

Institutional Infrastructures Supporting International Research

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SUMMARY

International research collaboration is an important factor in institutional success within the research community. Collaboration enables researchers to access resources that would otherwise be outside their reach and creates opportunities for faculty members to maximize their ability to perform in multi-disciplinary research activities.

The Strategic Interdisciplinary Research Office (SIRO) at the Penn State University (PSU) and Huron Consulting are studying the infrastructures at major research institutions supporting international research activities.

Institutions were invited to complete a short voluntary survey intended to collect data on their non-U.S.-based sponsors of research and international collaborators, and their infrastructures intended to support these activities. Data generated by this survey will be provided to institutions for use in assessing their international research portfolios.

BACKGROUND

Metrics common to University Ranking Systems include¹:

- International Students
- International Faculty and Staff
- Papers presented in International Conferences

QUESTION: What institutional research infrastructures support contribute to enhancing these metrics?

METHODS

As a preliminary step in the research survey process, data was collected from multiple sources including the HERD, USA Spending, Scival, and USPTO. This data was analyzed to search for correlations between research funding success and activities being completed with funding agencies outside of the United States. **Preliminary data from the first 15 participants is presented here.** Continuing analyses include:

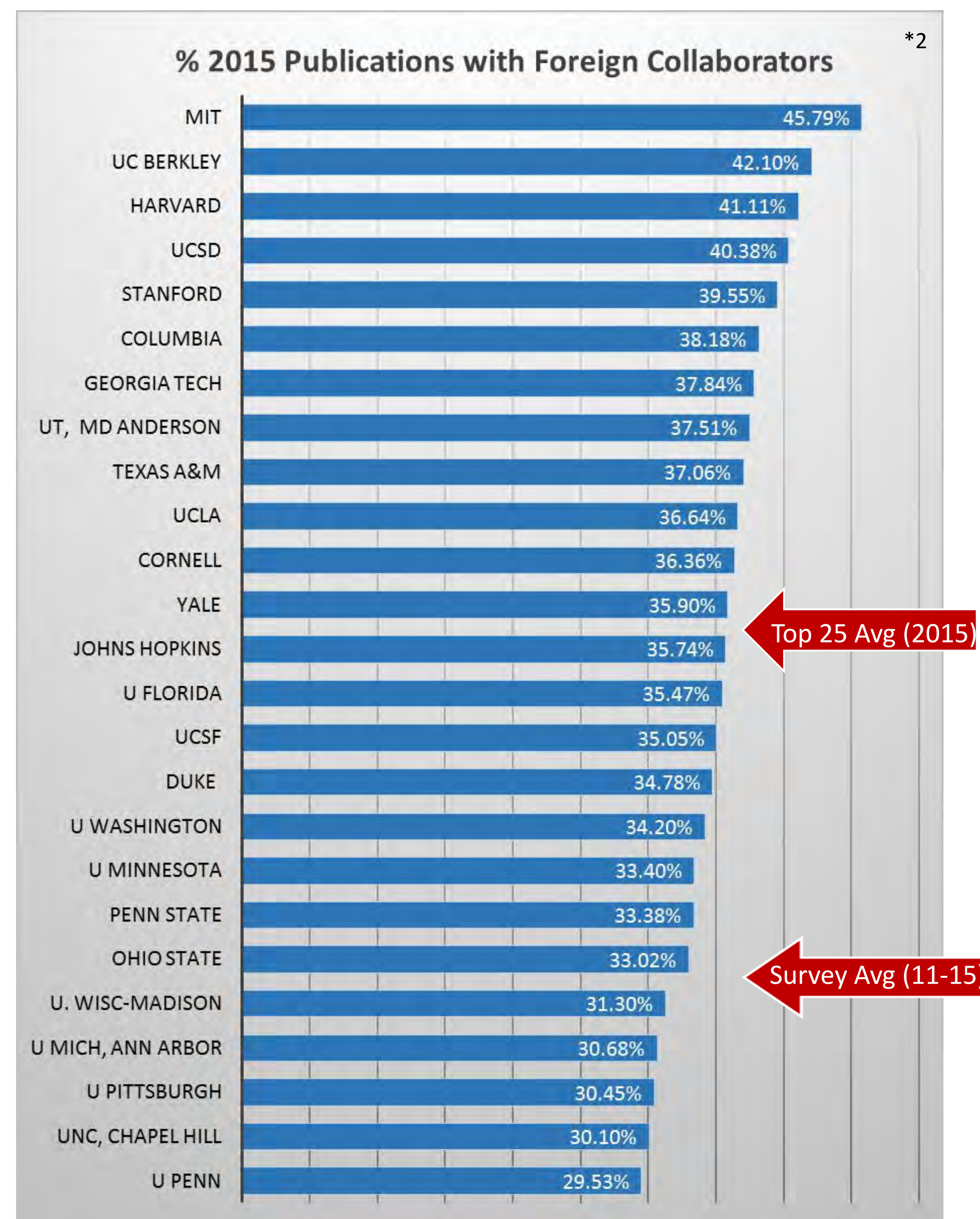
- Awards from Non-US Sponsors - #'s, \$'s, Sponsor type
- Subawards from and to Non-US institutions
- Material Transfer Agreements

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REFERENCES: ¹Buela-Casal, G., O. Gutiérrez-Martínez, M. P. Bermúdez-Sánchez and O. Vadillo-Muñoz (2007). "Comparative study of international academic rankings of universities." *Scientometrics* **71**(3): 349-365.

*² Data gathered using SciVal.

PRE-SURVEY BENCHMARKING



Average % Pubs with Non-US Co-authors: 36% +/- 4%

PRELIMINARY DATA

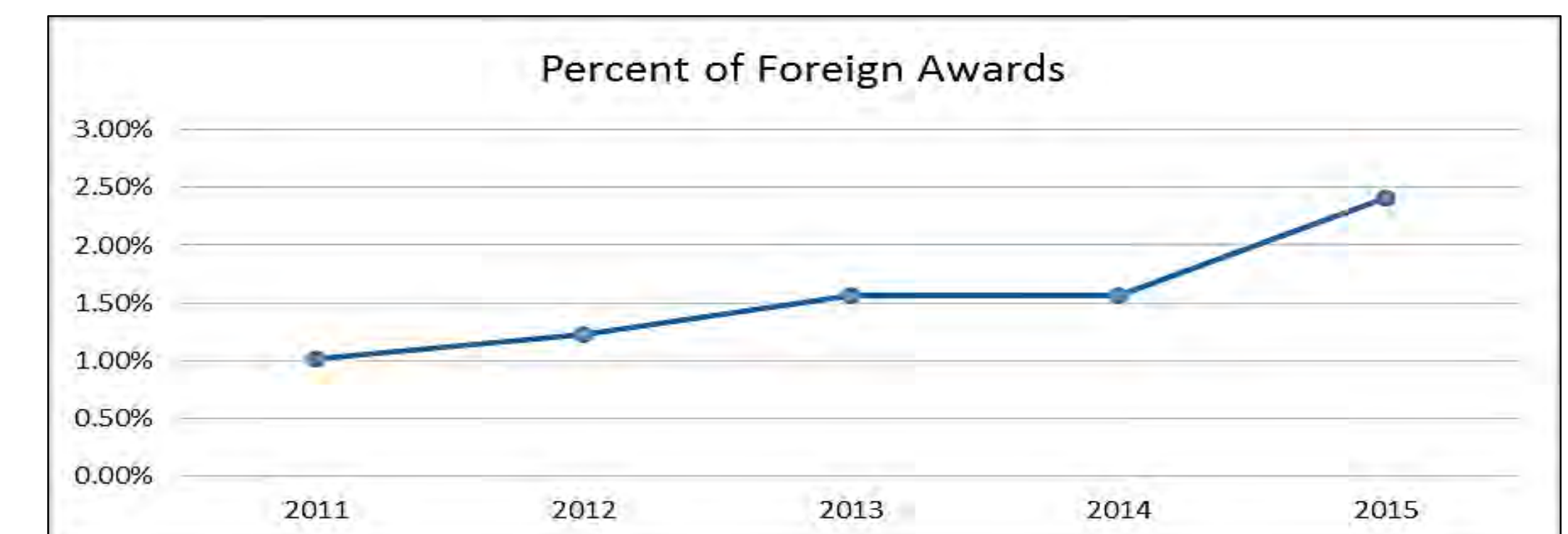
	Survey Average
Total Pubs for the Institution	33,316
Co-Institutional Pubs	22,077
Pubs with Collaborator at US Institutions	10,967
Pubs with Collaborator at Non-US Institutions	11,110
% of Collab Pubs with Non-US institution	50%
% of Total Pubs with Non-US institution	33%

PRELIMINARY DATA

	Survey "Yes" Average
Does your institution have internally funded opportunities to support international research?	67%
Does your institution have an internal funding pool to cover unforeseen international activity costs?	7%
Does your grants management system allow you to identify internally funded projects having an international component?	40%
Does your central sponsored programs office have staff solely dedicated to support proposals and awards with international sponsors?	13%
Does your general counsel office have staff solely dedicated to support collaborations with international entities?	27%
Does your institution identify additional institutional officials approvals or signatures on agreements with international organizations or other third parties?	13%

Table 3: Percent of Total Awards from Non-US Sponsors

	2011	2012	2013	2014	2015
Survey Average	1.02%	1.22%	1.57%	1.56%	2.41%



CONCLUSIONS TO DATE

- Co-authored publications are a readily obtainable metric of international research activity
- Preliminary data suggests a possible (r².49) correlation between institutional research funding / expenditures and the percentage of papers being published with foreign collaborators.
- Data indicates a trend of steady increase in percentage of foreign awards as compared to all awards over the survey period (2011-2015).

Penn State Office for Research Protections Review:
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