

June 18, 2009

Office of Information and Regulatory Affairs of OMB
Attention: Desk Officer for National Science Foundation
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And

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Sent via email to chines@nsf.gov

RE: Comments on the National Science Foundation's Survey of Research and Development Expenditures at Universities and Colleges, FY 2006 through FY 2008 (FR 24042 or OMB Control No: 3145-0100)

The Kauffman Foundation, as the nation's largest foundation devoted to furthering understanding of entrepreneurship, has a strong interest in high-quality statistics on topics such as R&D, startups, and commercialization of innovations. As such, we enthusiastically support the redesign proposed by the National Science Foundation for the Survey of Research and Development Expenditures at Universities and Colleges.

The National Science Foundation has been a leader in recognizing the need to measure both basic scientific activities as well as activities related more to later stage commercialization. The current redesign places particular importance on the introduction of a test module on "University Intellectual Property and Commercialization." As this is the module which has received the least amount of testing but which holds great potential for improving understanding of the role of higher education in bringing inventions to market and supporting a host of other aspects of economic development, we will focus our comments on this module.

First, we would highlight that we have been involved in a multi-year dialogue led by the Association of University Technology Managers (AUTM) related to developing new metrics for technology transfer. This project has resulted in a draft proposal for an "Institutional Economic Engagement Index" which we include as Attachment 1 to

our letter. As the discussion from AUTM in the attachment highlights, and we feel is largely reflected in NSF's proposed survey, measuring a university's engagement in the innovation ecosystem is a complex topic. From this document, we would like to specifically highlight the measures which AUTM recommends would conceptually compose their ideal "Technology Knowledge Transfer" activities:

1. Number of agreements signed by institution to enable external use of institution technology
2. Number of companies within x miles (or State) of institution who have a contractual relationship with institution regarding technology use or development
3. Number of new companies / year who have new contractual relationships with institution
4. Number of recurring companies / year who have contractual relationships with institution
5. Number of consulting agreements / year with faculty or staff from institution
6. Number of faculty involved in consulting / research / other knowledge transfer activities with community
7. Number of companies launched / year associated with institution technology (as evidenced through some type of contractual relationship)
8. Number of start-up companies still in business, and their employment, associated contractually with institution
9. Institution research projects which have strategy for distribution of research assets

AUTM and other leaders we have engaged with would not suggest any one agency, federal or private, could collect all of the data listed. However, from this list, the current NSF pilot survey instrument successfully appears to gather data on topics 1, 3, and 7 completely; to partially gather data on topic 2; and to not address topics 4, 5, 6, 8, and 9.

One advantage of the National Science Foundation's collection of data on technology transfer/commercialization activities is that it collects more unbiased data from the entire population of universities with a research function. That said, the proposed NSF survey would be well-advised to address as many of its statistics as possible from a local/regional lens. For example, topic 2 on the number of companies within a region which the university has a relationship is not present in the current NSF survey and is one of keen interest to most universities and state and local policymakers. In most cases, we feel this topic would be most easily addressed by asking about companies within the state (or multiple states) which a university inhabits. On topic 4, small modifications to the survey could gather data on number of recurring companies the university has relationships with which would have been noted in

previous years once a baseline was established. Topics 5, 6, 8 and 9 are not appropriate topics for NSF to gather metrics.

In addition, we would respectfully suggest that further consideration be given to the following subjects in the survey at the next available review:

- Question 2
 - The use of the phrase “U.S. patent technologies” seems somewhat ambiguous. If the reference is to activities to/from the U.S. Patent and Trademark Office, we would recommend using that language. If the reference is instead to patent activities which occurred by university personnel or involving the domestic offices of the university, we would recommend using that language. Both issues are non-trivial but we suspect the first interpretation was the one meant. Additionally, to the extent that clarity can be given to possible international campuses or facilities of a university and if they should be included in reporting, we would recommend doing so although this does not seem to be a frequent problem.
 - The categories listed under “Include patents for:” are different from the column headings on the question. This should be consistent in order and phrasing.
- Question 4
 - Is there any desire to know of the overlap in patents on the same invention which potentially could be counted in questions 2 and 4? This may not be an issue but my understanding was that the same invention could be patented in multiple locations.
- Question 7
 - This question is a good one in that it looks specifically at startup businesses. That said, it would be good to give more guidance in definitions used. From the Kauffman Firm Survey, we know that for a nationally representative sample of businesses which were four years old, seven percent of firms that report having a “competitive advantage” in their business say that it is related to teaming up with a college or university? For forty-five percent of these firms, this teaming with a university is a key component of their perceived competitive advantage. We say that only by way of encouraging further development of questions 7 and 8. There appear to be many young companies, not perhaps still purely startups, which are highly engaged with universities in developing their business activities. Currently the questions get at an aspect of possible relationships here but many startups take multiple years to develop and are nurtured by universities in complex ways.
- Question 9

- This continues the focus on startups but this question would seem not nearly as valuable without knowing the distribution of overall companies which the university has licensed technology two in each area which the question currently lists.
- Question 10
 - Is the use of “technology-related” in the question meant to screen out any particular type of revenue which universities would likely otherwise include? If so, then specifically listing different types of revenue which should be excluded would be helpful. If not, then perhaps that phrase could be dropped.
- Question 11 and 12
 - The placement of these questions would seem better after question 2.

On the remainder of the survey outside of the proposed module, we have some doubt that “foreign sources” of R&D expenditure are currently tracked by universities in question 2. And on question 20, clarification that institutions should include total dollars in the award regardless of if the money was received in FY2009 would seem helpful.

Lastly, we are assuming data will be publicly available and tied to individual university names unless it is otherwise stipulated on the documents. In particular, no part of the “University Intellectual Property and Commercialization Module” is currently marked “confidential.” We agree with this direction.

This is a worthwhile redesign and we remain open to any assistance we can provide to help.

Sincerely,



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