

Subject: Message from the Provost - Decadal Update

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From: Office of the President <purduenews@purdue.edu>

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OFFICE OF THE PROVOST

To: Faculty and Staff of Purdue University, West Lafayette

Dear Colleague,

On January 11th, 2012 in Indianapolis, we announced the first component of the Decadal Plan - the Trimester initiative. Today, on Purdue's West Lafayette campus, we announced another important step forward - The Innovation and Commercialization Center. I would like to take this opportunity to review the Decadal planning process and describe the coming opportunity for faculty, staff and students and other stakeholders to shape the next phase for both of these initiatives - implementation.

The Context: Early in 2011, we came to the conclusion that cost cutting alone was not going to be sufficient to ensure financial sustainability without sacrificing the value of a Purdue degree, the impact of Purdue's research mandate or the economic impact of Purdue on the State of Indiana. Over the course of the prior decade, we had invested nearly \$1B in building Purdue's discovery enterprise, hiring more faculty, and enhancing facilities. This investment was made while state appropriations continued to drift downwards - the rate of decline has been about 1% in real dollars annually over the past two decades, accelerating to an annual rate of more than 4% over the past two biennia. To finance these investments and to maintain a minimum level of repair and rehabilitation activity, we relied on a combination of private giving and tuition and fee increases.

Going forward, it is clear that we will need to continue to make investments if Purdue is to reach its potential to become one of the world's premier public research land-grant institutions. Maintaining and growing the research enterprise, for example, requires institutional investments that are not completely covered by Facilities and Administration (F&A) cost recovery from the sponsors. In fact, Purdue and its peer institutions invest \$0.20-\$0.30 for every dollar of sponsored program awards.

Although state appropriations typically rebound after a recession, the longer historical record teaches us that the overall trend in declining state support will most likely persist. We continue to make the case that the State's investment in Purdue returns more than a factor of ten in economic impact, as well as the ability to maintain affordability and access for Indiana residents. The "public good" argument, however compelling, is withering in the face of other growing needs in the state (and nearly every other state), including K-12 education. Concurrently, it is also becoming apparent that relying on tuition and fee rate increases to maintain and advance Purdue is a strategy that has run its course. Although Purdue is an exceptional value for resident students (the difference between resident and nonresident tuition rates, multiplied by the number of resident students, exceeds the state appropriation by \$70M annually), further tuition increases beyond inflation would jeopardize the promise of an affordable Purdue degree for an increasing number of Indiana families. Furthermore, Purdue's nonresident tuition rates are already approaching the limit of inelasticity for most applicants; i.e., additional significant increases are likely to reduce application and matriculation rates.

So, in early 2011 we decided that further hand-wringing over the state of public higher education in the U.S. and in Indiana would not help us find the resources we need to sustain and invest in Purdue University. We turned the focus to substantial opportunities for new revenue and innovative solutions for enhancing effectiveness and efficiency. Instead of reacting to further cuts and disruptive innovation down the road, we made a collective commitment to utilize the wisdom and creativity of Purdue's people to drive change and innovation ahead of the need. One year ago, President Córdova announced the launch of the Decadal Funding Plan initiative.

The Planning Process: In November of 2010, a President's Forum panel discussion on the future of public research universities set the stage for a long-term planning process. Ideas solicited in a message to all faculty and staff in March 2011 were discussed during a series of Roundtables involving approximately 60 faculty and staff. A steering committee was constituted and 13 resource subcommittees with a total membership of about 130 faculty, staff and students vetted, developed and modeled the most promising ideas in a process that ran through summer 2011. In the fall, nine of these ideas and four 'enablers' (private giving, legislative support, information technology and a transformative business model) were identified for further study and development. Taken together, the nine initiatives were grouped into three focal categories - Efficient and Effective Purdue, Global Purdue and Innovative Purdue - that formed the core of our Decadal Funding Plan. These "Big Ideas" fall within the envelope of our *New Synergies* strategic plan, and reflect and exploit Purdue's potential and our unique characteristics, ranging from our global presence, to our strengths in innovative information technology in teaching and learning, to our ability to transform discoveries into useful products and services. The Decadal Plan has been presented in faculty meetings, the President's Forum, University Senate meetings and Board of Trustees meetings over the past several months. Nevertheless, not everyone has had the opportunity to study and discuss the plan and its proposals. Given that the implementation phase will require deep and sustained efforts by faculty, staff, students and other stakeholders over the coming years, I am taking this opportunity to communicate the first two of several Decadal initiatives to be launched in the coming months.

The Trimester Initiative: This initiative emerged from the Decadal planning process under the category of "Efficient and Effective Purdue." At its heart is a proposal to move from a two-semester academic year to a full-year, three-trimester calendar. Presently, only 6,000 undergraduate students enroll for classes during the summer. They complete credit hours at a level of 7% of the fall semester. Although the research enterprise continues, the campus resources that primarily serve undergraduates are either left fallow, or are serving conferences and summer camps.

The benefits of year-round academic programming would include 1) greater flexibility in course offerings for students who wish to complete their degree programs on time, while allowing for internships, study abroad and research experiences at any time of the year (currently, only 42% of our baccalaureate-seeking students complete their degree within four years); 2) enhanced options for faculty who may wish to teach in the summer, or who would prefer to dedicate either fall or spring to off-campus research, travel or focused research with graduate students outside the classroom setting; 3) more efficient utilization of facilities and the effort of full-year staff; and 4) a strengthened local economy, which is critical to recruiting and retaining faculty and staff.

In August 2011, a team of faculty and staff began an in-depth effort to determine if the obvious benefits of a trimester calendar would indeed yield new revenue that could be utilized to keep the lid on tuition rates while making the investments necessary to propel Purdue forward. They concluded that a fully implemented trimester calendar could increase credit hour completion by 25% annually, while generating net revenue on the order of \$40M annually (about \$190M in additional revenue and \$150M in additional costs, all in 2020 dollars assuming an annual 2.5% rate of inflation). This group also outlined a preliminary transition plan that starts with building summer credit hours from 7% of fall to 25% of fall by 2020.

transition plan that starts with building summer credit hours from 1% of fall to 55% of fall by 2020, followed by a switch to the trimester calendar and subsequent growth to 70% of fall. In steady state, more than 20,000 full-time undergraduate students would populate the campus during the summer trimester. Their model revealed the necessity of scaling back student credit hours in the fall and spring slightly to accommodate changes in the calendar and the need to perform maintenance that would take facilities off line periodically. Their model also assumed that some faculty and students would stay with the current fall/spring rotation (albeit with slightly compressed academic terms), some would choose to teach in summer and fall or in summer and spring, and some would elect to increase their annual teaching commitment for additional compensation by performing additional instruction during the summer trimester. Expansion of the faculty ranks and associated resources would be necessary and the recurring costs have been included in the financial model. Much remains to be considered with respect to the impact of an expanded faculty on the research enterprise, although it is clear that the trimester initiative provides an opportunity for growth of this core mission of the university.

The obvious question: if this is such a great idea, why hasn't it become the norm? In fact, several campuses have experimented with balanced trimester calendars since the 1960s, and most have abandoned the experiment in favor of three quarters with a summer quarter, or two semesters with a short summer term. There are lessons to be learned from this history. Most of the failures can be traced to adoption that did not account for faculty and staff workload, or that was either too rapid or too rigid. In contrast, we envision a gradual transition with adequate time to build summer offerings and demand systematically, introduce and refine financial incentives, and allow full discussion and vetting by the faculty, staff and students. Some programs and individuals will be early adopters, and others will require a longer transition period to realize the advantages of the expanded summer and trimester calendar. If the summer buildup does not proceed as planned or if student demand does not permit continued steady escalation of incoming student preparation and diversity, the calendar switch may be delayed or abandoned. To the extent that we are successful in building up summer, we will realize many of the advantages of the full implementation of the trimester calendar.

Over the course of the coming months and years, everyone on campus will have an opportunity to shape this initiative. The University Senate will play a key role in assessing curricular impact and opportunities, as well as defining principles that govern the accommodation of faculty and staff positions within the more flexible trimester calendar. Ultimately, faculty, students, staff and other stakeholders will have to be on board with this initiative before a final decision to implement the calendar change could be considered by the University Senate, the Purdue administration and the Board of Trustees. A slow and deliberate build-up of summer will afford the time necessary for full consideration of every facet of the change to a trimester calendar.

On behalf of Purdue University, I would like to thank the faculty, staff and students who have invested significant time and effort over the past several months in outlining and modeling the Trimester initiative. In particular, Keith Murray's contributions in 2010 to a white paper entitled "Balanced Trimester Plan for Purdue University" formed the kernel of the plan that has been developed further by the Auxiliary and Service Centers Decadal Subcommittee led by Jim Almond, the Enrollment, Instruction and Co-Curricular Decadal Subcommittee led by Dale Whittaker and Melissa Exum, the Development and Utilization of Physical Facilities Decadal Subcommittee led by Ken Sandel and Keith Murray, and the "ramp-up" modeling team of Frank Dooley, Marcos Fernandez, John Graveel, Pam Horne, Bob Kubat, Connie Lapinskas, Mickey Latour, Rukhsana Malik, Sidney Moon, Song No, Mary Sadowski, Suzanne Shaw and Jared Tippetts, with financial modeling support from Melissa Johnson and her colleagues. Professor Frank Dooley has agreed to shepherd the initiative to building summer programs and demand through the spring semester in his role as a Provost Fellow. We will be searching for longer-term faculty leadership in the ensuing months.

The Innovation and Commercialization Center (ICC): The second of the new initiatives was announced today. Purdue has a strong "discovery engine," and we are highly regarded for our ability to start new companies and nurture them. We have considerable capacity for improvement, however, in taking our inventions and innovations from the laboratory to the marketplace. The ICC will bridge this gap by serving as a "one-stop shop" for Purdue inventors, offering seed grants and other funding for testing concepts, developing prototypes or participating in joint technology development projects with external partners. The ICC model is a hybrid of successful models operating at other institutions, but with features and approaches that are specifically tuned for the opportunities and strengths at Purdue. First-year activities will be supported by \$1 million in gift funds donated by alumni entrepreneurs. The ICC will engage corporate sponsors and will leverage the talents of our experienced alumni. Revenue earned by the university will be re-invested in the effort. No general funds from state appropriations or tuition will be used.

In addition to the funding available to faculty, there will be support and mentoring for intellectual property protection, regulatory and legal affairs, marketing and business development.

Potential investors also will have a one-stop point of contact for all research commercialization interests they may have. We often hear that the university is too big and too decentralized for outside businesses and investors to navigate, and the Innovation and Commercialization Center will represent a major step forward in eliminating that impediment.

The first two tasks for Gerry McCartney, who will serve as the center's inaugural director for the first two years, will be to convene an advisory committee comprised of faculty, alumni and business representatives, and then organize informational meetings for faculty who wish to engage with the center. The ICC will be faculty-centric with a strong faculty voice in selecting projects and designing services. We are planning for a fast start, as we know that there is pent-up demand and interest from Purdue inventors who would strive to realize the commercial and societal impact of their work, and from those who seek to commercialize our inventions.

The Purdue Research Foundation's Office of Technology Commercialization (OTC), under the direction of Elizabeth Hart-Wells, will be part of the new effort and will continue to provide Purdue faculty, staff and student entrepreneurs advice and support in establishing intellectual property rights and turning those discoveries into products and services. Among the changes that will help integrate our discovery with delivery enterprise will be a closer organizational relationship between the OTC and Sponsored Program Services (SPS).

We greatly appreciate the tens of faculty and staff who have contributed to the development of this Innovation and Commercialization Center. The Entrepreneurial Launch Team was led by Rick Cosier and Joe Pekny, and the Decadal Planning Commercialization and Entrepreneurship subcommittee was co-chaired by Alyssa Panitch, Graham Cooks and Rick Cosier. The "Innovation City" concept team, including Arden Bement and Teri Thompson along with Cosier, Cooks and Panitch developed the ideas further. We would not have made the progress to date without their important input.

Upcoming Roll-Outs: In the course of the next few months, we will be announcing two more initiatives under *Innovative Purdue* including an Applied Research Institute and an entity we are calling the Purdue International Academy. Both are products of the Decadal planning process. Please watch for these announcements and do not hesitate to contact me (tsands@purdue.edu) if you have questions or concerns or ideas you would like to share.

Thank you for everything you do to make Purdue a great institution that builds on its past in proactively shaping its future.

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Tim Sands
Executive Vice President for Academic Affairs and Provost