02 INFORMATION ABOUT PRINCIPAL INVESTIGATORS/PROJECT DIRECTORS(PI/PD) and co-PRINCIPAL INVESTIGATORS/co-PROJECT DIRECTORS

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PI/PD Name: Thomas T Jackson

Gender: ☐ Male ☐ Female

Ethnicity: (Choose one response) ☐ Hispanic or Latino ☐ Not Hispanic or Latino

Race:
(Select one or more)
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☐ White

Disability Status:
(Select one or more)
- ☐ Hearing Impairment
- ☐ Visual Impairment
- ☐ Mobility/Orthopedic Impairment
- ☐ Other
- ☐ None

Citizenship: (Choose one) ☐ U.S. Citizen ☐ Permanent Resident ☐ Other non-U.S. Citizen

Check here if you do not wish to provide any or all of the above information (excluding PI/PD name): ☒

REQUIRED: Check here if you are currently serving (or have previously served) as a PI, co-PI or PD on any federally funded project ☐

Ethnicity Definition:
Hispanic or Latino. A person of Mexican, Puerto Rican, Cuban, South or Central American, or other Spanish culture or origin, regardless of race.
Race Definitions:
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Black or African American. A person having origins in any of the black racial groups of Africa.
Native Hawaiian or Other Pacific Islander. A person having origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.
White. A person having origins in any of the original peoples of Europe, the Middle East, or North Africa.

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PI/PD Name: Debra M Easterly

Gender: ☐ Male ☒ Female

Ethnicity: (Choose one response) ☐ Hispanic or Latino ☒ Not Hispanic or Latino

Race: (Select one or more)
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☒ White

Disability Status: (Select one or more)
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- ☐ Visual Impairment
- ☐ Mobility/Orthopedic Impairment
- ☐ Other
- ☒ None

Citizenship: (Choose one) ☒ U.S. Citizen ☐ Permanent Resident ☐ Other non-U.S. Citizen

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REQUIRED: Check here if you are currently serving (or have previously served) as a PI, co-PI or PD on any federally funded project ☒

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PI/PD Name: Antonette M Logar

Gender: ☐ Male ☒ Female

Ethnicity: (Choose one response) ☐ Hispanic or Latino ☒ Not Hispanic or Latino

Race: (Select one or more)
- ☐ American Indian or Alaska Native
- ☐ Asian
- ☐ Black or African American
- ☐ Native Hawaiian or Other Pacific Islander
- ☒ White

Disability Status: (Select one or more)
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- ☐ None

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REQUIRED: Check here if you are currently serving (or have previously served) as a PI, co-PI or PD on any federally funded project ☒

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List of Suggested Reviewers or Reviewers Not To Include (optional)

SUGGESTED REVIEWERS:
Not Listed

REVIEWERS NOT TO INCLUDE:
Not Listed

COVER SHEET FOR PROPOSAL TO THE NATIONAL SCIENCE FOUNDATION

PROGRAM ANNOUNCEMENT/SOLICITATION NO./CLOSING DATE/if not in response to a program announcement/solicitation enter NSF 10-1

NSF 10-605 **11/23/10**

FOR CONSIDERATION BY NSF ORGANIZATION UNIT(S) (Indicate the most specific unit known, i.e. program, division, etc.)

HRD - MINORITY GRADUATE EDUC ACTIVIT

FOR NSF USE ONLY

NSF PROPOSAL NUMBER

1111231

DATE RECEIVED	NUMBER OF COPIES	DIVISION ASSIGNED	FUND CODE	DUNS# (Data Universal Numbering System)	FILE LOCATION
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EMPLOYER IDENTIFICATION NUMBER (EIN) OR TAXPAYER IDENTIFICATION NUMBER (TIN)

826000924

SHOW PREVIOUS AWARD NO. IF THIS IS
☐ A RENEWAL
☐ AN ACCOMPLISHMENT-BASED RENEWAL

IS THIS PROPOSAL BEING SUBMITTED TO ANOTHER FEDERAL AGENCY? YES ☐ NO ☒ IF YES, LIST ACRONYM(S)

NAME OF ORGANIZATION TO WHICH AWARD SHOULD BE MADE

Idaho State University

AWARDEE ORGANIZATION CODE (IF KNOWN)

0016204000

ADDRESS OF AWARDEE ORGANIZATION, INCLUDING 9 DIGIT ZIP CODE

Idaho State University
921 South 8th Ave., Stop 8046
Pocatello, ID. 832098046

NAME OF PERFORMING ORGANIZATION, IF DIFFERENT FROM ABOVE

PERFORMING ORGANIZATION CODE (IF KNOWN)

ADDRESS OF PERFORMING ORGANIZATION, IF DIFFERENT, INCLUDING 9 DIGIT ZIP CODE

IS AWARDEE ORGANIZATION (Check All That Apply) (See GPG II.C For Definitions)
☐ SMALL BUSINESS ☐ MINORITY BUSINESS
☐ FOR-PROFIT ORGANIZATION ☐ WOMAN-OWNED BUSINESS

☐ IF THIS IS A PRELIMINARY PROPOSAL THEN CHECK HERE

TITLE OF PROPOSED PROJECT **SNAAP: Strengthening Native American Access to the Professoriate**

REQUESTED AMOUNT	PROPOSED DURATION (1-60 MONTHS)	REQUESTED STARTING DATE	SHOW RELATED PRELIMINARY PROPOSAL NO. IF APPLICABLE
$ **140,897**	**12** months	**02/01/11**	

CHECK APPROPRIATE BOX(ES) IF THIS PROPOSAL INCLUDES ANY OF THE ITEMS LISTED BELOW

☒ BEGINNING INVESTIGATOR (GPG I.G.2)
☐ DISCLOSURE OF LOBBYING ACTIVITIES (GPG II.C.1.e)
☐ PROPRIETARY & PRIVILEGED INFORMATION (GPG I.D, II.C.1.d)
☐ HISTORIC PLACES (GPG II.C.2.j)
☐ EAGER* (GPG II.D.2) ☐ RAPID** (GPG II.D.1)
☐ VERTEBRATE ANIMALS (GPG II.D.6) IACUC App. Date _____
PHS Animal Welfare Assurance Number _____

☐ HUMAN SUBJECTS (GPG II.D.7) Human Subjects Assurance Number _____
Exemption Subsection _____ or IRB App. Date _____
☐ INTERNATIONAL COOPERATIVE ACTIVITIES: COUNTRY/COUNTRIES INVOLVED (GPG II.C.2.j)
_____
☐ HIGH RESOLUTION GRAPHICS/OTHER GRAPHICS WHERE EXACT COLOR REPRESENTATION IS REQUIRED FOR PROPER INTERPRETATION (GPG I.G.1)

PI/PD DEPARTMENT
Graduate School

PI/PD FAX NUMBER

PI/PD POSTAL ADDRESS
921 South 8th Ave., Stop 8046
309 Fine Arts Building
pocatello, ID 832098046
United States

NAMES (TYPED)	High Degree	Yr of Degree	Telephone Number	Electronic Mail Address
PI/PD NAME **Thomas T Jackson**	**DPhil**	**1974**	**208-282-2592**	**tjackson@isu.edu**
CO-PI/PD **Debra M Easterly**	**EdD**	**2006**	**208-282-2618**	**eastdebb@isu.edu**
CO-PI/PD **Antonette M Logar**	**PhD**	**1992**	**605-394-2471**	**antonette.logar@sdsmt.edu**
CO-PI/PD				
CO-PI/PD				

CERTIFICATION PAGE

Certification for Authorized Organizational Representative or Individual Applicant:

By signing and submitting this proposal, the Authorized Organizational Representative or Individual Applicant is: (1) certifying that statements made herein are true and complete to the best of his/her knowledge; and (2) agreeing to accept the obligation to comply with NSF award terms and conditions if an award is made as a result of this application. Further, the applicant is hereby providing certifications regarding debarment and suspension, drug-free workplace, lobbying activities (see below), responsible conduct of research, nondiscrimination, and flood hazard insurance (when applicable) as set forth in the NSF Proposal & Award Policies & Procedures Guide, Part I: the Grant Proposal Guide (GPG) (NSF 10-1). Willful provision of false information in this application and its supporting documents or in reports required under an ensuing award is a criminal offense (U. S. Code, Title 18, Section 1001).

Conflict of Interest Certification

In addition, if the applicant institution employs more than fifty persons, by electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative of the applicant institution is certifying that the institution has implemented a written and enforced conflict of interest policy that is consistent with the provisions of the NSF Proposal & Award Policies & Procedures Guide, Part II, Award & Administration Guide (AAG) Chapter IV.A; that to the best of his/her knowledge, all financial disclosures required by that conflict of interest policy have been made; and that all identified conflicts of interest will have been satisfactorily managed, reduced or eliminated prior to the institution's expenditure of any funds under the award, in accordance with the institution's conflict of interest policy. Conflicts which cannot be satisfactorily managed, reduced or eliminated must be disclosed to NSF.

Drug Free Work Place Certification

By electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative or Individual Applicant is providing the Drug Free Work Place Certification contained in Exhibit II-3 of the Grant Proposal Guide.

Debarment and Suspension Certification

(If answer "yes", please provide explanation.)

Is the organization or its principals presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency? Yes ☐ No ☒

By electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative or Individual Applicant is providing the Debarment and Suspension Certification contained in Exhibit II-4 of the Grant Proposal Guide.

Certification Regarding Lobbying

The following certification is required for an award of a Federal contract, grant, or cooperative agreement exceeding $100,000 and for an award of a Federal loan or a commitment providing for the United States to insure or guarantee a loan exceeding $150,000.

Certification for Contracts, Grants, Loans and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:
(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, ''Disclosure of Lobbying Activities,'' in accordance with its instructions.
(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Certification Regarding Nondiscrimination

By electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative is providing the Certification Regarding Nondiscrimination contained in Exhibit II-6 of the Grant Proposal Guide.

Certification Regarding Flood Hazard Insurance

Two sections of the National Flood Insurance Act of 1968 (42 USC §4012a and §4106) bar Federal agencies from giving financial assistance for acquisition or construction purposes in any area identified by the Federal Emergency Management Agency (FEMA) as having special flood hazards unless the:
(1) community in which that area is located participates in the national flood insurance program; and
(2) building (and any related equipment) is covered by adequate flood insurance.

By electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative or Individual Applicant located in FEMA-designated special flood hazard areas is certifying that adequate flood insurance has been or will be obtained in the following situations:
(1) for NSF grants for the construction of a building or facility, regardless of the dollar amount of the grant; and
(2) for other NSF Grants when more than $25,000 has been budgeted in the proposal for repair, alteration or improvement (construction) of a building or facility.

Certification Regarding Responsible Conduct of Research (RCR) (This certification is not applicable to proposals for conferences, symposia, and workshops.)

By electronically signing the NSF Proposal Cover Sheet, the Authorized Organizational Representative of the applicant institution is certifying that, in accordance with the NSF Proposal & Award Policies & Procedures Guide, Part II, Award & Administration Guide (AAG) Chapter IV.B., the institution has a plan in place to provide appropriate training and oversight in the responsible and ethical conduct of research to undergraduates, graduate students and postdoctoral researchers who will be supported by NSF to conduct research.
The undersigned shall require that the language of this certification be included in any award documents for all subawards at all tiers.

AUTHORIZED ORGANIZATIONAL REPRESENTATIVE	SIGNATURE	DATE
NAME		

TELEPHONE NUMBER	ELECTRONIC MAIL ADDRESS	FAX NUMBER

* EAGER - EArly-concept Grants for Exploratory Research
** RAPID - Grants for Rapid Response Research

Project Summary-- Strengthening Native American Access to the Professoriate (SNAAP)

The Proposed Project. Our project establishes a new strategic alliance, the Strengthening Native American Access to the Professoriate (SNAAP) program that will research activities to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains regions of the United States. All located in EPSCoR states, the program's partner institutions, Idaho State University, South Dakota School of Mines and Technology, Lewis-Clark State College (ID), Black Hills State University (SD), and Little Big Horn College (MT), are geographically situated and have relationships that position them to serve tribes in the Great Basin region of Idaho and neighboring states and the Great Plains region of South Dakota and neighboring states. The SNAAP program will greatly expand the geographic impact of the NSF AGEP program in the upper Midwest and Intermountain West, as it capitalizes on historic ties among Native American tribes in this East-West corridor.

Funded initially through an AGEP planning grant, SNAAP will lay the foundation for a larger program that fulfills the broader goals of AGEP. Ultimately, the alliance aims to increase the diversity of the scientific workforce, by developing innovative models to recruit Native American doctoral students, mentor these students to doctoral degree completion, and place graduates who desire an academic career in STEM faculty positions. The planning grant is a necessary step to reaching these goals and will enable the alliance's members to forge stronger links so that current relationships are formalized into a lasting alliance. In this way, the schools will develop methods for communicating and working together effectively to support each institution's continuing pursuit of shared SNAAP goals.
In addition, planning grant activities will focus on developing innovative models (within and across institutions) to recruit, mentor, and retain Native American doctoral students and assist graduates as they begin academic careers in STEM disciplines. Finally, to foster program sustainability, alliance members will prepare and submit, in July 2011, a second AGEP proposal that, if funded, will enable the SNAAP program to implement its models under the cycle of full AGEP grants beginning in October 2011.

Intellectual Merit. The project assumes that the most effective recruitment and mentoring programs are those that situate scientific inquiry and instruction within the ways of knowing that all students, including Native American students, bring to higher education. Researchers from a variety of disciplines have examined the methods, effects, and importance of connecting STEM-based knowledge to cultural knowledge. Whether viewed from the perspective of education (Hainline, Gaines, Long Feather, Padilla, & Terry, 2010; Tsui, 2007), sociology (Latour, 2004), economics/forestry (Trosper, 2007), or anthropology and the Traditional Ecological Knowledge [TEK] movement (Nadasdy, 1999, 2003), researchers agree that dominant Western knowledge is itself "encapsulated within social institutions and worldviews" (Trosper, 2007, p. 2). Researchers contend that to better understand how cultural knowledge enables or hinders discovery in the STEM disciplines, we must explore the ways that non-Western knowledge systems connect to or diverge from the dominant Western tradition and how, if at all, we can "bridge or combine" these "knowledge areas" (Trosper, 2007, p. 2). SNAAP will address these issues and add to the literature of the field and the body of successful practices for connecting STEM learning and research to culture.

Broader Impacts. The proposed SNAAP alliance aims to increase the diversity of the scientific workforce, by developing innovative models to recruit Native American doctoral students, mentor these students to doctoral degree completion, and place graduates who desire an academic career in STEM faculty positions both within and beyond the Great Basin and Great Plains. Through its planning activities, SNAAP will lay the foundation for a lasting program that fulfills the broader goals of AGEP. Funded by AGEP, SNAAP will provide a geographically isolated and economically disadvantaged region the chance to develop the resources needed to bring more Native American students into doctoral education and the professoriate. Finally, when fully implemented, SNAAP will foster a generation of Native American faculty who will serve as role models for future Native American STEM students. Perhaps more than any other aspect of the program, this new STEM faculty will perpetuate the work of SNAAP for generations to come and ensure that Native American students, their communities, and society as a whole reap the benefits of a vital and diverse STEM workforce.

TABLE OF CONTENTS

For font size and page formatting specifications, see GPG section II.B.2.

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Project Description (Including Results from Prior NSF Support) (not to exceed 15 pages) **(Exceed only if allowed by a specific program announcement/solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)**	15	
References Cited	2	
Biographical Sketches (Not to exceed 2 pages each)	32	
Budget (Plus up to 3 pages of budget justification)	17	
Current and Pending Support	20	
Facilities, Equipment and Other Resources	1	
Special Information/Other Supplementary Docs/Mentoring Plan	0	
Appendix (List below.) **(Include only if allowed by a specific program announcement/ solicitation or if approved in advance by the appropriate NSF Assistant Director or designee)**		
Appendix Items:		

*Proposers may select any numbering mechanism for the proposal. The entire proposal however, must be paginated. Complete both columns only if the proposal is numbered consecutively.

PROJECT DESCRIPTION

Project Overview

Our project establishes a new strategic alliance, the Strengthening Native American Access to the Professoriate (SNAAP) program, that will research activities to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains regions of the United States. The program's partner institutions, all located in EPSCoR states, are geographically situated and have relationships that position them to serve tribes in the Great Basin region of Idaho and neighboring states and the Great Plains region of South Dakota and neighboring states. The SNAAP program will greatly expand the geographic impact of the AGEP program in the upper Midwest and Intermountain West, as it capitalizes on historic ties among Native American tribes in this East-West corridor.

For the planning grant, the SNAAP alliance will consist of the following two STEM doctoral degree granting institutions: Idaho State University (ISU) and South Dakota School of Mines and Technology (SDSMT). ISU and SDSMT will serve as anchor schools for this geographically significant program. ISU will lead the SNAAP program and coordinate planning activities for the alliance as a whole. In turn, SDSMT will coordinate activities in the South Dakota area to ensure that the program is implemented consistently across the Great Plains and Great Basin regions.

The following, non-doctoral degree granting schools will serve as secondary partner institutions: Black Hills State University (BHSU), Lewis-Clark State College (LCSC), and Little Big Horn College (LBHC). To achieve planning goals, ISU and SDSMT will partner with LCSC in Idaho, BHSU in South Dakota, and LBHC in Montana. The SNAAP alliance will enable the doctoral institutions to draw from LCSC, LBHC, and BHSU's expertise in Native American recruitment and retention to create a pool of prospective Native American STEM doctoral students who can then complete their doctoral degrees at ISU or SDSMT.

The institutions that comprise SNAAP will each play a critical role in the activities under the planning grant. Working together, the institutions will research and develop innovative models for recruiting, mentoring, and retaining Native American STEM doctoral students in the Great Basin and Great Plains regions. This planning grant is a pivotal step to fully implementing the SNAAP project in the coming years. Uniting institutions across the higher education spectrum (doctoral, master's, four-year), SNAAP has great potential to fulfill AGEP's goal of transforming institutional culture so that it more readily encourages underrepresented minorities to complete the often arduous journey to a faculty position. This transformation begins under a planning grant through which SNAAP members will generate collaborative models that support Native American STEM students so that they, their communities, and society as a whole can reap the rewards that an academic career brings.

Background and Significance of the Project

Underrepresented or Absent? Native American STEM Doctoral Students and Faculty

The proposed SNAAP alliance aims to increase the diversity of the scientific workforce, by developing innovative models to recruit Native American doctoral students, mentor these students to doctoral degree completion, and place graduates who desire an academic career in STEM faculty positions both within and beyond the regions covered by the alliance: the American Great Basin and Great Plains. Through its planning activities, SNAAP will lay the foundation for a larger program that fulfills the broader goals of AGEP. In its 2010 *AGEP Solicitation*, the National Science Foundation (NSF) states that AGEP "aims to develop the human capital and administrative and academic infrastructure that will enable the placement of underrepresented minorities" or URMs "in faculty positions at American universities, colleges, and community colleges" (see also American Association for the Advancement of Science, 2001, 2010). Focused on doctoral education and initial placement of URM

faculty in STEM fields, AGEP is a key part of NSF's wider mission, which, according to the National Science Board or NSB (2009), is "to advance STEM education for *all* American students" and "develop the talents" of all Americans "who have the potential to become STEM innovators or excellent STEM professionals." This mission was set forth in the Science and Engineering Opportunities Act of 1980, which, according to Walter Collier (2007), "authorized the NSF to undertake or support a comprehensive science education program" to increase STEM participation by women and URMs (p. 29). This mission is echoed by the NSB (2003) as well as by the National Academy of Sciences (2010) and the Urban Institute (2006a, 2006b). In particular, the Urban Institute (2006a) draws attention to the "sizeable, growing, and largely untapped pool of potential talent" that minority students represent and contends that "this minority population, provided with appropriate training and support, holds great promise for revitalizing the STEM workforce."

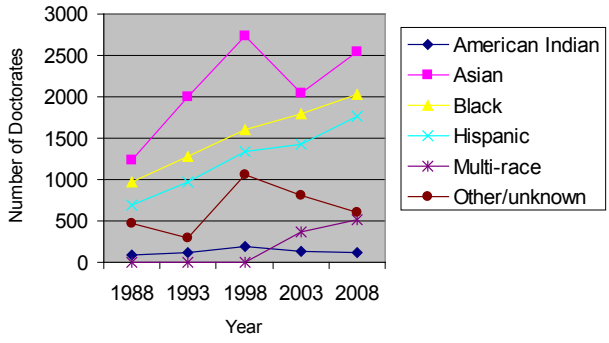
As the NSF (2010) points out in its *AGEP Solicitation*, a number of groups are defined as URMs: African-Americans, Alaska Natives, Native Americans, Hispanic Americans, and Native Pacific Islanders. Among these groups, one of the most underrepresented populations is Native American. To some extent, it is not an exaggeration to state that, in higher education, Native Americans at the doctoral and faculty level are not merely underrepresented; they are almost entirely absent. For example, as Table 1 indicates, in 2008, a total of 30,791 doctorates were earned, with the majority (23,208) going to students classified as White. The number of doctorates earned by minority students was considerably less than the total earned by their White counterparts. However, even among minority groups, the total earned by American Indian students was troublingly low (123), fewer even than the number reported for Multi-race recipients or for those whose race/ethnicity is Unknown.

TABLE 1. U.S. citizen and permanent resident doctorate recipients, by race/ethnicity: Selected years, 1988–2008

Doctorate recipients, race/ethnicity	1988	1993	1998	2003	2008
All fields	24,914	28,717	31,196	28,146	30,791
American Indian	94	119	189	137	123
Asian	1,236	2,005	2,729	2,046	2,543
Black	965	1,278	1,603	1,797	2,030
Hispanic	694	974	1,331	1,430	1,765
White	21,459	24,043	24,288	21,563	23,208
Multi-race	na	na	na	365	520
Other/unknown	466	298	1,056	808	602

Source: National Science Foundation (2009)

FIGURE 1. Doctorate Recipients, by race/ethnicity: 1988–2008 (Source: National Science Foundation, 2009)



Representing this situation graphically, Figure 1 supports the National Science Board's (2010) recent statement that the number of doctorates in STEM fields earned by URMs has "increased since 1995"; however, the number of STEM degrees "earned by blacks and Hispanics rose considerably more than the number earned" by American Indians (p. 2-25). Thus, while doctoral degree completion among African-American and Hispanic students has risen over the past 15 years, degree completion among Native American students has remained relatively stagnant in comparison and has even dropped from a high of 189 doctorates earned in 1998.

Clearly, much work remains to be done to support Native Americans who wish to pursue a doctoral degree and academic career. Indeed, the challenge is made more daunting when we consider Table 2, which reveals that, in 2008, no doctoral degrees at all were awarded in key STEM disciplines, including computer and information sciences, mathematics, physics and astronomy, and civil engineering.

TABLE 2. Major field of study for U.S. citizen and permanent resident doctorate recipients, by race/ethnicity: 2008

	U.S. citizen & permanent resident doctorate recipients		American Indian
All fields	30,791		123
Life sciences	7,269		30
Agricultural sciences/natural resources	647		5
Biological/biomedical sciences	5,135		20
Health sciences	1,487		5
Physical sciences	4,027		4
Chemistry	1,227		2
Computer and information sciences	695		0
Earth, atmospheric, and ocean sciences	533		2
Mathematics	667		0
Physics and astronomy	905		0
Social sciences	5,477		23
Anthropology	397		1
Economics	405		0
Political science/international relations	641		2
Psychology	2,886		14
Sociology	463		1
Other social sciences	685		5
Engineering	2,948		7
Aerospace/aeronautical engineering	121		1
Chemical and related engineering	408		1
Civil and related engineering	270		0
Electrical and related engineering	664		1
Industrial engineering	90		0
Materials/metallurgical engineering	275		0
Mechanical and related engineering	387		1
Other engineering	733		3
Education	5,590		40
Education administration	2,023		15
Education research	2,219		14
Teacher education	235		2
Teaching fields	718		7
Other education	395		2

Source: National Science Foundation (2009)

As Perry G. Horse (2005) explains, Native American identity is a complex dynamic in which an individual defined (or *not* defined) as "Native American" is identified through elements such as ethnic nomenclature, racial attitudes, legal and political standing, culture, and personal sensibility. Thus, it is possible that NSF statistics regarding Native American doctoral degree recipients might vary depending on how students self-identify or are identified by others. Nevertheless, the apparent lack of Native American STEM doctorate recipients is reflected in a logical, and equally troubling, absence of Native American STEM faculty.

For example, the National Center for Education Statistics or NCES (2010a) presents Native American faculty numbers that are as bleak as the totals for Native American doctoral recipients. As Table 3 indicates, in Fall 2007, only 1 percent of college and university faculty were identified as American Indian/Alaska Native; other figures provided by the NCES for professional staff, executive and administrative staff, and graduate assistants were just as disheartening:

TABLE 3. Employees in degree-granting institutions, by race/ethnicity and primary occupation: Fall 2007

Primary occupation	Total	Race/ethnicity				
		White	Black	Hispanic	Asian/Pacific Islander	American Indian/Alaska Native
Total, all institutions	3,561,428	2,496,754	353,146	202,098	194,934	21,057
Professional staff	2,629,401	1,894,641	191,204	110,052	156,969	13,501
Executive/administrative/managerial	217,518	173,948	21,047	10,074	6,517	1,221
Faculty (instruction/research/public service)	1,371,390	1,038,982	87,107	51,660	78,593	6,934
Graduate assistants	328,979	169,028	12,634	11,548	24,712	1,299
Other professional	711,514	512,683	70,416	36,770	47,147	4,047
Nonprofessional staff	932,027	602,113	161,942	92,046	37,965	7,556

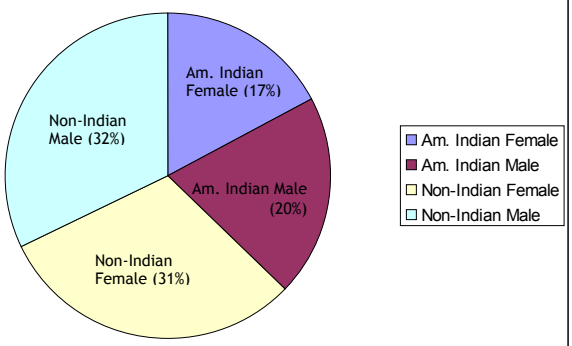
SOURCE: National Center for Education Statistics (2010a)

The number of graduate assistants (1,299) is perhaps more troubling than the faculty total (6,934). Graduate assistantships have long been a means for future STEM faculty to finance their doctoral education and gain experience in teaching and research. If a mere 1,299 Native American graduate students held assistantships in 2007, from where will the next generation of Native American STEM faculty come?

Fortunately, the faculty numbers are not as bleak at the nearly 40 institutions known as Tribal Colleges and Universities (TCUs). With education and preservation of Native American culture and identity as their mission, TCUs employ significant numbers of Native American faculty. In its *2007 Fact Book*, the American Indian Higher Education Consortium (2009) provided data revealing that, in Academic Year 2006-2007, TCUs employed a total of 650 full-time faculty. Of these 650 faculty members, 112 (17%) were identified as “American Indian Female,” 130 (20%) were classified as “American Indian Male,” 199 (31%) were identified as “Non-Indian Female,” and 209 (32%) were placed in the category “Non-Indian Male” (see Figure 2).

Data from TCUs demonstrate that Native American faculty have a presence in institutions that, first and foremost, serve Native American students. However, while 37% of full-time faculty at TCUs are Native American, 63% are not. Certainly, non-Native American faculty mentor and instruct Native American students in extraordinary ways. Still, as Tippeconnic Fox (2005) observes, we must acknowledge the importance of Native American faculty to Native American students, who turn to these faculty as “role models” who understand the challenges that these students face when they attend college (p. 51). This need for role models argues for programs that, like AGEP, increase numbers of Native American faculty.

FIGURE 2. Full-Time Faculty by gender/ethnicity, TCUs
(Source: American Indian Higher Education Consortium, 2009)



Tippeconnic Fox (2005) suggests that the need for Native American role models may be greater than ever, when we note the "growing number of Native American students" enrolling in colleges and universities and balance this promising trend with the "far more modest increase in the number of Native American faculty and staff" at these institutions (p. 49).

Phillips (2005) comments that Native American faculty, especially those at TCUs, are interested in earning terminal degrees and advancing their careers. Thus, interest in programs such as AGEP is already present among Native American faculty. As more Native American doctoral students enter college, they will, like all students, look for the support systems they need to finish their degrees. In this context, AGEP and the proposed SNAAP alliance are vital. Focusing on doctoral education and new faculty placement, projects such as SNAAP seek to rectify the virtual absence of Native American STEM faculty in American colleges and universities. Mentored through their doctoral degree, the first doctoral recipients supported by SNAAP will in turn become STEM faculty. In keeping with one of NSF's key missions, these professionals will increase the size and diversity of the American STEM workforce. More importantly, these new professors have the potential to bring transformative change to higher education, as they mentor future generations of Native American STEM students, doctoral candidates, and faculty.

Neither Fully Absent nor Fully Present: Native American Students and Faculty in the Great Basin and Great Plains

The SNAAP alliance extends from the Great Basin region of Idaho to the Great Plains region of South Dakota and will significantly expand the geographic impact of the AGEP Program in the Intermountain West and upper Midwest. The regions covered by SNAAP were not chosen by chance. The SNAAP partner schools are well situated to serve tribes in the Great Basin and Great Plains and to capitalize on historic and cultural ties among Native Americans in this East-West corridor. For 2009, 1.6% of the population of Idaho was identified as American Indian while, in South Dakota, 8.5% of the population was classified as American Indian (U.S. Census Bureau, 2010). In Fall 2009, 1.9% of Idaho State University's 13,493 students were listed as American Indian while 4.4% of Lewis-Clark State College's 4,200 students were classified as such. For the same time period, 3.4% of South Dakota School of Mines' 2,176 students and 3.7% of Black Hills State University's 4,076 students were identified as American Indian (National Center for Education Statistics, 2010b). These figures do not distinguish between American Indian students who lived near the SNAAP alliance's schools before enrolling and those who came to partner institutions from farther away. However, it is worth noting that South Dakota and Idaho are home to the Oglala Sioux Tribe, Rosebud Sioux Tribe, Shoshone-Bannock Tribes, and Nez Perce Tribe, and that each Tribe is located near at least one of the partner schools and has educational, professional, and cultural ties to the partners.

Perhaps because of their proximity to the Tribes, the colleges and universities in SNAAP engage in Native American outreach, including support programs for Native American students. Thus, Lewis-Clark State College serves neighboring Nez Perce students through the College's Office of Native American and Minority Student Services, which provides advising, mentoring, and scholarship information to students and also administers or works with programs such as the Pi'amkinwaas American Indian Center, Idaho Indian Education Summer Teacher Institute, and Native American Awareness Week. Similarly, Black Hills State University works with the Oglala Sioux and Rosebud Sioux through its Center for Indian Studies, which was established by the South Dakota Legislature. BHSU's Center for Indian Studies promotes awareness of Native American cultures and acts as liaison with Tribal governments in the region. The Center also administers four academic programs (including a Major in American Indian Studies) and sponsors an annual Cultural Awareness Week and Wacipi (pow-wow) as well as two active Native American student organizations: the Lakota Omniciye ("gathering, assembly") and a chapter of the American Indian Science and Engineering Society (AISES). Not far from BHSU, South Dakota School of Mines and Technology also serves the Oglala Sioux and Rosebud Sioux through its Office of Multicultural Affairs, which offers Native American students guidance and support services from the time they enroll at SDSMT through their graduation.

BHSU and SDSMT's advocacy stems from the state's larger mission to serve Native American students ("South Dakota Application," 2010). Finally, located literally down the road from the Fort Hall Reservation, home of the Shoshone-Bannock Tribes, Idaho State University houses the Indigenous Nations Institute (INI). The INI provides educational, research, and networking opportunities for Native American students and communities and is currently engaged in extensive university, tribal, and industry collaborations in geothermal energy exploration and development. The university also has a Native American collaboration in Biological Sciences that incorporates Indigenous knowledge into traditional Biological Sciences research and education. In 2010, in a Memorandum of Agreement, ISU and the Shoshone-Bannock Tribes agreed to develop their relationship to offer more educational services to the Shoshone-Bannock community in the future.

When first forming SNAAP, the alliance's schools assessed the infrastructure already in place to support Native American students and were encouraged at the extent and vitality of their current programs. Native American students are not as "absent" at SNAAP partner schools as they are in the academy as a whole. However, despite these accomplishments, SNAAP's members believe that more must be done to serve Native American students living close to and far away from the alliance's schools. Native American students may not be absent from ISU, SDSMT, LCSC, and BHSU but neither are they fully present. There is considerable room for improved recruitment, retention, and mentoring to ensure that Native American students can, if they wish, earn their institution's most advanced degrees. In addition, Native American faculty within the SNAAP alliance remain as few as they are throughout the country, and SNAAP's colleges and universities lack resources to actively recruit and mentor Native American faculty in STEM and other fields.

Given the present economic climate, neither Idaho nor South Dakota is likely to increase funding for Native American students and faculty. Economically disadvantaged (in EPSCoR states) and geographically isolated, not one of the alliance's state schools (ISU, SDSMT, LCSC, or BHSU) can access the resources needed to create or enhance STEM programs on their individual campuses. One option is for the schools to pool their limited resources, and the SNAAP alliance grew out of this idea. Still, this innovative project cannot create funds where there are none, and if none of the institutions can build locally, then how can they establish a regional program? The AGEP program offers SNAAP schools the opportunity to extend their successful but underfunded Native American support programs and, under AGEP, to focus these efforts on a single goal: STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains. Ultimately, SNAAP's schools are not starting from scratch in their efforts to recruit, retain, and mentor Native American STEM doctoral students and faculty. The AGEP planning grant will enable the alliance's schools to act as one, to utilize existing services to the fullest so that Native American STEM students and faculty are no longer absent from American higher education but participate fully in the country's intellectual life.

From Absence to Action: The SNAAP Alliance

Members of SNAAP view the AGEP planning grant as the initial step in a long-term effort that will transform academic culture so that it is more welcoming of Native American STEM doctoral students and faculty. By necessity, the planning grant will be more narrowly defined than a full AGEP grant and will emphasize activities that project participants must carry out to build the foundation for a lasting alliance. Nevertheless, SNAAP's partners have an idea of where the planning grant will take them. The goal of AGEP is clearly stated in the NSF's 2010 *Solicitation*: "to develop the human capital and administrative and academic infrastructure that will enable the placement of underrepresented minorities" or URMs "in faculty positions at American universities, colleges, and community colleges." The question each alliance must answer is: how do we meet this goal? For SNAAP's members, the answer will consist of an innovative, interdisciplinary method for recruiting and retaining Native American doctoral students. Specifically, the SNAAP alliance plans to emphasize research experiences at the doctoral, postdoctoral, and new faculty level, including experiences outside the Great Basin/Great Plains regions and outside the U.S.; develop the support services needed to mentor Native American STEM students and faculty; and generate learning, mentoring, and research models

that situate scientific inquiry within the ways of knowing that all students, including Native American students, bring to higher education.

SNAAP bases its approach, in part, on the American Indian Higher Education Consortium's 2005 report, *American Indian Measures for Success (AIMS) in Higher Education*. This report delineates the special cultural challenges that Native American students face that make these individuals distinct from other student populations. In response, SNAAP will test support systems and learning models that connect STEM to the ways of knowing that Native American doctoral students and new faculty bring to their programs. This approach manifests itself in a number of education and research areas, including Indigenous knowledge integration (Barnhardt, 2007), culturally responsive science curriculum (Stephens, 2001), Community-Based Participatory Research (Community-Campus Partnerships for Health, 2010), and other methods that place mentoring, learning, and research within their cultural contexts.

In keeping with these principles, SNAAP'S members have already made contact with the project's stakeholders, especially TCUs and Native American Tribes and organizations within the Great Basin and Great Plains. Stakeholders who have already expressed an interest in working with SNAAP are Oglala Lakota University in South Dakota, Great Basin Community College in Nevada, and Little Big Horn College in Montana. In partcular, Little Big Horn has agreed to join the alliance, and Dr. David Yarlott, President of Little Big Horn and Chair of the Board of Directors for the American Indian Higher Education Consortium, has offered his assistance to the SNAAP alliance.

Founded on principles of Community-Based Participatory Research, SNAAP's outreach respects community identity and supports equitable involvement of all participants in a project (Community-Campus Partnerships for Health, 2010). From the start, stakeholders will be involved in discussions of best practices and support services for Native American students and will also be involved in the analysis and interpretation of data collected throughout the planning period. Guided by these standards, alliance institutions and Native American communities will work together to support Native American communities' educational goals in culturally appropriate and beneficial ways.

Finally, as a further innovation, SNAAP will integrate its partners' considerable expertise in STEM education and research with the experience that their non-STEM peers bring in cultural practices and writing. It is hoped that SNAAP's synergistic, interdisciplinary combinations of stakeholders, culturally responsive methods, STEM experts, and culture and writing experts will lead to mentoring and instructional models that benefit Native American STEM doctoral students and faculty in the alliance area.

Project Objectives

Under the planning grant, the SNAAP alliance will pursue the following objectives:

- Forge stronger links among partner institutions so that current relationships among the schools are formalized into a lasting alliance. In this way, the schools will develop methods for communicating and working together effectively to support each institution's continuing pursuit of shared SNAAP goals.

- Develop innovative models, within and across institutions, to recruit Native American doctoral students, mentor these students to doctoral degree completion, and place graduates who desire an academic career in STEM faculty positions both within and beyond the Great Basin and Great Plains.

- Prepare and submit, in July 2011, a second AGEP proposal that, if funded, will enable the SNAAP program to implement its models under the cycle of full AGEP grants beginning in October 2011.

Proposal Plan

Data Collection

Being EPSCoR states, neither Idaho nor South Dakota has extra funds to aid in the development of this project. The planning grant will allow SNAAP's partner schools to conduct a complete evaluation of data on their local campuses, meet with one other to share their findings, and develop an alliance-wide plan for data collection and assessment that can be distributed among the partner institutions.

The following data collection and assessment activities will begin December 1, 2010 and will continue throughout the planning grant period, as necessary:

- Develop a detailed instrument to collect data and information as described below. A database will be developed to store this information. A public access program such as Dropbox will be used to share the data with partners.

- Collect data vital to the project, including general demographic and educational data for the Great Plains/Great Basin regions as well as specialized data such as numbers of Native American STEM students in partner institutions' undergraduate and graduate programs; retention, satisfaction, and completion rates for these students; numbers of Native American STEM faculty at partner institutions; and satisfaction and retention rates for these faculty.

- Assess infrastructure already in place at partner institutions to recruit, mentor, and retain Native American STEM students. Determine ways to leverage these resources effectively and strengthen ties among campus organizations to achieve alliance goals.

- Assess STEM programs at partner schools to identify programs with the strongest record of or greatest potential for attracting, supporting, and retaining Native American STEM graduate students. To ensure the best possible data, assessments will be conducted using carefully designed quantitative and qualitative assessment methods.

These data will be collected for all partner institutions and will provide the foundation for the models that institutions develop to better serve Native American STEM doctoral students and faculty.

Planning Grant Activities

The alliance's primary partners, ISU and SDSMT, and secondary partner institutions, LCSC, LBHC, and BHSU, are committed to submitting a proposal to the full AGEP competition in 2011. Thus, SNAAP members will begin proposal development activities on December 1, 2010, before the planning grant awards are announced. This initial phase of the project (December 2010 and January 2011) will cover activities that can be completed relatively quickly and without additional resources. Activities include specifying responsibilities for project participants, articulating plans for coordinating activities and meetings within and between partner schools, determining what data will be needed and how the data will be collected, and contacting Registrar's Offices to gather initial data on Native American STEM enrollment. Partner schools will also explore how the alliance can actively help Native American students overcome one of the biggest obstacles to their education, tuition cost, through combinations of scholarships, need-based grants, assistantships, and fellowships.

Once the AGEP planning grant is awarded in February 2011, the alliance will focus in February and March of 2011 on activities designed to quickly move the project forward:

- All Senior Personnel will receive a webcam from the grant funds and will begin alliance-wide, biweekly meetings. Initial meetings will be held online, via SKYPE. In early March, the PI, Co-

PIs, and all available Senior Personnel will meet in Laramie, Wyoming for a one-day, in-person meeting. Geographic distance and local budgets prohibit regular face-to-face meetings. However, grant funds have been requested to enable alliance members to meet at least once in person, to facilitate communication and a productive working relationship. ISU staff will arrange travel to Laramie, which is located approximately midway between the two primary institutions, ISU and SDSMT. The meeting will allow participants to discuss data and infrastructure; organize stakeholder meetings; and develop plans for the full AGEP proposal.

- In addition to meeting face-to-face and online, SNAAP partners will assess each institution's ability to provide quality educational and research opportunities that will prepare graduate students for successful STEM careers. Partner schools will also investigate factors affecting the successful transition of Native American students from undergraduate to graduate study and from doctoral degree and postdoctoral experiences to academic careers. Finally, alliance members will explore plans for coordinating administrative infrastructure at the partner schools and discuss plans to implement additional infrastructure to support successful completion of STEM doctoral degrees.

- In February and March, partners will continue to investigate funding sources to identify those with the greatest potential to reduce the debt burden for Native American doctoral students. In addition to independent and private granting agencies, possible sources include the National GEM (Graduate Education for Minorities) Consortium and the EPA's Science to Achieve Results (STAR) Fellowships for Graduate Environmental Study, a program that specifically targets Native American students.

- Throughout February and March, outreach will continue to TCUs and other stakeholders. Respecting that Native American communities should be contacted through appropriate gatekeepers, the alliance will ask Senior Personnel Dr. Doyle Anderson and Sandra White Shield to coordinate this outreach. Dr. Anderson and Ms. White Shield have contacts with Native American communities in the Great Basin and Great Plains. Through these connections, SNAAP will "enter" the communities to begin discussing best practices for recruiting Native American graduate students and mentoring them through advanced degree completion. Under the leadership of Ms. White Shield and Dr. Anderson, alliance members will create a framework to assist in connecting to stakeholders. This model will include a project description, questions to spark discussions with stakeholders, and culturally appropriate events during which these stakeholder meetings may take place. Planning grant funds are requested to provide resources to conduct stakeholder meetings.

- Also in this early phase of the planning grant, SNAAP members will visit exemplar institutions, most notably the Students to Academic Professoriate for American Indians (SAPAI) program anchored by the University of Montana and the University of Arizona. The SAPAI project has a documented successful history of Native American STEM recruitment, retention, and faculty placement along the North-South corridor from Alaska through the Northern Rockies to the Desert Southwest. SNAAP members have already made contact with the Directors of SAPAI (see attached letter), who are willing to mentor the new alliance through the project development process. Visits to exemplar sites will be made by two to four members of the SNAAP planning committees at ISU and SDSMT, who will assess how the SAPAI program may be adapted to an alliance between Idaho and South Dakota.

- As part of the planning grant, students at each partner school will be recruited and hired to serve as support and research staff for the project. Thus, all students involved in the project will attend responsible conduct of research (RCR) training as per NSF policy. For the smaller institutions that do not have such training in place, students will fall under the ISU plan, which includes taking the CITI (Collaborative Institutional Training Initiative) training in RCR. Liaisons for both regions will ensure that students complete this training.

- As PI, Dr. Thomas Jackson, ISU's Graduate School Dean, will work with the ISU Dean of Science and Engineering and Dean of Arts and Letters, as well as with corresponding Deans at South Dakota School of Mines, to implement a strategic plan to examine the reasons for low retention of Native American STEM students at partner institutions. It is fundamental to this project to research the ways in which Native American cultural values can be validated within traditional STEM disciplines. Through this research, SNAAP can develop models for mentoring Native American doctoral students and faculty that respect the unique challenges these students and new professors face.

The planning grant will culminate in a proposal to implement the SNAAP alliance under the cycle of full AGEP grants beginning in October 2011. By April 2011, SNAAP partners will have finished collecting initial data, visiting exemplars, and holding initial stakeholder meetings. During this phase of the planning grant (April, May, and June), SNAAP personnel will focus on preparing the full AGEP proposal due in July:

- To meet this goal, partners will synthesize the results of data collection, exemplar visits, and stakeholder meetings and begin developing local and alliance-wide models to recruit and mentor Native American STEM doctoral students and new faculty. To ensure that the proposal is submitted on time, partners will begin compiling data and organizing the draft into narrative form as early as April. Partners will also determine each institution's contribution to the larger project, discuss assessment instruments and plans for monitoring annual progress, and share ideas and circulate drafts through a collaborative project website hosted by ISU.

- A final major grant activity will be to fund travel for Dr. Petit, proposal developer and writer, and for Dr. Sieber, diversity and cross-cultural liaison and co-writer, to visit LCSC, SDSMT, and BHSU. This travel will take place in late May/early June so that Drs. Petit and Sieber can meet with partner institutions to coordinate plans for the full AGEP project that will begin in late 2011.

After the full AGEP proposal is submitted in July 2011, SNAAP partners will participate in several activities to bridge the period between the planning grant and full AGEP project. Current ideas for bridge activities include development of the "knowledge integration" component, which seeks to connect STEM-based learning and research to the cultural knowledge of Native American students. Dr. Sieber will take the lead on this phase of the grant, and under her guidance, partner schools will begin developing learning materials, workshops for faculty, and other resources that integrate cultural knowledge into the science curriculum.

Recent research (Jackson-Weaver, Baker, Gillespie, Ramos Bellido, & Watts, 2010; Szybinski & Jordan, 2010) stresses that academic professionals must prepare their graduate students to enter a professoriate strikingly different from the profession that they inherited. Ultimately, the SNAAP alliance seeks both to bring more Native American STEM students into this changing professoriate and to discover and implement a transformational process by which these students may feel included in networks that support their pursuit of academic careers. SNAAP's members will investigate the ways in which a sustainable institutional shift might be accomplished in STEM disciplines and in areas that support STEM such as writing, critical thinking, and studies of culture and diversity.

The AGEP program emphasizes the importance of change within traditional academic systems so that colleges and universities can address the factors that place Native American STEM students at risk in the first place. The AGEP planning grant would represent SNAAP's first step toward meeting AGEP's goal of making the academy a more welcoming place for underrepresented students such as Native Americans.

Intellectual Merit of the Proposed Project

The proposed SNAAP project advances knowledge in areas vital to minority education, especially Native American STEM education. Specifically, the project assumes that the most effective recruitment and mentoring programs are those that situate scientific inquiry and instruction within the ways of knowing that all students, including Native American students, bring to higher education. Researchers from a variety of disciplines have examined the methods, effects, and importance of connecting STEM-based knowledge to cultural knowledge. Whether viewed from the perspective of education (Hainline, Gaines, Long Feather, Padilla, & Terry, 2010; Tsui, 2007), sociology (Latour, 2004), economics/forestry (Trosper, 2007), or anthropology and the Traditional Ecological Knowledge [TEK] movement (Nadasdy, 1999, 2003), these researchers agree that dominant Western knowledge does not exist in a vacuum but is itself "encapsulated within social institutions and worldviews" (Trosper, 2007, p. 2). Researchers contend that to better understand how cultural practices enable or hinder discovery in the STEM disciplines, we must explore the ways that non-Western knowledge systems connect to or diverge from the dominant Western tradition and how, if at all, we can "bridge or combine" these "knowledge areas" (Trosper, 2007, p. 2).

Other researchers have more specifically addressed this issue from the perspective of Native American cultural knowledge and education (Barnhardt, 2007; Bang & Medin, 2010; Institute for Higher Education Policy, 2007; Kirkness & Barnhardt, 1991; Stephens, 2001; Tippeconnic Fox, 2005). As Kirkness and Barnhardt (1991) observe, the relative lack of Native American college graduates "has been typically defined in terms of low achievement, high attrition, poor retention, weak persistence, etc., thus placing the onus for adjustment on the student" (p. 1). Kirkness and Barnhardt (1991) and, more recently, Bang and Medin (2010) have argued that educators must "shift in orientation" from requiring that students adapt to dominant academic "epistemologies" to helping students "navigate the multiple epistemologies" of the academy and other cultures to which they belong (Bang & Medin, 2010, p. 1008).

The SNAAP alliance and its models for recruiting and mentoring Native American STEM students will increase our knowledge of theories and practices that can assist Native American students in managing these, at times, competing epistemologies. Each SNAAP partner school (ISU, SDSMT, LCSC, LBHC, and BHSU) has infrastructure in place to recruit, retain, and mentor Native American students in STEM and other fields. In addition, the lead institution, ISU, has expertise in administering an NSF ADVANCE grant dedicated to increasing opportunities for women in STEM disciplines, and the ADVANCE Director, Deb Easterly, will serve as co-PI for the SNAAP planning grant. Finally, all of the partner schools have recruited, as Senior Personnel, faculty with expertise in STEM (Baxter, Cole, Pak, Light, Spellman), mentoring of Native American students (Anderson), cultural practices (Sieber), and technical writing and documentation (Petit). Until SNAAP was formed, these programs and personnel had never been combined into one, region-wide alliance whose sole purpose was to promote doctoral education and new faculty placement for Native American STEM students.
The alliance's members believe that their project will offer potentially transformative models for recruiting and mentoring Native American doctoral students and faculty. The alliance will integrate its partners' considerable expertise in STEM education and research with the experience that their non-STEM peers bring in cultural practices and writing. It is hoped that this synergistic, interdisciplinary combination will lead to mentoring and instructional models that follow the four "R's" identified by Kirkness and Barnhardt (1991) as essential for Native Americans' academic success: respect, relevance, reciprocity, and responsibility. As such, SNAAP will increase our understanding of ways that we can successfully integrate into Native American STEM education methods such as Indigenous knowledge integration (Barnhardt, 2007), culturally responsive science curriculum (Stephens, 2001), TEK (Nadasdy, 1999, 2003; Trosper, 2007), Community-Based Participatory Research (Community-Campus Partnerships for Health, 2010), and other approaches that place mentoring, learning, and research within its cultural contexts.

SNAAP's partners consider it essential that our knowledge of successful culturally sensitive practices be extended. For example, despite research in this area, Tippeconnic Fox (2005) notes incisively that

"little scholarship exists" on important topics such as the significant role that Native American faculty play in mentoring Native American students (p. 57). SNAAP has a practical and specifically defined goal: to implement programs that will increase the number of Native American STEM students who become these faculty role models. In addition to meeting this pragmatic goal, the alliance's partners aim to greatly enhance their disciplines' understanding of the best methods for helping Native American STEM students reach this objective.

Broader Impacts of the Proposed Project

The proposed SNAAP alliance aims to increase the diversity of the scientific workforce, by developing innovative models to recruit Native American doctoral students, mentor these students to doctoral degree completion, and place graduates who desire an academic career in STEM faculty positions both within and beyond the regions covered by the alliance: the Great Basin and Great Plains. Through its planning activities, SNAAP will lay the foundation for a larger program that fulfills the broader goals of AGEP. In its 2010 *Solicitation* for AGEP, the NSF states that AGEP "aims to develop the human capital and administrative and academic infrastructure that will enable the placement of underrepresented minorities" or URMs "in faculty positions at American universities, colleges, and community colleges." Focused on doctoral education and initial placement of URM faculty in STEM fields, AGEP is a key part of the NSF's wider mission, which, according to the National Science Board or NSB (2009), is "to advance STEM education for *all* American students" and "develop the talents" of all Americans "who have the potential to become STEM innovators or excellent STEM professionals." This mission is echoed elsewhere by the NSB (2003) as well as by the National Academy of Sciences (2010) and the Urban Institute (2006a, 2006b). In particular, the Urban Institute (2006a) draws attention to the "sizeable, growing, and largely untapped pool of potential talent" that minority students represent and contends that "this minority population, provided with appropriate training and support, holds great promise for revitalizing the STEM workforce."

Funded by AGEP, SNAAP will provide a geographically isolated and economically disadvantaged region the chance to develop the "appropriate training and support" needed to bring more Native American students into doctoral education and the professoriate. AGEP's support of doctoral education and new faculty is especially important in meeting the NSF's goals. Generating innovative models for recruitment and retention and establishing the local and alliance-wide infrastructure required to sustain the program, SNAAP has the potential to revitalize the STEM workforce and increase its diversity. Certainly, these changes will directly impact the students, faculty, and staff who participate in the SNAAP project. Just as important, SNAAP's regional partnership will affect students, faculty, and communities beyond the Great Basin and Great Plains. The models developed during the planning period will be shared with other AGEP programs so that these projects may learn from SNAAP and share their own methods. The results of the alliance's work with Native American students will be disseminated broadly through conference presentations and peer-reviewed publications that advance our knowledge of successful educational practices for Native American and other minority students. Finally, when fully implemented, SNAAP will foster a generation of Native American faculty who will serve as role models for future Native American STEM students. Perhaps more than any other aspect of the program, this new STEM faculty will perpetuate the work of SNAAP for generations to come and ensure that Native American students, their communities, and society as a whole reap the benefits of a vital and diverse STEM workforce.

Management Plan

Dr. Thomas Jackson, ISU Dean of Graduate School, will lead the AGEP planning grant. He will oversee all project activities and will meet with the SNAAP planning committee at ISU on a weekly basis to ensure the project remains on track. Dr. Jackson will serve as project contact with the presidents and provosts of partner universities and colleges. Dr. Jackson reports to the ISU Provost.

Dr. Deb Easterly, ISU Director of Research Development and Compliance, will serve as co-PI and oversee the day-to-day activities of the project at ISU. She will work closely with Dr. Angela Petit and Dr. Sharon Sieber, who will prepare the full AGEP proposal for July 2011. Dr. Easterly will serve as liaison with the partner schools and Senior Personnel, contacting the schools weekly to share ideas, gather data, and coordinate activities. She will assist Drs. Petit and Sieber as the activities outlined in the Proposal Plan are carried out. She will work with a financial technician in the Research Office on the fiscal oversight of the project. Dr. Easterly will arrange stakeholder meetings and travel and will also handle other administrative duties. Drs. Easterly, Matejcik, Petit, and Sieber will develop a "toolkit" that each institution will use in gathering data and resource information. The toolkit for ISU's ADVANCE grant, for which Dr. Easterly served as Director, will be used as a model.

Dr. Antonette Logar, Interim Dean of Graduate Education at the SDSMT, will also serve as co-PI, monitoring and overseeing the work carried out at the schools in South Dakota. She will serve as liaison with the South Dakota schools and will meet at least twice a month with the ISU planning committee. Dr. Frank Matejcik, Associate Professor in Industrial Engineering at the SDSMT, will assist Dr. Logar in work associated with the project. He will conduct and oversee the collection of demographic data, resource descriptions, and evaluation. He will arrange stakeholder meetings in the Great Plains region and will be instrumental in developing contacts with stakeholders.

Dr. Angela Petit, ISU Assistant Professor in English, will take the lead on searching the literature, gathering demographic data, and writing the full AGEP proposal. Dr. Petit will also serve on the planning committee. She will receive one course release in Spring 2011 to work on the AGEP proposal and one course release in Fall 2011 to work on the knowledge integration component of the full AGEP project. Dr. Sharon Sieber, ISU Professor in Languages and Literatures, will assist Dr. Petit in the development and writing of the full AGEP proposal. She will assist in the development plans for support services based on cultural needs. She will receive one course release for Fall 2011 to begin development of the Native knowledge integration component of the full project. She will serve on the planning committee.

Dr. Doyle Anderson, Director of the ISU Indigenous Nations Institute (INI) and Assistant Professor in Management, will be a member of the planning committee. He will lead the interactions with stakeholder groups in the Great Basin area (TCUs, Tribes, Native-owned businesses, etc). His knowledge, contacts in the Native American community, and expertise will be invaluable to the project. He will participate in the development of the knowledge integration component.

Dr. Jennifer Light, LCSC Engineering Program Director and Assistant Professor in Engineering, will serve as the representative for Lewis-Clark State College. She will participate in the ISU planning committee meetings and will also coordinate planning grant activities at LCSC, in particular, activities with the Nez Perce students who live near and attend LCSC.

Dr. Garth Spellman will serve on the planning committee as the representative from Black Hills State University. He will oversee the collection of data from his institution and will meet with the SDSMT planning committee at least once a month, via webcam.

The ISU planning committee will consist of Dr. Jackson, Dr. Easterly, Dr. Petit, Dr. Sieber, Dr. Anderson, Dr. Colden Baxter, Associate Professor in Biological Sciences, Dr. Josh Pak, Associate Professor in Chemistry, and Dr. Phil Cole, Associate Professor in Physics. The planning committee will meet bi-weekly to discuss research and data gathered and the results of stakeholder sessions and visits to exemplar AGEP sites to develop and refine the projects and services for the full AGEP proposal. The meetings will include, at a minimum, Drs. Logar and Matejcik from the SDSMT. Drs. Easterly, Petit, and Sieber will meet weekly.

The SDMST planning committee will consist of Dr. Antonette Logar, Dr. Robb Winter, Dr. Carter J. Kerk, Dr. Frank Matejcik, Donna Kliche, Sandra White Shield, and Dr. Scott Wiley. This group will lead planning activities, data collection, and stakeholder meetings in the Great Plains region.

Dissemination of Project Results

Given the brief duration of the planning grant and the need to prepare a full AGEP proposal for July 2011, dissemination during the planning period will consist primarily of a shared, collaborative website dedicated to the SNAAP project. Dissemination will be both internal (among the partner schools) and external (beyond the alliance's members). In this way, SNAAP will both establish the foundation for a lasting project and publicize its activities to broader AGEP and STEM audiences.

Dissemination among SNAAP Partner Schools

Hosted by the alliance's lead institution, Idaho State University, the SNAAP website will be available to all SNAAP partners (ISU, SDSMT, LCSC, LBHC, and BHSU) and will provide a critical means for the geographically dispersed schools to remain in continual contact. Through areas of the site restricted to partners, schools will plan and disseminate results of SNAAP activities: data collection, face-to-face and distance meetings, exemplar visits, meetings with stakeholders, and related activities. In addition, alliance schools will use the website to share and receive feedback on local, campus-specific models for recruitment and mentoring, and to develop alliance-wide models to recruit and mentor Native American STEM doctoral students and faculty. Finally, partners will use the site to share and review drafts of the project's full AGEP proposal to ensure that the partners build the strongest alliance and the most competitive proposal possible.

Dissemination beyond the Alliance's Members

Through the alliance website, SNAAP partner schools will publicize their activities to a wider audience. Significant portions of the website will be accessible to potential Native American STEM doctoral students, TCUs, state colleges and universities, stakeholders, and other constituents who may be able to contribute to or benefit from the SNAAP initiative. Members of the SNAAP alliance will promote the site's public areas to these individuals and groups, who will be encouraged to visit the site to find resources on SNAAP, AGEP, and STEM doctoral education and faculty careers. In addition, constituents will be invited to participate in controlled online surveys designed to elicit feedback on the alliance's evolving models for recruitment, retention, and mentoring. Through these means, SNAAP's partner schools will develop models whose efficacy can be at least partially evaluated before the alliance begins recruiting doctoral students and future STEM faculty. Instead, constituents will help shape the alliance from its earliest days so that they know the alliance responds to their needs. At key points in the planning period, SNAAP partner schools will meet face-to-face with potential students, faculty, colleges and universities, and stakeholders. However, the alliance's website offers partners a way to disseminate ongoing, "real-time" information to the project's geographically isolated and dispersed constituents. Without these constituents, the alliance cannot succeed, and the sense of shared ownership that a carefully designed, responsive SNAAP website creates will greatly increase the project's chances of success.

Results from Prior NSF Support

The PI, Dr. Thomas Jackson, has not received any prior NSF awards. Over the past 10 years, the partner institutions have been awarded 29 grants from eight programs in the NSF EHR Directorate, as described in Table 4 below. Faculty and staff have been involved in a wide variety of NSF programs. Three of the co-PIs/Senior Personnel on this proposal served as PIs on those EHR awards: Deb Easterly, Ed.D., Co-PI, served as PI on the ISU ADVANCE grant; Antonette Logar, Ph.D., co-PI, served as the PI on an NSF graduate fellowship to SDSMT; and Carter Kerk, Ph.D, Senior Personnel, was PI on two S-STEM awards to SDSMT. These grants have provided the institutions with experience administering EHR grants and show dedication to providing such services to students and faculty from URM groups.

TABLE 4. EHR Awards Received by Partner Institutions, 2000-2010

NSF Program	ISU	SDSMT	BHSU
ADVANCE	1	1	
Advanced Technologies Educ	1		2
CCLI	2	3	2
Federal Cyberservice, Scholarships	3		
G K-12	2		
Graduate Fellowships		1	
S-STEMS	3	6	1
Special Studies & Analysis		1	

Conclusion

The dearth of Native American STEM doctoral students and faculty is shocking, especially in light of the need for a larger, more diverse STEM professoriate and the benefits that STEM careers bring to faculty members' professional and personal lives and communities. The SNAAP alliance seeks to recruit Native American doctoral students in the Great Basin and Great Plains regions, identify students who wish to pursue academic careers, mentor these students to doctoral degree completion, and place graduates in STEM faculty positions at colleges and universities within and beyond the Great Basin and Great Plains. Ultimately, the lack of Native American STEM doctoral students and faculty will require solutions that span higher education, from undergraduate years through graduate school to new faculty placement. It might be tempting to focus initially on Native Americans' early years in college as these represent a critical retention point for these students. The AGEP program has wisely chosen a different path. Supporting doctoral education and academic careers in STEM, AGEP asserts that underrepresented students, their communities, and the country should not wait to utilize fully the talents of underrepresented minorities and should work now to foster a new generation of STEM faculty members who can, in turn, become role models for future students. The SNAAP alliance seeks to contribute to these goals, and the AGEP planning grant will enable the traditionally underserved states of Idaho and South Dakota (EPSCoR states), and their significant Native American populations, to participate fully in meeting these goals.

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a. Professional Preparation

California State College-Fullerton	Psychology	BA	1967
California State College-Fullerton	Experimental Psychology	MA	1969
Texas Tech University	Experimental Psychology	PhD	1974

b. Academic/Professional Appointments

2006 – Present	Dean, Graduate School and Professor of Psychology, Idaho State University
2002 – 2006	Dean of Graduate Studies and Research, Fort Hays State University, Kansas
2000 – 2002	Dean of Graduate Studies and Research/Vice Provost for Academic Affairs, Fort Hays State University
1998 – 2002	Interim Dean, College of Arts and Sciences, Fort Hays State University
1990 – 1998	Chair, Department of Psychology, Fort Hays State University
1984 – 2006	Professor of Psychology, Fort Hays State University
1988 – 1990	Associate Dean of the Graduate School, Fort Hays State University
1979 – 1984	Associate Professor of Psychology, Fort Hays State University
1976 – 1979	Assistant Professor of Psychology, Fort Hays State University
1974 – 1976	Assistant Professor of Psychology, Austin Peay State University, Tennessee
1969 – 1972	Instructor of Psychology and Sociology, Panhandle State College, Oklahoma
1969	Lecturer of Psychology, California State College-Fullerton

c. Selected Publications

- *Interactive Testbank for Essential of Psychology by Baron.* Needham Heights, MA: Allyn and Bacon, 2002.
- "Does the use of DSMIII-R decision trees improve diagnostic accuracy? *Journal of Clinical Psychology,* 56(1), 2000, 73-88; co-authors Morgan, R.D., Olson, K.R., Krueger, M.R., Jackson T.T.
- "Attributional biases in clinical practice." *Journal of Psychological Practice* 3(1), 1997, 27-33; co-authors Olson, K.R., Jackson, T.T., & Nelson, J.
- "George A. Kelly and the development of Personal Construct Psychology," in W.G. Bringmann, H.E. Luck, R. Miller, & C.E. Early (Eds.) *Pictorial History of Psychology* (pp. 364-373). Chicago: Quintessence Publishing Co., 1997.
- "Differing Attitudes toward people who have AIDS." *Journal of Social Psychology,* 135(1), 1995, 105-106; co-authors Posson, T.R., & Jackson T.T.
- *The handbook of clinic practice by George A. Kelly.* Jackson, T.T., Zelhart, P.F., & Markley, R.P. (Eds.). Hays, Kansas: Fort Hays Studies, 1985.
- "Replications in social psychology I." *Contemporary Social Psychology*, 10(3), 1984, 38-42.
- "Environmental influences on a developing theorist" in J. Adams-Webber & J.C. Mancuso (Eds.) *Applications of Personal Construct Theory*, Don Mills, Ontario: Acadmeic Press Canada, 1983.
- "Social cues, cognitive style, error magnitude, and male performance on the felt figure replacement technique." *Journal of Personality Assessment*, 42(3), 1978, 295-301; co-authors Klopfer, F.J., Jackson, T.T., Jeffrey, G.S., & Wolfe, W.G.
- *Study guide for Psychology by Vogel. Chicago: Nelson-Hall, 1985.*

d. Synergistic Activities

- Interdisciplinary Collaborations in the Study and Practice of Experimental Psychology: The majority of articles published by Jackson involve collaboration with other specialists in the areas of experimental psychology and other areas of psychology. Jackson has worked with and published articles in collaboration with clinical psychologists, perception psychologists, school psychologists, and personality psychologists. From 1979 until 2006, Jackson worked with Dr. Keith Campbell, a sociologist at Fort Hays State University in Kansas – a collaboration that resulted in numerous articles and presentations on the history of psychology, social psychology, and sociology, as well as a collection of over 70 videotape interviews of prominent individuals in the areas mentioned. Jackson also collaborated quite extensively with Randy Krueger, a psychologist interested in criminality and detention. Jackson has also published articles with biologists, statisticians, and mental health professionals.
- Experience in Graduate Education and Higher Education Administration: Jackson has been the chair of a large psychology department, the dean of two graduate schools in two states, a dean of research, the dean of a College of Arts and Sciences, and a Vice-Provost. These positions have provided considerable experience in higher education administration to Jackson. In the positions, Jackson has been responsible for budgets, faculty evaluation for hiring, merit, promotion, and tenure, and well as curriculum development, educational and research outcomes, student issues, as well as myriad activities related to an educational unit.
- Mentoring of Students and Faculty: Jackson has been the director of over 35 thesis and EdS field studies, and served on the committees over 50 thesis, field studies, and dissertations. Jackson has also directed numerous undergraduate research projects, many of them resulting in publications and/or presentations. Jackson has been active in mentoring faculty and administrators by serving as a mentor or serving on committees that designed activities for new faculty, senior faculty, and new department chairs.

e. Collaborators and Other Affiliations

- Collaborators during the past 48 months:

  For the past 18 months, Jackson has collaborated with Dr. Keith Campbell, a sociologist at Fort Hays State University, on the digitization of audiovideo tapes produced in 1979 – 1981. There are approximately 70 such tapes of prominent social psychologists, psychologists, and sociologists. This collaboration also involves a faculty member from the History Department and a faculty member from the Communication and Rhetorical Studies Department at Idaho State University.

- Graduate and Postdoctoral Advisors
-
  - Doctoral: Richard P. McGlynn, PhD., Professor of Psychology, Texas Tech University.
  - Jackson has served on approximately 6 doctoral committees at Idaho State University.

- Thesis Advisor and Postgraduate Scholar Sponsor:

  Jackson has been the Advisor for over 35 Master's theses and EdS field studies.

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a. Professional Preparation

Iowa State University	Family Environment	BS	1979
Idaho State University	Human Resource Training & Development	M. Ed.	1998
Idaho State University	Education Leadership	Ed.D	2006

b. Academic/Professional Appointments

2008-present Director of Research Development & Compliance, Idaho State University, Pocatello, ID

2006-2009 Principal Investigator, ISU ADVANCE grant, SBE-0620073, Idaho State University, Pocatello, ID

2005-2008 Research Administrator, Idaho State University, Pocatello, ID

2000-2005 Research Administrator/Assistant Director, Idaho State University, Pocatello, ID

1992-1996 Director, Grants and Special Projects, Black Hills State University, Spearfish, SD

1989-1992 Sponsored Programs Specialist, University of Nebraska-Lincoln, Lincoln, NE

1981-1989 Various positions in community services agencies in Nebraska, increasing in responsibility and leadership

c. Publications

1) **Easterly, D**. (2008, Spring). Women's ways of collaboration: A case study in proposal development. *Journal of Research Administration*, *39*(1), 48-57.

2) **Easterly, D**., & Pemberton, C. (2008, Spring). An exploration of the barriers and supports perceived by female faculty in institutions of higher education as they write proposals to secure external funds. *Advancing Women in Leadership Online Journal*, *28*.

3) **Easterly, D**., & Pemberton, C. (2008, Fall & Winter). Understanding barriers and supports to proposal writing as perceived by female associate professors: Achieving promotion to professor. *Research Management Review*.

4) Pemberton, C. L. A., Ray, B., Said, H., **Easterly, D.,** & Belcher, C. (2010). Graduate student perceptions of college of education culture and climate. *Advancing Women in Leadership Online Journal*, *30*(5).

5) **Easterly, D**., & Ricard, C. S. (2010). Conscious efforts to end unconscious bias: Why women leave academic research. Under review.

d. Synergistic Activities

*NSF ADVANCE Grant, 9/1/06-8/31/09, $500,000, project director, PI
*Board member of Idaho State University Professional Women, 2004-2008, 2010-
*Member of Idaho State University Women's History Month Executive Committee, 2005, 2006, 2007, 2008, 2010
*ISU President's task force for the faculty/staff diversity center, 2007 spring, Advisory Board, present
*ISU Diversity Council

e. Collaborations and other Affiliations

(i) **Collaborations**

Dr. Cynthia Pemberton, Professor, Idaho State University

Dr. Cynthia Ricard, Health Scientist Administrator, Office of Research Integrity (ORI/DHHS)

(ii) **Graduate Advisor**

Dr. Cynthia Pemberton, Idaho State University

(iii) **Thesis Advisor**

No students advised

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Professional Preparation:

- Lehigh University, B.A. Geological Sciences, 1978
- University of Louisville, J.D. Law, 1982
- SDSM&T, B.S. Computer Science, 1985
- University of Minnesota, M.S. Computer Science, 1986
- Texas Tech University, Ph.D. Computer Science, 1992

Appointments:

- 2010 – present : Interim Dean of Graduate Education and Professor, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 2009 – 2010 : Professor, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 2004 – 2009 : Professor and Graduate Program Coordinator, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 2000 - 2004 : Professor and Chair, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 1995-2000 : Associate Professor, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 1992-1995 : Assistant Professor, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 1988-1989 : Lecturer in Computer Science, University of Maryland, European Division, Wiesbaden, Germany.
- 1986-1988 : Assistant Professor, Department of Mathematics and Computer Science, South Dakota School of Mines and Technology, Rapid City, SD.
- 1985-1986 : Software Engineer, ETA Systems, St. Paul, MN

Publications:

1. "A Framework for Developing Multitouch Applications to Enhance K-12 Education", Minnesota Women in Computing Conference (MinneWIC). University of Minnesota, in Minneapolis, February 12-13 2010, Jaelle Scheuerman, Robyn Krage, Lori Rebenitsch, Antonette Logar.

2. "A Phase Space Approach To Detecting Volumetric Defects", TWI bi-annual conference, Timmendorferstrand, Germany, May 2010. Enkhsaikhan Boldsaikhan, Edward Corwin, Antonette Logar, Michael Janes, and William Arbegast.

3. Multi-University I/UCRC Management Tools – A Case Study, book written for NSF, currently being edited. Antonette Logar, Edward Corwin, and William Arbegast.

4. "*Phase Space Analysis of Friction Stir Weld Quality*", TMS 2007: Linking Science and Technology for Global Solutions, Orlando, February, 2007. Enkhsaikhan Boldsaikhan, Edward Corwin, Antonette Logar, Jeff McGough and William Arbegast.

5. "*Real-time Classification of Friction Stir Weld Quality*", TMS 2007: Linking Science and Technology for Global Solutions, Orlando, February, 2007. Enkhsaikhan Boldsaikhan, Edward Corwin, Antonette Logar, and William Arbegast.

Synergistic Activities :

1. Team Blob, Imagine Cup: An all-female team competing in the Imagine Cup earned a spot at the national finals where they placed third in the country. The team produced a framework for multitouch development directed at K-12 education.

2. AMP/CFSP collaboration : Part of a computer science group of faculty and students providing algorithm development, neural network software packages, and web-development services to the Center for Friction Stir Processing. Approximately $100,000 in funding.

3. Raytheon/EROS collaboration (2000 – 2001): Led development of the "MODIS Reprojection Tool" (MRT). MODIS data was being transmitted in formats unreadable by most software packages. Assembled a team of faculty and students to create the tool with a very short timeline. Any researcher using MODIS data will use the MRT to access the data. The team won the NASA Space Act Award for this project. Approximately $200,000 in funding.

4. Multimedia and web development consulting (1998 – present) : Mount Rushmore Society, Development of a multimedia kiosk for the National Monument, Black Hills Symphony Orchestra, Black Hills Dance Theatre, Council for the Advancement of Standards, Washington, DC, development of interactive CD, Oglala Lakota and Sinte Gleska Tribal Colleges, consultant on curriculum development for computer science programs and multimedia development.

5. Institute for Atmospheric Science collaboration : (1994 – 1998), Part of a team to develop neural network algorithms for satellite image pattern recognition. Personal specialty : cloud recognition. Funded under National Aeronautics and Space Administration Contract No. NAS 5-31718, Mission to Planet Earth. Approximately $100,000 in funding, including a $50,000 POWRE grant to initiate the research.

Collaborators & Other Affiliations :

- Dr. Enkhsaikhan Boldsaikhan, NIAR, Wichita State University
- Dr. Edward Corwin, SDSM&T
- Michael Janes, University of New Mexico
- Dr. Jeff McGough, SDSM&T

Graduate Advisors and Postdoctoral Sponsors :

- Dr. William J. B. Oldham, Texas Tech University, retired
- Dr. Wei Tek Tsai, Arizona State University

Thesis Advisor and Postgraduate-Scholar Sponsor :

- Dr. Enkhsaikhan Boldsaikhan, NIAR, Wichita State University
- Gail Schmidt, SGT
- Chris Konvalin, SDSM&T

30 graduate students advised (non-thesis)
0 postdoctoral scholars sponsored

Doyle Anderson
Director,
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& Native American Business Administration Program
Idaho State University
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Member of the Red Pheasant Cree Nation

Education

B.S., (1988) Environmental Engineering, Montana Tech

M.B.A. (1997), University of Saskatchewan

Ph.D. (2009), Interdisciplinary Studies (Organizational Analysis Emphasis), University of Saskatchewan

Professional Experience

Director, Indigenous Nations Institute, Idaho State University, 2008-Present;

Director, Native American Business Administration Program, Idaho State University, 2004-Present;

Self-Employed Environmental Engineering Consultant, 1999-2007;

Assistant Professor of Business and Director, Indigenous Business Administration Program, Saskatchewan Indian Federated College (now First Nations University of Canada), 1996-1999;

Principal Environmental Engineer and Chief, Environmental Planning and Impact Analysis Section, Raytheon Services Nevada, 1991-1995;

Nuclear, Biological, and Chemical Officer, U.S. Army, 1988-1991.

Publications

D. Anderson, C. Edmo. "Using an Entrepreneurial Network Organizational Model to Transform Academic Institutions". In the *Allied Academies Academy of Entrepreneurship Proceedings, Vol. 15, No. 2, ISSN 1948-5638, p.57-60.* October 2010.
*(*http://www.alliedacademies.org/Public/Proceedings/Proceedings27/AE%20Proceedings%20Fall%202010.pdf)

D. Anderson. "An Expanded Perspective of Native American Entrepreneurship". In the *Allied Academies Academy of Entrepreneurship Proceedings, Vol. 15, No. 2, ISSN 1948-5638, p. 61-65*, October 2010.
(http://www.alliedacademies.org/Public/Proceedings/Proceedings27/AE%20Proceedings%20Fall%202010.pdf)

D. Anderson. "ISO 14000 Environmental Management Systems and Plains First Nations Organizations: Are They Compatible?" In the *Proceedings of the Canadian Science and Technology Society,* September 2003.

Synergistic Activities

As Director of the Indigenous Nations Institute at Idaho State University, currently leading the effort to engage Idaho State University geoscientists in geothermal exploration activities to support tribal geothermal energy development projects.

As the Director of the Native American Business Administration Program at Idaho State University and the Indigenous Business Administration Program at the Saskatchewan Indian Federated College (now First Nations University of Canada), implemented successful Native American business administration programs that include extensive mentorship, student support, integration of Native American-focused curriculum, and Native American community outreach.

As an environmental and management consultant, provided development and operational planning support for a variety of tribal natural resource development projects. In these projects, integrated Indigenous knowledge with western scientific knowledge to expand and enhance scientific and engineering analysis. Mentored Native American scientific consultants who worked in the consulting practice.

Advised the Cameco Access Program for Engineering and Science at the University of Saskatchewan.

Serve as an advisor to students in the Environmental Science and Management Program in the College of Engineering at Idaho State University, many of whom are members of underrepresented groups.

Currently developing a multi-disciplinary set of renewable energy-related STEM training and education programs (one-year certificate, associates, bachelors, masters, and Ph.D. degrees) targeting Native American students which was presented at the 2010 American Indian Science and Engineering Conference.

Initiated the development of a tribal community assessment process to assess tribes' readiness to engage in renewable energy projects.

Recently submitted a proposal for an Indigenous Nations Geosciences Education and Community Awareness Project to the NSF Opportunities for Expanding Diversity in the Geosciences Program.

Collaborators & Other Affiliations

Collaborators: Christelle Edmo (Idaho State University)

Graduate Advisors: Richard Long, dissertation supervisor (University of Saskatchewan); Joseph Garchea, dissertation committee chair (University of Saskatchewan); Robert Anderson, dissertation committee member (University of Regina); Larry Sackney dissertation committee member (University of Saskatchewan); and Jim Miller, dissertation committee member (University of Saskatchewan).

Colden V. Baxter

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Professional preparation

University of Oregon	Biology & Geology	B.S. 1993
University of Montana	Biology & Ecology	M.S. 1997
Oregon State University	Fisheries Biology	Ph.D. 2002
Colorado State University	Ecology	Postdoctoral Researcher 2002-04

Appointments	Assistant Professor	Idaho State Univ.	2004-present
	Associate Professor	Idaho State Univ.	2010-present

Ten selected publications

Marcarelli, A.M., R.W. Van Kirk and C.V. Baxter. 2010. Predicting effects of hydrologic alteration and climate change on ecosystem metabolism in a western U.S. river. *Ecological Applications* [doi:10.1890/09-2364.1].

Wipfli, M.S. and C.V. Baxter. 2010. Linking ecosystems, food webs, and fish production: Subsidies in salmonid watersheds. *Fisheries* 35:373-387.

Fausch, K.D., C.V. Baxter, and M. Murakami. 2010. Multiple stressors in north temperate streams: lessons from linked forest-stream ecosystems in northern Japan. *Freshwater Biology* 55: 12-134.

Benjamin, J.R. and C.V. Baxter. 2010. Do nonnative salmonines exhibit greater density and production than the natives they replace? A comparison of nonnative brook trout to native cutthroat trout. *Transactions of the American Fisheries Society* 139:641-651.

Malison, R.L. and C.V. Baxter. 2010. The "fire pulse:" wildfire stimulates flux of aquatic prey to terrestrial habitats driving increases in riparian consumers. *Canadian Journal of Fisheries and Aquatic Sciences* 67:570-579.

Baxter, C.V., K.D. Fausch, M. Murakami and P.L. Chapman. 2007. Invading rainbow trout usurp a terrestrial prey subsidy to native charr and alter their behavior, growth, and abundance. *Oecologia*. 153:461-470.

Baxter, C. V., K. D. Fausch, and W. C. Saunders. 2005. Tangled webs: reciprocal flows of invertebrate prey link streams and riparian zones. *Freshwater Biology* 50(2): 201-220.

Baxter, C. V., K. D. Fausch, M. Murakami, and P. L. Chapman. 2004. Fish invasion restructures stream and forest food webs by interrupting reciprocal prey subsidies. *Ecology* 85:2656-2663.

Fausch, K.D., C.E. Torgersen, C.V. Baxter, H.W. Li. 2002. Landscapes to riverscapes: bridging the gap between research and conservation of stream fishes. *BioScience* 52: 483-498.

Baxter, C.V. and F.R. Hauer. 2000. Geomorphology, hyporheic exchange and selection of spawning habitat by bull trout (*Salvelinus confluentus*). *Canadian Journal of Fisheries and Aquatic Sciences* 57: 1470-1481.

Selected synergistic activities

1. Mentored 10 undergraduate researchers in past 5 years, four through NSF funding (two REU students). This research has resulted in 13 undergraduate presentations at professional meetings, and 4 manuscripts (1 published and 3 in preparation).

2. Gained NSF funding, coordinated and facilitated ongoing (2009-present) Native Students in S.T.E.M. Research Internship program at ISU for undergraduate and high school students. Effort also involved establishing ISU/Shoshone-Bannock Tribes Memorandum of Understanding.

3. Cooperated with K. Fausch and J. Monroe (Freshwaters Illustrated) with funding from NSF and other sources to create documentary film entitled "*Riverwebs*" targeted for PBS that explores interconnections between stream and forest ecosystems, and features research we conducted in northern Japan. Film was released during summer 2007 and is now being shown nationwide (see www.riverwebs.org). Additional funding from NSF is supporting a classroom versioning.

4. Faculty Advisor – recently (2006) formed Portneuf student chapter of the American Fisheries Society.

5. Community Organizer and Volunteer – local Portneuf Watershed Partnership and "Valley Pride" board member, recipient of 2007 Portneuf Greenway Foundation Major Partner Award, organizer of annual Portneuf River Clean-Up, volunteer instructor and guest presenter at local schools (K-12).

Collaborators – D. Ames (Idaho State U.), P. Chapman (Colorado State U.), B. Crosby (Idaho State U.), W. Cross (Montana State U.), C. Dahm (U. New Mexico), J. Dunham (USGS), K. Dwire (USFS), J. Ebersole (EPA), K. Fausch (Colorado State U.), N. Grimm (Arizona State U.), R. Hall (U. Wyoming), M. Inoue (Ehime U., Japan), R. Inouye (Idaho State U.), K. Kavanagh (U. Idaho), B. Kennedy (U. Idaho), T. Kennedy (USGS), I. Koizumi (Hokkaido U., Japan), F. Lepori (Colorado State U.), H. Li (Oregon State U.), A. Marcarelli (Michigan Tech U.), K. Morita (Nat. Fisheries Res. Inst., Japan), M. Murakami (Chiba U., Japan), C. Peterson (Idaho State U.), J. Pierce (Boise State U.), G.W. Minshall (Idaho State U.), Y. Miyake (Ehime U., Japan), E. Rosi-Marshall (Loyola U., Chicago), K. Savvaitova (Moscow State U., Russia), J. Stanford (U. Montana), C. Torgersen (USGS-U. Washington), R. Van Kirk (Humboldt U.), M. Wipfli (U Alaska-Fairbanks), S. Yamamoto (Nat. Fisheries Res. Inst., Japan), M. Yard (USGS)

Graduate and postdoctoral advisors – F. Richard Hauer (University of Montana, M.S.), Hiram W. Li (Oregon State University, Ph.D.), Kurt D. Fausch (Colorado State University, postdoc advisor).

Graduate students supervised – M.S. - Jason Jones, Rachel Malison (2008), Kevin Donner, Ryan Blackadar, Jennifer Cornell, Hannah Harris (current); Ph.D. - Joseph Benjamin, Heather Bechtold, Madeleine Mineau (2010), J. Ryan Bellmore, Scott Collins (current); Postdocs - Mike Yard (2007), Amy Marcarelli (2009), John Davis (current).

Other affiliations – Ecological Society of America, North American Benthological Society, American Fisheries Society, Sigma Xi.

Philip L. Cole, Associate Professor of Physics

Idaho State University, Department of Physics, Pocatello, Idaho 83209-8106
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a. Professional Preparation

Cornell University	Physics	BA	1983
Purdue University	Physics	MS	1986
Purdue University	Physics	PhD	1991

b. Academic/Professional Appointments

2004 – Present Associate Professor, Idaho State University
2003 – 2004 Hall-B Sabbatical Professor, Jefferson Lab
1997 – 2004 JLab-Bridge Assistant Professor, University of Texas at El Paso
1995 – 1997 Assistant Research Professor, George Washington University
1994 – 1995 Visiting Scientist INFN - Genoa (Italy) and CEA - Saclay (France)
1991 – 1994 Postdoctoral Researcher, George Washington University

c. Selected Publications (10 out of 105)

- **Conference Proceedings (Editor):**
  1. VII Latin American Symposium on Nuclear Physics and Applications, AIP Conf. Proc. 947, Editors: Ricardo Alarcon, Philip L. Cole, Chaden Djalali, and Fernando Umeres.
  2. VIII Latin American Symposium on Nuclear Physics and Applications, AIP Conf. Proc. 1265, Editors: Hugo Arellano, Ricardo Alarcon, Philip Cole, and Andres Kreiner

- **Idaho Accelerator Center:** *Measuring the 20.2-ms half life of the 472-keV line from the isomer Na-24m with pulsed photons at the Idaho Accelerator Center,* P.L. Cole, J.L. Farley, E.T.E. Reedy, R. Spaulding, J.F. Harmon, and D.P. Wells, Nucl. Instrum. and Methods B, 266 822 (2007).

- **JLab Theoretical** V*ector Meson Photoproduction Studied in Its Radiative Decay Channel,* Qiang Zhao, J.S. Al-Khalali, and P.L. Cole, Phys. Rev. **C71**, 054004 (2005).

- **JLab Experimental (CLAS Collaboration see: http://www.jlab.org/Hall-B/)**

1) *Electroexcitation of nucleon resonances from CLAS data on single pion electroproduction.* I.G. Aznauryan *et al.*, Phys. Rev. **C80 055203** (2009).
2) *First measurement of coherent phi-meson photoproduction on deuteron at low energies*, T. Mibe *et al.*, Phys. Rev. **C76** 015204 **(**2007).
3) *First measurement of beam-recoil observables C(x) and C(z) in hyperon photoproduction,* R. Bradford *et al.*, Phys. Rev**. C75** 035205 (2007).

- **Instrumentation Papers**

  1. *A Cylindrical Drift Chamber for the Measurement of High Charged Particle Multiplicities in Hadronic Events*, C. Allen, A. Bujak, D.D. Carmony, P. Cole, Y. Choi, R. DeBonte, J.E. Finn, L.J. Gutay, A.S. Hirsch, D. Koltick, T. McMahon, N.K. Morgan, N.T. Porile, R.P. Scharenberg, and B.C. Stringfellow, Nucl. Instr. and Meth. A **294**, 108 (1990).

2. *Parallel-Plate Avalanche Detectors with Anode Wire Grids*, J.C. Sanabria, B.L. Berman, C. Cetina, P.L. Cole, W.R. Dodge, V.G. Nedorezov, A.S. Sudov, and G.Ya. Kerashvili, Nucl. Instr. and Meth. A **441**, 525 (2000).

d. Synergistic Activities

- Active in Undergraduate Research: 2000-2004 Cole was on the panel for the Conference Experience for Undergraduate program for the Division of Nuclear Physics of the American Society of Physics. Also, two of his former undergraduate students, Russell Mammei and Juliette Mammie were each awarded NSF Graduate Research Fellowships; the only two in the nation in 2003.

- Outreach to Latin America: Chair of the Student Sponsorship Committee for the Latin American Symposium for Nuclear Physics and Applications (LASNPA) 1999-2007. This Sponsorship Program was created in 1999 through a grant from the NSF Americas Program (NSF Award: INT-9907453, PI: P.L. Cole) and was funded for III – VII LASNPA. He has been on the five-member organizing steering board for four years now.

- Broadening Participation of Groups Underrepresented in Physics: Cole built up the UTEP chapter of the SPS from an inactive chapter to one of the strongest in the nation and it was cited as an Outstanding Chapter three years in a row (2000-2001, 2001-2002, 2002-2003). Honors included three SPS scholarships, Outstanding Advisor Award in the Nation, and a ΣΠΣ Undergraduate Research Award. The educational focus of his NSF CAREER Award (1999-2004) was on building the SPS.

- American Nuclear Society: In his capacity as the Technical Program Chair he organized the scientific program of the Nuclear Applications and Utilization with Accelerators Conference (AccApp'07), which took place in Pocatello, Idaho with over 270 participants, half of whom traveled from outside the U.S. He is presently the Vice Chair of the Accelerator Applications Division of the American Nuclear Society (ANS) and will be the president of this division in 2011.

e. Collaborators and Other Affiliations

- Collaborators during the past 48 months:
  - Member of the JLab CLAS Collaboration since 1991
  - Associate Researcher at the Idaho Accelerator Center

- Graduate and Postdoctoral Advisors
  - Doctoral: Profs. Andrew S. Hirsch and Rolf P. Scharenberg, Purdue University
    Thesis: "*A Study of the Relationship between Average Transverse Momentum and Charged Pseudorapidity Density for Pions and Antiprotons at Tevatron Energies*," December 1991.
  - Postdoctoral: Prof. Barry L. Berman, George Washington University

- Thesis Advisor and Postgraduate Scholar Sponsor
  - Masters: Alejandro Puga (2001), Jennifer Farley (2006), and Adrianne Spilker (2009)
    Sadiq Saitiniyazi and Berkley Starks (in progress)
  - PhD: Julián Salamanca (2009)
    Mayir Maimimin, Danny Martínez, and Charles Taylor (in progress)

Carter J. Kerk, PhD, PE, CSP, CPE – Senior Personnel

Industrial Engineering Department; South Dakota School of Mines, Rapid City, SD 57701
Phone (605) 394-6067, Carter.Kerk@sdsmt.edu

Professional Preparation:
B.S. Industrial & Management Systems Engineering, University of Nebraska, 1981
M.S. Industrial & Management Systems Engineering, University of Nebraska, 1982
Ph.D. Industrial & Operations Engineering, University of Michigan, 1992

Appointments:
2010-present : NSF Tiospaye in Science Program (S-STEM), Program Director
2009-present : NSF All Nations Louis Stokes Alliance for Minority Participation (ANLSAMP), SDSMT Campus Liaison
2008-present : NSF Tiospaye in Engineering Program (S-STEM), Program Director
2007-present : Professor, Industrial Engineering Department, South Dakota School of Mines & Technology (SDSMT), Rapid City, SD
2007-present : Assistant to the Provost for Native American Initiatives, SDSMT
2003-2006 : SDSMT Campus Coordinator, Bridges to Success Program, in partnership with Oglala Lakota College (NSF – ANLSAMP), Providing research opportunities and mentoring to undergraduate American Indian students in engineering and science
2002-2004 : Chair of National Advisory Committee on Ergonomics (NACE), Occupational Safety & Health Administration (OSHA), Department of Labor
2001-2007 : Associate Professor, Industrial Engineering Department, SDSMT
1998-present : SDSMT Campus Liaison to SD GEAR UP - Summer High School American Indian Program (SKILL, NASA Honors)
1998-2004 : Trustee and Scholarship Chair, American Society of Safety Engineers Foundation
1998 : Interim Director, SKILL (Scientific Knowledge for Indian Learning and Leadership)
1997-2002 : Director, Board of Certified Safety Professionals
1997-2001 : Assistant Professor, Industrial Engineering Program, SDSMT
1996-1997 : Co-Director and Co-Founder, The Ergonomics Center, Texas Engineering Experiment Station, TAMU
1995-1997 : Co-Principal Investigator, Associate Director, and Co-Founder, Ergonomics Training Grant Program, National Institute for Occupational Safety & Health, TAMU
1994-1997 : Assistant Professor, Safety Engineering Program, Nuclear Engineering Department, TAMU
1994-1997 : Co-Principal Investigator, Associate Director, and Co-Founder, National Science Foundation Industry / University Cooperative Research Center in Ergonomics at TAMU
1992-1997 : Assistant Professor of Industrial Engineering, TAMU
1987-1992 : Research Assistant, Center for Ergonomics, Department of Industrial & Operations Engineering Department, University of Michigan
1986 : Teaching Assistant, Department of Industrial & Operations Engineering, University of Michigan
1983-1986 : Industrial Engineer, Brownie Manufacturing Company and Central Nebraska Tubing, Waverly, Nebraska

Publications:
Kerk CJ, “Work Physiology,” Book Chapter in Safety Professionals Handbook for Ergonomics, Ed: Joel M. Haight, American Society of Safety Engineers, Des Plaines, IL, p. 897-918, 2008.
Craig BN, JJ Congleton, CJ Kerk, AA Amendola, and WG Gaines, "Personal and Non-Occupational Risk Factors with Occupational Injury/Illness," American Journal of Industrial Medicine, 49:249-260, 2006.
Kellogg S, F Matejcik, C Kerk, J Karlin, and J Lofberg, “Developing the Complex Thinking Skills Required in Today’s Global Economy,” *Proceedings of the 35th ASSE/IEEE Frontiers in Education Conference*, Oct. 2005.
Stetler L, S Kellogg, J Kellar, D Dixon, G Stone, L Simonson, Z Hladysz, C Kerk, J Ash, and H Sieverding, “Technology Enabled Curriculum for a First-Year Engineering Program,” *Proceedings of the FIE Conference*, Nov. 2004.

Haight JM, RL Brauer, RW Stickle, JM Mroszczyk, MD Hansen, and CJ Kerk, "Where Does the Safety Engineering Discipline Fit Into the Safety Profession," in Safety 2004 – Advancing the EH&S Profession, Proceedings of the American Society of Safety Engineers Professional Development Conference, Las Vegas, NV, June 9, 2004.
Heinz G, LJ Peterson, RW Johnson, and CJ Kerk, “Exploring Relationships in Body Dimensions,” Journal of Statistics Education, May 2003.
Craig BN, JJ Congleton, CJ Kerk, AA Amendola, WG Gaines, and OC Jenkins, "A Prospective Field Study of the Relationship of Potential Occupational Risk Factors with Occupational Injury," American Industrial Hygiene Association Journal, V64, No. 3, pp. 376-387, May 2003.
Bales DW, BN Craig, JJ Congleton, CJ Kerk, AA Amendola, WG Gaines, OC Jenkins, “The Influence of Supporting the Oxylog Instrument on Estimated Maximal Aerobic Capacity During a Step Test and Heart Rate in a Lifting Test”, Applied Ergonomics, V32, No. 4, pp. 367-377, July 2001.
Al-Eisawi KW, CJ Kerk, JJ Congleton, AA Amendola, OC Jenkins, and WG Gaines, "Factors Affecting Minimum Push and Pull Forces of Manual Carts," Applied Ergonomics, V30, No. 3, pp. 235-245, 1999.

Synergistic Activities:

- Director (NSF S-STEM) Tiospaye in Engineering Program 2008-Present and Tiospaye in Science Program 2010-Present
- NSF All Nations Louis Stokes Alliance for Minority Participation, Campus Liaison, 2009-Present
- Assistant to the Provost for Native American Initiatives, 2007-Present
- Tau Beta Pi McDonald Mentor Award, 2006
- SD GEAR UP Program, Campus Liaison, 1998-Present

Collaborators:

Alfred A. Amendola, National Institute for Occupational Safety & Health
Bruce Berdanier, South Dakota State University
Jerome J. Congleton, Texas A&M University
Brian N. Craig, Lamar University
William G. Gaines, Liberty Mutual
Joel M. Haight, National Institute for Occupational Safety & Health
Keith Moore, Bureau of Indian Education
Stacy Phelps, SD GEAR UP Program
Jay Roman, SD GEAR UP Program
Charles Jason Tinant, Oglala Lakota College
Jon Walder, Boeing
South Dakota School of Mines: Edward F. Duke, Thomas V. Durkin, Marion R. Hansen, Duane C. Hrncir, Jennifer N. Karlin, Jon J. Kellar, Scott J. Kenner, Stuart D. Kellogg, Donna V. Kliche, Umesh A. Korde, Frank J. Matejcik, Marybeth H. Price, John F. Sawyer, Pallaoor V. Sundareshwar, Nuri Uzunlar

Graduate Advisors (Chair or Co-Chair):

Don B. Chaffin, University of Michigan
David B. Cochran, University of Nebraska
Michael W. Riley, University of Nebraska

Dissertation Thesis Advisees (Chair or Co-Chair):

Khaled W. Al-Eisawi, Sabre Technologies
Joshua Chard, Altec
Seong-Han Kim, Korea University

Donna V. Kliche

(a) Professional Preparation

University of Bucharest, Romania	Physics	B.S.	1980
SDSM&T	Meteorology	M.S.	1989
Georgia Tech	Atmospheric Chemistry	MS	1991
SDSM&T	Atmospheric, Environmental and Water Resources	PhD	2007

(b) Appointments

2010-present	Associate Professor, Atmospheric Sciences Department, SDSM&T
2008-2010	Research Scientist III, Inst. of Atmospheric Sciences, SDSM&T
2005-2008	Acting Associate Director, IAS, SDSM&T
2000-2008	Research Scientist II, IAS, SDSM&T
1998-2000	PRIME Program Coordinator, Math & Computer Sci. Dept
1994-1998	Research Scientist I, IAS, SDSM&T
1991-1994	Director of the Pennington County Air Quality Office
1990-1991	Graduate Research Assistant, Earth Atmos. Sci., Georgia Tech.
1988-1999	Graduate Research Assistant, Atmos. Sci., SDSM&T

(c) Selected Recent Publications

Johnson, R.W., D.V. Kliche, and P.L. Smith, 2010: Maximum Likelihood Estimation of Gamma Parameters for Coarsely-Binned and Truncated Raindrop Size Data. *13th Conference on Cloud Physics*, 28 June- 2 July 2010, Portland, Oregon, Amer. Meteor. Soc.

Johnson, R.W., D.V. Kliche, and P.L. Smith, 2010: Comparison of estimators for parameters of gamma distributions with left-truncated samples. *Accepted for publication in J. Applied Meteorology and Climatology.*

Smith, P.L., Kliche, D.V., and R.W. Johnson, 2009: The bias and error in moment estimators for parameters of drop-size distribution functions: sampling from gamma distributions. *J. Appl. Meteor.,* **48,** 2118-2126**.**

Johnson, R.W., D.V. Kliche, and P.L. Smith, 2009: Maximum likelihood estimation from a left-truncated distribution. *34th Conf. on Radar Meteorology*, Willisamburg, Virginia, Amer. Meteor. Soc.

Kliche, D.V., Smith, P.L., and R.W. Johnson, 2008: L-Moment Estimators as applied to gamma drop size distributions. *J. Appl. Meteorology and Climatology*, **47**, 3117-3130.

(d) Synergistic Activities

Co-Chair of the organizing and judging committee for the High Plains Regional Science and Engineering Fair in western South Dakota. Active in promoting science education among middle and high school students through programs organized on SDSM&T campus (i.e., Engineer's Week, Women in Science and Engineering, etc.). Current research activities include cloud size distribution functions and their applications to cloud microphysics simulation in mathematical models and radar rain-amounts retrieval algorithms, as well as research on short-range predictability of mesoscale weather.

Jennifer Light, Senior Personnel (LCSC), Assistant Professor of Engineering

Lewis-Clark State College, Division of Natural Sciences and Mathematics, Lewiston, Idaho 83501
Phone: (208) 792-2796 Fax: (208) 792-2064 E-mail: jlight@lcsc.edu

a. Professional Preparation

Montana College of Mineral Sci. & Tech.	Environmental Engineering	BS/1992
Idaho State University	Environmental Engineering	MS/1992
Washington State University	Engineering Education	PhD/2005
University of Washington (postdoc)	Engineering Ed. Research Associate	2006-2007

b. Academic/Professional Appointments

2007-present	Lewis-Clark State College	Assistant Professor & Engineering Program Director
2006-2007	Lewis-Clark State College	Adjunct Faculty

c. Publications

- Light, J (2008). Analyzing large free-response qualitative data sets – a novel quantitative-qualitative hybrid approach. Poster presented for New Faculty Fellow poster session. Poster presented *38th ASEE/IEE Annual Frontiers in Education, Saratoga Springs, NY October 22-25, 2008.*
- Light, J. & Yasuhara, K. (2008). Analyzing large free-response qualitative data sets – a novel quantitative-qualitative hybrid approach. Paper presented *38th ASEE/IEEE Annual Frontiers in Education, Saratoga Springs, NY*, *October 22-25, 2008.*
- Light, J. (2007). Development and usage of an alternative methodology for analyzing large quantities of qualitative data for engineering design tasks. Poster presented at CASEE meeting October 8 and special workshop at Frontiers in Education national conference, Milwaukee, WI, October 10-13, 2007.
- Light, J., & Korte, R., (2006). Gender differences in the relationship between engineering students' confidence in their technical abilities and their persistence in engineering. Presented at the Annual *American Society for Engineering Education, annual national conference proceedings, Honolulu Hawaii, 2007.*
- Light, J, Girardeau, L., Beller, J. & Crouch, G. J. (2006). A case study using a mixed-method approach for evaluating a freshmen engineering and science living-learning community.* Proceedings *of the American Society for Engineering Education, Chicago, Illinois, 2006. *Division best paper award*
- Light, J. Davis, D. C., Crouch, G., Beller, J. (2005) Evaluation of a living-learning community for engineering and science freshmen. *Proceedings of the American Society for Engineering Education, Portland, Oregon, 2005.*
- Light, J. & Davis, D. C. (2004). Impacts of a combined living-learning community on attitudes and college engagement of engineering freshmen*. *Proceedings of the American Society for Engineering Education, Salt Lake City, Utah, 2004. *Division best paper award*
- Light, J. (1999). Road dust emission factors for Pocatello, Idaho. *Proceedings of the Air & Waste Management Association Specialty Conference on Emission Factors, Research Triangle Park, North Carolina, 1999.*
- Schieve, G. J., Wagner, J. A., Light, J. & Viswanathan, K. (1997) Using the Portneuf Valley, Idaho PM_{10} and Precursor Emission Inventory for CALPUFF and Rollback Modeling**.** *Proceedings of the Air & Waste Management Association Annual Meeting, Toronto, ON 1996.*

d. Synergistic Activities

I have developed and use many synergistic activities in my classes, including service learning, emphasizing community and cohorts, addressing common misconceptions through hands-on activities and predictions, and active learning:

- Service learning is a teaching tool I strive to use in every class I teach. Students tend to be more engaged when they are doing something they perceive as useful and helpful. By finding projects that help the community students make connections between what they are learning in school to how that translates to their role in the community. Service-learning promotes civic engagement and supports the idea that in both academia and the "real world" we are only as strong as the weakest link. This concept is particularly important for retaining engineering students – particularly female and minority. Research has shown that women avoid engineering as they perceive engineering as a profession that doesn't help people. As a capstone project in my engineering mechanics class (engineering statics) my students partner with a community organization, Interlink Volunteers, to design and build a wheelchair ramp for a community member. Now in our fourth year, the wheelchair ramp build has become an annual event for all our engineering students (and often their friends and family members). The annual event is precluded by a community tour of previously build ramps and dinner at my house. Through this wheelchair ramp project new engineering students have the opportunity to meet and make connections with other engineering students in addition to working side by side with faculty. Many students report the wheelchair ramp was one of the most meaningful activities in their academic experience.
- I now emphasize community in my class. The first day we learn about each other and find common connections. Usually after the first two weeks I know everyone's name. This is true for classes with eight and classes with 30. Assignments throughout the semester require students to work in teams or study groups. Research suggests, and my observations concur, that students who are able to reach out to each other are better able to learn the class content. Outside my office is a big table with seven or eight chairs for students to study. It is not unusual to find half of my Engineering 210 statics class sitting together working on their homework. It's very gratifying to see them helping each other and when they are stuck coming to me and gathering around to discuss the problem.
- I will also model problem solving behavior. Rather than expecting students to know what I'm doing, I now am much more overt about saying out loud how to approach and solve a problem. I also do more problems in class and have students actively participate. Rather than lecture and do problems myself, I model how to approach a problem, where to go when you hit a dead end, and finally solve the problem. After discussing the concept I have them solve another similar problem themselves. After they've had some time to think about it, I ask them to talk to their neighbor and compare answers. Often this starts a discussion. I answer questions then go through the problem with the assistance of several students. Then we do another similar problem in teams. This approach tends to work best for those classes I teach that are traditionally viewed as difficult. Because students have worked though some problems during class they tend to be better able to work the homework assignments on their own or with class peers in study groups.
- Based on both physics education and engineering education research, students tend to understand physics and engineering concepts better if they use a self-inquiry method and are able to see, feel, and hear the concepts. I have since redesigned several labs and purchased additional equipment to incorporate self-inquiry learning as well as interactive demonstrations and misconception-breaking activities. The facilities in the physics/engineering classroom we use are well-suited for this type of learning with round tables that accommodate up to five students, laptop computers in the table drawers, and ample space to set up demonstrations and experiments.

e. Collaborators and Other Affiliations

- **Collaborators:** Russ Korte, University of Illinois Urbana-Champaign; Laura Girardeau, Washington State University; and Ken Yashuhara, University of Washington
- **Graduate Advisor:** Louis Gray, Washington State University; committee members: Jennifer Beller, Greg Crouch, Denny Davis, Matthew Hudelson
- **Postdoctoral Advisor:** Cynthia Atman, University of Washington, Center for the Advancement of Engineering Education; Postdoctoral Sponsor: National Academy of Engineering, Center for the Advancement of Scholarship on Engineering Education (CASEE) Fellow
- No thesis advisees or postgraduate advisees

Frank J. Matejcik
Associate Professor, Industrial Engineering
South Dakota School of Mines and Technology

Professional Preparation

1992	Ph.D.	Industrial & Systems Engineering	The Ohio State University
1985	M.S.	Applied Statistics	Western Michigan University
1979	B.M.E.	Mechanical Engineering -	Cleveland State University

Appointments

2000 – Present	Associate Professor, South Dakota School of Mines and Technology
2008 – 2010	Adjunct Professor, Oglala Lakota College, He Sapa Branch
1998 – 1999	Fulbright Lecturer, Silliman University, Phillippines
1993 – 2000	Assistant Professor, South Dakota School of Mines and Technology
1989 – 1992	Research Asssistant – Ohio State University (Industrial Engineering)
1989 – 1990	Teaching Asssistant – Ohio State University (Industrial Engineering)
1988 – 1989	University Fellow – Ohio State University (Industrial Engineering)
1986 – 1988	Teaching Assistant – Bowling Green State Univeristy (Math & Stats)
1983 – 1985	Teaching Assistant Western Michigan University (Math)
1981 – 1983	Quality Engineer – EMERSON ELECTRIC(Rosemount), Eden Praire
1980 – 1981	Reliability Engineer – EATON (Char-Lynn), Eden Praire, MN

Other Significant Publications

1. *On Selecting a Process with Smallest Number of Unfortunate Events* (co-author with Madhuri Mulekar), Journal of Operational Research Society, Vol. 57, 416-422, 2006
2. *Determination of sample size for selecting the smallest of K poisson population means*, (co-author with Madhuri S. Mulekar), Communications. in Statistics: -Simulation and Computation, Vol. 29, Issue 1, 2000.
3. *Using common random numbers for indifference-zone selection and multiple comparisons*, (co-author with Barry L. Nelson), Management Science, Vol. 41, No. 12, December 1995
4. "*Two-stage multiple comparisons with the best for computer simulation*," (co-author with Barry L. Nelson), Operations Research, Vol. 43, No. 4, July-August 1995

Synergistic Activities

1. I have had successful classroom experiences with Native American students. I have taught Basic Statistics for five semesters starting Spring 2008 till now at the Oglala Lakota College, He Sapa Center, a branch of a tribal college. Taught a workshop session in the Gear Up (NASA funded high school program for Native Americans), which included active whole class Fishbone diagram construction, active small group Fishbone diagram construction, and active small group Check Sheet construction.
2. Some of the data gathering will involve methods generally not used by Engineers. I have an interest development of alternative tools of survey and related research. The Extended Ishikawa Diagram approach modifies methods used in Quality Control for use as a Qualitative Analysis Tool. This procedure allows our proposal to have more data gathering steps within the cost constraints. Additionally, it provides broader impact to our proposal. I have done my most recent technical presentations on the subject at the Joint

Statistical Meeting exploring the properties of the method and describing its motivation. A professor at another university and his graduate student submitted a journal paper motivated by and similar to my work. I have worked through the practical aspects of the implementation of the multistep data gathering system with all the Freshman Engineering classes at SDSM&T in the 2006-2007 school year, ninth grade students in the 2007 NASA Gear Up program, in an Industrial Engineering sophomore class in Spring 2008, 2009, and 2010, and my 2009 Statistics Class at Oglala Lakota College. In summer 2009 I taught a special topics class using *Management Research* by Mark Easterby-Smith. This special topics class included presentation my altenative methods, also. Moreover, in April 2010 an MS Technology Management student (from the special topics class) used the Ishikawa Diagram to do both a Qualitative and follow up Quantitative study with his company as a thesis alternative project. Additionally, an MS Technology Management graduate student thesis alternative project developed to show potential uses of the Extended Ishikawa Diagram, and its natural follow up procedure the Pareto Chart ranking question Quantitative Analysis Tool.

Collaborators & Other Affiliations

Randall Benson	Iberdrola Renewables	Portland, OR
Roger Johnson	South Dakota Tech	Rapid City, SD
Jennifer Karlin	South Dakota Tech	Rapid City, SD
Stuart Kellogg	South Dakota Tech	Rapid City, SD
Carter Kerk	South Dakota Tech	Rapid City, SD
John Lofberg	South Dakota Tech	Rapid City, SD
Madhuri Mulekar	University of South Alabama	Mobile, AL
Barry Nelson	Northwestern	Evanston, IL
Andrea Surovek	South Dakota Tech	Rapid City, SD

Biographical Sketch of Joshua J. Pak Ph.D.

Professional Preparation

Whittier College, Chemistry & English Literature, BA, 1993
Duquesne University, Chemistry, MS, 1995
University of Oregon, Chemistry, Ph.D., 1999
University of California at Irvine, Chemistry & Polymer, Postdoc, 1999-2001

Appointments

Associate Professor of Chemistry, Idaho State University (2006-Present)
Assistant Professor of Chemistry, Idaho State University (2001-2006)
Postdoctoral Fellow, University of California Irvine (1999-2001)

Related Publications

"Divergent Syntheses of Cu-In Bimetallic Single Source Precursors via Thiolate Ligand Exchange" Chivin Sun, Richard D. Westover, Kelsey R. Margulieux, Lev N. Zakharov, Andrew W. Holland, Joshua J. Pak, *Inorg. Chem.*, **2010** 4756–4758.

"Controlled Stoichiometry for Quaternary CuInxG1-xS2 Chalopyrite Nanoparticles from Single Source Precursors via Microwave Irradiation" Chivin Sun, Joseph S. Gardner, Gary Long, Cyril Bajracharya, Aaron Thurber, Alex Punnoose, Rene G. Rodriguez, and Joshua J. Pak, *Chem. Mat.* **2010**, 2699-2701.

"Step-Wise Introduction of Thiolates in Copper Indium Binuclear Complexes" Kelsey R. Margulieux, Chivin Sun, Lev N. Zakharov, Andrew W. Holland, Joshua J. Pak, *Inorg. Chem.*, **2010**, 3959-3961.

"A high yield synthesis of chalcopyrite CuInS2 nanoparticles with exceptional size contron" Chivin Sun, Joseph S. Gardner, Endrit Shurdha, Kelsey R. Margulieux, Richard D. Westover, Lisa Lau, Gary Long, Cyril Bajracharya, Chongmin Wang, Aaron Thurber, Alex Punnoose, Rene G. Rodriguez, and Joshua J. Pak, *J. Nanomat.* **2009**, 748567.

"Pulsed-Spray Radiofrequency PECVD of CuInS2 Thin Films." Rodriguez, Rene G.; Pulsipher, Daniel J. V.; Lau, Lisa D.; Shurdha, Endrit; Pak, Joshua J.; Jin, Michael H.; Banger, Kublinder K.; Hepp, Aloysius F. *Plasma Chemistry and Plasma Processing*, **2006**, 26(2), 137-148.

*All with Undergraduate co-authors!

Other Publications

"Facile synthesis of 4,4',5,5'-tetraiododibenzo-24-crown-8 and its highly conjugated derivatives." Endrit Shurdha, Jaime L. Mayo, and Joshua J. Pak, *Tetrahedron Lett.* **2006**, 47, 233-237.

"Nonlinear Optical Properties of Dehydrobenzo[18]annulenes: Expanded Two-Dimensional Dipolar and Octupolar NLO Chromophores." Abhijit Sarkar, Joshua J. Pak, George W. Rayfield, and Michael M. Haley, *J. Mater. Chem.* **2001**, *11*, 2943-2945.

"Stepwise Assembly of Site-Specifically Functionalized Dehydrobenzo[18]annulenes" Joshua J. Pak, Timothy J. R. Weakley and Michael M. Haley, *J. Am. Chem. Soc.* **1999**, 121, 8182-8192.

"Diastereoselective Self-Assembly of a Pentacoordinate Siliconate Tetraanionic Molecular Square. A Mechanistic Investigation." Pak, Joshua J.; Greaves, John; McCord, Dianne J.; Shea, K. J., *Organometallics*, **2002**, *21*, 3552-3561.

"Carbon Networks Based on Dehydrobenzoannulenes. 2. Synthesis of Expanded Graphdiyne Substructures" W. Brad Wan, Stephen C. Brand, Joshua J. Pak, and Michael M. Haley, *Chem. Eur. J.* **2000**, *6*, 2044-2052.

Synergistic Activities

ACS Committee on Project SEED (Chair 2009-Present; Member 2004-Present)
Reviewer, NSF SBIR/STTR (2002-present)
Development of Computational and Green Chemistry Curriculum
Coordinator and mentor for ACS Project SEED for Idaho Section
Affiliate Member, Center for Advanced Energy Studies

Collaborators & Other Affiliations

Collaborators

Dr. Robert Fox, Idaho National Laboratory, Idaho Falls ID
Dr. Alex Punnoose, Department of Physics, Boise State University
Dr. Jerry Harris, Department of Chemistry, Northwest Nazarene University
Dr. Al Hepp, NASA Glen Research Center, Cleveland OH
Dr. Rene Rodriguez, Department of Chemistry, Idaho State University
Dr. Dennis Strommen, Department of Chemistry, Idaho State University

Graduate and Postdoctoral Advisors

Dr. Michael M. Haley, Department of Chemistry, University of Oregon (Graduate Advisor)
Dr. Ken Shea, Department of Chemistry, University of California Irvine (Postdoctoral Advisor)
Dr. Fraser F. Flemming, Department of Chemistry, Duquesne University (Thesis Advisor)

Angela V. Petit, **Senior Personnel (ISU)**, Assistant Professor of English

Idaho State University, Department of English & Philosophy, Pocatello, Idaho 83209
Phone: (208) 282-2478 Fax: (208) 282-4472 E-mail: petiange@isu.edu

a. Professional Preparation

Louisiana State University	English	BA	1989
Louisiana State University	English	MA	1992
University of Southern Mississippi	English	PhD	1999

b. Academic/Professional Appointments

2008 – Present Assistant Professor of English (composition, technical writing), Idaho State University
2004 – 2008 Director of Academics & Accreditation/Technical Writer, California College, Inc.
1997 – 2004 Assistant Professor of English (composition, technical writing), Univ. of Texas-El Paso
1995 – 1997 Lecturer in English (composition, technical writing), University of Southern Mississippi
1992 – 1995 Dissertation/Thesis Editor, Graduate School, University of Southern Mississippi
1991 – 1992 Technical Editor, College of Engineering, Louisiana State University

c. Selected Publications

- "Online Teaching Opportunities for Technical Communicators." *Intercom* May 2008: 24-26.
- "From Classroom to Workplace: Ten Rules for New Technical Communication Graduates." *Intercom* April 2007: 22-24.
- "Gender 101: Helping Students Become Aware of Stereotypes of Gender and Language." *Teaching English in the Two-Year College* 31.2 (2003): 131-143.
- "Words So Strong: Maxine Hong Kingston's 'No Name Woman' Introduces Students to the Power of Words." *Journal of Adolescent & Adult Literacy* 46.6 (2003): 482-490.
- "The Stylish Semicolon: Teaching Punctuation as Rhetorical Choice." *English Journal* 92.3 (2003): 66-72.
- "Already Experts: Showing Students How Much They Know about Writing and Reading Arguments," with Edna Soto. *Journal of Adolescent & Adult Literacy* 45.8 (2002): 674-682.
- "Domestic, Virtuous Women: Examining Women's Place in a Public Environmental Debate along Louisiana's Cancer Corridor." *Technical Communication Quarterly* 10.4 (2001): 365-387.
- "Removable Feasts: The Writing Center as Carnival." *Composition Forum* 12.1 (2001): 41-58.
- "The Writing Center as 'Purified Space': Competing Discourses and the Dangers of Definition." *The Writing Center Journal* 17.2 (1997): 111-122.

d. Synergistic Activities

- **Connecting the Study and Practice of Technical Writing**: As a specialist in composition and technical writing, Petit continually seeks to connect the study of technical writing in English departments to the practice of technical writing beyond these departments. As such, at the University of Texas at El Paso, she taught specialized technical and professional writing courses for biology, environmental science, and pre-law majors. At the University of Southern Mississippi, she served as an editor for computer science majors and, in her capacity as Dissertation/Thesis Editor for the Graduate School, was responsible for editing and proofreading all doctoral dissertations and master's theses from all programs (sciences, social sciences, humanities, fine arts) represented at the university. At Louisiana State University, Petit served as technical editor for a College of Engineering that included programs in chemical, civil, electrical, industrial, and mechanical engineering. More recently, Petit added to her understanding of professional practices in technical writing by serving as technical writer and Director of Academics & Accreditation for California College, a fully accredited, for-profit distance education institution specializing in health

sciences education. In this capacity, Petit was responsible for internal and external document production, including the design and writing of student instructional manuals, student and faculty handbooks, accreditation reports, and institutional policies and procedures. Through these experiences, Petit gained knowledge of technical writing that enables her to support the document needs of a variety of professional disciplines and effectively train the next generation of technical writers.

- **Experience in Accreditation and Report Writing**: As Director of Academics & Accreditation for California College, a fully accredited, for-profit distance education institution specializing in health sciences education, Petit generated annual and five-year reports required to maintain the institution's accreditation. Documents provided detailed reporting of the institution's policies and practices and assessment data. During her time as Director of Academics & Accreditation, Petit learned strategies for bringing large-scale, collaborative writing projects to fruition under tight deadlines and strict document requirements. She will bring these strategies to her future technical writing projects and to her teaching of the technical writing students who will one day support these projects.

- **Mentoring of Technical and Professional Writing Interns**: While at the University of Texas at El Paso, Petit directed nine graduate and three undergraduate internships in technical and professional writing. Internship projects included projects in website development and design, policies and procedures writing, legal manual writing, grant proposal writing, professional editing, speechwriting, newsletter writing, and press kit writing. Directing these internships, Petit gained experience in managing technical and professional writing projects and training students to provide document support to a variety of academic and non-academic professions.

e. Collaborators and Other Affiliations

- Collaborators during the past 48 months: None

- Graduate and Postdoctoral Advisors
  - Doctoral: Prof. Evelyn Ashton-Jones, Department of English, University of Southern Mississippi, retired

- Thesis Advisor and Postgraduate Scholar Sponsor

  - William Chalmers, Doctor of Philosophy in English (Composition and Rhetoric), Idaho State University (in progress). Dissertation: *The Rhetorics of Commerce/Empire, Science, and Ethnography in Three Eighteenth-century Canadian Exploration Narratives*.

  - Deirdre Carney, Doctor of Philosophy in English (Composition and Rhetoric), Idaho State University (in progress). Topic: Composition Instruction and Pedagogy.

  - Sandra K. Gonzalez, Master of Arts in Professional Writing and Rhetoric, University of Texas at El Paso (Fall 2003). Topic: Ethos in Manual Writing for the UTEP Office of Scholarships.

  - Manuel Aldaco, Master of Arts in Professional Writing and Rhetoric, University of Texas at El Paso (Fall 2003). Topic: Culture and Students in Educational Website Development and Design.

  - Gabriel Yslas, Master of Arts in Professional Writing and Rhetoric, University of Texas at El Paso (Fall 2003). Topic: Cultures and Discourse Communities in Website Development and Design.

Jack Plaggemeyer, Little Big Horn College, Science Instructor

8645 South Weaver Drive, P.O. Box 370, Crow Agency, MT 59022
Phone: (406) 638-3136 E-mail: plaggemeyerj@lbhc.edu

a. Professional Preparation

Montana State University	Agricultural Science	BS	1969
Montana State University-Bozeman	Biological Science	MS	1995
Montana State University- Bozeman	Biological Science	PhD	2003

b. Academic/Professional Appointments

2003 – Present	Science Instructor, Little Big Horn College
2004	Adjunct Lab Instructor
1998 – 2003	Graduate Teaching Assistant, Montana State University
1992 – 1995	Research Assistant

c. Selected Publications

- no publications

d. Synergistic Activities

- Studying the effect of fire on mixed-grass prairie: The project involved using satellite imagery and old aerial photos converted to digital images to study changes in mixed-grass vegetation in the pothole country of northwest North Dakota on the Lostwood National Wildlife Refuge. This resulted in several grant projects being funded, notably, 1.) "Fire and adaptive management of norther prairies: the prairies, fuel, and weeds." USDI Fire Coordination Committee (Research Initiative 1422-R220A8-0011) and NASA (ESES Data Purchase Project Task 1019), 2004. T. Weaver and J. Plaggemeyer, and several others in which Plaggemeyer acted as statistician: 2.) "Effect of fire and grazing on invasive species in norther mixed grass prairie." Final Repart Fire Science Program Contract 01B-3-3-03, 2006. J.S. Hartz-Rubin; "Toadflax, fire *Mecinus janthinus*, and compensatory growth." USDA Forest Service Contract, 2005. Anthony, A.; "Desireables and weeds for roadside management—a norther Rocky Mountain catalogue." Montana Department of Transportation Research, Development & TT Program. Grant No. 8115, 1997. Meier, G. and T. Weaver.
- Study understory plants beneath different levels of thinning of Lodgepole Pine: Plaggemeyer helped plan the project, collected field data, compiled data, statistically analyzed the data, and wrote a master's thesis to fulfill the reporting requirement of the contract. Plaggemeyer's presentations (with co-presenters) of "Weed invasions of grasslands," and "Ecosystem effects of clonal invasion of mixed grass prairie" have a direct impact on the way that ecological systems are viewed by both students and other stakeholders in Montana, such as the Forest Science Laboratory.

e. Collaborators and Other Affiliations

- Collaborators during the past 48 months: None
- Graduate and Postdoctoral Advisors
  - Doctoral: Theodore W. Weaver
- Thesis Advisor and Postgraduate Scholar Sponsor
  none

Sharon Lynn Sieber, Senior Personnel (ISU), Professor of Spanish & Comparative Literature

a. Professional Preparation:

Indiana University, Bloomington, IN, B.A. English and Journalism, 1977
Indiana University, Bloomington, IN, M.A. Spanish, 1982
Indiana University, Bloomington, IN, Ph.D. Comparative Literature, 1992

b. Appointments

2004-present Professor, Idaho State University
1999-2004 Associate Professor, Idaho State University
1999 Fall Fulbright Scholar, Combined Lecturing and Research Grant, Bogotá and Popoyán, Colombia
1994-1999 Assistant Professor, Idaho State University
1993-1994 Visiting Assistant Professor, Idaho State University
1991-1992 Associate Instructor, Spanish, ESL
1985-1991 Graduate Research Assistant
1978-1984 Associate Instructor, Spanish and Comparative Literature

c. Selected Publications

- *Rendezvous: Forty Years of Education and Culture, Literary Tradition and International Exchange.* Editor, Vol. 42, Nos. 1 and 2 (2007). Pocatello: Idaho State UP, 2010
- *Rendezvous: Forty Years of History, Politics and Literature of the West*. Editor,Vol. 41, Nos. 1 and 2 (2006). Pocatello: Idaho State UP, 2009
- *Rendezvous*, Editor, Vol. 40, No. 2 (2005). *The International Experience,* Journal of Arts and Letters, College of Arts and Sciences, Idaho State University
- Forthcoming: "Magical Realism: A Branch of Fantastic Literature," invited essay for Collection of Essays on the Fantastic, Cambridge UP, 2011
- "Fantastic Interpretations of Time in the Work of Juan Rulfo's *Pedro Páramo*, Julio Cortázar's *Rayuela* and José Lezama Lima's *Paradiso*: A Modern Continuity of the Baroque," in *Hispania* 9.2 (2008): 332-342.
- "Time, Simultaneity and the Fantastic in the Narrative of Jorge Luis Borges" in *Romance Quarterly*, University of Kentucky, Lexington, Volume 51, No. 3 (Summer 2004); 200-211.
- "Empirical (Imperial) Validity in the Canon of the Testimonial: Chiasmus and Oral Tradition in *I, Rigoberta Menchú*," with student Joyce Beck in *Revista de Estudios Hispánicos*, Washington University, St. Louis, *Volumen XXXVI, No. 1 (2002)*; 37-68.
- "The Deconstruction of Gender as Archetype in Rosario Castellanos' *El eterno femenino*," in *Letras femeninas, Volumen XXV, Nos. 1-2 (1999*); 39-48
- "Classroom Writing Strategies," with co-author Bruce Leeds, in the *CEA Forum* (Journal of the College English Association), Youngstown State University, Youngstown, Ohio, Winter 1991; 12-16

d. Synergistic Activities:

<u>Highlighting the Importance of the International Experience at Idaho State University</u>: As a Fulbright scholar to Colombia in 1999, Sieber understands the context of the international connection in a global economy. Sieber is Campus Fulbright Program Adviser at ISU, and directs and edits full research and English Teaching Assistantship proposals for students and

facilitates and assists with grant proposal and university linkages for Fulbright scholars. She has worked with students in Fine Arts, Humanities, Education, Business, International Studies, Political Science, and Biology. Sieber has attended a Fulbright Adviser Workshop in Los Angeles and two Fulbright Initiatives for under-represented states (of which Idaho is one) in New York City. She has presented workshops at ISU to encourage faculty and students to apply for Fulbright grants. She successfully applied for a Fulbright Foreign Language Teaching Assistant from Turkey, currently teaching Turkish language and culture at ISU. She has edited and published her College's Journal of Arts and Letters, *Rendezvous*, on the importance of the international experience, and most recently, she published a two-volume forty-year retrospective of the journal in conjunction with ISU Press, on the History, Politics and Literature of the West, and Education and Culture, Literary Tradition and the International Experience.

Mentoring of ISU Undergraduate and Graduate Students to Attend Conferences and Co-Publishing Articles in Scholarly Journals with Students: Sieber has assisted over 10 students get papers accepted at national and international conferences, and has co-authored articles with students in which she lists the student(s) as first author in an effort to foster their own entrance into the professoriate. She regularly collaborates with others to write small grants, and is currently involved in a Spanish composition textbook collaboration with two former ISU colleagues.

Participant in two National Endowment for the Humanities Summer Institutes and NEH Panelist: Sieber partipated in a 2007 NEH Summer Institute in Mexico entitled, "Oaxaca: Crossroads of a Continent," which highlighted indigenous languages, art, culture and history in the state of Oaxaca, Mexico. This included field visits to Monte Albán, and Zapotec and Mixtec sites. Sieber served as an NEH panelist for Summer Seminars and Institutes for high school teachers in April of 2000, and evaluated and reviewed proposals. She was a participant in the 6-week 1998 NEH Summer Institute: "A Center and Periphery in New Spain: 16th and 17th Century Spanish and Indigenous Cultures in Mexico and New Mexico," which focused on the effect of Spanish Conquest on Aztec history and culture as compared to the more peripheral effect of the Spanish Empire on Pueblo tribes in New Mexico and the Four-Corners region.

e. Collaborators & Other Affiliations:

Collaborators during the past 48 months:

- Craig Nickisch (ISU, Department of Foreign Languages, retired)
- Eduardo Castilla (Missouri Western State University, Department of English and Foreign Languages)
- Eileen Spindler (ISU Physics student)
- Warren Johnson (ISU Physics Student)

Graduate and Doctoral Advisor: Willis Barnstone, Department of Comparative Literature, retired Indiana University

- Sieber has advised four doctoral students.

Thesis Advisor and Postgraduate Scholar Sponsor

- Sieber has been the advisor for more than fifteen master's level students.

BIOGRAPHICAL SKETCH

Garth M. Spellman
Biology, Black Hills State University

a. Professional Preparation:

Carleton College	Biology	B.A.	1996
University of Alaska, Fairbanks	Zoology	M.S.	2000
University of Nevada, Las Vegas	Biological Sciences	Ph.D.	2006

b. Appointments

2008-present: Assistant Professor, Department of Biology, Black Hills State University
2006-2008: Research Professor, Center for the Conservation of Biological Resources, Department of Biology, Black Hills State University
2006-present: Research Associate, Marjorie Barrick Museum of Natural History, University of Nevada, Las Vegas
2001-2006: Molecular Systematics Laboratory Manager, Marjorie Barrick Museum of Natural History, University of Nevada, Las Vegas

c. Five publications most closely related to current proposal:

R. Mettler and **G. M. Spellman**. 2009. A hybrid zone revisited: molecular analysis of the maintenance, movement, and evolution of a Great Plains avian (Cardinalidae: *Pheucticus*) hybrid zone. *Molecular Ecology*. 18, 3256-3267.

G.M. Spellman, A. Cibois, R. Moyle, K. Winker, and F.K. Barker. 2008. Clarifying the systematics of an enigmatic avian lineage: What is a Bombycillid?. *Molecular Phylogenetics and Evolution.* 49,1036-1040. http://dx.doi.org/10.1016/j.ympev.2008.09.006

G.M. Spellman and J. Klicka. 2007. Phylogeography of the White-breasted Nuthatch (*Sitta carolinensis*): diversification in North American pine and oak woodlands. *Molecular Ecology* **16**(8), 1729-1740.

G.M. Spellman, B. Riddle, and J. Klicka. 2007. Phylogeography of the Mountain Chickadee (*Poecile gambeli*): diversification, introgression, and expansion in response to Quaternary climate change. *Molecular Ecology***, 16,** 1055-1068.

G.M. Spellman and J. Klicka. 2006. Testing hypotheses of Pleistocene population history using coalescent simulations: phylogeography of the pygmy nuthatch (Sitta pygmaea). *Proceedings of the Royal Society Series B.* **273**, 3057-3063.

Other significant publications:

J. M. DaCosta, **G. M. Spellman**, P. Escalante-Pliego, and J. Klicka. 2009. A molecular systematic revision of two historically problematic songbird clades: *Aimophila* and *Pipilo*. *Journal of Avian Biology*. **40**, 206-216.

C.M. Anderson, **G.M. Spellman**, C. Ferrell, K. Strickler, and S.K. Sarver. 2008. Conservation genetics of American Dipper (*Cinclus mexicanus*): the genetic status of a population in severe decline. *Conservation Genetics*. **9,** 939-944. DOI 10.1007/s10592-007-9429-5

J. Klicka, K. Burns, and **G.M. Spellman**. 2007. Defining a monophyletic Cardinalini: A molecular perspective. *Molecular Phylogenetics and Evolution* **45**, 1014-1032.

J. Klicka and **G. M. Spellman**. 2007. A molecular evaluation of the North American "grassland" sparrow clade. *The AUK* **124**, 537-551.

J. Klicka, G. Voelker, and **G.M. Spellman**. 2005. A systematic revision of the true thrushes (Aves: Turdinae). *Molecular Phylogenetics and Evolution* **34,**486-500.

d. Synergistic activities

Chair and Co-administrator of an NSF funded S-STEM (DUE-0728553) undergraduate scholarship program at BHSU designed to financially aid and academically advance American Indian biology majors. Ad hoc reviewer: Acta Zoologica Sinica, The Auk, The Condor, Current Biology, Evolution, Journal of Avian Biology, Journal of Biogeography, Molecular Ecology, Molecular Phylogenetics and Evolution, Proceedings of the Royal Society, Series B, NSF Population Biology and Systematics Program, NSF Environmental Genomics Program, NSF CAREER Program, NSF Population and Evolutionary Processes Program, National Geographic Society.

e. Recent collaborators and their affiliations:

Anderson, C.	Black Hills State University
Barker, K.	University of Minnesota
Bergeon Burns, C	Indiana University
Burns, K.	San Diego State University
Carling, M.	Cornell University
Cicero, C.	Museum of Vertebrate Zoology, University of California, Berkeley
DaCosta, J.	Boston University
Edwards, S.V.	Harvard University, Museum of Comparative Zoology
Escalante, P.	Instituto de Biología, Universidad Nacional Autónoma México
Jaeger, J.	Public Lands Institute, University of Nevada, Las Vegas
Klicka, J.	Marjorie Barrick Museum of Natural History, University of Nevada, Las Vegas
Miller, M.	University of Alaska, Fairbanks; Smithsonian Tropical Research Institute
Moyle, R.	Museum of Natural History, Kansas University
Pulgarin, P.	Universidad de Medellín, Colombia
Riddle, B.	University of Nevada, Las Vegas
Sarver, S.	Black Hills State University
Siemens, D.	Black Hills State University
Stone, J.	South Dakota School of Mines and Technology
Winker, K.	Museum of the North, University of Alaska, Fairbanks

Graduate and post-graduate advisors:

Klicka, J.	Marjorie Barrick Museum of Natural History, University of Nevada, Las Vegas
Riddle, B.	University of Nevada, Las Vegas
Winker, K.	Museum of the North, University of Alaska, Fairbanks

Thesis advisor:

Mettler, R. (Master's Student)	Department of Biology, Black Hills State University
Walstrom, V.W. (Master's Student)	Department of Biology, Black Hills State University
Manthey, J. (Master's Student)	Department of Biology, Black Hills State University
Duvall Jisha, J (Master's Student)	Department of Biology, Black Hills State University
Kennedy, K (Master's Student)	Department of Biology, Black Hills State University
Sheets, J (Master's Student)	Department of Biology, Black Hills State University
Mehrotra, P. (Master's Student)	Department of Biology, Black Hills State University

BIOGRAPHICAL SKETCH/CURRICULUM VITAE

Name: Scott Wiley

Title: Coordinator of Office of Multicultural Affairs

Professional Preparation:

M.S. in Counseling and Human Resource Development: South Dakota State University, West River Graduate Center, Rapid City, SD (April 2005)

18 hours toward Masters' in Ministerial Education: Indiana Wesleyan University, Marion, IN (1995-1998)

B.S. in Christian Ministries with emphasis in Youth Ministry and Christian Education: Marion College (Indiana Wesleyan University), Marion, IN (1986)

Appointments:

Director, Office of Multicultural Affairs, South Dakota School of Mines & Technology, Rapid City, SD (2008-Present)

Counselor, Counseling Services, South Dakota School of Mines & Technology, Rapid City, SD (2004-present)

Senior Pastor, Word of Hope Wesleyan Church, Rapid City, SD (2002-present)

Assistant Pastor of Christian Education & Discipleship, First Wesleyan Church, Rapid City, SD 1993-2002

Publications:

NA

Synergistic Activities:

Numerous activities related to the Multi-cultural center. Working with Native American students in a variety of programs at SDSM&T and providing services such as :

- Welcome and orientation for minority students
- Guidance, advocacy and problem-solving help
- Friday lunches for networking and social support
- Facilitate study groups
- Connect to tutors through Tech Learning Center, AISES and other sources
- Identify and apply for scholarships
- Locate internships and co-ops through Career Services and other resources

- Promote appreciation on campus for diverse cultures
- Exposure to diversity efforts of the corporate world
- Opportunities for professional development
- Feathering ceremony for American Indian graduates

Collaborators and Co-Editors:
NA

Graduate and Postdoctoral Advisors:
NA

Thesis Advisor and Postgraduate-Scholar Sponsor:
NA

Robb M. Winter

Contact Information

Department of Chemical and Biological Engineering
South Dakota School of Mines and Technology
501 East St. Joseph Street, Rapid City, SD 57701

Phone: (605) 394-1237
Fax: (605) 394-1232
Email: robb.winter@sdsmt.edu

(a) Professional Preparation

Dickinson State University	Chemistry	B.A. Summa Cum Laude	1978
University of Utah	Chemical Engineering	M.S.	1981
University of Utah	Chemical Engineering	Ph.D.	1986

(b) Appointments

2009-Present	Head, Department of Chemical and Biological Engineering, SDSM&T
2006-2008	Program Officer, Office of Int'l. Sci. and Eng., National Science Foundation.
2005-2006	Chair, Department of Chemical and Biological Engineering, SDSM&T.
2002-2005	Chair, Department of Chemistry and Chemical Engineering, SDSM&T.
2002-06, 2008-Present	Director, Composite and Polymer Engineering Laboratory, SDSM&T.
1989-Present	Assoc. Prof. and Professor (1995) of Chemical Engineering, SDSM&T.
1999	Sabbatical, University of Texas at Austin, NSF-STC (Prof. J.M. White, Director)
1997	Sabbatical, Sandia National Laboratories (Dr. J.E. Houston).
1989-1992	Visiting Scholar and Adjunct Assoc. Prof. of Chemical Eng., University of Utah.
1986-1989	Process Development Engineer, General Electric (GE) Plastics.
1984-1986	Staff Engineer, GE - Corporate Research and Development.
1984	Instructor of Chemical Engineering, University of Utah.
1983	Chemical Engineer Trainee, Rauma Repola OY, Finland.
1975-1978	QC Laboratory and Refinery Maintenance, Northland Oil and Refining.

Scholarly, Infrastructure, and Economic Development Activities (PI or Co-PI: $10,280,000)

THRUST 1: The overall goal of Thrust 1 is to understand the link between chemistry, microstructures and nano- micro- and macro-mechanical properties in polymeric thin films, nanocomposites and macrocomposites. We are pursuing this goal through the application FT-IR evanescent wave and laser Raman spectroscopies and XPS to obtain spatially resolved chemical information. Morphological analysis is accomplished through the application of SEM, TEM and AFM Phase Imaging. Nano-, micro- and macro-mechanical are probed using interfacial force microscopy (nanometer spatial characterization), nanoindentation (100's nm spatial characterization), materials testing system (macroscopic analysis). **THRUST 2**: The overall goal of Thrust 2 is develop and demonstrate processes to create monolithic and functional graded polymeric systems (thin films to monolithic structures). As the development proceeds we are simultaneously revealing the fundamental parameters that affect these processes. To accomplish this goal we utilized high shear mixers, twin-screw extruders, and thin film fabrication devices such as spin coating. **THRUST 3**: The overall goal of Thrust 3 is to demonstrate the capabilities of traditional polymeric high shear equipment, such as single and twin-screw extrusion to liberate cellulosic material in biomass. This is being investigated to avoid the use of corrosive and expensive pretreatment methods that are currently under development.

Selected Publications (41)/Presentations (108):

1. R.M. Winter, "Nano-reinforced Functionally Graded Polymeric Systems for Multifunctional Structures," **Final Report**, Air Force Research Laboratory, January 2010.
2. S.B. Yedla, M. Kalukanimuttam, R.M. Winter, and S.K. Khanna, "Effect of Shape of the Tip in Determining Interphase Properties in Fiber Reinforced Plastic Composites Using Nanoindentation." **Journal of Engineering Materials and Technology**, 130 (4) pp. 041010-1 – 041010-15, 2008.

3. S. Mattampelli, W. Arbegast, R. Winter, "Friction Stir Joining of Thermoplastics," in **Friction Stir Welding IV**, pp. 223-232, 2007.
4. M. Wang, K.M. Liechti, J.M. White, and R.M. Winter, "Nanoindentation of Polymeric Thin Films with an Interfacial Force Microscope," **Journal of the Mechanics and Physics of Solids**, 52 pp. 2329-2354, 2004.
5. S.K. Khanna, K. Paruchuri, P. Ranganathan, S.B. Yedla, and R.M. Winter, "Investigation of Nanomechanical Properties of the Interphase in Glass Fiber Reinforced Polyester Composite Using Nanoindentation," **ASME J. of Engineering Materials and Technology**, 125 (2) pp. 90-96, 2003.
6. K.T. Gillen, E. R. Tirrell, and R.M. Winter, "Modulus Mapping of Rubbers Using Micro- and Nano-Indentation Techniques," **Rubber Chemistry and Tech., Rubber Reviews**, 74 (3) pp. 428-450, 2001.

(d) Synergistic Activities

1) Under development are a suite of laser-based tools for molecular probing of the interface/interphase regions found in polymer matrix composites (micro- and nano-) and functionally graded thin films. Two instruments are currently under development: 1) Time-Correlated Photon Counting Fluorescence Spectroscopy and 2) Extended Wavelength Pulsed Laser System for Vibrational Sum-Frequency Generation Spectroscopy.

2) As Director (Research) of the Composites and Polymer Engineering (CAPE) Laboratory I have had the responsibility to: 1) develop the design and modifications (e.g. utilities, HVAC, casework, interior spaces) of an existing 14,000 ft^2 building for the CAPE and three other research functions, 2) oversee the implementation of the design and modifications, 3) specify and purchase a wide assortment of polymer and composite processing equipment, and 4) identify internal and external projects/opportunities.

3) A recent effort has been to develop and grow the SD 2010 Center for Bioprocessing Research and Development. A team of researchers from SD School of Mines and Technology and South Dakota State University has been actively developing proposals that will leverage the science and engineering strengths of the assembled faculty to move forward the work in bioprocessing and biorefining.

4) Through support of the NSF, I oversaw for six years the Research Experience for Undergraduates Site: "SDSM&T-Mongolian University of Science and Technology (MUS&T) Site Collaboration." A particular emphasis of this international REU Site has been the focused recruiting of Native Americans and women. NSF is also supporting our Research Experience for Teachers Site: Inspiring Educators in Rural America through Research, which I oversaw. We brought 10 6-12 teachers to campus for five weeks to conduct research with a faculty mentor. A particular emphasis is the recruitment of teachers who serve the Native American population (schools with >50% Native American student enrollment).

(e) Collaborators in and Other Affiliations

Collaborators in Paste 48 Months

Mr. D. Litzen, CTO and VP Eng. and Mr. K. Flanegan, KL Energy; Mr. D. Kruse, Pres., Pacer Corp., SD; Dr. D. Dixon, Chemical Eng., SDSM&T; Dr. K. Liechti, Aero. Eng., U of Texas – Austin; Dr. J. Houston, Sandia National Laboratories; Dr. J. Puszynski, Chemical Eng., SDSM&T; Dr. C. Jenkins, Mechanical Eng., MSU; Dr. G Bilow, Boeing Corp. – St. Louis

Graduate and Postdoctoral Advisors

David. W. Pershing, University of Utah for M.S. and Ph.D.

Thesis Advisors and Postgraduate Scholar Sponsor: Total: 1 Post Doc, 5 PhD, and 32 MS; last three years: Dr. Wei Chian, Post. Doc.; Naveen Vaduri, Ph.D. MES (current), Ilchgerel Dash, Ph.D. CBE (current), Timothy Shenk, Ph.D. CBE (current), Min Lu, Ph.D. MES, Zhiyu Liu, Ph.D. MES, H. Liu, Ph.D. MES, Sheryl Cossins, Ph.D. MES Jeff Whetzal, M.S. ChE (current), Lhakvalum Otgonbayar, M.S. ChE, Saritha Mattampelli, M.S. ChE, Hari Krishna Kasetty, M.S. ChE, G. Pydisetti, M.S. ChE, Purush. Ranganathan, M.S. ChE, Samatha Yedla, M.S. ChE, Deepa Gautam-Perumal, M.S. ChE, C. Mallampalli, M.S. ChE.

RET, REU, Undergraduate, and High School Research Assistants (last 3 years): Mr. B. Miller, 8th Grade Science Teacher, Douglas Middle School; B. Campbell (REU, HS), H. Ditlev (NSF), and G. Schlichting (REU), W. Baker (AFRL), B. Campbell (REU), N. Stehlik (ARL, Boeing), G. Schlichting (AFRL), P. Squillace (AFRL), T. Walker (AFRL), J. Warner (AFRL) S. Eddie (AFRL).

HRD PROPOSAL BUDGET

YEAR 1

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Idaho State University

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Thomas T Jackson

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Thomas T Jackson - PI**	0.00	0.00	0.00	$ 0	$ 0	$ 0
2. **Doyle Anderson**	0.00	0.00	0.00	0	0	0
3. **Colden Baxter**	0.00	0.00	0.00	0		0
4. **Philip Cole**	0.00	0.00	0.00	0	0	0
5. **Debra M Easterly - Co-PI**	0.00	0.00	0.00	0	0	0
6. (**12**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	2.70	0.00	14,860	0	14,860
7. (**17**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	2.70	0.00	14,860	0	14,860
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	0	0	0
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	0	0	0
3. (**0**) GRADUATE STUDENTS				0	0	0
4. (**0**) UNDERGRADUATE STUDENTS				3,123	0	3,123
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				0	0	0
6. (**0**) OTHER				0	0	0
TOTAL SALARIES AND WAGES (A + B)				17,983	0	17,983
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				6,184	0	6,184
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				24,167	0	24,167
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				0	0	0
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				17,600	0	17,600
2. FOREIGN				0	0	0
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				0	0	0
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				3,000	0	3,000
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				0	0	0
3. CONSULTANT SERVICES				0	0	0
4. COMPUTER SERVICES				0	0	0
5. SUBAWARDS				82,678	0	82,678
6. OTHER				5,000	0	5,000
TOTAL OTHER DIRECT COSTS				90,678	0	90,678
H. TOTAL DIRECT COSTS (A THROUGH G)				132,445	0	132,445
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) **salaries and wages (Rate: 47.0000, Base: 17983)**						
TOTAL INDIRECT COSTS (F&A)				8,452	0	8,452
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				140,897	0	140,897
K. RESIDUAL FUNDS				0	0	0
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ 140,897	$ 0	$ 140,897

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Thomas T Jackson

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

SUMMARY PROPOSAL BUDGET COMMENTS - Year 1

Budget Justification Page

Other Senior Personnel

Name - Title	Cal	Acad	Sumr	Funds Requested	NFMF	Tot Proj Cost
Kerk, Carter J -	0.00	0.00	0.00	0	0	0
Kliche, Donna -	0.00	0.00	0.00	0	0	0
Light, Jennifer -	0.00	0.00	0.00	0		0
Logar, Antonette M - co-PI	0.00	0.00	0.00	0	0	0
Matejcik, Frank -	0.00	0.00	0.00	0	0	0
Pak, Joshua -	0.00	0.00	0.00	0	0	0
Petit, Angela -	0.00	1.80	0.00	8404	0	8404
Plaggemeyer, Jack -	0.00	0.00	0.00	0		0
Sieber, Sharon -	0.00	0.90	0.00	6456	0	6456
Spellman, Garth -	0.00	0.00	0.00	0		0
Wiley, Scott -	0.00	0.00	0.00	0	0	0
Winter, Robb M -	0.00	0.00	0.00	0	0	0

HRD
PROPOSAL BUDGET

Cumulative

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Idaho State University

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Thomas T Jackson

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Thomas T Jackson - PI**	0.00	0.00	0.00	$ **0**	$ **0**	$ **0**
2. **Doyle Anderson**	0.00	0.00	0.00	**0**	**0**	**0**
3. **Colden Baxter**	0.00	0.00	0.00	**0**		**0**
4. **Philip Cole**	0.00	0.00	0.00	**0**	**0**	**0**
5. **Debra M Easterly - Co-PI**	0.00	0.00	0.00	**0**	**0**	**0**
6. (**12**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	2.70	0.00	**14,860**	**0**	**14,860**
7. (**17**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	2.70	0.00	**14,860**	**0**	**14,860**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**0**	**0**	**0**
4. (**0**) UNDERGRADUATE STUDENTS				**3,123**	**0**	**3,123**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**17,983**	**0**	**17,983**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**6,184**	**0**	**6,184**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**24,167**	**0**	**24,167**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**17,600**	**0**	**17,600**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**3,000**	**0**	**3,000**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**82,678**	**0**	**82,678**
6. OTHER				**5,000**	**0**	**5,000**
TOTAL OTHER DIRECT COSTS				**90,678**	**0**	**90,678**
H. TOTAL DIRECT COSTS (A THROUGH G)				**132,445**	**0**	**132,445**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)				**8,452**	**0**	**8,452**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**140,897**	**0**	**140,897**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **140,897**	$ **0**	$ **140,897**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Thomas T Jackson

ORG. REP. NAME*
,

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INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

Budget Justification Page

Other Senior Personnel

Name - Title	Cal	Acad	Sumr	Funds Requested	NFMF	Tot Proj Cost
Kerk, Carter J -	0.00	0.00	0.00	0	0	0
Kliche, Donna -	0.00	0.00	0.00	0	0	0
Light, Jennifer -	0.00	0.00	0.00	0		0
Logar, Antonette M - co-PI	0.00	0.00	0.00	0	0	0
Matejcik, Frank -	0.00	0.00	0.00	0	0	0
Pak, Joshua -	0.00	0.00	0.00	0	0	0
Petit, Angela -	0.00	1.80	0.00	8404	0	8404
Plaggemeyer, Jack -	0.00	0.00	0.00	0		0
Sieber, Sharon -	0.00	0.90	0.00	6456	0	6456
Spellman, Garth -	0.00	0.00	0.00	0		0
Wiley, Scott -	0.00	0.00	0.00	0	0	0
Winter, Robb M -	0.00	0.00	0.00	0	0	0

Budget Justification – Idaho State University

Personnel

Dr. Angela Petit, Senior personnel. Release from one class in spring 2011 to develop and write full AGEP proposal. Release from one class in fall 2011 to work on bridge activities until full AAGEP awarded and to begin research on knowledge integration segment. $42,020 x .2 = 8,404

Dr. Sharon Sieber, senior personnel, release time from one class, fall 2011 to work on knowledge integration segment. 64,560 x.1 = $6,456

Undergraduate student to assist with data collection, proposal development, etc in spring and summer 2011. 260 x $12/hr = $3,123

Fringe benefits for faculty, salary x 21%, $14,860 x .21 = $3,121 student – salary x .089%, $3,123 x .089 = $278

Health Insurance for faculty - $9,284/year x .3 = $2,785

Travel (includes travel for all personnel in all associate and partner institutions)

Considering geographical location of all involved personnel, driving is usually more economical and efficient than flying.

Laramie, WY. As many senior personnel as possible to meet at one meeting, approximately 20, face-to-face as the project is started. Mileage cost from Pocatello to Laramie $450, Rapid City to Laramie $286. Spearfish to Rapid City $44 (Dr. Spellman can ride with SDSMT), Lewiston air to Laramie ~$500. Hotel rooms 20 x $100/night/ 1-2 nights, perdiem for 20 people at $50 per day. $6700

Two to four personnel to Missoula, MT to visit with UM AGEP program personnel. Number attending would be at least one from ISU and SDSMT and possibly one from BHSU and one from LCSC. Mileage from Pocatello and Rapid City and Lewiston - $1200, lodging $600, perdiem $600. $2400

Similar trip to one other exemplar program – to be determined. Estimated cost $3000 as it may entail air travel. $3000

To travel to associate schools in the Great Basin/Great Plains region that sign on to the project to meet with personnel and stakeholders in the area. This cost will include mileage or airfare, perdiem, lodging. $3000

Drs. Petit and Sieber to travel to each institution in late May, early June to help finalize the activities and commitments for full proposal. Based on mileage from mapquest at $.455/mile, state lodging and per diem rates. $2500

Materials and Supplies

Materials and supplies needed for project (copying costs, etc.) Purchase $100 webcam for all personnel to allow them to interact with all partner and associate personnel. Approximately 20 cameras

Subawards, see attached budgets. $20,000 requested for funds to new associate institutions that become part of the project, such as Oglalla Lakota College, Little Big Horn College, and others. This money will allow them to hire a student to help with data collection and visiting with stakeholders.

Other - Stakeholder meetings funds are requested to hold meetings with community stakeholders to involve them in the planning process. These funds will include money for food, rental of meeting space if needed, and other associated costs. It is important to meet the stakeholders on their terms, in their home area. Other also includes funds for video conferencing and phone charges that may be incurred as groups meet and communicate.

Indirect costs – 47% of salaries and wages $17,983 x .47 =$8,452.

HRD PROPOSAL BUDGET

YEAR 1

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Black Hills State University

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Garth Spellman

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Garth Spellman**	0.00	0.00	0.00	$ **0**	$ **0**	$ **0**
2.						
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**1**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	**0**	**0**	**0**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**0**	**0**	**0**
4. (**0**) UNDERGRADUATE STUDENTS				**3,200**	**0**	**3,200**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**3,200**	**0**	**3,200**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**322**	**0**	**322**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**3,522**	**0**	**3,522**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**0**	**0**	**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**0**	**0**	**0**
TOTAL OTHER DIRECT COSTS				**0**	**0**	**0**
H. TOTAL DIRECT COSTS (A THROUGH G)				**3,522**	**0**	**3,522**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) **salaries and benefits (Rate: 42.0000, Base: 3522)**						
TOTAL INDIRECT COSTS (F&A)				**1,478**	**0**	**1,478**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**5,000**	**0**	**5,000**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **5,000**	$ **0**	$ **5,000**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Garth Spellman

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

HRD
PROPOSAL BUDGET

Cumulative

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Black Hills State University

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Garth Spellman

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Garth Spellman**	0.00	0.00	0.00	$ **0**	$ **0**	$ **0**
2.						
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**1**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	**0**	**0**	**0**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**0**	**0**	**0**
4. (**0**) UNDERGRADUATE STUDENTS				**3,200**	**0**	**3,200**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**3,200**	**0**	**3,200**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**322**	**0**	**322**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**3,522**	**0**	**3,522**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**0**	**0**	**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**0**	**0**	**0**
TOTAL OTHER DIRECT COSTS				**0**	**0**	**0**
H. TOTAL DIRECT COSTS (A THROUGH G)				**3,522**	**0**	**3,522**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)				**1,478**	**0**	**1,478**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**5,000**	**0**	**5,000**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **5,000**	$ **0**	$ **5,000**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Garth Spellman

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

C

***ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET**

Budget Justification Page

Strengthening Native American Access to the Professoriate (SNAAP)
Planning Grant - BHSU subaward

Spellman's student research assistant, 320 hrs @ $10/hr	3200
Fringe benefits @ 10%	322
subtotal	3522
Indirect costs @ 42% S+B	1478
Total costs	5000

The student research assistant will assist Dr. Spellman in gathering demographic information, institutional resource data and other information needed for the development of the full AGEP proposal

HRD PROPOSAL BUDGET

YEAR 1

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Lewis-Clark State College

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Jennifer Light

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Jennifer Light**	0.00	0.00	0.00	$ **3,362**	$ **0**	$ **3,362**
2.						
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**1**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	**3,362**	**0**	**3,362**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**0**	**0**	**0**
4. (**0**) UNDERGRADUATE STUDENTS				**4,080**	**0**	**4,080**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**7,442**	**0**	**7,442**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**1,815**	**0**	**1,815**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**9,257**	**0**	**9,257**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**0**	**0**	**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**0**	**0**	**0**
TOTAL OTHER DIRECT COSTS				**0**	**0**	**0**
H. TOTAL DIRECT COSTS (A THROUGH G)				**9,257**	**0**	**9,257**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) **TDC (Rate: 10.0000, Base: 9257)**						
TOTAL INDIRECT COSTS (F&A)				**926**	**0**	**926**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**10,183**	**0**	**10,183**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **10,183**	$ **0**	$ **10,183**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Jennifer Light

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

HRD
PROPOSAL BUDGET

Cumulative

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
Lewis-Clark State College

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Jennifer Light

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Jennifer Light**	0.00	0.00	0.00	$ **3,362**	$ **0**	$ **3,362**
2.						
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**1**) TOTAL SENIOR PERSONNEL (1 - 6)	0.00	0.00	0.00	**3,362**	**0**	**3,362**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**0**	**0**	**0**
4. (**0**) UNDERGRADUATE STUDENTS				**4,080**	**0**	**4,080**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**7,442**	**0**	**7,442**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**1,815**	**0**	**1,815**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**9,257**	**0**	**9,257**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**0**	**0**	**0**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**0**	**0**	**0**
TOTAL OTHER DIRECT COSTS				**0**	**0**	**0**
H. TOTAL DIRECT COSTS (A THROUGH G)				**9,257**	**0**	**9,257**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)				**926**	**0**	**926**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**10,183**	**0**	**10,183**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **10,183**	$ **0**	$ **10,183**

M. COST SHARING PROPOSED LEVEL $ **0** | AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Jennifer Light

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

C

***ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET**

Budget Justification Page

SNAAP Planning Grant
Sub award for Lewis-Clark State College

Jenni Light, senior personnel, $43,701/160 hrs $3362
Fringe benefits, 20.57% salary $ 692
Health insurance, $8440/yr $ 703
Student assistant, approx $12/hr $4080
Student fringe, 9.33% $ 420
Indirect costs 10% TDC $ 928

Total $10185

Dr. Light and the student assistant will gather data and information requested by ISU to complete the full AGEP proposal.

HRD PROPOSAL BUDGET

YEAR 1

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
South Dakota School of Mines and Technology

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Antonette M Logar

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Antonette M Logar**	0.00	0.00	0.00	$ **0**	$ **0**	$ **0**
2. **Frank Matejcik**	1.00	0.00	1.00	**15,179**	**0**	**15,179**
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**2**) TOTAL SENIOR PERSONNEL (1 - 6)	1.00	0.00	1.00	**15,179**	**0**	**15,179**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**11,958**	**0**	**11,958**
4. (**0**) UNDERGRADUATE STUDENTS				**0**	**0**	**0**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**27,137**	**0**	**27,137**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**4,752**	**0**	**4,752**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**31,889**	**0**	**31,889**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**600**	**0**	**600**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**2,983**	**0**	**2,983**
TOTAL OTHER DIRECT COSTS				**3,583**	**0**	**3,583**
H. TOTAL DIRECT COSTS (A THROUGH G)				**35,472**	**0**	**35,472**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE) **MTDC (Rate: 37.0000, Base: 32489)**						
TOTAL INDIRECT COSTS (F&A)				**12,021**	**0**	**12,021**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**47,493**	**0**	**47,493**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **47,493**	$ **0**	$ **47,493**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Antonette M Logar

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

*ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET

HRD PROPOSAL BUDGET

Cumulative

FOR NSF USE ONLY		
PROPOSAL NO.	DURATION (months) Proposed	Granted
AWARD NO.		

ORGANIZATION
South Dakota School of Mines and Technology

PRINCIPAL INVESTIGATOR / PROJECT DIRECTOR
Antonette M Logar

A. SENIOR PERSONNEL: PI/PD, Co-PI's, Faculty and Other Senior Associates (List each separately with title, A.7. show number in brackets)	NSF Funded Person-months CAL	ACAD	SUM	Funds Requested From NSF	Non-Federal Matching Funds	Total Project Cost
1. **Antonette M Logar**	0.00	0.00	0.00	$ **0**	$ **0**	$ **0**
2. **Frank Matejcik**	1.00	0.00	1.00	**15,179**	**0**	**15,179**
3.						
4.						
5.						
6. (**0**) OTHERS (LIST INDIVIDUALLY ON BUDGET JUSTIFICATION PAGE)	0.00	0.00	0.00	**0**	**0**	**0**
7. (**2**) TOTAL SENIOR PERSONNEL (1 - 6)	1.00	0.00	1.00	**15,179**	**0**	**15,179**
B. OTHER PERSONNEL (SHOW NUMBERS IN BRACKETS)						
1. (**0**) POST DOCTORAL SCHOLARS	0.00	0.00	0.00	**0**	**0**	**0**
2. (**0**) OTHER PROFESSIONALS (TECHNICIAN, PROGRAMMER, ETC.)	0.00	0.00	0.00	**0**	**0**	**0**
3. (**0**) GRADUATE STUDENTS				**11,958**	**0**	**11,958**
4. (**0**) UNDERGRADUATE STUDENTS				**0**	**0**	**0**
5. (**0**) SECRETARIAL - CLERICAL (IF CHARGED DIRECTLY)				**0**	**0**	**0**
6. (**0**) OTHER				**0**	**0**	**0**
TOTAL SALARIES AND WAGES (A + B)				**27,137**	**0**	**27,137**
C. FRINGE BENEFITS (IF CHARGED AS DIRECT COSTS)				**4,752**	**0**	**4,752**
TOTAL SALARIES, WAGES AND FRINGE BENEFITS (A + B + C)				**31,889**	**0**	**31,889**
D. EQUIPMENT (LIST ITEM AND DOLLAR AMOUNT FOR EACH ITEM EXCEEDING $5,000.)						
TOTAL EQUIPMENT				**0**	**0**	**0**
E. TRAVEL 1. DOMESTIC (INCL. CANADA AND U.S. POSSESSIONS)				**0**	**0**	**0**
2. FOREIGN				**0**	**0**	**0**
F. PARTICIPANT SUPPORT COSTS						
1. STIPENDS $ **0**						
2. TRAVEL **0**						
3. SUBSISTENCE **0**						
4. OTHER **0**						
(**0**) TOTAL PARTICIPANT COSTS				**0**	**0**	**0**
G. OTHER DIRECT COSTS						
1. MATERIALS AND SUPPLIES				**600**	**0**	**600**
2. PUBLICATION COSTS/DOCUMENTATION/DISSEMINATION				**0**	**0**	**0**
3. CONSULTANT SERVICES				**0**	**0**	**0**
4. COMPUTER SERVICES				**0**	**0**	**0**
5. SUBAWARDS				**0**	**0**	**0**
6. OTHER				**2,983**	**0**	**2,983**
TOTAL OTHER DIRECT COSTS				**3,583**	**0**	**3,583**
H. TOTAL DIRECT COSTS (A THROUGH G)				**35,472**	**0**	**35,472**
I. INDIRECT COSTS (F&A)(SPECIFY RATE AND BASE)						
TOTAL INDIRECT COSTS (F&A)				**12,021**	**0**	**12,021**
J. TOTAL DIRECT AND INDIRECT COSTS (H + I)				**47,493**	**0**	**47,493**
K. RESIDUAL FUNDS				**0**	**0**	**0**
L. AMOUNT OF THIS REQUEST (J) OR (J MINUS K)				$ **47,493**	$ **0**	$ **47,493**

M. COST SHARING PROPOSED LEVEL $ **0** AGREED LEVEL IF DIFFERENT $

PI/PD NAME
Antonette M Logar

ORG. REP. NAME*
,

FOR NSF USE ONLY		
INDIRECT COST RATE VERIFICATION		
Date Checked	Date Of Rate Sheet	Initials - ORG

C

***ELECTRONIC SIGNATURES REQUIRED FOR REVISED BUDGET**

Strengthening Native American Access to the Professoriate (SNAAP)

A. & B. PERSONNEL

The Co-PI requests one month of summer salary and one month during the academic year. One M.S. graduate research assistant at 50% will work on the project and a second undergraduate assistant located at Oglala Lakota College, funded under Idaho State University's proposal budget, will be under the supervision of Dr. Matejcik. The salaries that will be charged for this work will be those regularly approved for the individuals involved by the governing body of the South Dakota School of Mines and Technology; namely the Regents of Education of the State of South Dakota. The rates for FY 2011 (July 1, 2010 through June 30, 2011) are based on current contractual agreements for FY 2011 and assume an increase of 2.5% per fiscal year thereafter. Rates for students are approved for the period of mid May 2010, through mid May 2011, and assume an increase of 2.5% per year thereafter. If increases exceed that amount, effort stated will need to correspond with salary.

Eligible personnel earn vacation at the rate of 10 hours per month if they have 15 years or less of service and 13.33 hours per month if their period of service exceeds 15 years. This vacation is handled in the budget by including the appropriate accrual adjustment in the salary rate. This procedure is utilized for all sponsored research to ensure that each project pays only its pro rata share of the vacation authorized.

C. FRINGE BENEFITS

Fringe benefits have been budgeted at 25% of salaries and wages for faculty and research scientist and 8% for students. The benefits consist of contributions to social security, the unemployment insurance program, the workmen's compensation program, the flexible benefit fee program, a group insurance program and matching contributions to the state employee retirement program. Only the actual costs of the fringe benefit programs are charged to the project.

D. EQUIPMENT

No major equipment (with dollar amount exceeding $5,000) is requested. All necessary equipment is available at South Dakota School of Mines and Technology. Small cameras are included in the budget to facilitate face-to-face meetings at a distance, with a total value of $300.

E. TRAVEL

No travel funds are included in the SDSM&T sub-award. All travel will be funded and coordinated by Idaho State University. Significant travel to institutions with exemplary programs is anticipated. Travel costs are based on current estimates and will be conducted in accordance with the State of South Dakota Travel Regulations.

F. PARTICIPANT SUPPORT COSTS

N/A

G. OTHER DIRECT COSTS

1. Materials and Supplies

Funds are allocated for research materials and supplies. Specifically, copying, printing, and library charges are anticipated. Expenditures reflected in these categories are based on best estimates now available. Funds are also allocated for computer cameras to aid in video conferencing between institutions.

2. Publication Costs

No funds are allocated for publication materials and supplies.

3. Consultant Services

No consultant services are required for this proposal.

5. Subawards

No subawards are required from SDSM&T in the proposal. SDSM&T is included in the Idaho State University proposal as a subaward recipient.

6. Other

Funds are allocated for the tuition remission of graduate students. Expenditures reflected in these categories are based on best estimates now available.

I. INDIRECT COSTS (F&A)

The latest indirect cost rate approved by the cognizant government audit agency for the South Dakota School of Mines and Technology is 37.0% of modified total direct costs. The cognizant government audit agency for the institution is:

Director, Division of Cost Allocation
DCA Western Field Office, Department of Health and Human Services
90 7th Street, Suite 4-600
San Francisco, CA 94103-6705

HHS Representative: Jeanette Lu
Telephone Number (415) 437-7820

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Thomas Jackson

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.50 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

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*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

 USE ADDITIONAL SHEETS AS NECESSARY

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Debra Easterly	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.50 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: STARS: SupporTing Awareness in Research in Stem

Source of Support: AAUW

Total Award Amount: $ 3,324 Total Award Period Covered: 12/10/10 - 06/30/11

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.05 Acad: 0.00 Sumr: 0.00

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: NSF EPSCoR:Water Resources in a Changing Climate

Source of Support: NSF EPSCor - University of Idaho

Total Award Amount: $ 2,856,886 Total Award Period Covered: 01/01/00 - 01/01/00

Location of Project:

Person-Months Per Year Committed to the Project. Cal: 0.12 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: NASA EPSCor undergrads

Source of Support: NASA EPSCoR, University of ID

Total Award Amount: $ 15,000 Total Award Period Covered: 12/01/10 - 06/24/11

Location of Project:

Person-Months Per Year Committed to the Project. Cal: 0.05 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Antonette M. Logar	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Friction Stir Processing Industry/University Cooperative Research Center

Source of Support: National Science Foundation, EEC-0437396 / IIP-0437396

Total Award Amount: $813,714 Total Award Period Covered: 08/15/2004 – 07/31/2011

Location of Project: South Dakota School of Mines and Technology, Rapid City, SD

Person-Months Per Year Committed to the Project. Cal: 0 Acad: 0 Sumr: 0

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: National Science Foundation Graduate Research Fellowship – Lori Groven

Source of Support: National Science Foundation

Total Award Amount: $127,500 Total Award Period Covered: 09/01/2006 – 08/31/2011

Location of Project: South Dakota School of Mines and Technology, Rapid City, SD

Person-Months Per Year Committed to the Project. Cal: 0 Acad: 0 Sumr: 0

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Strengthening Native American Access to the Professoriate

Source of Support: National Science Foundation (subaward from Idaho State University)

Total Award Amount: $47,493 Total Award Period Covered: 2/1/2011-1/31/2012

Location of Project: SDSM&T

Person-Months Per Year Committed to the Project. Cal: 0 Acad: 0 Sumr: 0

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

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*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Doyle Anderson	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.02 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Indigenous Nations Geoscience Education and Community Awareness Project

Source of Support: NSF

Total Award Amount: $ 199,987 Total Award Period Covered: 01/01/00 - 01/01/00

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.00 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support: Colden Baxter

Pending Proposals

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate
Source of Support: NSF
Total Award: $140,897
Total Period Covered: 2/1/2011 to 12/31/2011
Location of Project: Idaho State University
Person-Months per year: Academic: 0.005

Project/Proposal Title: The price of ice: ecological consequences of changing ice regimes for linked aquatic-terrestrial food webs
Source of Support: DeVlieg Foundation
Total Award Amount: $40,000
Total Award Period Covered: 11/1/2010-5/31/2013
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Acad: 0.0

Current Support

Project/Proposal Title: Methow River Floodplain Restoration Project: Evaluation of Factors limiting fish production and potential responses to restoration
Source of Support: U.S. Bureau of Reclamation
Total Award Amount: $172,095
Total Award Period Covered: 07/01/09-09/30/2011
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Sumr: 1.0

Project/Proposal Title: EPSCoR Idaho RII VI: Infrastructure for Water Resources Research in a Changing Climate
Source of Support: National Science Foundation – EPSCoR
Total Award Amount: $15M ($291,926 yrs 1-3 to Baxter)
Total Award Period Covered: 2008-2013
Location of Project: Idaho State University, University of Idaho, Boise State University
Person-Months Per Year Committed to the Project: Sumr. 1.00

Project/Proposal Title: Contributions of marine-derived nutrients via salmon carcasses to aquatic and terrestrial productivity in the Snake River basin
Source of Support: Bonneville Power Administration (subcontract via Idaho Fish & Game to ISU)
Total Award Amount: $323,494 (to Baxter)
Total Award Period Covered: 6/18/2008-3/31/2011
Location of Project: Idaho State University, University of Idaho, Washington State University
Person-Months Per Year Committed to the Project: Sumr. 1.00

Project/Proposal Title: Linking whole-system carbon cycling to quantitative food webs in the Colorado River
Source of Support: U.S. Geological Survey
Total Award Amount: $84,562 (to Baxter)
Total Award Period Covered: 5/11/10 to 6/30/11
Location of Project: Idaho State University, University of Wyoming, Loyola University-Chicago, USGS Grand Canyon Monitoring and Research Center-Flagstaff, AZ
Person-Months Per Year Committed to the Project: Sumr: 1.0

Project/Proposal Title: Participating agreement: Stream ecosystem responses to wildfire in the drainages of the South and Middle Fork Salmon River basins
Source of Support: USFS, Payette National Forest
Total Award Amount: $15,184
Total Award Period Covered: 6/1/10 to 9/30/11
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Acad: 0.25

Project/Proposal Title: Ecological responses of stream-riparian ecosystems 20 years after disturbance by wildfire
Source of Support: Rocky Mountain CESU-Yellowstone National Park
Total Award Amount: $10,000
Total Award Period Covered: 7/1/08-9/1/11
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Acad: 0.0

Project Title : Dissertation Research: Aquatic effects of a terrestrial invasion: a riparian tree subsidizes carbon and nitrogen with differential consequences for stream ecosystems
Source of Support: National Science Foundation – Doctoral Dissertation Improvement Grant
Total Award Amount: $15,000
Total Award Period Covered: 06/01/2009-05/31/2011
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: 0.0

Project Title : Dissertation Research: Nonlinear effects of nutrient loading on stream nutrient processing: Are they driven by shifts in biofilm community dynamics?
Source of Support: National Science Foundation – Doctoral Dissertation Improvement Grant
Total Award Amount: $14,736
Total Award Period Covered: 06/01/2009-05/31/2011
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: 0.0

Project/Proposal Title: Developing a sampling framework for aquatic invasive species in Greater Yellowstone area
Source of Support: National Park Service
Total Award Amount: $8058
Total Award Period Covered: 8/25/10-9/30/11
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Acad: 0.0

Project/Proposal Title: Investigating relationships between flow, bed mobility, and stream organisms: steps toward predicting climate change effects in tributaries of Big Creek, a wilderness watershed of central Idaho
Source of Support: DeVlieg Foundation
Total Award Amount: $5,000
Total Award Period Covered: 5/15/10 to 5/31/11
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project: Acad: 0.0

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Philip Cole	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF
Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12
Location of Project: Pocatello, ID
Person-Months Per Year Committed to the Project. Cal: 0.10 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: Workshop on Detectors and Small Accelerators

Source of Support: NSF
Total Award Amount: $ 56,485 Total Award Period Covered: 01/30/11 - 03/29/13
Location of Project: Quito, Ecuador
Person-Months Per Year Committed to the Project. Cal: 0.00 Acad: 0.00 Sumr: 0.50

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: A Program to Study Hadronic Matter Using Electromagnetic Probes at Jefferson Labs

Source of Support: NSF
Total Award Amount: $ 910,000 Total Award Period Covered: 09/14/08 - 09/13/11
Location of Project: JPL & ISU
Person-Months Per Year Committed to the Project. Cal: 0.00 Acad: 0.20 Sumr: 0.20

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Carter J. Kerk	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Tiospaye in Engineering

Source of Support: NSF S-STEM

Total Award Amount: $600,000 Total Award Period Covered: September 1, 2008 to August 31, 2013

Location of Project: SDSMT

Person-Months Per Year Committed to the Project. Cal: 0.0 Acad: 0.0 Sumr: 0.0

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Increase Minority Participation in Higher Education in STEM Disciplines Responsive to NASA Needs - A

Source of Support: NASA – National Space Grant College & Fellowship Program – Consortium Development Competition

Total Award Amount: $177,000 Total Award Period Covered: May 1, 2008 to April 30, 2010

Location of Project: SDSMT, Oglala Lakota College, Dakota State University

Person-Months Per Year Committed to the Project. Cal: 0.0 Acad: 0.0 Sumr: 0.0

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Tiospaye in Science

Source of Support: NSF S-STEM

Total Award Amount: $600,000 Total Award Period Covered: January 1, 2010 to December 31, 2014

Location of Project: SDSMT

Person-Months Per Year Committed to the Project. Cal: 0.0 Acad: 0.0 Sumr: 0.0

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Collaborative Research: OLC/SDSU/SDSMT Pre-Engineering Education Collaborative

Source of Support: NSF PEEC

Total Award Amount: $660,000 Total Award Period Covered: September 1, 2010 to June 30, 2015

Location of Project: South Dakota School of Mines, Oglala Lakota College, South Dakota State University

Person-Months Per Year Committed to the Project. Cal: 0.0 Acad: 0.0 Sumr: 1.0

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Strengthening Native American Access to the Professoriate

Source of Support: National Science Foundation (subaward from Idaho State University)

Total Award Amount: $47,463 Total Award Period Covered: 2/1/11-1/31/12

Location of Project: South Dakota School of Mines, Idaho State University

Person-Months Per Year Committed to the Project. Cal: 0.0 Acad: 0.0 Sumr: 0.0

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*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Donna V. Kliche

Other agencies (including NSF) to which this proposal has been/will be submitted.
None

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Embracing Science – Start with Science Fair
Source of Support: NSF
Total Award Amount: $39,989 Total Award Period Covered: 9/1/2009 – 9/30/2011
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: Cal.: 2 months/yr Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Atmospheric Sciences Technology and Applications to Support NAMK and NAGIK Projects
Source of Support: ARDEC Task 10
Total Award Amount: $483,294 Total Award Period Covered: 10/1/2009-9/31/2011
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: Cal.: 4 mo./yr Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Preliminary work for the development of the next generation storm-penetrating aircraft
Source of Support: NSF EAGER
Total Award Amount: $82,562 Total Award Period Covered: 7/1/2009-7/31/2011
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: Cal.: 2.9 mo. Sumr:

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Collaborative Research: Development of A-10 Storm Penetrating Aircraft
Source of Support: NSF
Total Award Amount: $270,905 (IAS) Total Award Period Covered: 2 years
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: Cal.: 4 mo. Sumr:

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Collaborative Proposal: Embracing Science – From the Field to the Fair
Source of Support: NSF OEDG 10-599 Track 1
Total Award Amount: $99,993 Total Award Period Covered: 7/1/2011-7/31/2014
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: Cal.: 1.50 mo./yr. Sumr: 0.75 mo./yr.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐*Transfer of Support
Project/Proposal Title: Strengthening Native American Access to the Professoriate
Source of Support: National Science Foundation (subaward from Idaho State University)
Total Award Amount: $47,493 Total Award Period Covered: 2/1/11-1/31/12
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: 0 Cal.: 0 Sumr: 0

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Jennifer Light

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 10,183 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Lewiston, ID

Person-Months Per Year Committed to the Project. Cal: 0.10 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

 USE ADDITIONAL SHEETS AS NECESSARY

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Frank Matejcik

Other agencies (including NSF) to which this proposal has been/will be submitted. None

Support: X Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: Mobile Computing Strategies to Enhance Student Learning & Motivation in Probability & Statistics
Source of Support: South Dakota Board of Regents
Total Award Amount: $65,000 Total Award Period Covered: Till August 12th 2011
Location of Project: South Dakota School of Mines & Technology
Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr: 1

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: Strengthening Native American Access to the Professoriate
Source of Support: National Science Foundation (subaward from Idaho State University)
Total Award Amount: $47,493 Total Award Period Covered: 2/1/11-1/31/12
Location of Project: SDSM&T
Person-Months Per Year Committed to the Project: Acad.: 1.0 Cal.: Sumr: 1.0

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:
Source of Support:
Total Award Amount: Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:
Source of Support:
Total Award Amount: Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:
Source of Support:
Total Award Amount: Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:
Source of Support:
Total Award Amount: Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Dr. Joshua J. Pak

Support: Current X Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: International Research and Education: Planning Visit - Synergy between computational and experimental chemistry for rational design of materials

Source of Support: NSF (PI)

Total Award Amount: $ 9,060 Total Award Period Covered: November 19, 2010 to November 18, 2011

Location of Project: Idaho State University & Imperial College of London

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: Current X Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: RUI: CRIF-MU: Acquisition of DSC-TGA-MS System at Idaho State University

Source of Support: NSF (co-PI)

Total Award Amount: $ 160,000 Total Award Period Covered: January 15, 2011 – January 14, 2013

Location of Project: Idaho State University

Person-Months Per Year Committed to the Project. Cal: Acad: 0 Sumr: 0

Support: Current X Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: Exploration of Novel I-III-VI Multinary Alloy Nanoparticles

Source of Support: DOE (co-PI)

Total Award Amount: $ 537,835 Total Award Period Covered: January 10, 2011 – January 9, 2014

Location of Project: Idaho State University

Person-Months Per Year Committed to the Project. Cal: Acad: 0 Sumr: 1

Support: Current X Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: MRI: Acquisition of a Wavelength-Dispersive X-ray Fluorescence System at Idaho State University

Source of Support: NSF (co-PI)

Total Award Amount: $ 259,125 Total Award Period Covered: September 10, 2010 – September 9, 2012

Location of Project: Idaho State University

Person-Months Per Year Committed to the Project. Cal: Acad: 0 Sumr:0

Support: Current X Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: RUI-SYN: I-III Bimetallic Complexes: a General Entry to I-III-VI Semiconductors

Source of Support: NSF (co-PI)

Total Award Amount: $ 504,968 Total Award Period Covered: January 15, 2011 to January 14, 2014

Location of Project: Idaho State University & Rice University

Person-Months Per Year Committed to the Project. Cal: 2 Acad: 1 Sumr: 1

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Support: X Current Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: Scholarship for Chemistry and Biochemistry at Idaho State University
Source of Support: NSF (co-PI)
Total Award Amount: $ 568,956 Total Award Period Covered: June 1, 2010 – May 31, 2013
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project. Cal: 0 Acad: 0 Sumr: 0

Support: X Current Pending Submission Planned in Near Future *Transfer of Support

Project/Proposal Title: Improved materials and methods for the fabrication of Chalcopyrite Based Photovoltaics
Source of Support: Department of Energy – EPSCoR (co-PI, A part of 11 faculty, 3 institute program)
Total Award Amount: $ 332,441 Total Award Period Covered: Aug. 15, 2007 – Aug. 14, 2011
Location of Project: Idaho State University
Person-Months Per Year Committed to the Project. Cal: Acad: 0 Sumr: 1
*

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Joshua Pak

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.01 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Angela Petit

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF
Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12
Location of Project: Pocatello, ID
Person-Months Per Year Committed to the Project. Cal: 0.40 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support
Project/Proposal Title:

Source of Support:
Total Award Amount: $ Total Award Period Covered:
Location of Project:
Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

 USE ADDITIONAL SHEETS AS NECESSARY

Current and Pending Support

(See GPG Section II.C.2.h for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Sharon Sieber

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: SNAAP: Strengthening Native American Access to the Professoriate

Source of Support: NSF

Total Award Amount: $ 140,897 Total Award Period Covered: 02/01/11 - 01/31/12

Location of Project: Pocatello, ID

Person-Months Per Year Committed to the Project. Cal: 0.40 Acad: 0.00 Sumr: 0.00

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Summ:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

 USE ADDITIONAL SHEETS AS NECESSARY

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Spellman, Garth	Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Strengthening Native American Access to the Professoriate (SNAAP)

Source of Support: National Science Foundation

Total Award Amount: $ Total Award Period Covered:

Location of Project: Black Hills State University

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Collaborative Research: Multilocus Comparative Phylogeography of Pine-Oak Woodland Birds in North America

Source of Support: National Science Foundation

Total Award Amount: $239,316 Total Award Period Covered: 10/01/08-9/30/11

Location of Project: North America

Person-Months Per Year Committed to the Project. Cal: 3.0 Acad: Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

BHSU Integrative Genomics Transition Scholarship Program

Source of Support:

Total Award Amount: $598,000 Total Award Period Covered: 9/01/07-9/1/2011

Location of Project:

Person-Months Per Year Committed to the Project. Cal: 0.25 Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

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*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Scott Wiley

Other agencies (including NSF) to which this proposal has been/will be submitted. None

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: South Dakota School of Mines & Technology College Access Challenge Grant Project

Source of Support: South Dakota Department of Education

Total Award Amount: $200,000 Total Award Period Covered: 10/1/10-9/30/15

Location of Project: SDSM&T

Person-Months Per Year Committed to the Project: Acad.: 0 Cal.: 0 Sumr: 0

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Strengthening Native American Access to the Professoriate

Source of Support: National Science Foundation (subaward from Idaho State University)

Total Award Amount: $47,493 Total Award Period Covered: 2/1/2011-1/312012

Location of Project: SDSM&T

Person-Months Per Year Committed to the Project: Acad.: 0 Cal.: 0 Sumr: 0

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project: Acad.: Cal.: Sumr:

*If this project has previously been funded by another agency, please list and furnish information for immediately preceding funding period.

Current and Pending Support

(See GPG Section II.D.8 for guidance on information to include on this form.)

The following information should be provided for each investigator and other senior personnel. Failure to provide this information may delay consideration of this proposal.

Investigator: Robb M. Winter

Other agencies (including NSF) to which this proposal has been/will be submitted.

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☒ *Transfer of Support

Project/Proposal Title: Advanced Materials and Processes for Future Combat Systems

Source of Support: Army Research Laboratory

Total Award Amount: $1,706,600 Total Award Period Covered: 9/08 – 6/11

Location of Project: South Dakota School of Mines and Technology

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☒ *Transfer of Support

Project/Proposal Title: Advanced Materials and Processes for Future Combat Systems

Source of Support Army Research Laboratory

Total Award Amount: $1,371,333 Total Award Period Covered: 4/09 – 6/11

Location of Project: South Dakota School of Mines and Technology

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: I/UCRC Center for Bioenergy Research and Development

Source of Support: National Science Foundation

Total Award Amount: $ $505,000 Total Award Period Covered: 09/01/08 - 08/31/13

Location of Project: South Dakota School of Mines and Technology

Person-Months Per Year Committed to the Project. Cal: 1.0 Acad: Sumr:

Support: ☒ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Investigation of Lignocellulose Derived Lignin Co-product as a Matrix and/or Reinforcement for

Source of Support: I/UCRC General Motors + Composites and Polymer Engineering Laboratory

Total Award Amount: $ 150,000 Total Award Period Covered: 09/01/09 - 12/31/11

Location of Project: South Dakota School of Mines and Technology

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☒ *Transfer of Support

Project/Proposal Title: SD 2010 Center for Bioprocessing Research and Development

Source of Support: State of South Dakota

Total Award Amount: $ 2,500,000 Total Award Period Covered: 07/01/06 - 06/30/11

Location of Project: South Dakota School of Mines and Technology

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: ☐ Current ☒ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title: Materials World Network: Determination of Thermal, Mechanical and Interfacial Properties of CrossLinked Epoxy-Silicate Polymer Nanocomposites

Source of Support: National Science Foundation

Total Award Amount: $ 391,022 /Total Award Period Covered: 07/01/11-06/30/14

Location of Project:

Person-Months Per Year Committed to the Project. Cal: 0 Acad: Sumr:

Support: ☐ Current ☐ Pending ☐ Submission Planned in Near Future ☐ *Transfer of Support

Project/Proposal Title:

Source of Support:

Total Award Amount: $ Total Award Period Covered:

Location of Project:

Person-Months Per Year Committed to the Project. Cal: Acad: Sumr:

FACILITIES, EQUIPMENT & OTHER RESOURCES

FACILITIES: Identify the facilities to be used at each performance site listed and, as appropriate, indicate their capacities, pertinent capabilities, relative proximity, and extent of availability to the project. Use "Other" to describe the facilities at any other performance sites listed and at sites for field studies. USE additional pages as necessary.

Laboratory:

Clinical:

Animal:

Computer: No special computer needs exist. All faculty and staff on the project will use the computers supplied to them by their institutions.

Office: Office space currently used by faculty and staff at each institution will continue to be used by them for this project.

Other:

MAJOR EQUIPMENT: List the most important items available for this project and, as appropriate identifying the location and pertinent capabilities of each.

OTHER RESOURCES: Provide any information describing the other resources available for the project. Identify support services such as consultant, secretarial, machine shop, and electronics shop, and the extent to which they will be available for the project. Include an explanation of any consortium/contractual arrangements with other organizations.

Black Hills
State University
1200 University Street, Unit 9500
Spearfish, South Dakota 57799-9500

Office of the President

Phone: (605) 642-6111
Fax: (605) 642-6763

November 15, 2010

Dr. Thomas Jackson
Dean, Graduate School
Idaho State University
921 S. 8th Ave
Mail Stop 8075
Pocatello, ID 83209-8075

Dear Dr. Jackson:

Thank you for inviting Black Hills State University to participate as an associate institution in your initiative, *Strengthening Native American Access to the Professoriate (SNAAP),* through the NSF Alliances for Graduate Education and the Professoriate (AGEP) program.

Dr. Garth Spellman, Assistant Professor of Biology and Coordinator of the Master of Science in Integrative Genomics (MSIG) program, will represent BHSU in this partnership. As a partner and associate institution, Black Hills State University will:

1. Participate in a new strategic alliance with Idaho State University establishing a Native American STEM Professoriate Access program

2. Participate in regular face-to-face or distance meetings to discuss research on activities to be implemented in a project to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains region

3. Gather data on the percentage of Native American enrollment at our university in the STEM disciplines

4. Gather data on the percentage of Native American professors on our campus

5. Travel with ISU PIs to exemplar institutions participating in the mentoring process, for example to the University of Montana's SAPAI program and assess infrastructure already in place to recruit, mentor, and retain Native American STEM students

6. Travel with ISU PIs to other neighboring institutions participating as contributory institutions which will encourage and mentor Native American undergraduate students in the STEM disciplines to enroll in graduate programs at the master's and doctoral level

7. Participate in face-to-face or distance meeting sessions in which grant writers discuss the kinds of activities and infrastructure which will allow each partner and associate to build on what it already has to retain Native American graduate students in the STEM programs

8. Participate in developing a budget for the AGEP grant

9. Identify the strengths of our own partner/associate institution so these can be maximized to serve SNAAP goals and so the roles of each partner in the alliance can be clearly delineated

10. Build upon the infrastructure already present at BHSU

To engage fully in these activities, Dr. Spellman requests funds ($5,000) for a student research assistant to help with data gathering and facilitate student input.

Black Hills State University appreciates the opportunity to form an association with Idaho State University to meet our common goal of increasing the number and quality of STEM graduates, particularly American Indian graduates. Improving the recruitment, retention, and graduation of American Indian STEM majors is a goal BHSU has remained focused on in recent years, with very promising results. We look forward to working closely with institutions in the region to maximize the opportunities and pathways available to American Indian students who seek to pursue advanced degrees in STEM fields.

We look forward to working with Idaho State University as the lead institution in the SNAAP initiative and pledge our commitment to the development of a successful program.

Sincerely,

Kay Schallenkamp
President

SOUTH DAKOTA
SCHOOL OF MINES
& TECHNOLOGY

November 18, 2010

Dr. Deb Easterly, Ed.D.
Director, Research Development & Compliance
Idaho State University
MS 8130
921 S. 8th Avenue
Pocatello, ID 83209-8130

Dear Dr. Easterly:

Thank you very much for your invitation to be a partner institution in your program initiative for Strengthening Native American Access to the Professoriate (SNAAP) through the NSF STEM program for the Alliances for Graduate Education and the Professoriate (AGEP). As a partner institution, we would be pleased to:

1. Participate in a new strategic alliance with Idaho State University establishing a Native American STEM Professoriate Access program
2. Participate in regular face-to-face or distance meetings to discuss research on activities to be implemented in a project to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains region
3. Gather data on the percentage of Native Americans enrolled at our university in the STEM disciplines
4. Gather data on the percentage of Native American professors on our campus
5. Travel with ISU PIs to exemplar institutions participating in the mentoring process, for example, to the University of Montana's SAPAI program and assess infrastructure already in place to recruit, mentor, and retain Native American STEM students
6. Travel with ISU PIs to other neighboring institutions participating as contributory institutions which will encourage and mentor Native American undergraduate students in the STEM disciplines to enroll in graduate programs at the master's and doctoral level
7. Participate in face-to-face or distance meeting sessions in which grant writers discuss the kinds of activities and infrastructure which will allow each partner and associate to build on what it already has to retain Native American graduate students in the STEM programs
8. Participate in developing a budget for the AGEP grant
9. Identify the strengths of our own partner/associate institutions so that these can be maximized to serve SNAAP goals and so that the roles of each partner in the alliance can be clearly delineated

Again, thank you very much for considering our institution as a partner with this excellent project. We look forward to developing this important project with Idaho State University as the lead institution. Our university is pleased to participate in an alliance that will be a mutually beneficial endeavor, reinforcing the strengths and facilities our institutions offer to recruit, mentor and retain Native American students in the STEM disciplines. We pledge our support to join in the development of the SNAAP initiative at Idaho State University.

Sincerely,

Robert A. Wharton, Ph.D.
President

Idaho State
UNIVERSITY

College of Science and Engineering
921 South 8th Avenue, Stop 8060 • Pocatello, Idaho 83209-8060

November 17, 2010

Dr. Tom Jackson, Dean
Graduate School
Idaho State University
921 S. 8th Ave
Mail Stop 8075
Pocatello, Idaho 83209-8075

Dear Dean Jackson:

The College of Science and Engineering is deeply committed to the goals of the Alliance for Graduate Education and the Professoriate (AGEP), which "seeks to join together universities and colleges in the common mission of increasing the number of underrepresented minority students earning PhDs and positioning minority students to become leaders in science, technology, engineering and mathematics (STEM) fields" (http://www.agep.us). As Founding Dean of the College of Science and Engineering, I commit to supporting the development of an AGEP Alliance lead by Idaho State University and including partner universities and colleges in Idaho and South Dakota.

Through this Alliance, Strengthening Native American Access to the Professoriate, or SNAAP, the College of Science and Engineering (CoSE) will participate in developing innovative programs and administrative strategies to recruit Native American students into STEM doctoral programs at Idaho State University and its SNAAP partner, South Dakota School of Mines and Technology (SDSMT). Once these students enroll, CoSE will work with SNAAP to successfully mentor the students through their doctoral programs. To foster these goals, CoSE commits funding for one course release for a STEM faculty member within the College. Funded for the upcoming Spring Semester 2011, the release time will enable the STEM faculty member to participate fully in the planning activities supported by the AGEP planning grant for which you are now applying.

The College of Science and Engineering is extremely pleased to participate in this STEM initiative to increase the number of Native American doctoral students who will eventually become faculty in STEM fields. As you are aware, Idaho State University is well positioned to serve the Native American population, as ISU is located near Fort Hall Reservation, the Southeast Idaho home for the Shoshone-Bannock Tribes. The SNAAP program will be able to draw upon the work of Dr. Doyle Anderson, Director of ISU's Indigenous Nations Institute (INI), who has helped to develop a program which provides educational and research opportunities for Native American students. This program is currently engaged in extensive university, tribal, and industry collaborations in geothermal energy exploration and development, and has a Native American collaboration in Biological Sciences that incorporates indigenous knowledge into traditional scientific research. As the INI's projects indicate, ISU is developing the infrastructure needed to serve Native American students in disciplines such as Geosciences and Biological Sciences. An AGEP program will greatly benefit CoSE and ISU, as the Alliance will add extensively to our institution's ability to serve Native American students near ISU and throughout the area covered by the Alliance.

In addition, I am pleased that SNAAP will be able to draw from a successful AGEP model so close to home at University of Montana's Student to Academic Professoriate for American Indians (SAPAI) program. A collaboration between the University of Montana and the University of Arizona, SAPAI provides Native American STEM students with the mentoring needed to finish their degrees and begin careers as STEM faculty members. I am confident that CoSE, with the guidance of the University of Montana's SAPAI program, can develop strategies for successfully participating in, supporting, and sustaining the SNAAP alliance led by Idaho State University. It is my hope that the SNAAP initiative will build upon the success of SAPAI and extend that program's impact in the Western and Midwestern States.

The College of Science and Engineering wholeheartedly supports the development of the SNAAP alliance, which would greatly enhance diversity in STEM disciplines and provide access to the professoriate for Native American students.

Sincerely,

G. R. Imel

George R. Imel, Founding Dean
College of Science and Engineering

The University of Montana

Division of Biological Sciences
The University of Montana
Missoula, Montana 59812-4824
Phone: (406) 243-5122
FAX: (406) 243-4184

November 17, 2010

Dr. Thomas Jackson
Dean, Graduate School
Idaho State University
921 S. 8th Ave / Mail Stop 8075
Pocatello, ID 83209-8075

Dear Dr. Jackson:

We are extremely pleased to hear about your program initiative for Strengthening Native American Access to the Professoriate (SNAAP) through the NSF STEM program for the Alliances for Graduate Education and the Professoriate (AGEP). Our own successful program, Students to Academic Professoriate for American Indians (SAPAI) will work well as an exemplar program for your university. As a mentoring institution, the University of Montana is able to assist Idaho State University in the following activities:

Serve as a model for the new strategic alliance Idaho State University and its partner/associate institutions are establishing for a Native American STEM Professoriate Access program.

Receive and mentor ISU and partner/associate institution PIs as they travel to our exemplar program to participate in a mentoring process regarding our SAPAI program, and assist ISU to assess our infrastructure already in place to recruit, mentor, and retain Native American STEM students.

Again, thank you for contacting us to participate as a mentoring institution for ISU's projected SNAAP program. We look forward to working with Idaho State University as the lead institution and its partner/associate institutions in developing the SNAAP program. The University of Montana is pleased to participate in an alliance that will benefit Native American students and Tribal Colleges and Universities in your region through building on the strengths and facilities that our program has developed to recruit, mentor and retain Native American students in the STEM disciplines. We pledge our support to mentor the development of the SNAAP initiative at Idaho State University.

Sincerely,

P. Kukuk

Penelope F. Kukuk
Director, SAPAI

Graduate Degree Programs
Biochemistry
Microbiology
Organismal Biology & Ecology
Wildlife Biology

An Equal Opportunity University

IDAHO STATE UNIVERSITY

College of Arts and Letters

921 S. 8th Ave., Stop 8087
Pocatello, Idaho 83209-8087

(208) 282-3204
FAX (208) 282-4610

November 17, 2010

Dr. Thomas Jackson
Dean, Graduate School
Idaho State University
921 S. 8th Ave
Mail Stop 8075
Pocatello, ID 83209-8075

Dear Tom:

The College of Arts and Letters is pleased to take part in your proposed program initiative, Strengthening Native American Access to the Professoriate (SNAAP), through the NSF program Alliances for Graduate Education and the Professoriate (AGEP). I pledge the support of the College of Arts and Letters to participate in this strategic new alliance to establish a Native American STEM Professoriate Access program at Idaho State University (ISU). SNAAP represents an exciting AGEP initiative engaging Native American students in STEM graduate education and opening pathways to the professoriate for Native American students in STEM fields.

As the Dean of the College of Arts and Letters, I am well aware of the kind of infrastructure and support that my College can offer to your initiative for retention and mentoring of Native American students. Specifically, I understand the importance of interdisciplinary collaborations across Colleges at Idaho State University. In my position as Dean, I oversee departments in the Social and Behavioral Sciences (including my home department, psychology) as well as departments in the Humanities. Clearly, the SNAAP program focuses on Native American students in the STEM disciplines. However, for these students to earn their doctoral degrees in STEM, the university as a whole must commit resources to supporting students. Thus, Arts and Letters pledges to the SNAAP program its expertise and strengths in areas such as critical thinking and writing and cultural awareness of the difficulties encountered by Native American students.

This expertise will be provided primarily by two of my College's faculty members in the Humanities: Dr. Sharon Sieber of the Department of Languages and Literatures, and Dr. Angela Petit of the Department of English. Sharon will bring her knowledge of critical thinking and writing and cultures to the SNAAP program, while Angela will bring her expertise in technical and professional writing to the project. Although Sharon and Angela's participation in the SNAAP program will reduce the amount of time that they can spend teaching within and serving their own departments, they will

be contributing to the kinds of cross-disciplinary collaborations that the university encourages. The College of Arts and Letters views Angela and Sharon's participation in the SNAAP program as an investment that will increase not only these collaborations, but also diversity, first within the STEM disciplines and, later, within the Humanities and Social and Behavioral Sciences. The College of Arts and Letters strongly supports efforts that will stimulate active communication and shared research projects among the Colleges, which is in part a goal of the Humanities and its role within university life. In addition, our collaborations at ISU will encourage communication and shared research among faculty at partner institutions in the broader SNAAP alliance across Idaho and South Dakota.

The College of Arts and Letters commits to providing support to the AGEP STEM initiative at ISU. With the guidance of SAPAI, the AGEP program at the University of Montana, the College will participate fully in the development of supporting programs that fall within the College's areas of expertise. The SNAAP initiative in the Great Basin and Great Plains Regions represents an important opportunity for ISU to lead in serving a greatly expanded geographic region. The initiative will also support the critically important pursuit of doctoral degrees and faculty careers by underrepresented minorities, who are currently a greatly underserved population in Southeastern Idaho and in South Dakota as well. The Idaho State University and South Dakota School of Mines and Technology AGEP initiative will build upon the success of the SAPAI program and significantly extend its impact. The SNAAP partner institutions are well situated to serve Native American communities in the Great Basin and Great Plains Regions. This alliance has the potential to bring important changes to ISU, and the College of Arts and Letters would like to take a leadership role in instituting change that will make the university a better, more diverse body.

In closing, the College of Arts and Letters pledges its commitment to developing and supporting the SNAAP initiative at Idaho State University. Through this commitment, the College seeks to assist in expanding diversity in the STEM disciplines and providing access to the professoriate for Native American students.

Sincerely,

Kandi Lo Turley - Ames

Kandi Turley-Ames
Interim Dean

Idaho State
UNIVERSITY

Office of the President
921 South 8th Avenue, Stop 8310 • Pocatello, Idaho 83209-8310

November 17, 2010

Dr. Thomas Jackson
Dean, Graduate School
Idaho State University
921 So. 8th Avenue, Mail Stop 8075
Pocatello, ID 83209-8075

Dear Dr. Jackson:

I am writing to commit my support from the ISU President's Office to the NSF AGEP proposal being submitted by Idaho State University. Idaho State University, as the lead institution and a doctoral granting institution in STEM disciplines, along with the South Dakota School of Mines & Technology (SDSMT), our Ph.D. granting partner institution, is dedicated to increasing the number of underrepresented minority faculty members in the STEM. This planning project represents ISU's initiative for Strengthening Native American Access to the Professoriate (SNAAP) through the NSF STEM program for the Alliances for Graduate Education and the Professoriate (AGEP).

This planning grant will establish a new strategic alliance for Graduate Education and the Professoriate, that will research activities that would be implemented to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains regions. The Alliance's partner institutions are geographically situated and have relationships that position them to serve tribes in the Great Basin region of Idaho and neighboring states and the Great Plains region of South Dakota and neighboring states. The Great Basin/Great Plains Alliance will greatly expand the geographic impact of the AGEP program in the upper Midwest and Intermountain West, as it capitalizes on historic ties among Native American tribes in this East-West corridor.

The planning grant will culminate in a proposal to implement the Great Basin/Great Plains Alliance under the cycle of full AGEP grants in 2012. Funded under the AGEP program, the Alliance would recruit Native American master's students in the Great Basin and Great Plains regions, mentor these students to doctoral degree completion, and place graduates in STEM faculty positions at TCUs and state colleges and universities in the Great Basin and Great Plains regions.

Within the past year ISU has entered into a Memorandum of Understanding with the Shoshone Bannock tribes and begun development of the Indigenous Natives Institute (INI). The project generated through this proposal will complement the services and activities of ISU and its partner and associate institutions.

Sincerely,

Arthur C. Vailas, Ph.D.
President

dh

November 19, 2010

Dear Idaho State University:

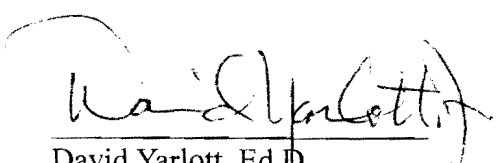
Thank you very much for your invitation to be a partner/associate institution in your program initiative for Strengthening Native American Access to the Professoriate (SNAAP) through the NSF STEM program for the Alliances for Graduate Education and the Professoriate (AGEP). As the President of Little Big Horn College (LBHC) and Chair of the Board of Directors of the American Indian Higher Education Consortium, the organization representing all of the nation's tribal colleges and universities, I see first-hand the need to build STEM capacity in Indian Country. Creating a new generation of Native American STEM professors is an important step forward in this capacity-building process.

As a partner/associate institution in the planning grant process, we would be pleased to

1. Participate in a new strategic alliance with Idaho State University establishing a Native American STEM Professoriate Access program
2. Participate in regular face-to-face or distance meetings to discuss research on activities to be implemented in a project to improve STEM doctoral degree completion and access to academic careers for Native American STEM students in the Great Basin and Great Plains region
3. Gather data on the percentage of Native American enrollment at LBHC in the STEM disciplines
4. Gather data on the percentage of Native American professors on our campus
5. Travel with ISU PIs to exemplar institutions participating in the mentoring process, for example, to the University of Montana's SAPAI program and assess infrastructure already in place to recruit, mentor, and retain Native American STEM students
6. Travel with ISU PIs to other neighboring institutions participating as contributory institutions which will encourage and mentor Native American undergraduate students in the STEM disciplines to enroll in graduate programs at the master's and doctoral level
7. Participate in face-to-face or distance meeting sessions in which grant writers discuss the kinds of activities and infrastructure which will allow each partner and associate to build on what it already has to retain Native American graduate students in the STEM programs
8. Participate in developing a budget for the AGEP grant
9. Identify the strengths of the partner/associate institutions so that these can be maximized to serve SNAAP goals and so that the roles of each partner in the alliance can be clearly delineated

Again, thank you very much for considering LBHC as a partner/associate with this excellent project. We look forward to developing this important project with Idaho State University as the lead institution. Our college is pleased to participate in an alliance that will be a mutually beneficial endeavor, reinforcing the strengths and facilities our institutions offer to recruit, mentor and retain Native American students in the STEM disciplines. We pledge our support to join in the development of the SNAAP initiative at Idaho State University.

Sincerely,



David Yarlott, Ed.D.
President,
Little Big Horn College