OTO Global Investments Proposal Worksheet - FY10/FY11

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<tr>
<th>Department</th>
<th>Chem &amp; Biochem / Native American Studies</th>
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<td>Purpose/Title</td>
<td>Native American Science Center</td>
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<td>VP Priority</td>
<td>of</td>
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<td>Program</td>
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Budget Proposal Data - FY10/FY11 Details

One-Time-Only: FY10/FY11

<table>
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<tr>
<th>Change in FTE</th>
<th>Personal Services</th>
<th>Operations</th>
<th>Capital</th>
<th>TOTAL INCREASE</th>
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<tbody>
<tr>
<td>1.0000</td>
<td>147,250</td>
<td>12,000</td>
<td>0</td>
<td>159,250</td>
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The purpose of these funds is to:

Promote the Development of a Native American Science Center at MSU.

This development includes three central thrusts that address needs at the middle-school, high-school, and university levels.

- Extend the middle-school targeted MSU Science Saturday program to all Native American communities in Montana, with the goal of stimulating student interest in, and easing anxiety about science.
- Sustain and advance interactions between high-school science teachers in Native American communities and instructors in entry-level science courses at MSU, with the aim of promoting high school curricula that will better prepare students for success at MSU.
- Recruit Native American tenure-track faculty to drive outreach and recruiting efforts in Montana’s Native American communities, and to provide close-contact mentoring and role models for Native American Undergraduates at MSU.

First steps have been undertaken for each of these initiatives, with further documentation available. To sustain and build on the initial efforts, we request support for:

- ½ time coordinator for MSU Science Saturday outreach efforts ($20k plus benefits, Global Investment);
- costs of travel and supplies for MSU Science Saturday outreach efforts ($12 k, Global Investment).
- ¼ time high-school teacher liaison – an MSU instructor in entry level science ($15k plus benefits, Global Investment).
- Commitment to new faculty lines, with faculty holding joint appointments in Native American Studies and Science Departments; start-up funds to support recruitment of Native American Science faculty. (Provost, VPR, and Grant Resources (EPSCoR, S&TC, etc.) and $100k Global Initiative)

Total Global Investment Request: $159.25 k.

In this pioneering phase, the coordinator and liaison will be resident in Chemistry and Biochemistry and work in cooperation Native American Studies. One new faculty member will be recruited jointly by Chemistry & Biochemistry and Native American Studies. As the program develops, the aim is to secure the participation of every interested science department at MSU in every facet of the program, in particular in recruiting additional faculty for the Center.

The Return On Investment from these expenditures will be:

Increased recruiting and retention yields of Native Americans students at MSU.

Native Americans comprise 8% of Montana’s population, and 15% of its high school age population, but barely 3% of the student body at MSU. Better representation of Native American students will enhance enrollment, and help us to fulfill a central responsibility of a land-grant college. With the multi-faceted approach outlined above, we anticipate doubling of MSU’s Native American student population in the near term.
Native American Science Center – Questions & Answers

How is this going to be sustained given that this funding is for only one (or at most two) years?
(David Singel) Thus far we have been shoe-stringing the middle and high-school outreach operation, but have have laid a foundation for expansion beyond what we can immediately support. With a year or two of institutional support, we will develop a university presence, gravitas, and sufficient "preliminary results" to put us in an excellent position to compete for NSF and related educational grants. We are committed to winning these grants and have every expectation of success. This effort is highly fundable - we just need time to consolidate ideas and practice, and to take root as a campus entity that is sufficiently established for outside agencies to support.

At the University level, our first objective is to hire tenure track NASC director. Then we will continue to add additional faculty in various science departments until we reach a critical mass of several, say 4, faculty. The key component of this process is obtaining several new FTEs to support this venture; many departments will balk if forced to choose between participation in this center, or recruiting a "mainline" faculty member.

Typically start-up costs would be borne by VPR, with help, for example, from EPSCoR. This is a tight year for Tom, and the EPSCoR grant will not be funded until next FY at the earliest. I therefore asked for some help (I suspect that 300K overall will be an adequate package) for this first hire. As I mentioned previously, we have already participated in a Yale University STC that should help us in financing these hires. We will make outstanding faculty hires; these hires, through their research, outreach and education grants, and through their recruiting of new students, are the engine of sustainability for the center.

Given the nature of Native American tuition waivers, is there any new tuition revenue from this program?
(David Singel) As noted above, we expect significant dividends in external grants. As to tuition revenues, in our discussions, questions about the nature of waivers for Native American students were raised. Our outlook was that, notwithstanding these waivers, the idea was highly attractive and meritorious; we would need further information on the tuition waiver policy (and its stability), as well as room and board costs, to predict the overall revenue impact of these additional students.
Other info provided via email relating to the Native American Science Center:
From: David Singel [mailto:dsingel@chemistry.montana.edu]
Sent: Friday, November 20, 2009 12:09 PM
To: Fedock, Joseph
Cc: Lutz, Paula; Chansley, Pat
Subject: OTO Global Initiative: Support for Native American Science Center

Dear Joe:

Attached you will find a worksheet requesting funds to advance the development a Native American Science Center at MSU. This request is being made cooperatively by me and Walter Fleming, with the endorsement of Dean Paula Lutz.

To add a bit of further context to this request, I highlight some of the ongoing activities related to this request.

1) **Middle-school activities:**
MSU Science Saturday has already visited the Crow reservation, and a contingent from Chief Plentycoup high school, visited here for last Saturday's session. We've already been asked by other groups: when are you coming to see us? The current program coordinator is Jennifer Douglas. The OTO GI request in support of this activity entails salary support (with benefits) for this position, and funds to defray the costs of travel and supplies. Faculty from many L&S departments, from engineering, and from Ag are already getting involved in this program.

2) **High-School activities:** Adjunct Professor Bill McLaughlin, who is recognized as an outstanding teacher (MSU President's award) and MAP program instructor, has initiated a number of activities aimed at collaborating with high school teachers in Montana's Native American communities to develop materials and methods that will help insure student success in college. So far, his work has been done on a volunteer basis. We are seeking support to initiate modest compensation for this activity that will help sustain and grow it. With Bill's energetic leadership, there is little doubt that this activity will expand to include mathematics, physics, and biology.

3) **University activities.** We request buy-in to support the recruitment of the Center's first faculty member. This recruitment will require a new FTE. We also request a contribution to the start-up package. As I've mentioned to you previously, we also started to write grants (Yale STC) to support this program.

Support of the Center as a Global Initiative will establish its priority at MSU, this recognition will in turn facilitate buy-in from other entities at MSU, and thus vigorously catalyze the development of the Center.

Thanks for your consideration of this initiative.

djs