Instruction, Research and Student Affairs Committee Agenda

March 22, 2001 • 1:30p.m.- 3:30p.m.
SUB • Farnsworth Room
Boise State University / Boise, Idaho

Subject

1. Minutes Instruction, Research, Student Affairs Committee Meeting: January 23, 2001

Committee Action

To agree by consensus to approve the minutes of the Instruction, Research and Student Affairs Committee meeting held on January 23, 2001 as written (Item 1, attached)

Item 1

Minutes of the Instruction, Research and Student Affairs Committee

January 23, 2001 / 1:30 p.m.- 3:00 p.m.
SUB / Jordan A Ballroom
Boise State University / Boise, Idaho

PRESENT:

Rod Lewis, Chair, SBOE	Karen McGee, SBOE	Blake Hall, SBOE
Marilyn Howard, SBOE	Jonathan Lawson, ISU	Mary Ann Carlson, EITC
Daryl Jones, BSU	Dan Petersen, SDPTE	Robin Dodson, OSBE
Jerry Beck, CSI	Bob West, SDE	Nancy Szofran, OSBE
Rita Morris, LCSC	Randy Earles, Faculty	Lynn Humphrey, OSBE
Hal Godwin, UI	Brian Pitcher, UI	

ABSENT: Jerry Gee, NIC Student Representative (rotated)

1. Instruction, Research & Student Affairs Committee Meeting: November 19, 2000 Minutes

Action: It was agreed by consensus to approve the minutes of the Instruction, Research and Student Affairs Committee meeting held on November 19, 2000 as written.

2. Ad hoc committee Minutes

a. Council on Academic Affairs and Programs Meeting: November 2, 2000

Action: It was agreed by consensus to approve the minutes of the Council on Academic Affairs and Programs meeting held on November 2, 2000 as written.

b. Minutes of Higher Education Research Council: July 26, 2000

Action: It was agreed by consensus to accept the July 26, 2000 minutes of the Higher Education Research Council exhibited in Item 2b.

c. Minutes of the Health Professions Workforce Meeting: September 14, 2000

Action: It was agreed by consensus to accept the September 14, 2000 minutes of the Health Professions Workforce Committee exhibited in Item 2c.

3. Criteria for Program Approval

At the November 16, 2000 IRSA meeting, Board members expressed a desire to more fully understand how new program requests are developed, considered by the Office of the State Board of Education, and approved.

Item 3 included the criteria (Quality, Duplication, Centrality, Demand and Resources) that are used to evaluate new program requests and outlined the program development and approval process at the campus and system level.

Dr. Robin Dodson noted that the Board typically reviews a new program request in the form of a notice of intent, rather than a full proposal. Those doctorate programs and other requests with a significant fiscal impact do require the development of a full proposal.

4. Math and Science Preparation -- Board Charge

The Board and many statewide committees have devoted significant time and attention to the need to improve math and science preparation among Idaho's students. In addition, several national reports also have been released that address this issue.

At the November IRSA meeting, the committee directed CAAP to identify a specific goal to address the improvement of math and science competencies, and recommend effective and measurable strategies to accomplish the goal(s). Dr. Dodson reported that CAAP agreed that they could develop a plan with recommendations that would allow Idaho to make major improvements with the goal of becoming an "A" state. However, CAAP felt that it might be prudent to delay its report until there is more information about Idaho's MOST teacher preparation standards, implementation of the Board's achievement standards for math and science, and particularly about the Governor's math and science initiative.

In response to Mr. Rod Lewis' question about the Governor's intent with the math and science initiative, Dr. Howard stated that she believed that the initiative is going to focus on grades 4-8, particularly the middle school years and will mirror achievement standards. Dr. Marilyn Howard commented that it is important to also acknowledge what is currently being done rather than continuously asking "what else" needs to be done. Dr. Dodson added that Board staff will be meeting soon with representatives from the Governor's office to seek clarification and additional information about the Governor's intent and goals for his math initiative.

Mr. Lewis is concerned that there are a number of committees making recommendations in the area of improved math and science preparation and achievement. His sense is that the effort to date has been a piecemeal approach, and that the Board is not effectively taking the lead in this area. He believed that it is critical to clearly identify what it is the Board wants to accomplish while addressing the issue of improved math preparation.

The committee directed CAAP to develop a comprehensive plan for addressing math and science preparation that includes the following information:

- the recommendations from other statewide committees working on the issue;
- areas that are not currently being addressed in the state with regard to math and science preparation;
- a clearly defined goal that specifically addresses what the Board is trying to accomplish;
- recommendations for effective and measurable strategies that are appropriate for Idaho to accomplish the goal.
- a firm timeline set to accomplish the Board's goals.

Mr. Hall asked Dr. Dodson, working with CAAP, to bring a proposed timeline for the development and implementation of the plan to address math and science preparation for the Board's review at its next meeting.

5. State Board of Education's Intellectual Property Policy Review

Due to the significant technology and copyright changes that have occurred in the last several years, Board staff, working with Deputy Attorney General Kevin Satterlee, and the CAAP is reviewing the State Board of Education's administrative rule on Intellectual Property. Ms. Jimmi N. Sommer, graduate student assistant for the Governor's Council on Science and Technology, is doing the preliminary research and coordinating the process. The intent is to repeal the Board's administrative rule and develop a comprehensive policy on intellectual property to replace the rule. The timeframe is aggressive with meetings to be held in January, February, and March.

To date, OSBE has appointed a statewide committee with each public campus being represented at the vice presidential level. In addition, Board Staff has requested that each public institution form an internal "Intellectual Property Policy Review Committee." The purpose of such an on-campus committee is to provide on-going input on the draft policy through its completion. Staff anticipates having a draft policy ready for Board consideration (first reading) at its April meeting.

6. Achievement Standards Update:

The Achievement Standards Coordinator, Ms. Lydia Guerra, distributed a summary of her report that she planned to present to the full Board during committee reports.

7. HERC's Recommendation for Idaho EPSCoR Committee Appointments

The Idaho EPSCoR Committee forwarded the nominations of five individuals to fill four (4) vacant positions and one new biomedical scientist position on the committee. The new biomedical position is in response to the National Institute of Health (NIH) - EPSCoR program requirements. The HERC took those nominations under consideration and recommended to IRSA approval of the nominations of Mr. R. James Coleman, Dr. Blake Grant, Mr. Jon Stoner, Representative Maxine Bell and Dr. Dennis Stevens to the Idaho EPSCoR committee.

Subsequent to HERC's recommendation, Board staff was informed by NIH-EPSCoR staff that their intent was to have a broad-based biomedical science review committee established in each participating state. That bio-medical science committee could be a structured subcommittee of the statewide EPSCoR committee or be comprised of several biomedical science members on the Idaho EPSCoR committee. The addition of only one biomedical science expert on the EPSCoR committee is not recommended due to the large number of proposals and projects in a wide variety of biomedical fields that will be considered by the committee.
Dr. Dodson recommended that the Board approved the nominations as listed above, also instruct the Board's Chief Academic Officer to request that HERC reconsider the issue of the NIH-EPSCoR membership(s) and forward a recommendation to IRSA.

Action: It was moved by Karen McGee**,** seconded by Blake Hall and carried to recommend that the Board approve the nominations to the Idaho EPSCoR committee as exhibited.

In addition, Ms. Karen McGee with the committees' support instructed HERC to review the membership of the EPSCoR committee to determine its effectiveness and if it meets the National Institute of Health (NIH) – EPSCoR's intent for a broad-based committee to oversee the NIH-EPSCoR program.

8. Idaho Technology Incentive Grant Program

a. RFP Approval

Working with the Presidents and Provosts, Board staff developed a revised FY2001 technology incentive grant Request for Proposals (RFP) that focused on enhanced student learning, faculty development, technology in the curriculum and increased access to education programs. The FY 2002 RFP strengthens the requirement for assessment of the projects in terms of student outcomes, faculty development and project goals. Aside from this component there are no substantive changes to this year's RFP. However, upon receipt of final reports from the previous grant cycle, a review to determine program effectiveness may result in suggested changes to the program in the next year.

When approved, the RFP will be released immediately and proposals will be due March 19, 2001. The evaluation committee, consisting of 2 Board members (representatives from IRSA and BAHR), an ITRMC representative, the Chief Academic Officer, and the Chief Technology Officer, will make a recommendation for funding to the Board at the April, 2001 Board meeting.

Ms. Nancy Szofran mentioned that at CAAP's suggestion she planned to either footnote or set aside in smaller type the 2nd and 3rd paragraphs on assessment in the proposal guidelines (page 37 of the agenda) and identify the information as being based on the WICHE guidelines for assessment. In addition, at Dr. Brian Pitcher's request, Ms. Szofran also agreed to provide specific reporting requirements for the second year of multi-year technology incentive grant projects.

ACTION: It was moved by Blake Hall, seconded by Karen McGee and carried to recommend that the Board approve the FY2002 RFP for the Idaho Technology Incentive Grant.

b. Proposed Appropriation Language

Ms. Nancy Szofran proposed that the following language in the paragraph below be added to the technology incentive appropriation bill. The intent is to allow for the potential use of these funds for the development, enhancement and promotion of the Idaho Electronic Campus project.

Section 4. Of the amount appropriated from the General Fund in Section 1 of this act, $1,750,000 shall be used for a competitive grant program to foster innovative learning approaches using technology; and for the development, enhancement and promotion of the Idaho Electronic Campus and as needed for the Western Governor's Association Virtual University.

ACTION: It was moved by Blake Hall, seconded by Karen McGee and carried to recommend that the Board request a change to the legislative intent language for the technology funds in the college and university lump sum appropriation.

10. Other – Idaho's Dual Enrollment Program

Mr. Lewis asked Dr. Dodson to briefly respond to the issues concerning dual enrollment brought up at the Board meting the previous day by Mr. Melvin Buetler, Superintendent of Westside School District.

Dr. Dodson briefly explained some aspects of Idaho's dual enrollment program, including fiscal issues, adjunct faculty status, curriculum control, and credit ownership. While CAAP members recognized that improvements can be made in some areas of the dual enrollment program, they adamantly defended Idaho's program and believed that Idaho is where it should be in terms of dual enrollment policies and opportunities for high school students.

Committee members asked Board staff and the CAAP to provide a report to the Committee and the Board in March about Idaho's dual enrollment program. They would like the report to describe how Idaho's program works, summarize and compare other states' programs to Idaho's, and provide recommendations to improve dual enrollment opportunities in Idaho.

Subject

2a. Minutes Council on Academic Affairs and Programs Meeting: December 5, 2000.

Committee Action

To agree by consensus to approve the minutes of the Council on Academic Affairs and Program meeting held on December 5, 2000 as written (Item 2a, attached)

Minutes

Council on Academic Affairs and Programs

December 7, 2000 • 9:30 am – 4:00 pm

Basement Conference Room • Boise, Idaho

Present:	Jerry Beck, CSI	Brian Pitcher, UI	Robin Dodson, OSBE
	Daryl Jones, BSU	Mike Falconer, SDPTE	Lynn Humphrey, OSBE
	Jonathan Lawson, ISU via telephone	Rita Rice Morris, LCSC	Patty Sanchez, OSBE
	Jerry Gee, NIC		
Absent:	Mary Ann Carlson, EITC	**Guests:**	Dr. Ben Hambelton, BSU
	Dan Petersen, SDPTE		Dr. Randy Gaines, ISU
	Bob West, SDOE		

1. Minutes of November 2, 2000 CAAP Meeting

It was agreed by consensus to approve the minutes of the November 2, 2000 meeting.

2. Idaho Incentive Technology Grant Program Report/Recommendation-Ben Hambelton

Robin Dodson introduced Ben Hambelton of BSU and Randy Gaines of ISU who were invited to present their 3-year technology grant project funded through the State Board of Education's Idaho Incentive Technology Grant Program. The title of their project was *Bridging the Chasm: Idaho Consortium for Educational Technology*. This is a cooperative program to enhance education and to form a working relationship with all institutions. The overall goal was to increase the participation rate of faculty who use technology in teaching. Dr. Hambelton shared with CAAP the final results, lessons learned, and recommendations of the project. Although their grant monies have run out, there are several areas that would be productive for them to continue a formal collaboration. They have a great track record and organizational structure that could attract additional resources for funding. Dr. Hambelton also mentioned that their technology grant was very crucial to their project.

Robin commented that it would be beneficial to present this project information to the Board and legislators, especially to the House and Senate Education committees, to show how important the monies are to the institutions. It was suggested that participants from each of the institutions take part in the presentation, which would also serve as an opportunity to encourage the Board to change the technology incentive grant program to fund the institutions rather than individual projects/programs.

CAAP agreed that it would be beneficial to have this presentation at the Board's next meeting.

3. Change of Meeting Dates--Discussion

Robin provided background information on CAAP's current meeting schedule. CAAP had been meeting the first Thursday of each month to coincide with the President's Council meetings. Robin proposed changing that meeting date to the last Thursday of each month as CAAP's current meeting timeframe is causing difficulties for OSBE staff to have Board agenda materials ready in a timely manner. The last Thursday of

the month would also coincide with the financial vice president's meetings, which would be conducive to having occasional joint meetings. Fiscal meetings occur the Thursday following a Board meeting.

It was agreed to hold future meetings of CAAP on the last Thursday of every month. Although there were no major concerns with this, CAAP felt it was important to respond to the Presidents as well as to the Board.

4. Dual Enrollment/Participation/Retention--Strategy Plan

Robin provided CAAP with a copy of Utah's *Information-Concurrent Enrollment Status Report* as an information item and shared some key facts of the report.

Robin reminded the Council that Daryl Jones represented CAAP at the President's Council meeting with a few southeastern Idaho Superintendents. Daryl reported that these Superintendents and Utah representative raised a number of issues and it was apparent that they had a lot of misinformation.

Daryl briefly discussed the uniform fee issue that was brought up at the meeting. Of particular concern to the superintendents was that it was not the same statewide. Daryl noted that the fee structure was established after careful consideration and he did not believe it needed to be changed. In reality, there is very little difference among the fees charged by Idaho's institutions, and as compared to the Utah institutions.

Robin informed CAAP of a discussion he had with Ross Ruchti of ISU who is working with the State ACT Council for funding to develop a publicity plan over the next year. Robin suggested that CAAP consider this and convey to the Presidents that a lot of the issue was a lack of communication. He noted that it has been suggested to have six regional meetings with Board staff, representatives of institutions in the service areas, district principals, superintendents, and the public to explain and clarify the Board's policy and the pricing issues.

Robin shared with CAAP a handout on dual enrollment numbers that was prepared by Jerry Engstrom from the Board office. The handout outlined fall 2000 numbers for all public postsecondary institutions in the state. The numbers were divided into dual enrollment and tech-prep areas with a total of 1,429 students enrolled in dual enrollment programs and 869 students participating in tech-prep programs.

A discussion ensued regarding dual enrollment and tech-prep programs and how they are defined and recognized at each campus. Robin proposed that CAAP establish some standards/guidelines agreeable to everyone to be included in catalogs that would define and distinguish dual enrollment and tech-prep programs and their expectations. It was agreed to draft guidelines, perhaps with information in bullets, to be included in undergraduate catalogs.

Robin shared with CAAP the "Report Card Measuring up 2000," which relates to participation and retention. He shared Idaho's score with the Council. He noted that Dr. Marilyn Howard has defended the State of Idaho and pointed out that some of the tests that were used as indicators are not ones that Idaho students take. Dr. Howard had other issues with the "report card" and has issued a public statement. However, Idaho did score low and it was the feeling of the Board that Idaho needs to do a better job.

Professional-Technical Certificate Definition--Mike Falconer

Mike Falconer presented CAAP with an informational item addressing the Professional-Technical Certificate definition, which was approved by the Board in November. In summary, SDPTE submitted a recommendation to CAAP to amend the definition of a Technical Certificate. The new definition, approved

by the Board, states that this certificate is awarded "for the completion of requirements entailing between 27-29 semester credit hours….". This has created confusion as it appears to limit the Technical Certificate to a range of 27-29 credits and not allowing technical certificates to exceed 29 credits.

Essentially, it was agreed by CAAP to accept Mike Falconer's recommendation that the definition be modified to delete the portion that reads "and 29" and have the definition read:

Technical Certificate - a credential awarded for the completion of requirements of at least 27 semester credit hours and less than two years of full-time work and includes mastery of specific competencies drawn from requirements of business/industry.

It was also agreed to add a footnote at the conclusion of certificate definitions (in the CAAP guideline manual) to read:

Accreditation standards require Professional-Technical certificates of an academic year or more in length (30 semester credit hours or more) to include a recognizable body of instruction in three program-related areas: (1) communication, (2) computation, (3) and human relations.

ACT COMPASS Math Score--Robin Dodson

Robin mentioned an issue that has arisen among the campus math departments regarding the cut off scores for Math 108. The Math Chairs have discovered that the ACT COMPASS score of 26 is too low and that students enrolled into those courses are not succeeding.

Robin informed CAAP that he has requested Larry Ford, former Math Chair at ISU, to act as facilitator and set up a meeting with Chairs and make recommendations to CAAP on the issue as soon as possible. Robin will address this charge to the Math Chairs in a letter for them to clarify this issue as soon as possible. It is Robin's view that this can be an edited item rather than taking it back to the Board for action.

5. Math and Science Preparation--Board Charge

Robin discussed the Board charge given to CAAP to identify the goals and develop a plan, recommendations, and matrix on all statewide efforts of how Idaho can improve math and science preparation. There was a brief discussion regarding the use of the "report card" as a foundation for a report to the Board.

Robin directed the Council to a couple of recent national reports that Brian Pitcher had suggested CAAP consider using to extract key points and asked CAAP how they wanted to proceed. Robin offered to prepare a working document that would incorporate key points and then develop a matrix dealing with the Idaho's MOST, the Achievement Standards efforts, etc. It was recommended to identify goals first, then provide outcomes, and involve other statewide groups to assist in developing the recommendations.

It was agreed to summarize issues into a working document that would include items to address i.e., students, curriculum, and teacher preparation then develop a series of recommendations that would be tied to each of those areas.

6. Statewide Access $2 Million Request

Brian Pitcher presented CAAP with a draft informational item regarding the possible allocation of monies.

A lengthy discussion ensued regarding the Board's intent with the $2 million dollar request and how it was to be allocated. It was agreed to obtain a copy of the Board motion before the legislative session convenes.

7. Other--ID-WA Reciprocity Program Waiver Summary

Robin presented CAAP with the most current information on Idaho's participation in the Idaho-Washington reciprocity program waivers as an informational item. The data indicated that most of the Idaho institutions are not awarding all of their allocated tuition waivers. There were also some gaps in the information and the vice presidents agreed to provide any missing data.

The meeting was adjourned at 4pm

Subject

2b. Minutes of Higher Education Research Council--December 7, 2000

Committee Action

To agree by consensus to accept the December 7, 2000 minutes of the Higher Education Research Council exhibited in Item 2b.

Item 2b.

APPROVED MINUTES

HIGHER EDUCATION RESEARCH COUNCIL MEETING

December 5, 2000
LBJ Building, Boise, ID - Room 324 / 11:00 am – 11:40 am

Present:

Darrell Manning, Chair
John Huffman
Ron Bitner
Richard Bowen
Chuck Ruch
Dennis Stevens
Robin Dodson
Robert Hoover (via phone)
Neil Zimmerman (via phone)

Absent:

Bill Shipp

I. Minutes of July 29, 2000

MSC(Ruch/Bitner): To approve the minutes of July 29, 2000.

II. EPSCoR Appointments

Dr. Dodson directed the Council to the list of nominees recommended by the State EPSCoR Committee for HERC's consideration.

- Mr. R. James Coleman, J•U•B Engineers, Inc.
- Dr. Blake F. Grant, Grants and Associates Consultant
- Mr. Jon L. Stoner, AMI Semiconductors
- Dr. Dennis L. Stevens, VAMC

MSC (Bowen/Bitner): To accept the nominations as presented and forward them to the IRSA and the SBOE with a recommendation to appoint each for a three-year term.

III. Research Center Grant Program--Summary of Reviewer Qualifications

Dr. Dodson briefed the Council on the FY 2001 Research Center Grant Program, and the need to recruit 100 peer-reviewers for the first review phase. Currently, 15-17 reviewers have been identified. In accordance with HERC policy, the Council is required to act on those reviewers prior to the actual review.

Ms. Lynn Humphrey will fax the summaries of the identified reviewers to date with a request to approve or disapprove the reviewers as soon as possible. Additional reviewer summaries will be forthcoming as they are recruited. The Council stated they would provide a quick turn around time.

IV. Idaho Association of Commerce and Industry--Public Affairs Committee Support of SBOE Budget

A discussion ensued regarding the support of IACI's Public Affairs Committee with regard to the following items:

- Full funding of the SBOE's MCO request.
- Renewal of the $1.3 million appropriation of the Governor's College and University Excellence Program
- Support for compensation levels that will allow the President's (postsecondary institution) to address and manage critical recruiting and retention of issues of faculty.
- A one-time #2.0 million appropriation for research infrastructure.

The focal point of the discussion was the one-time $2.0 million appropriation for research infrastructure and clarification regarding whether this was an addition to the $2.5 million HERC request and the SBOE $4.0 million request. It appeared that the $2.0 million is a separate item from the HERC and SBOE requests.

MSC (Stevens/Huffman): To support IACI's recommendation and if appropriated, distribute the funds equally among the institutions.

The Board's institutional presidents abstained from this vote.

V. Other/New Business

A discussion ensued regarding the Governor's budget for HERC and higher education in general.

There was some discussion regarding the use of science and math professionals (e.g., engineers) in the K-12 environment. Items discussed included alternative certification, the lack of a formal structure/procedure(s), accreditation, and the current efforts of the SBOE/Albertson Foundation Idaho's MOST project.

HERC discussed the Governor's Science and Technology Advisory Council, their current status on the strategic plan, and the desire to have HERC meet with the Council. Dr. Dodson noted that he would forward a copy of the November 1-2, 2000 draft of the Science Technology Strategy Plan to HERC members. Further, he would also find out when the final document is to be made available.

The meeting was adjourned at 11:45AM.

Subject

2c. Minutes of Higher Education Research Council--February 6, 2001

Committee Action

To agree by consensus to accept the February 6, 2001 minutes of the Higher Education Research Council exhibited in Item 2c.

APPROVED MINUTES

HIGHER EDUCATION RESEARCH COUNCIL MEETING

February 6, 2001
LBJ Building, Boise, ID - Room 324 / 12:15 pm – 12:45 pm

Present:

Darrell Manning, Chair	Richard Bowen	Robin Dodson
Dennis Stevens	Chuck Ruch	Lynn Humphrey
Niel Zimmerman	Robert Hoover	

Absent:

Bill Shipp	John Huffman	Ron Bitner

I. Minutes of December 5, 2000

MSC(Hoover/Bowen): To approve the minutes of December 5, 2000.

II. EPSCoR Committee

Dr. Robin Dodson summarized the Board's charge to HERC to review the membership of the EPSCoR committee to determine its effectiveness and if it meets the NIH-EPSCoR's intent for a broad-based committee to oversee the state's NIH-EPSCoR program. Dr. Marianne Clarke has agreed to perform the review as an extension of Batelle's agreement to assist the State of Idaho with its Science and Technology Plan at an estimated cost of $14,500.

III. HERC FY 01 Budget

HERC has $14,300 in unallocated funds in the current fiscal year but has two initiatives that have not been included in the budget. They include the EPSCoR review and the on-site review for the Research Center Grant Program, which is expected to take place in the spring.

By unanimous consent HERC agreed to delay the EPSCoR review until May and pay for the associated costs out of its FY 2002 budget, and to cover part of the on-site review cost out of its remaining FY 01 funds. Any additional expenses over and above $14,300 will be paid out of its FY 2002 budget.

IV. Research Center Grant Program--Summary of Reviewer Qualifications

HERC members agreed to provide their approval of the enclosed summary of reviewer qualifications by Friday, February 9, 2001. In addition, Ms. Lynn Humphrey asked the Council to reconsider the program guideline requiring Board staff to recruit at least 10 peer reviewers for each research center grant proposal. Pending approval of this group of confirmed reviewers, staff will have recruited six or seven individuals, but according to program guidelines only five of

those reviewers will evaluate each proposal. Because the mail review is in progress, any additional reviewers that Board staff recruits will not evaluate a proposal.

It was moved by Dr. Zimmerman and seconded by Dr. Bowen to change the Research Center Grant Program guidelines to require Board staff to recruit at least seven reviewers for each proposal.

The motion was amended and approved by unanimous consent to change the Research Center Grant Program guidelines to require Board staff to recruit a maximum of seven, but no fewer than six, reviewers for each Research Center Grant proposal.

Board staff anticipated that the mail review will be concluded by the end of February. At its March 6, 2001 meeting, HERC will be asked to consider the subsequent three top-ranked proposals for a site visit, which is projected for late April.

V. HERC Chair Recommendation

Because of his recent appointment to the State Board of Education, Darrell Manning sought the opinion of other HERC members with regard to his continued service on HERC and the EPSCoR Committee. His term expires in January 2003. HERC members had no objection to General Manning continuing to serve on the committee and did not wish to elect a new chair.

VI. Other/New Business

There was a brief discussion of the Governor's higher education budget and how recent calls for substantial permanent tax cuts would affect university research programs. The presidents believed that it was critical to talk with key legislators to discuss how that action would impact the colleges and universities.

MSC(Ruch/Zimmerman): To adjourn at 12:45 p.m..

Subject

3. Definition of Professional Programs and Fees

Background and Discussion

For over a decade, the State Board of Education has given special consideration, on a case-by-case basis to, the issue of a "professional fee." The SBOE's consideration has significant importance due to the relationship to Idaho's constitution, Idaho Code, and Board policy and that a professional fee actually constitutes charging tuition. Professional fee(s) (tuition) must have SBOE approval.

Historically, SBOE approval was given when the professional program under consideration met three criteria: (1) professional licensing was required for the practice of the profession; (2) the professional program was within the requesting institution's primary emphasis (role and mission); and (3) the degree was terminal i.e., highest degree possible for the profession. However, these criteria have not been written into the Board's policy.

The last professional fee that the SBOE approved was for the Idaho State University's Masters of Occupational Therapy (June 1996). This program joined nine (9) other specialized degree granting programs: pharmacy, law, medicine, veterinary medicine, dentistry, physician assistant, and physical therapy and architecture and landscape architecture allowed to charge a professional fee.

Currently, the SBOE's policy on "professional fees" does not address what constitutes a "professional program." The following discussion points may facilitate the IRSA and full Board's dialog on the issue:

1. **Definition**: Does there need to be a policy definition for "professional programs and professional fees?"

2. **Uniqueness of a Program**: Currently those approved professional programs are only available at one public postsecondary institution.

3. **Professional Licensing Required**: Each of the currently approved professional programs, with a professional fee, has a state licensing requirement and state regulatory agency/board as set forth in Idaho Code.

4. **Selectivity**: Historically, the SBOE has been quite selective in determining which professional programs are allowed to charge for a professional fee. Examples of other professional programs that are excluded are nursing, teacher education, engineering, to note a few.

5. **Terminal Professional Program**: In the past only those professional programs that were terminal i.e., highest degree necessary to practice the profession, such as J.D. for law, M.D. for medicine, etc. were considered. Although this consideration was not written in policy, it has been employed in determining the professional fee approval process.

6. **Tuition Issue**: Because the "professional fee" is really tuition, the charging of this to students requires higher scrutiny than normal "fee" scrutiny.

3. Definition of Professional Programs and Fees (continued)

Impact

The significance of this request for a change in SBOE policy is wide spread. The issue of tuition for a professional program raises constitutional and statutory questions (i.e., a matter of law and not just policy). Furthermore, the Board must be able to clearly define "specialized degree granting program," and a "professional college, school, or department" at the SBOE's postsecondary institutions.

Fiscal Impact

In order to understand the policy discussion, it must be viewed in the context of a professional fee proposal the University of Idaho will bring forward in April. The College of Business and Economics, at the University of Idaho, seeks approval for two professional fees: (1) for upper division (300 level courses and above) courses in six majors:

- Major in Accounting: Certified Public Accountant (CPA) or Certified Management Accountant
- Major in Production and Operations Management: Certified in Production and Inventory Management (CPIM) or Certified in Integrated Resource Management (CIRM).
- Major in Management and Human Resources Management: Professional in Human Resources
- Major in Marketing: Professional Certified Marketer (PCM)
- Major in Finance or Economics: Certified in Financial Management (CFM) or Certified Financial Analyst (CFA)
- Major in Information Systems: Certified Information Systems Auditor (CISA) and others.

The UI request in April will ask to establish professional fees an additional $200 per semester per program, increased over 10 years to $500 per semester. In addition, graduate students enrolled in the Master of Accountancy (MACCT) program would pay a professional fee of $200 per semester.

Staff Recommendation

The majority of CAAP members favored the changes to the SBOE policy as described in Item 3a. However, staff would like IRSA to thoroughly discuss the issues prior to forwarding any possible policy modifications to the Board for its consideration.

Staff is concerned that the expansion of the definition of "professional programs" is not a proper public policy solution to the problem of inadequate resources allocated within the institution. Loosening the standards for approval of professional programs raises the serious issue of charging tuition to Idaho residents.

In particular, the addition of "certification," rather than "licensure," is a major shift. Licensed and regulated professions differ greatly from merely meeting the credential requirements of a private "certification" organization.

Committee Action

It was moved by_____, seconded by_____and carried to approve/disapprove/table the modification to the SBOE policy on professional fees as described on Item 3a for first reading.

Board Action

It was moved by _____ and carried to approve/disapprove/table the changes to the SBOE policy on professional fees for first reading.

Attachments

Item 3a. Establishment of Fees Policy
Item 3b. SBOE's Discussion and Action (Minutes April 17, 1997)

(4) Professional Fee.

a. Professional fee is defined as the additional fee charged for educational costs for students enrolled in specialized baccalaureate or graduate level degree granting programs such as pharmacy, law, medicine, veterinary medicine, dentistry, physician assistant, physical therapy, architecture ~~and,~~ landscape architecture, and occupational therapy.

b. In order for an institution to bring a program to the Board for review for designation as a professional program, the program shall meet the following criteria:

(1) Licensure - The program leads to a field in which professional licensure exists i.e., the program is a pre-requisite to entry to practice in a licensed profession.

(2) Certification - program graduates are eligible, via their completion of the program, to meet national certification examination criteria in the field of study of the program.

(3) Specialized Accreditation - The program meets the requirements of nationally recognized specialized accreditation in the chosen field beyond the standard institutional accreditation.

(4) Uniqueness - Whether the program is offered by more than one of the institutions. Historically, the types of programs designated as professional, due to their cost and specialized nature, are offered at only one institution.

(5) Degree Level - the program leads to a degree that is at least the minimum required for entry to practice in the field.

c. After review of the criteria, the final decision is vested in the sound discretion of the Board.

(5) Contracts and Grants.

Special fee arrangements are authorized by the Board for instructional programs provided by an institution pursuant to a grant or contract approved by the Board.

(6) Continuing Education.

Continuing education fee is defined as the additional fee to part-time students which is charged on a per credit hour basis to support the costs of continuing education.

Item 3b.

SBOE's Discussion and Action (Minutes, April 1997)

Please contact Patty Sanchez at (208) 334-2270 or email psanchez@osbe.state.id.us to obtain a hard copy of this item.

Subject

4. Accelerated Learning Programs

Background and Discussion

During the past several months, the Committee and the Board has heard and discussed several issues related to its policy on Accelerated Learning, especially the section focused upon dual/concurrent enrollment. The CAAP has requested that this issue be placed on the March 2001 IRSA agenda. The purpose is to inform the IRSA of the following: Idaho Code (Title 33 Chapter 51), current SBOE policy, Northwest Association of Schools and Colleges, Commission on Colleges' Standards, and executive summaries of the public institutions' current dual enrollment activities.

Impact

The CAAP is currently working on adopting statewide adjunct faculty qualifications for dual/concurrent enrolled programs, defining which courses are dual/enrollment, preserving and enhancing Advanced Placement (AP) offerings, funding options, "best-practice" models, and communication action plans with the Idaho Association of School Administrators.

Fiscal Impact

None at this time

Recommendation

Staff recommends that the current SBOE Accelerated Learning Policy be reviewed for clarity, including the possibility of adding language that addresses adjunct faculty qualifications, course offerings, and action steps to enhance AP course offerings, especially in rural communities.

Committee Action

None at this time

Board Action

None at this time

Attachments

Item 4a. Dual Enrollment Activities Executive Summaries (Public Institutions)
Item 4b.1 Statute Idaho Code Title 33, Chapter 51
Item 4b.2 SBOE Accelerated Learning Policy
Item 4b.3 NASC, CC, Major and Minor Substantive Changes

Item 4a.

Dual Enrollment Activities Executive Summaries (Public Institutions)

Please contact Patty Sanchez at (208) 334-2270 or email psanchez@osbe.state.id.us to obtain a hard copy of these items.

Idaho Statutes

TITLE 33
EDUCATION
CHAPTER 51
POSTSECONDARY ENROLLMENT OPTIONS

33-5101. PURPOSE.
The purpose of this chapter is to promote rigorous academic pursuits and to provide a wider variety of options to high school pupils by encouraging and enabling secondary pupils to enroll full-time or part-time in nonsectarian courses or programs in eligible postsecondary institutions as defined in section 33-5102, Idaho Code.

33-5102. DEFINITIONS. As used in this chapter
(1) "Course" means a course of instruction or a program of instruction.

(2) "Eligible institution" means an Idaho public postsecondary institution; a private two-year trade and technical school accredited by a reputable accrediting association; or a private, residential, two-year or four-year liberal arts, degree-granting college or university located in Idaho.

33-5103. AUTHORIZATION -- NOTIFICATION.
Notwithstanding any other law, administrative rule or local policy to the contrary, an eleventh or twelfth grade pupil enrolled in a public school, except a foreign exchange pupil enrolled in a district under a cultural exchange program, may apply to an eligible institution to enroll in nonsectarian courses offered by that postsecondary institution. If an institution accepts a secondary pupil for enrollment under the provisions of this chapter, the institution shall send written notice to the pupil and the pupil's school district within ten (10) days of acceptance. The notice shall indicate the course and hours of enrollment of that pupil. If the pupil enrolls in a course for postsecondary credit, the institution shall notify the pupil about payment in the customary manner used by the institution.

33-5104. COUNSELING.
(1) To the extent possible, the school district shall provide counseling services to pupils and their parents or guardians before the pupil enrolls in courses under the provisions of this chapter to ensure that the pupil and parents or guardian are fully aware of the risks and possible consequences of enrolling in postsecondary courses. The district shall provide information on the program including who may enroll, what institutions and sources are available under this program, the decision-making process for granting academic credits, financial arrangements for tuition, books and materials, eligibility criteria for transportation aid, available support services, the need to arrange an appropriate schedule, consequences of failing or not completing a course in which the pupil enrolls, the effect of enrolling in this program on the pupil's ability to complete the required high school graduation requirements, and the academic and social responsibilities that must be assumed by the pupil and the parents or guardian. The person providing counseling shall encourage pupils and their parents or guardian to also use available counseling services at the postsecondary institutions prior to the semester of enrollment to ensure that anticipated plans are appropriate and adequate.

(2) Prior to enrolling, the pupil and the pupil's parents or guardian must sign a form that shall be provided by the school district and may be obtained from a postsecondary institution stating that they have received the information specified herein and that they understand the responsibilities that must be assumed in enrolling in this program. The superintendent of public instruction shall, upon request, provide technical assistance to a school district in developing appropriate forms and counseling guidelines.

33-5105. DISSEMINATION OF INFORMATION -- NOTIFICATION OF INTENT TO ENROLL.
By March 1 of each year, a school district shall provide general information about the program to all pupils in grades ten (10) and eleven (11). To assist the district in planning, a pupil shall inform the district by March 30 of each year of the pupil's intent to enroll in postsecondary courses during the following school year. A pupil is not bound by notifying or not notifying the district by March 30.

33-5106. LIMIT ON PARTICIPATION.
(1) A pupil who first enrolls in grade eleven (11) may not enroll in postsecondary courses under the provisions of this chapter for secondary credit for more than the equivalent of two (2) academic years.

(2) A pupil who first enrolls in grade twelve (12) may not enroll in postsecondary courses under the provisions of this chapter for secondary credit for more than the equivalent of one (1) academic year.

(3) A pupil may also be enrolled in courses for secondary credits approved by the local school district. If a pupil's enrollment pursuant to this chapter decreases the pupil's instructional time in the local school
district to less than four (4) hours a day, the pupil shall nevertheless be counted as in local school district instructional time for four (4) hours a day for purposes of chapter 10, title 33, Idaho Code.

(4) A pupil who has completed course requirements for graduation but who has not received a diploma may participate in the program.

(5) A pupil who has graduated from high school cannot participate in the program.
33-5107. ENROLLMENT PRIORITY.
A postsecondary institution shall give priority to its postsecondary students when enrolling eleventh and twelfth grade pupils in courses for secondary credit. Once a pupil has been enrolled in a postsecondary course under the provisions of this chapter, the pupil shall not be displaced by another student.

33-5108. COURSES ACCORDING TO AGREEMENTS.
An eligible pupil may enroll in a nonsectarian course taught by a secondary teacher or a postsecondary faculty member and offered at a secondary school, or another location, according to an agreement between a school board and the governing body of an eligible public postsecondary system or an eligible private postsecondary institution. All provisions of this section shall apply to a pupil, school board, school district and the governing body of a postsecondary institution, except as otherwise provided.

33-5109. CREDITS.
(1) A pupil may enroll in a course under the provisions of this chapter for secondary credit, for postsecondary credit or for dual credit. At the time a pupil enrolls in a course, the pupil shall

designate the type of credit desired. A pupil taking several courses may designate some for secondary credit, some for postsecondary credit and some for dual credit.

(2) A school district shall grant academic credit to a pupil enrolled in a course for secondary credit if the pupil successfully completes the course. Four (4) semester college credits equal at least one (1) full year (two (2) semester credits) of high school credit in that subject. Fewer college credits may be prorated.

(3) The secondary credits granted to a pupil shall be counted toward the graduation requirements and subject area requirements of the school district. Evidence of successful completion of each course and secondary credits granted shall be included in the pupil's secondary school record. A pupil shall provide the school with a copy of the pupil's grade in each course taken for secondary credit under the provisions of this chapter. Upon the request of a pupil, the pupil's secondary school record shall also include evidence of successful completion and credits granted for a course taken for postsecondary credit. In either case, the record shall indicate that the credits were earned at a postsecondary institution.

(4) If a pupil enrolls in a postsecondary institution after leaving secondary school, the postsecondary institution shall award postsecondary credit for any course successfully completed for secondary credit at that institution. Other postsecondary institutions may award, after a pupil leaves secondary school, postsecondary credit for any courses successfully completed under the provisions of this chapter. An institution shall not charge a pupil for the award of credit.

(5) Postsecondary faculty instructing a course for postsecondary, secondary or dual credit shall not be required to obtain a certificate pursuant to chapter 12, title 33, Idaho Code, nor shall the postsecondary
faculty be deemed an employee of a school district for any purpose under law.

33-5110. FINANCIAL ARRANGEMENTS.

(1) For a pupil enrolled in a course under the provisions of this chapter, the school district may make payments or partial payments according to the provisions of this section for courses that were taken for secondary credit.

(2) The school district superintendent shall not make payments to a postsecondary institution for a course taken for postsecondary credit only. The district superintendent shall not make payments to a postsecondary institution for a course from which a student officially withdraws during the first fourteen (14) days of the semester or for courses for audit.

Y. Accelerated Learning Program

1. Coverage.

Boise State University, Idaho State University, Lewis-Clark State College, and the University of Idaho are covered by these policies. North Idaho College, the College of Southern Idaho and Eastern Idaho Technical College are also covered since post-secondary programs intended for transfer come under the purview of the Board.

2. Purpose.

The State Board of Education has made a commitment to improve the educational opportunities to Idaho citizens by creating a seamless system. To this end, the Board has instructed its post-secondary institutions to provide educational programs and training to their respective service regions, support and enhance regional and statewide economic development, and to collaborate with the public elementary and secondary schools. In addition to the Board's desire to prepare secondary graduates for post-secondary programs, the Board also is interested in accelerated learning programs for qualified secondary students. These programs have the potential for reducing the overall costs of secondary and post-secondary programs to the students and institutions.

The primary intent of the Board is to develop a policy for accelerated learning programs for secondary students which would:

a. Enhance their post-secondary goals;

b. Reduce duplication and provide for an easy transition between secondary and post-secondary education; and

c. Reduce the overall cost of educational services and training.

3. Definitions

There are many different accelerated learning programs which students may access to receive post-secondary credit for education completed while enrolled in the secondary system. Examples include Advanced Placement (AP), College Level Examination Program (CLEP), Tech Prep, etc. For the purpose of this policy the State Board of Education considers three different types of accelerated learning programs depending upon the delivery site and faculty. They are:

a. A regular college course delivered by the post-secondary institution on its campus. A high school student who selects this option would be admitted as a non-matriculating college student.

Policy
The student is charged the standard part-time credit hour fee or tuition, including activity fees.

b. A course is delivered in the high school and the costs are borne by the post-secondary institution. The course could be delivered a number of different ways such as:

- through technology into the high school;
- a course taught in the high school by post-secondary institution faculty; or
- a post-secondary institution employs high school faculty to teach the course(s).

A student who selects this option would be admitted by the post-secondary institution as a non-matriculating student.

Policy
The costs are borne by the post-secondary institution which charges the part-time credit hour fee or tuition, minus the on-campus activity fees.

c. A course is delivered at the high school by secondary faculty, and the costs are borne either by the high school or the student. Examples include AP, CLEP or Tech Prep courses. Students may request an institutional evaluation of such course for acceptance as college credit.

Policy
The post-secondary institutions may charge an administrative fee for transcripting the credit or assuring equivalency.

d. Four (4) semester college credits are equivalent to at least one (1) full year (2 semesters) of high school credit in that subject.

4. Eligibility and Admission Requirements

In compliance with Idaho Code 33-5104, prior to enrolling, the student and the student's parent/guardian must sign a counseling form, provided by the school district, that outlines the provisions of the section of this Code.

Further, any high school student may make application to one of the public postsecondary institutions provided the following requirements are met:

a. In compliance with Idaho Code 33-202, the student has reached the minimum age of 16 years or has successfully completed at least one-half of the high school graduation requirements as certified by the high school.
b. Submission of the counseling form which includes written permission from the student's parent/guardian, and principal or counselor.
c. Submission of the appropriate institutional application material for admission.
d. If required by institutional policy, a student must obtain approval of the instructor to enroll in a course.
e. Written notification of acceptance to the institution will be provided to the student after he or she submits the appropriate application.
f. Those high school students meeting the above requirements will be permitted to enroll on a part-time basis for a maximum of 7 credits or two courses per semester or on a full-time basis taking at least 8 credits per semester.
g. Students seeking admission who do not meet the above requirements may petition the institution's admission committee for consideration.

Item 4b.3

NASC, CC, Major and Minor Substantive Changes

Please contact Patty Sanchez at (208) 334-2270 or email psanchez@osbe.state.id.us to obtain a hard copy of this item.

Subject

5. Math and Science Preparation – Current Efforts

Background and Discussion

At the January 23, 2001 IRSA meeting, CAAP was directed to develop a comprehensive plan for addressing math and science preparation. In addition, the Committee requested that a proposed timeline for the development and implementation of the plan be presented at the Board's February 2001 meeting. That timeline was accepted by the Board. One component of that timeline was the development of a matrix of statewide efforts, including the established goals and timeframes of each on-going math and science initiative in Idaho. Item 5 is the consequence of those efforts.

Impact

At the IRSA and Board's recommendation, those various initiatives will be summarized in a Board plan, that will identify specific goals and include defined outcomes, costs, and timeframes.

Fiscal Impact

None at this time

Committee Action

To provide direction on what the SBOE's focused goals should be given the varied statewide math and science initiatives currently underway in Idaho.

Board Action

None at this time

Attachments

Item 5a. Improving K-12 Education--Math and Science Brief
Item 5b. Appendix--State Policies to Improve K-12 Education

Improving K-12 Education . . . Discussion Paper

Math & Science Brief

Background: The CAAP was charged by the State Board's IRSA committee to develop background information for a math science initiative. This brief presents issues from key reports pertaining to math & science education, summarizes recommendations of the key reports and offers points for consideration in designing a Math & Science Initiative. An Appendix lists topics of K-12 education policy trends across the country by major categories.

Governor Kempthorne's Science Technology Advisory Council envisions *"a vibrant technology-based economy that provides employment opportunities and high wage jobs for Idaho citizens."* Fulfilling this vision will require that the state's future workforce is highly proficient in math and science – subjects that are the critical foundation of a technological, knowledge-based workplace. There is a rift between this vision and Idaho K-12 students' proficiencies in mathematics and science.

1. Report Findings

Multiple state and national reports make the case for improvement in K-12 math and science. Iowa Test of Basic Skills and Tests of Achievement and Proficiency rank Idaho students' math and science achievement scores among the mid-range of states. Significant numbers of students in some schools, and Hispanic and Native American students consistently rank at the lower end of the scales.

Measuring Up 2000, A State-By-State Report Card of the National Center for Pubic Policy and Higher Education, rates Idaho with a D+. The report card addresses several measures including math and science course taking patterns and proficiencies, reading and writing proficiencies, college entrance and advanced placement exams. States bordering Idaho have higher ratings: Montana - B; Nevada - D+, Oregon - C-; Utah - A, Washington - C+ and Wyoming - C-.

Idaho's postsecondary institutions find that one in three students entering college is unprepared for college-level math.

In1995 the Third International Math and Science Survey (TIMSS) assessed the mathematics and science performance of U.S. students in comparison to their peers in other nations at 4^{th}, 8^{th} and 12^{th} grade levels. This assessment revealed that U.S. fourth-graders performed well in both mathematics and science in comparison to students in other nations, U.S. eighth-grade students performed near the international average in both math and science, and U.S. twelfth-graders scored below the international average and among the lowest of the TIMSS nations in mathematics and science general knowledge as well as in physics and advanced mathematics.

A sample of Idaho eighth-graders, their peers in 27 states and large school districts, and in 38 countries participated in the TIMSS-Repeat in 1999. U.S. students scored slightly above average in math and science but below their peers in 14 nations! The industrialized nations that rank higher than the U.S. are among those countries with which Idaho will compete in a technological economy -- Korea, Japan, Germany, etc.

Idaho officials point out that some measures used in these reports are not current or complete, and that Idaho might fair better were the statistics updated. However, the data available do accentuate a need for improvement. For Idaho to realize the vision of a "vibrant, technology-based economy", the

need for improvement is compelling and urgent. Mid-range scores are not sufficient; groups of low-income and minority students constantly showing at the lower end of the scales are unacceptable.

Reasons for Math & Science Limitations in K-12 Schools

While these reports cast Idaho less than favorably, a deeper look at issues underlying the data, and consideration of recommendations from major studies is needed before appropriate remedies can be implemented. According to a 1996 Rand study, national data to describe the status of math and science education are meager – more of a "'patchwork" of indicators. There are moderate amounts of data available at the national level to describe student achievement, secondary school curriculum and the secondary teaching force; however these measures are not regularly used by all states. Idaho has not consistently participated in the National Assessment of Education Progress (NAEP) – one of the key measures used for national comparisons – hence, there are some voids of information about Idaho students. National rankings and state comparisons show composite scores; dis-aggregation of data could show that top students are improving but that students at the lower end of the scales are not making gains. Aggregation of data tends to mask the range of variation among students.

Less is known about the elementary curriculum and teaching force. The Idaho MOST teacher survey conducted in 2000 revealed that elementary teachers spent less time teaching science and felt less confident about teaching science than other subjects. Teacher preparation programs across the country are frequently criticized for limited science requirements and student teaching science experiences. (A comparison of Idaho's new student achievement standards and new elementary standards for teachers has not been conducted. Therefore this criticism of teacher preparation in Idaho may not be valid.)

Studies also find that mathematics and science are taught differently in many industrialized nations than in the United States. Outside the U.S., math and science are introduced earlier in the curriculum and taught in greater depth. Algebraic and physics concepts and problems, for example, are often introduced prior to the eighth grade. In the U.S., students cover greater amounts of material but do not delve into as much depth. Some point out that "breadth vs. depth" in U.S. schools causes American students to memorize volumes of material, but have fewer opportunities for applications that provide deeper understanding and retention.

Middle level instruction is gaining national attention. Governor Kempthorne's Science and Technology Council cited the need to address math and science issues at the middle school level. Research increasingly shows success in high school and beyond is highly correlated to development of a solid foundation in math and science during early adolescence. Eighth grade algebra is frequently cited as the "gatekeeper" course – a determinant as to whether a student will attend or be successful in college. Many Idaho students do not take algebra prior to 9th or 10th grade. Middle school teachers in Idaho, like a number of states, may hold either an elementary or a secondary credential. Elementary teachers generally are more skilled in engaging students in interdisciplinary studies, which are shown to be effective with early adolescents; however, elementary teachers often lack the depth of preparation needed to teach higher levels of math and science. Secondary teachers possess the subject matter knowledge but often are not skilled in interdisciplinary teaming and other instructional methods that place "content" in "context". Some teachers look upon middle schools as a career starting point prior to a high school assignment.

Research is clear - a qualified, competent, caring teacher in the classroom is the single most important determinant of student learning in the school. Content knowledge, pedagogical knowledge and a caring disposition are the attributes of good teachers. Teachers with sufficient background in math and science are in scarce supply. High schools, especially in smaller and rural districts, often find it necessary to limit

offerings of advanced math (calculus and trigonometry) and science (chemistry and physics) courses because they cannot find teachers. Studies also show that less affluent school districts, and schools with higher minority populations are most likely to place less qualified teachers in math and science classrooms. Idaho math teachers are least likely of all secondary teachers to have a major or minor in the discipline they teach. One third of Idaho math teachers at the secondary level do not have at least a minor in the disciple.

Teacher education programs have few math, chemistry and physics students in the "pipeline" and find it difficult to recruit students with strong math and science backgrounds to be teachers. Other career options and greater financial opportunities often attract student with interests in math and science. Partnerships with the private sector, distance education and efforts to engage higher education faculty from arts and sciences are often sited as ways to bring more expertise into classrooms but these efforts are sporadic.

In addition to increasing numbers of math and science teachers and strengthening the content knowledge of some teachers, reports repeatedly call for enrichment of instructional environments that provide students with deeper learning experiences in context. Professional development programs providing support, opportunities for application and continued teacher learning are essential. One and two-day workshops without follow-up support are least effective.

These issues underscore the complexity of the problem. If students are to perform at higher levels in math and science, they must have the subject matter introduced in the curriculum and have qualified teachers to stimulate and guide their learning.

Recommendations

President Bush's *No Child Left Behind*, *Before It's Too Late*, the 2000 report of the prestigious commission headed by former Senator and astronaut, John Glenn, *Giving All Students a Fair Shot*, Achieve, Inc.; *What Matters Most*, National Commission on Teaching and America's Future, reports by the National Council of Teachers of Mathematics, National Science Foundation, the Northwest Regional Educational Laboratory, reports cited earlier and others, offer recommendations for improvement. The themes are consistent:

- Increase the number of qualified math and science teachers. This includes opening additional quality routes to teaching for second career candidates and others.
- Improve the quality of teacher preparation in math and science – content and pedagogy (elementary, middle and secondary levels).
- Improve mathematics and science teaching in grades K-12 so that teachers apply "best practice" instructional methodologies based on proven research. (Intensive professional development programs, rather than one-shot workshops, are essential.)
- Enrich and strengthen teacher learning and reflective practice in math and science.
- Improve the working environment and make the teaching profession more attractive for K-12 mathematics and science teachers.
- Increase the kinds of assessments used to measure student performance, especially application of math and science. (National measures to rank and compare must be complemented with useful classroom assessments.)
- Introduce math and science concepts and problem-solving to more students at earlier ages.
- Strengthen partnerships with the private sector to enrich instruction.

2. Summary Of State Efforts Underway To Complement A Math-Science Initiative

Idaho has made significant headway toward policy improvements that should impact teacher quality. Idaho MOST is obtaining forecast information and will recommend changes to strengthen the credentialing process and the teacher education program approval process. Teacher education programs are undergoing significant changes including redesign of curriculum and instruction and assessment processes in accordance with new standards. The Professional Standards Commission is piloting new professional development guidelines in schools. The state has a mentoring program for new teachers however its effectiveness may vary among districts.

Curricular improvements are also underway in schools. Achievement standards for students are established. A state assessment system is being designed for some subject areas. (Science standards are not included.)

Numerous initiatives of the State Department, higher education institutions, teacher and administrator organizations, and private entities such as the Albertson Foundation and INEEL are targeting systemic school reform, teacher math and science instructional methodology and application of technology, etc. Distance learning opportunities may offer ways to increase qualified teachers in some classrooms.

State policies to improve K-12 education are interdependent. When policies are formed they need to be developed with an understanding that one policy may affect another. A graphic presented as Appendix A lists categories and general topics of state-level K-12 educational policy trends nationwide. It is provided as a reference for policy makers' use in analyzing state education policy. Board members may find this graphic useful in considering math science policy changes and remedies to implement the policies. Note: recommendations of the key reports tend to be in curricular, teacher quality, teacher learning accountability and management categories.

3. Considerations

The table below shows recommendations of key reports and suggests issues the Board may want to consider prior to launch of a Math & Science Initiative.

Recommendations of Key Reports	Considerations
Increase the number of qualified math and science teachers**. This includes opening additional quality routes to teaching for second career candidates and others.**	• **Few teacher education math/science majors in Idaho institutions** • Lack of incentives for current teaching force to obtain major/minor, advanced degrees
Improve the quality of teacher preparation in ma and science – content and pedagogy (elementary, middle and secondary levels).	• **Analysis of the state's new achievement standards for students at all grade levels and program standards for teachers could determine if discrepancies exist.** • **Baseline data on Idaho middle school teacher qualifications in math and science has not been reviewed.**
Improve mathematics and science teaching in grades K-12 so that teachers apply "best practice" instructional methodologies based on proven research. (Intensive professional development programs, rather than one-shot workshops, are essential.)	• **Many efforts are underway however; an overall state plan for increased teacher learning (content and instructional delivery) in math and science is not in place.**

Enrich and strengthen teacher learning **and reflective practice in math and science.**	• **Many efforts are underway. An overall state plan for increased teacher learning (content and instructional delivery) in math and science has not been established.**
Improve the working environment **and make the teaching profession more attractive for K-12 mathematics and science teachers.**	• **An analysis of the working environment improvements that would attract more Idaho teachers would be useful.**
Increase the kinds of assessments used to measure student performance, especially applicatio of math and science. (National measures to rank ar compare must be complemented with useful classroom assessments.)	• **Performance, and other varied assessments to inform instruction, will be needed in schools to supplement the state assessment system that is under development.** • **Science is not included in current state assessment system plan. Absence of the requirement could lessen attention given to science instruction.** • A comparison of new student achievement standards and college admission content and proficiency requirements would provide helpful information. • Baseline information on math and science course taking patterns of students is needed.
Introduce math and science concepts and problem solving to more students at earlier ages	• **The teaching workforce is in limited supply. Teaching methods for introduction of math and science concepts in earlier grades may require more attention in preparation programs.**
Strengthen partnerships with the private sector t enrich instruction.	• **Numerous partnerships exist; state-level engagement of partners in planning a Math & Science Initiative may be worthwhile consideration.**

.

Additional Strengths and challenges include:

- Idaho's commitment to standards at the state and local levels. Teachers will need time to learn effective ways to implement standards and use multiple and varied assessments.
- Higher education institutions state agencies, private organizations and others are providing considerable math and science education services to schools. Harnessing these endeavors so that the summative effort is assimilated into a state Math & Science Initiative directed toward the highest priorities of schools may require considerable effort.

A summary of Idaho efforts that may contribute to a Math & Science Initiative is being compiled.

Item 5b.

Appendix to Math/Science Brief--State Policies to Improve K-12 Education

Please contact Patty Sanchez at (208) 334-2270 or email psanchez@osbe.state.id.us to obtain a hard copy of this item.

Subject

6. Intellectual Property Policy—Update

Background and Discussion

The Board has maintained rules on Intellectual Property and Conflict of Interest for a number of years. This legislative session, the Board successfully requested that the administrative rules on Intellectual Property be repealed, thus allowing the Board to govern intellectual property and conflict of interest matters by policy rather than rule. The repeal of this rule is effective on July 1, 2001. Current rules in this area briefly discuss patents, copyrights, and intellectual property transfer, and contains a conflict of interest.

The repeal of the rules results in the need to transfer rule provisions into policy provisions, and also provides a prime opportunity to review and revise the policies completely, from making major policy shifts to simply reorganizing and re-categorizing. As was intended in repealing the rules, the revisions are focusing on making the policies more applicable to faculty, staff, and students, and to update them based on new issues that have arisen due to recent and ongoing technological advancements.

In drafting the initial revisions, a Statewide Intellectual Property Review Committee was formed, with representatives from the institutions. There have been three meetings of the Committee thus far. A first reading of the new policies will be forwarded to the Board in April, with an anticipated second reading in June.

Impact

The revisions make the policy more applicable to faculty, staff and students. The changes will address rights of ownership, negotiations, license agreements, and those items that are copyrightable and patentable. The revised policy is intended to provide a more uniform way of dealing with intellectual property issues, and one that is more proactive than the previous rule. The policy will also contain a standard distribution of income from commercialization, licensing, and Board-owned copyrightable works.

Fiscal Impact

None at this time

Committee Action

This item is provided for Board information / discussion. If there is no objection, staff will continue in the direction described herein.

Board Action

None; information only.

Attachments

Item 6a. Recommended Changes

Board Intellectual Property Policy – Recommended Changes

- The current policy is very brief. The suggested changes and additions would make the policy much more extensive. With the changes in technology, there are many issues that are not covered by the policy as it is currently written. The revision would provide more in-depth information for the institutions under Board purview, including:
  - The applicability of the policy to visiting faculty, undergraduate students, graduate students, post- and pre-doctoral fellows, all persons employed by the Board or a Board-governed institutions or agencies, and all persons who use the institution or agency facilities while under the supervision of institution or agency personnel.
  - The new policy includes definitions and provisions for:
    - Inventions – including the management of inventions, disclosure, assignment and protection of inventions, negotiation and execution of license agreements for inventions, and obligations to research sponsors regarding inventions.
    - Copyrightable Works – including the rights of Authors, Board retained rights, institution works or "Works for Hire," works developed with significant use of resources, title to copyrightable works, the obligations of employees, disclosure, assignment and protection of copyrightable works, and negotiation and execution of agreements for copyrightable works.
    - Software as Patentable or Copyrightable Matter
    - Distribution of Income from Commercialization and Licensing of Inventions and Copyrightable Works
    - The use of Trademarks
    - Tangible Research Property Ownership
    - Provisions for Release of Rights to Inventors and Authors
    - Applicability of Policy to Departing and Former Employees
    - Dispute Resolution
    - The relationship with Research Foundations
    - Ethical Conduct and Conflict of Interest

Subject

7. EPSCoR Committee Review—Update

Background and Discussion

In July 26, 2000, the HERC took action as a consequence of SBOE directive, to contract with Ms. Marianne Clarke, Director, Battelle, Inc., to review the Idaho EPSCoR program. That review was to be an extension to the scope of work involving the Governor's Statewide Science and Technology Advisory Council's strategic plan. Although the strategic plan was completed, the EPSCoR review was not undertaken due to a lack of sufficient funds. The Board staff requested that Ms. Clarke forward an estimate of the cost to complete the Board's charge. The estimated cost of the project/review is $14,500.

Impact

Currently, the HERC has only $14,300 remaining in its FY2001 budget. Staff in accordance with SBOE/HERC policy, are nearing the FY02 Research Center Program on-site review and the remaining HERC funds have been committed to that project. Thus, HERC at its February 6, 2001 meeting recommended that the Idaho-EPSCoR review be delayed until the FY02 budget has been appropriated, July 1, 2001.

Fiscal Impact

Estimated cost $14,500 from HERC's FY2002 budget

Recommendation

HERC and staff recommend to the Committee that the Idaho-EPSCoR program review be delayed until the new fiscal year funds are available.

Board Action

None at this time.

Attachments

None

Subject

8. First Reading Admission Standards Policy

Background and Discussion

Recently, it became apparent to CAAP and Board staff that the SBOE's policy on Admission Standards needed a few minor changes. These changes were recommended to staff and the CAAP by the seven math chairs of the respective public postsecondary institution. Those changes are exhibited in Item 8.

Impact

The policy changes will modify the established Math scores required for placement into college level math classes and clarify the use of ACT/ACT COMPASS scores for English placement. The latter clarification is necessary because the ACT COMPASS score is different from an ACT score; however, there is a equivalency comparison that institutions can use for placement purposes. CAAP and SBOE staff recommended these minor changes to IRSA.

Fiscal Impact

None at this time.

Committee Action

It was moved by _____, seconded by _____and carried to recommend approval/disapproval/table the modification to the SBOE's Admission Standards Policy as exhibited in Item 8 for first reading.

Board Action

It was moved by _____and carried to approve/disapprove/table the modifications to the SBOE Admission Standards Policy, as seen in Item 8 for first reading.

Attachments

Item 8 Admission Standards Policy (Math Section)

a. Submit scores received on the ACT (American College Test) or SAT (Scholastic Aptitude Test) and/or other standardized diagnostic tests as determined by the institution. These scores will be required of applicants graduating from high school in 1989 or later. Exceptions include applicants who have reached the age of 21. These applicants are subject to each institution's testing requirements.

b. Graduate from an accredited high school and complete the courses below with a 2.00 grade point average. Applicants who graduate from high school in 1989 or later will be subject to the admission standards at the time of their graduation.

<table>
<tr><th>Subject Area</th><th>Minimum Requirement</th><th>Select from These Subject Areas</th></tr>
<tr><td>English</td><td>8 credits</td><td>Composition, Literature
Placement scores for English Composition courses have been adopted by the State Board of Education. ACT/~~ACT COMPASS~~ scores of 17 or below will place a student in English 90; a score between 18 – 24 will place a student in English 101; an ACT~~/COMPASS~~ score between 25 – 30 results in credit for English 101 and placement into English 102. A student who scores 31 or better on the ACT~~/COMPASS~~ will receive credit for both English 101 and 102. A student who scores a 3 or 4 on the Advanced Placement Exam will receive credit for English 101, and a score of 5 will result in the award of credit for English 101 and 102.</td></tr>
<tr><td>Math</td><td>6 credits</td><td>A minimum of six (6) credits, including Applied Math I or Algebra I; Geometry or Applied Math II or III; and Algebra II. A total of 8 credits are strongly recommended.

Courses not identified by traditional titles, i.e., Algebra I or Geometry, may be used as long as they contain all of the critical components (higher math functions) prescribed by the State Department of Education “Secondary Mathematics Framework.”

Other courses may include Probability, Discrete Math, Analytic Geometry, Calculus, Statistics, and Trigonometry. Four (4) of the required mathematics credits must be taken in the 10th, 11th, and 12th grade.
Placement Scores
<table>
<tr><th>Class</th><th>COMPASS Score</th><th>ACT Math Score</th><th>SAT Math Score</th></tr>
<tr><td>Math 108</td><td>Algebra > ~~26~~ 40</td><td>>~~17~~ 18</td><td>>~~420~~ 430</td></tr>
<tr><td>Math 123
Math 127
Math 130</td><td>Algebra > ~~36~~ 45
~~Or COMPASS Pre-Algebra > 56~~</td><td>>19</td><td>>460</td></tr>
<tr><td>Math 143
Math 147
Math 253-254</td><td>Algebra > 61</td><td>>23</td><td>>540</td></tr>
<tr><td>Math 144
Math 160</td><td>College Algebra > 51</td><td>>27</td><td>>620</td></tr>
<tr><td>Math 170</td><td>College Algebra >51
Trigonometry > 51</td><td>>29</td><td>>650</td></tr>
</table></td></tr>
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