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EXPLORING THE POSSIBILITIES...

NAVIGATING INTO THE FUTURE

Navigating International Research

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Agenda

- Introduction and Motivation
- International Research Complexities
- Institutional Support for Research
- Our Study and Methods
- Results and Conclusions
- Q&A

Introduction and Motivation

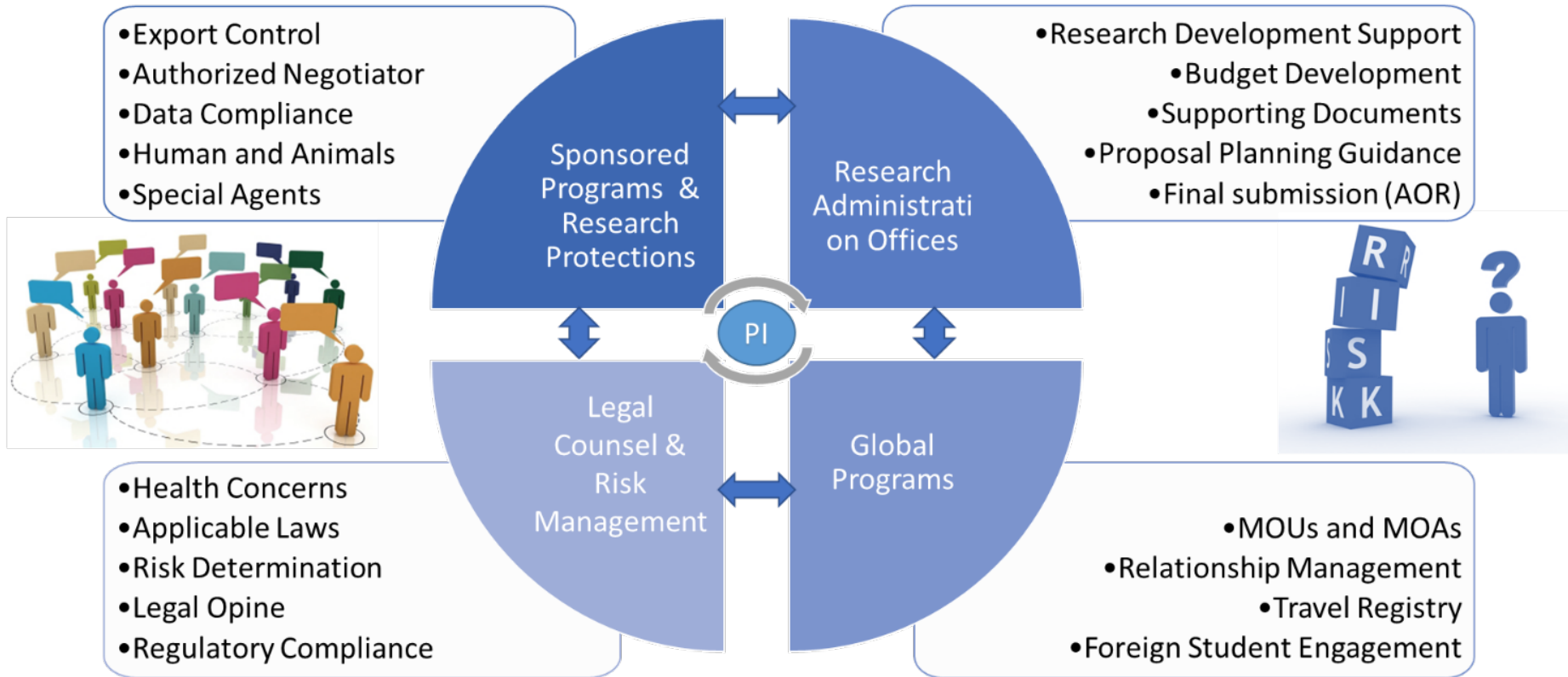
- Community of researchers increasingly more global
- Challenges to conducting international research are growing and not converging
- Resource sharing across international boundaries is important for a broad range of studies
- Metrics associated with international activities are included in those used to determine university rankings



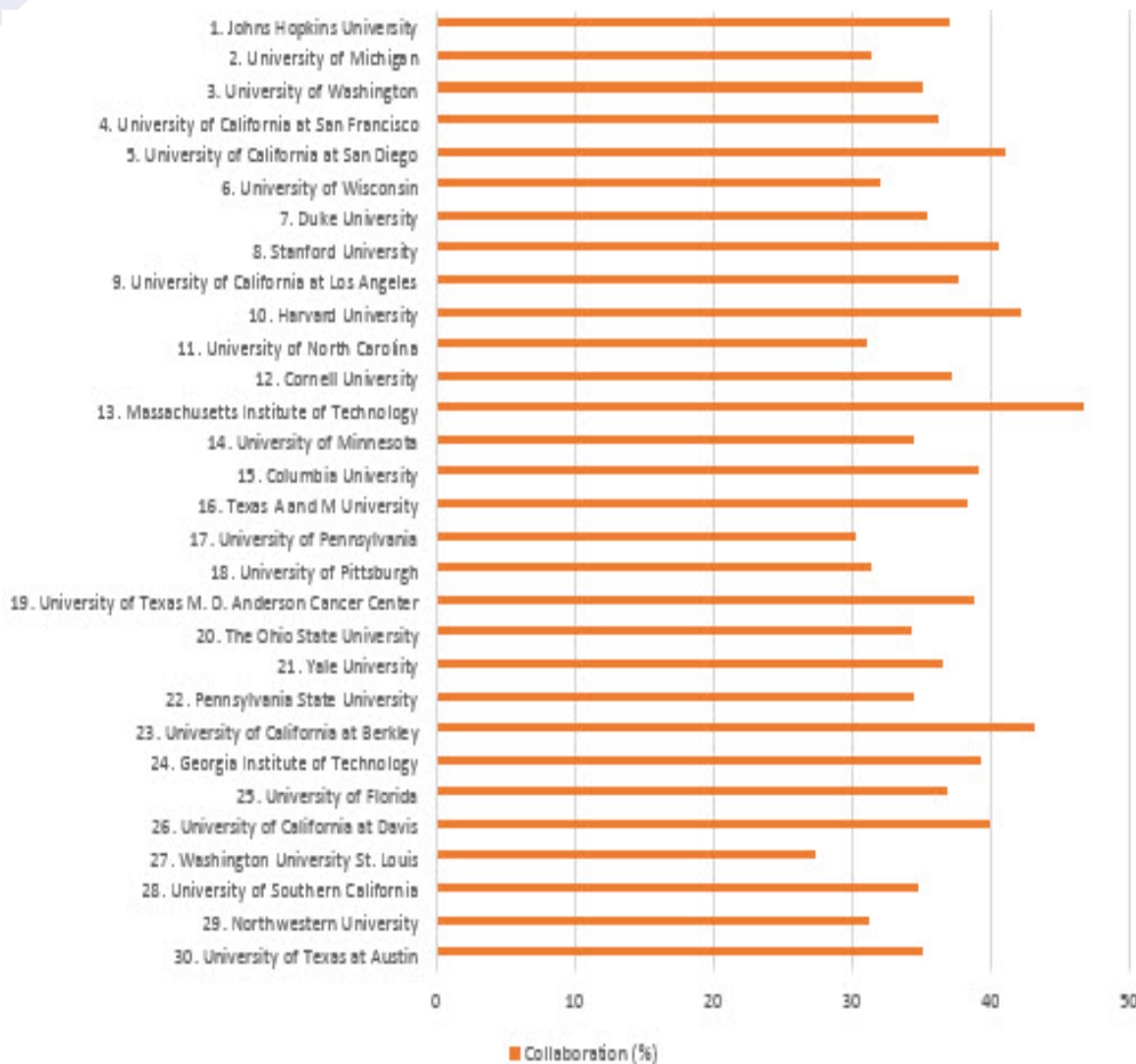
International Research Complexities

- Local customs and traditions
- Language and translations
- In-country authority (laws, processes, etc.)
- Contract language
- Import / Export
- Non-profit status / U.S. grantee obligations
- Passports and visas
- Health and safety

Institutional Support for Research



% International Collaborators by Co-authors on Publications At Top 30 HERD Institutions



- SciVal Collaboration Tool
- Top 30 NSF HERD institutions in rank order by research expenditures
- Range from 30 – 46%
- No correlation between publications with international collaboration and institutional rankings

Our Methods

- A Qualtrics survey was designed to collect metrics and characteristics that define institutions interested in advancing international research
- Survey questions overview:
 - Total research funding
 - Awards from non-US based sponsors
 - MTAs and subawards with non-US based entities
 - Space lease agreements
 - Internal financial and infrastructure in support of international research



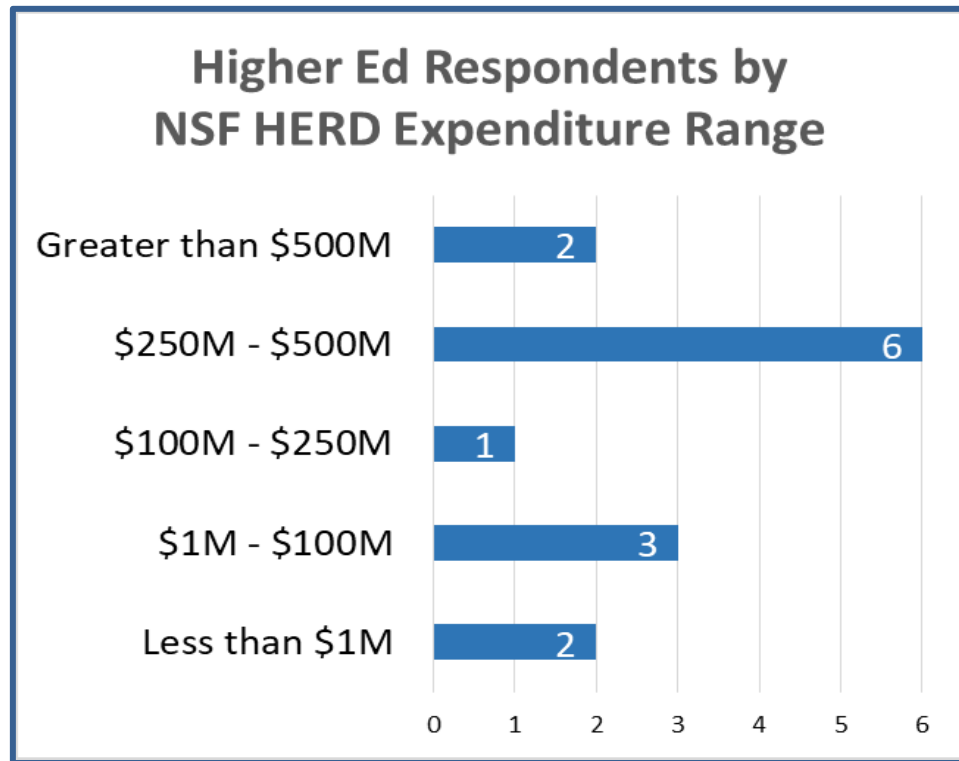
Our Methods

- Additional sources of information
 - NSF HERD Survey
 - USA Spending
 - SciVal
 - US Patent and Trade database
- Data from these sources was analyzed for correlations between research funding and activities with international collaboration



Results – Survey Respondents

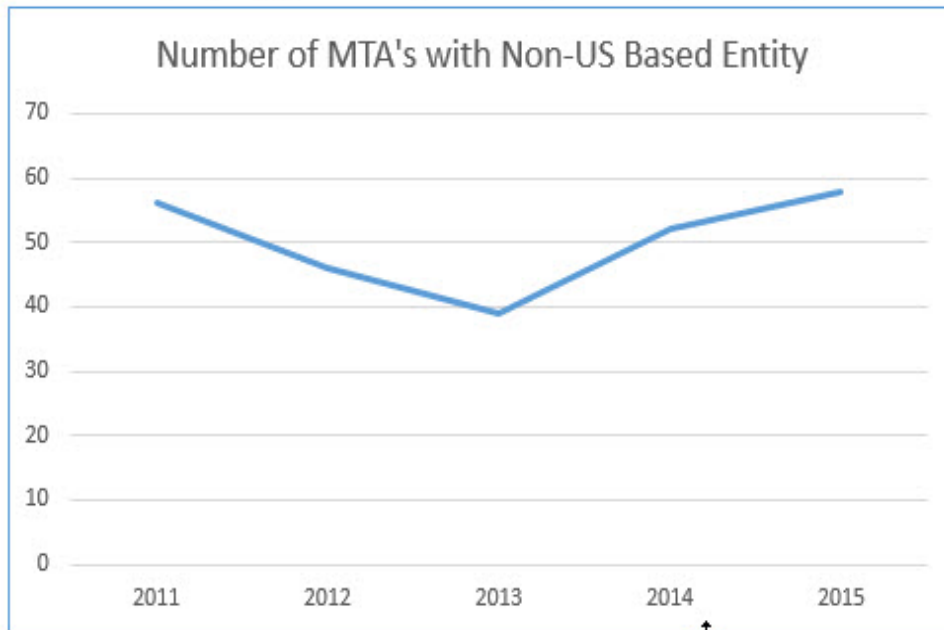
- 16 institutions responded to survey
- Characterized by expenditure base
- Two respondents do not report expenditure data to NSF HERD report



Results – Metrics and Trends

Table 1: Inbound/Outbound MTA's with Non-US Based Entity

	2011	2012	2013	2014	2015
Survey Average	56	46	39	52	58



Results:

- MTAs with a non-US based institution
- A metric of int'l research partnerships
- No trend over last 5 years
- Volume reflects common institutional capacity to process and track MTAs.

Results – Metrics and Trends

Table 3: PI with Non-US Based Awards

	2011	2012	2013	2014	2015
Survey Average	39	49	44	44	56

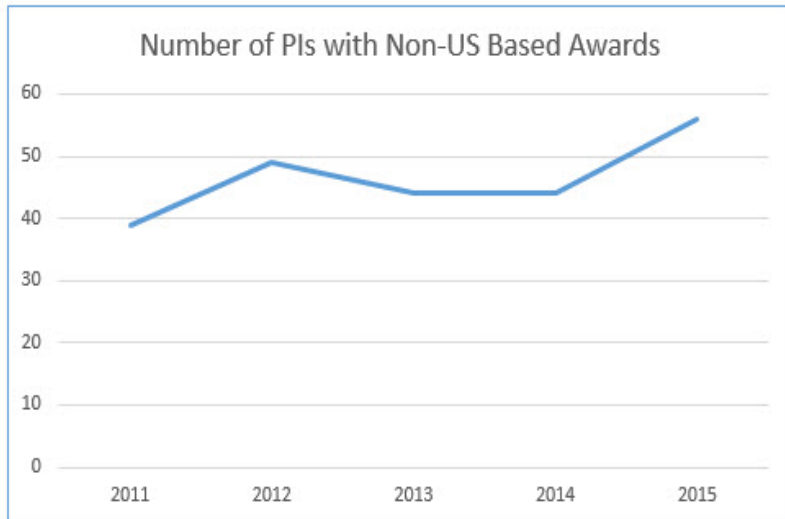
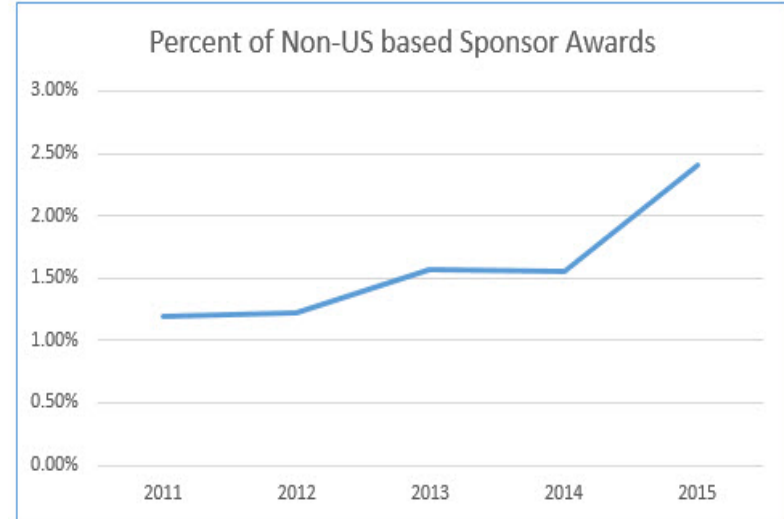


Table 2: Percent of Total Awards from Non-US Based Sponsors

	2011	2012	2013	2014	2015
Survey Average	1.20%	1.22%	1.57%	1.56%	2.41%



- Funding from non-US based sponsors
- Percent of foreign awards = less than 3%
- Funding from international sponsors is on the rise
- Faculty w/ foreign awards is also trending upwards

Results:

Results – Metrics and Trends

Table 4: Percent of Patents with Non-US based Inventors - 2015

	Survey Average
Total # of Patents	32.6
Joint Patents with Non-US based Inventors	5.3
% of Patents with Non-US based Inventors	16%

- Another metric focused on the programmatic research outcome: joint patents with non-US based inventors
- 16% (1 out of 6) of our respondents' patents include a foreign inventor

Results – Metrics and Trends

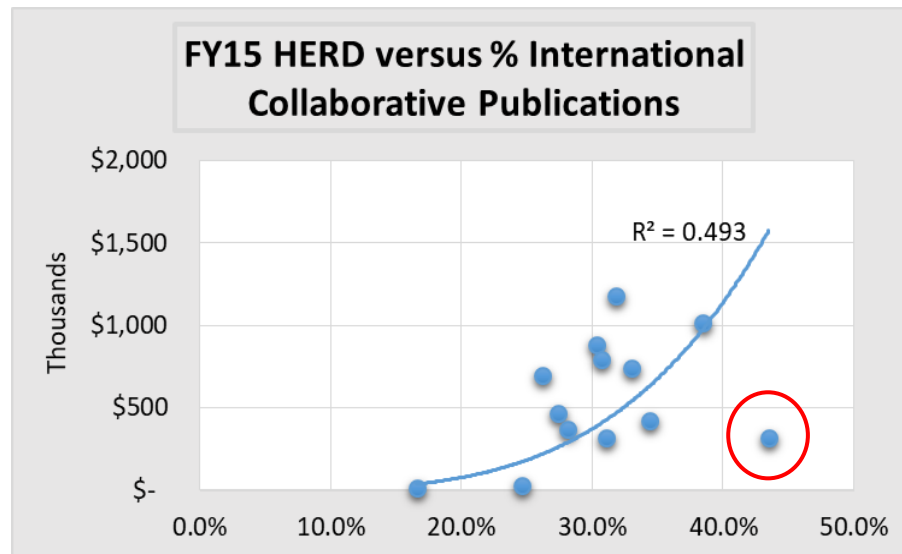
Table 5: Internal Funding and Infrastructure	
	Survey "Yes" Average
Does your institution have internally funded opportunities to support international research?	67%
Does your institution have an internal funding pool to cover unforeseen international activity costs?	7%
Does your grants management system 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 have a written policy or procedure that identifies additional institutional officials approvals or signatures on agreements with international organizations or other third parties?	13%

Conclusions

- Survey data indicates a trend of steady increase in percentage of foreign awards as compared to all awards over the survey period (2011-2015).
- Co-authored publications are a readily obtainable metric of international research activity.
- Patents demonstrate the importance of US based investigators having a team with diverse and international resources and knowledge.

Conclusions

- Preliminary data suggests a weak correlation between institutional research expenditures and the number of papers being published with foreign collaborators.



Conclusions

- International Research Navigator
 - Creation of the position was not queried by this survey
 - Complexities point to the importance of such a function to support international research endeavors
 - Formal or informal, across multiple administration units

Q&A

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