an Idaho public postsecondary institution within 12 months of graduation from an Idaho high school. | 60.00%      | which is 14.30% above 2006                               |        | 30.36% | 30.09% | 29.54% | 30.79%  | Numerator is taken off the remediation data submissions that Scott G aggregates into a statewide summary by high school & institution. Denominator is take from the SDE website, specifically their annual enrollment summary data. |
| Percent of Idahoans (ages 25 to 34) who have a college degree or [at least a 1 year] certificate.  | 60% by 2020 | which is 7.20% more than 2008                            | 34.10% | 31.44% | 31.18% | 34.97% | This percentage is a 3-year rolling average calculated by the Census Bureau for each category (Associate's, Bachelor's, Graduate/Professional). These categories were then summed for this percentage. For example the 34.8% for 2008 is a sum of the 2006-2008 averages from the categories above estimated from 2006, 2007, & 2008.   |   |
| Percent of high school students enrolled in dual credit courses.   | 25.0%       |  | 7.3%   | 10.0%  | 12.0%  | 13.2%  | 15.7%   | These %ages were created using the numerator & denominator from the data sources for 10th, 11th, & 12th grade students.   |
| Number of credits earned in dual credit courses.   | 180,000     | which is 136,839 credits more than 2010; a 317% increase | 30,565 | 35,862 | 43,131 | 46,134 | 54,465  | # of dual credit course credits earned by 10th, 11th, & 12th grade students enrolled in tech prep courses. This benchmark was determined by multiplying the # of students by 12 to get at the # of credits per year.                |
| Percent of high school students enrolled in tech prep courses.   | 27.0%       |  | 15.6%  | 21.1%  | 22.9%  | 26.3%  | 24.3%   | These %ages were created using the numerator & denominator from the data sources for 10th, 11th, & 12th grade students.   |
| Percent of students taking AP exams.   | 10.0%       |  | 6.3%   | 7.0%   | 7.7%   | 8.2%   | 8.8%  | These %ages were created using the numerator & denominator from the data sources for 10th, 11th, & 12th grade students.   |

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|  |   |        |  |         |         |         |         |                           |  |
|--|---|--------|--|---------|---------|---------|---------|---------------------------|--|
|  | Number of AP exams.   | 9,000  | 32% increase   | 6,319   | 6,840   | 7,897   | 8,584   | 9,193                     | # of AP exams taken by the # of students above. Students may take more than one exam per year. This benchmark was created by compounding the '09 performance by 4.2% out to 2015 & rounding.   |
|  | Percentage of full-time/part-time first-year freshmen at 4-Year Institutions returning for second year.                         | 70.00% | which is 4.60% above than 2008                               | 60%/36% | 64%/34% | 66%/46% | 67%/40% |                           | Retention rates are calculated by dividing the number of full-time (or part-time) students attending in the fall semester by the number of those same students that return the following fall semester. In other words, the rate is the percent of students who enrolled in the fall that returned the following fall.       |
|  | Percentage of full-time/part-time first-year freshmen at 2-year Institutions returning for second year.                         | 60.00% | which is 3.80% above 2008                                    | 43%/29% | 39%/34% | 53%/38% | 58%/42% |                           | Retention rates are calculated by dividing the number of full-time (or part-time) students attending in the fall semester by the number of those same students that return the following fall semester. In other words, the rate is the percent of students who enrolled in the fall that returned the following fall.       |
| Goal 1, Objective C: Adult Learner Re-Integration. | Number of Bridge Programs.  | 6      |  |         |         | 1       | 4       | 5 (plus 1 funded by JKAF) | merely a count by PTE  |
|  | Number of adults enrolled in upgraded or customized training (including statewide fire & emergency services training programs). | 52,500 |  | 50,154  | 51,555  | 50,532  | 51,260  | 47,803                    | Sum of "# of Adults Enrolled in Upgrade & Customized Training" and # of Adults Enrolled in Statewide Fire and Emergency Services Training Programs" found in PTE Agency Profile. These are "Short-Term Training Enrollments"   |
| Goal 1, Objective D: Transition                    | Number of degrees conferred in STEM fields.   | 2,177  | which is 545 more degrees than 2008; which is a 33% increase | 1,650   | 1,648   | 1,714   | 1,945   |                           | Merely a count of STEM degrees as reported from IPEDS and categorized CIP codes. STEM fields were defined by the Complete College America Organization & updated here in March 2011 ( <a href="http://www.completecollege.org/path_forward/commonmetrics/">http://www.completecollege.org/path_forward/commonmetrics/</a> ). |
|  | Number of University of Utah Medical School graduates.  |        | See note & comment to the far right.                         | 32      | 32      | 32      | 32      | 32                        | Head count   |
|  | Parentage of Boise Family Medicine Residency Graduates Training/Practicing in Idaho.  |        | See note & comment to the far right.                         | 75%     | 56%     | 56%     | 55%     | 54%                       | # of residency graduates training/practicing in Idaho divided by # of residency graduates in the program.  |

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|  |  |               |  |              |   |  |               |   |   |
|--|--|---------------|--|--------------|---|--|---------------|---|---|
|  | Percent of Psychiatry Residency Program graduates practicing in Idaho.   |               | See note & comment to the far right.                     | 100% (2)     | 0%  | 50% (1)  | 50% (1)       | 50% (1)                                     | Head count  |
|  | Number of Students Enrolled in WICHE Programs  | 8             |  | 8            | 8   | 8  | 6             | 4   | Head count  |
| <b>Goal 2: Critical Thinking &amp; Innovation</b>                |  |               |  |              |   |  |               |   |   |
| Goal 2, Objective A: Critical Thinking, Innovation & Creativity. | Institution funding from competitive Federally funded grants.  | \$112,000,000 | which is \$18.5M more than 2009; which is a 20% increase | \$76,490,071 | \$93,537,598  | \$122,966,139  | \$112,458,680 | \$97,131,693                                | The amounts here are taken directly off of the Research Activity Reports. The only exception is adding the U of I Land Grant Federal appropriations into their Federal research amounts here. These amounts include CAES funds - per Matt's discussion with IR folks. This benchmark was created by increasing the latest amount by 20% & rounded...per Mike. |
|  | Institution funding from competitive industry funded grants.   | \$7,200,000   | which is \$1.8M more than 2009; which is a 20% increase  | \$6,226,448  | \$6,016,139   | \$10,589,050   | \$3,955,569   | \$2,684,459                                 | The amounts here are taken directly off of the Research Activity Reports. The only exception is adding the U of I Land Grant Federal appropriations into their Federal research amounts here. These amounts include CAES funds - per Matt's discussion with IR folks. This benchmark was created by increasing the latest amount by 20% & rounded...per Mike. |
| Goal 2, Objective B: Innovation & Creativity.                    | Percent of students participating in internships or undergraduate research (includes duplication).                                   | 30.00%        |  |              | 5.57%, only BSU and U of I interns counted, no research students  | 5.89%, only BSU and U of I interns counted, no research students |               | 7.29%, but no BSU research students counted | Sum of # of undergraduate internships & undergraduate participating in research divided by the BSU, ISU, and U of I undergraduate enrollment total  |
| Goal 2, Objective C: Quality Instruction.                        | Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>10th Grade Reading.</b> | 100.00%       | 16% above 2009   | 85.70%       | N/A due to many (but not all) of these students "banking" their scores...not accurate comparison, per Scott Cook. | 86.40%   | 87.20%        | 87.60%                                      | As calculated for the ISAT.   |
|  | Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>10th Grade Math.</b>    | 100.00%       | 30% above 2009   | 76.60%       | N/A due to many (but not all) of these students "banking" their scores...not accurate comparison, per Scott Cook. | 76.80%   | 78.50%        | 78.00%                                      | As calculated for the ISAT.   |

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|   |         |   |        |   |        |        |        |   |
|---|---------|---|--------|---|--------|--------|--------|---|
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>10th Grade Language.</b> | 100.00% | 35.60% above 2009   | 68.80% | N/A due to many (but not all) of these students "banking" their scores...not accurate comparison, per Scott Cook. | 71.50% | 72.60% | 76.60% | As calculated for the ISAT.   |
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>10th Grade Science.</b>  | 100.00% | 31.10% above 2009   | 66.90% | N/A due to many (but not all) of these students "banking" their scores...not accurate comparison, per Scott Cook. | 67.90% | 69.30% | 72.50% | As calculated for the ISAT.   |
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>5th Grade Reading.</b>   | 100.00% | 13.60% above 2009   | 84.30% | 86.40%  | 88.00% | 88.10% | 87.80% | As calculated for the ISAT.   |
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>5th Grade Math.</b>      | 100.00% | 22.10% above 2009   | 78.00% | 77.90%  | 79.80% | 80.90% | 78.60% | As calculated for the ISAT.   |
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>5th Grade Language.</b>  | 100.00% | 22.80% above 2009   | 74.20% | 77.20%  | 77.20% | 78.70% | 79.40% | As calculated for the ISAT.   |
| Percent of students scoring in the proficient or advance ranges on the Idaho Standards Achievement Test - <b>5th Grade Science.</b>   | 100.00% | 33.60% above 2009   | 60.10% | 66.40%  | 64.90% | 67.40% | 69.30% | As calculated for the ISAT.   |
| Average composite ACT score.  | 24.0    | 2.4 points above 2009; an 11% increase when a 0.5% increase is the norm | 21.5   | 21.6  | 21.8   | 21.7   | 21.6   | This composite score is the average score of the graduating senior students of that year.                   |
| Average Total SAT Score (not a Board measure as of 8/28/12)   | 1,550   | Benchmark is the College Board's  | 1,580  | 1,597   | 1,602  | 1,599  | 1,609  | This total score is the sum of average scores for all students in each subject (Reading, Math, & Writing).  |
| Percent of elementary and secondary schools meeting adequate yearly progress (AYP) or other equivalent measurements - Reading.        | 100.00% | which is 11.85% more than 2009  | 84.57% | 88.15%  | 92.10% | 92.70% | 93.20% | 100%. These 3 AYP measures are to be combined for the 2010 reporting. However, the benchmark is still 100%. |

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|   |         |                                |        |        |        |        |        |
|---|---------|--------------------------------|--------|--------|--------|--------|--------|
| Percent of elementary and secondary schools meeting adequate yearly progress (AYP) or other equivalent measurements - Math.     | 100.00% | which is 18.43% more than 2009 | 80.85% | 81.57% | 88.20% | 88.40% | 87.90% |
| Percent of elementary and secondary schools meeting adequate yearly progress (AYP) or other equivalent measurements - Language. | 100.00% | which is 23.83% more than 2009 | 72.41% | 76.17% | 84.20% | 87.96% | 85.56% |

**Goal 3: Effective & Efficient Delivery Systems**

Goal 3, Objective A: Cost Effective & Fiscally Prudent.

|   |           |   |  |   |  |   |  |
|---|-----------|---|--|---|--|---|--|
| Cost per FTE per year to deliver undergraduate instruction at 4-year institutions.  |           |   | \$234  | \$234   | \$206                                      | \$202   |  |
| Average number of credits earned at completion of an Associates degree program.   | 60        | Full-time = 100.6; Part-time = 88.7; Transfer = 99.9 (doesn't include LCSC or CWI data) | Full-time = 94; Part-time = 93; Transfer = 101 (doesn't include CWI) |   |  |   |  |
| Average number of credits earned at completion of Bachelor's degree program.  | 140       | Full-time = 139.8; Part-time = 141.5; Transfer = 140.0 (doesn't include LCSC data)      | Full-time = 141; Part-time = 144; Transfer = 130 (31 to 59 credits)  |   |  |   |  |
| Percent of 2-year postsecondary first-time first year freshman who graduate from an Idaho High School in the previous year requiring remedial education in math and/or language art.  | <55%      | 71.1%   | 73.0%  | 65.5%   | 72.7%                                      | 74.7%   |  |
| Percent of 4-year postsecondary first-time first year freshman who graduate from an Idaho High School in the previous year requiring remedial education in math and/or language arts. | <20%      | 20.3%   | 27.7%  | 24.2%   | 26.6%                                      | 26.2%   |  |
| Institution reserves comparable to best practice (Ratio of unrestricted funds available to operating expenses).   | > or = 5% |   |  | BSU = 2.2%; ISU= 3.7%; U of I = 1.6%; LCSC = 3.5% | BSU=2.7%; ISU=5.9%; U of I=1.6%; LCSC=3.5% | BSU = 3.5%; ISU= 7.3%; U of I = 2.3%; LCSC = 3.8% |  |

Uses an unweighted NACUBO calculation.

Only transcribed credits are counted. What is included as a transcribed credit varies from institution to institution. A student status at entry is defined as their status at entry or 10 years to relevant date. Students who began as non-degree seeking but earned an award are included. For students who have taken longer than 10 years to complete the number of years is recorded as 10. Transfer credit counts are only from the institution where BS was attained.

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[E-mail: ted.epp@fmrigh.org](mailto:ted.epp@fmrigh.org)

Student remediation need is determined by SAT, ACT, Compass, etc. placement exams. Institutions use their own cut scores on these exams to determine a student's remediation need. The # of Idaho High School students in need of remediation is divided by the # of Idaho High School students who enroll in an Idaho higher ed. institution.

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|  |   |   |             |             |  |   |
|--|---|---|-------------|-------------|--|---|
| Goal 3, Objective B: Data-driven Decision Making | Develop a P-20 to workforce longitudinal data system with the ability to access timely and relevant data. | This will be done (operational - able to track students over time) by 2015. | In Progress | In Progress | 8 of 10 "Elements Met" and 3 of 10 "Actions Met" for the Data Quality Campaign | 8 of 10 "Elements Met" (EDUID & Audit, not operational) and 4 of 10 "Actions Met", but a few others partially for the DQC   |
| Goal 3, Objective C: Administrative Efficiencies | Number of collaborative projects.   | 10  |             |             | N/A  | Collaborative degrees or research projects that may include two or more institutions working together. For example CAES Project, Paraprofessional Certificate, future online "Idaho" degree, etc. See Tracie. |



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**SUBJECT**

Statewide Strategic Plan for Higher Education Research

**REFERENCE**

|               |   |
|---------------|---|
| April 2010    | The Board was provided with a summary of the Statewide Strategic Plan for Higher Education Research   |
| October 2010  | The Board was provided with an update of the progress made toward the development of the Statewide Strategic Plan for Higher Education Research |
| December 2011 | Board approved the Statewide Strategic Plan for Higher Education Research   |

**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 science, technology and other research play in statewide economic development as well as the need for collaboration and accountability in publicly funded research, to this end, the Higher Education Research Council (HERC) is assigned the responsibility of directing and overseeing the development, implementation, and monitoring of a statewide strategic plan for research. The Statewide Strategic Plan for research will assist in the identification of general research areas that will enhance the economy of Idaho through the collaboration of academia, industry, and/or government.

In an effort to accomplish this objective, the Vice Presidents for Research of the University of Idaho, Boise State University and Idaho State University were charged with developing a Statewide Strategic Plan for Research. The Research Plan has been completed and was submitted to HERC for review and approval at their November 16<sup>th</sup>, 2011 meeting. In October of 2012 in preparation for the performance measure report on the plan approved in December of 2012 it was determined that the original performance measures in the plan were either not clearly defined enough to be able to collect system wide or were not representative of the progress made on the strategic plan. Following the October Board meeting HERC convened as a whole to review the strategic plan and performance measures and are now forwarding recommendations for a revised strategic plan for higher education research with updated objectives and performance measures. Due to the extensive rewriting of the Goal 1 and the objectives and performance measures within the plan HERC is presenting the plan as a new document to the Board for approval.

The plan represents the role Idaho's research universities play in driving innovation, economic development, and enhancing the quality of life in Idaho through national and internationally research programs in strategic areas. The

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plan identifies areas of strength among Idaho's research universities; research challenges and barriers facing universities; research opportunities Idaho should capitalize upon to further build its research base, and steps for achieving the research vision for Idaho's universities.

**IMPACT**

Taking a strategic approach to invest in the state's unique research expertise and strengths could lead to new advances and opportunities for economic growth and enhance Idaho's reputation as a national and international leader in excellence and innovation.

**ATTACHMENTS**

Attachment 1 - Statewide Strategic Plan for  
Higher Education Research

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**STAFF COMMENTS AND RECOMMENDATIONS**

The plan will be monitored annually and updated as needed. The Higher Education Research Council will report to the Board annually on the progress made toward meeting the plans goals and objectives. Based on the Boards planning and reporting calendar data for the new performance measures are not scheduled to be brought back to the Board until the October 2013 Board meeting. The Board may choose at this time to request HERC present the data associated with the new performance measures at an earlier date.

Board staff has reviewed the plan and recommend approval.

**BOARD ACTION**

I move to approve the 2013-2018 Statewide Strategic Plan for Higher Education Research as submitted.

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

**STRATEGIC RESEARCH PLAN  
FOR IDAHO HIGHER EDUCATION  
(2013-2018)**

Submitted by:  
State Board of Education  
Higher Education Research Council

**EXECUTIVE SUMMARY**

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. The vice presidents of research also recognize the need to focus on and emphasize existing strengths and opportunities in Idaho's research community. They 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 that will become the focal points for research and economic development through partnering among academia, industry, and government in both science and technology.

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, research strengthens a university's primary product -- innovative, well-educated students ready to enter a competitive workforce.

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 and more efficient businesses.

Idaho's research universities have strengths and opportunities for economic development in 1) Energy, 2) Natural Resource Utilization and Conservation, 3) Biosciences, 4) Novel Materials and 5) Software Development. By focusing collaborative efforts in these areas, the research universities will expand research success, public-private partnerships and the overall economic development of the State. Specifically, this collaboration:

- will increase the focus among Idaho universities and colleges on areas of strengths and opportunities;
- create research and development opportunities that build the relationship between the universities and the private sector;
- contribute to the economic development of the State of Idaho;
- enhance learning and professional development through research and scholarly activity; and
- build and improve the research infrastructure of the 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

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success in Idaho. The plan will be reviewed and updated annually as needed amid the fast-changing pace of research discovery.

**VISION**

Idaho's public universities will be a catalyst and engine to spur the creation of new knowledge, technologies, products and industries that lead to advances and opportunities for economic growth and enhance the quality of life of citizens of Idaho and the nation.

**MISSION**

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**

1. Goal - Increase research at, and collaboration among, Idaho universities and colleges to advance the universities areas of research strengths and opportunities.
  - a. Objective – Ensure growth and sustainability of public university research efforts.
    - i. Total amount annual research expenditures (broken out by source)  
Benchmark: 20% increase
    - ii. Number of Diverse external funding sources
  - b. Objective – Ensure the growth and sustainability of the existing collaborative research at the Center for Advanced Energy Studies (CAES).
    - i. PM – Total amount of ongoing state funding received annually at each of the universities to support CAES activities.  
Benchmark: \$3M
    - ii. PM – Total annual research expenditures derived from external funds on CAES activities (broken out by source).  
Benchmark: 20% increase

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- c. Objective – Expand joint research ventures among the state universities, including EPSCoR and Institutional Development Award (IDeA) related programs.
  - i. PM – Number of sponsored proposals submitted by an Idaho University that involved a subaward with another Idaho institution of higher education (in either direction).  
Benchmark: 50% increase
  - ii. PM – Number of sponsored projects awarded to an Idaho University that involved a subaward with another Idaho institution of higher education (in either direction).  
Benchmark: 30% increase
  
- 2. Goal – Create research and development opportunities that strengthen the relationship between the state universities and the private sector.
  - a. Objective – Increase the number of sponsored projects involving the private sector
    - i. PM – Number of sponsored projects involving the private sector  
Benchmark: 50% increase
  
  - b. Objective – Increase access for the private sector to state universities facilities.
    - i. PM – Number of university/private sector facility use agreements (in both directions).  
Benchmark: 50% increase
    - ii. PM – Number of sponsored projects with private sector and an Idaho institution of higher education that involves an award or subaward (in either direction).  
Benchmark: 50% increase
    - iii. PM – Number of student internships with private sector.  
Benchmark: 20% increase
  
- 3. Goal – Contribute to the economic development of the State of Idaho.
  - a. Objective – Increase the amount of university-generated intellectual property introduced into the marketplace.
    - i. PM – Number of technology transfer agreements (as defined by AUTM (Association of University Technology managers)).  
Benchmark: 15% of invention disclosures
    - ii. PM – Number of invention disclosures (including plant varieties).  
Benchmark: 1 for every \$2M of research expenditures
    - iii. PM – Number of patent filings (as defined by AUTM).  
Benchmark: 33% of invention disclosures
    - iv. PM – Number of issued patents.  
Benchmark: 10% increase over previous 4 year average
    - v. PM – Amount of licensing revenues  
Benchmark: \$380,000 (many independent variables contribute to this number,

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- do to public purpose of institutions these numbers do no cover cost of tech transfer)
- b. Objective – Increase the number of university start-up companies (includes start-up's outside of Idaho).
    - i. PM – Number of start-up companies  
Benchmark: 10% of licenses
    - ii. PM – Number of employees at startup companies  
Benchmark: 10% increase
4. Goal – Enhance learning and professional development through research and scholarly activity.
- a. Objective – Increase the number of university and college students and staff involved in sponsored project activities.
    - i. Number of undergraduate and graduate students paid from sponsored projects.  
Benchmark: 20% increase
    - ii. PM – Number of faculty and staff paid from sponsored projects.  
Benchmark: 20% increase
  - b. Objective – Increase the dissemination of research findings.
    - i. PM – Number of external publications.  
Benchmark: 20% increase
    - ii. PM – Number of theses and dissertations.  
Benchmark: 10% increase

## **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; 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, 2) Natural Resource Utilization and Conservation, 3) Biosciences, 4) Novel Materials, and 5) Information Management and Software Development.

**Energy:** 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

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extensive research projects in this area. The Center for Advanced Energy Studies is an example of the significant investment the three universities and the Idaho National Laboratory have made to develop expertise in nuclear engineering and safety, biofuel production from dairy waste, geothermal exploration, carbon sequestration, energy policy, and energy efficient structures. Intellectual property has already been generated from these products and is licensed. Further growth in these areas not only takes advantage of the strong base but strongly supports economic development 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, agriculture, forestry, recreation, and geophysics and geochemical detection 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 plant 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 and economic impacts of policy decisions. The future economic success of the state will rely on a deep understanding of these processes.

***Biosciences:*** Idaho's universities have well-established research programs in selected areas of biosciences. Faculty at Idaho University engaged in research related to human health and the treatment of cancer and other genetic related disorders. University microbiologists and informatics experts are also studying 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 as well as in domestic and wild animals, food plants and trees. 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.

***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 \$60 billion in the past decade. Market size is growing for materials in emerging areas such 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. Current materials researchers in Idaho cover a broad spectrum of specializations, including semiconductor device reliability, microelectronic packaging, shape memory alloys, DNA



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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.

***Information Management and Software Development:*** Device control and information management 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 economic development in Idaho as well as for 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. Each university has some expertise in this area but not a critical mass. 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.

**EXTERNAL FACTORS: IDAHO RESEARCH ADVANTAGES AND CHALLENGES**

**Research Advantages**

***Idaho Global Entrepreneurial Mission (IGEM):*** The Governor and legislature of the State of Idaho have created the IGEM initiative to leverage the talent and expertise of Idaho's research universities to strengthen Idaho's economy through job creation and commercialization of technologies in partnership with the private sector. This unique and dynamic partnership between the state, private sector, and the Idaho universities will create new ideas, products and companies that lead to higher-paying jobs and a stronger economic foundation for our state.

***The Idaho National Laboratory (INL) and the Center for Advanced Energy Studies (CAES):*** Idaho is fortunate to be home to the Idaho National Laboratory, one of only 20 national laboratories in the U.S. The INL's unique history and expertise in nuclear energy, environmental sciences and engineering, alternative forms of energy,

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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.

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—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 invested \$3.2M in direct support of the three Idaho research universities during FY09 and FY10. During these first two years, the CAES partners won \$24M in external support for CAES research that has contributed to both scientific advances and economic development in the state and region.

***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.

***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.

***Coordination Among Universities In Advancing Research and Economic Development (technology transfer):*** By and large the research universities continue to coordinate and share their technology transfer and economic development activities. This not only increases each university's competitiveness at the national and state level but also decreases the costs for achieving a particular goal.

### **Research Challenges**

***Economy:*** The current economic recession is the most severe downturn most of us have seen in our lifetimes. The immediate effects of this recession on university research are state-wide budget cuts, with results that include hiring freezes, loss of university faculty and staff, higher teaching loads for faculty (with correspondingly less time for research), and delayed improvements in research infrastructure, including major equipment.

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However, it is not only the current recession which threatens Idaho university research. Idaho has relatively few industries, and seems to attract fewer new companies and industries than other states. When one major sector suffers, as agriculture is at the present time, the entire state suffers. As state institutions, the research universities suffer. Over time, a relatively slow state economy leads to at least two problems: 1) recruitment and retention of faculty, who go to institutions offering higher salaries, more startup money, and better infrastructure; and 2) aging infrastructure, keeping Idaho researchers behind their national peers in terms of having the most up-to-date facilities and equipment. Without proper infrastructure, Idaho research faculty is at a distinct disadvantage in competing with peers across the nation for federal grants.

**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 National Institutes of Health. Many other 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.

**University Culture:** Each of Idaho's research universities aspires to greater levels of achievement in research and creative activity, and to emphasize economic development outcomes along with success in basic and applied sciences, engineering and other scholarly pursuits. It is expected in the future that faculty at each of the universities will be rewarded in annual performance reviews for invention disclosure, entrepreneurial engagement, outreach activities and interdisciplinary research along with the traditional value placed on archival publication and external research funding. There is world-class research in Idaho that is recognized on national and international levels in selected fields of endeavor. This is increasing with new research-active faculty hires at each institution. There are some cultural differences among faculty manifested by discomfort with change aimed at increasing research volume making Idaho's universities more nationally competitive. These concerns often lessen as faculty from the various universities, private sector professionals and national laboratory staff work together in collaborative research and related instruction in state-of-the-art activities.

**Vastness of State and Distances Between Schools:** Although the distances between the research universities is not much different from those in other western states, the topography of Idaho increases the time and cost required for travel well beyond those experienced in other states. This fact discourages collaborations between faculty members and administrators at the different research universities as well as between universities and other entities within Idaho. Although video conferencing can alleviate this problem, there is limited capability at each university. There is also the continuing problem of finding funds to pay for the necessary connectivity between the universities as well as to the world outside of Idaho.

**Data Issues:** There is very little long-term, quality data available on the research enterprise or economic development. The data that exists are scattered among various

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entities in a variety of formats thus make it hard to centralize and use. Furthermore, there is no one entity responsible for collecting, analyzing and dispersing it. This is also true for many of the sectors that will strongly influence the future economic impact of Idaho. While there are large amounts of data that have been collected on watersheds, forests and agricultural operations and the environment—to name a few—they are distributed across a number of agencies and individuals within those agencies. Worse yet, much of this information is lost every time a researcher retires.

***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. Idaho's relatively small population of 1.6 million people limits the potential tax revenue for support public institutions, but improves participation in research surveys and hearings for establishing public opinion.

***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.

***National and International Recognition:*** While each Idaho research university has faculty members that can successfully compete on the national and international scene for research funds, no one university has the necessary reputation, breadth of faculty expertise or facilities to compete for the large projects that are necessary to establish a national or international reputation and substantially grow its research funding.

***Lack of Diversity:*** The population of faculty, staff and students at each of the three research universities, like that of the State, is fairly homogeneous. This lack of diversity—be it cultural, socio-economic or ethnic—hurts the universities and surrounding communities in several different ways. First, it makes recruitment of students, faculty and staff from under-represented groups more difficult. Second, it is noted on accreditation reports and, as such, is a negative reflection on the institution. Finally, it limits the competitiveness of the university in several federal agencies where plans for including under-represented groups in the program are a key element of the proposal.