



Phase II: Postdoc Data Project (PDP)

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Career Patterns of Foreign-Born Scientist and Engineers, Trained and/or Working in the U.S.

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Project Impetus

Unknown implications for the U.S. research enterprise, U.S. workforce, and science and engineering (S&E) employment markets due to the increasing ...

- Number of total postdocs
- Duration of postdoc appointments
- Number of non-U.S. citizens in postdocs



Postdoc Data Project

- Postdocs important component of U.S. S&E labor force
- Current NSF workforce surveys have substantial coverage gaps
- Heard requests from many sources for more information about postdocs in all sectors
- Engaged in multi-year effort to increase quality and quantity of information on postdocs



Project Goals

- Improve aggregate counts of postdocs
- Develop a comprehensive integrated postdoc information strategy



Postdoc Coverage in SRS Surveys

Segment	GSS	SED	SDR
Type of Ph.D.			
Research PhD	X	X	X
Ph.D. Equivalent Professional Degrees (MDs)	X		
Country of Ph.D. and Residency/Citizenship			
U.S. Ph.D. Degree, Citizen/Permanent Resident	X	X	X
U.S. Ph.D. Degree, Temporary Visa	*	X	X
Foreign Ph.D. Degree, Temporary Visa	*		
Sector			
Academic	X	X	X
Nonacademic		X	X
Postdoc status			
In postdoc	X		X
Plan to do postdoc		X	

*Covered by GSS, but U.S. degree not separated from foreign degree for temporary residents.



Phase II: PDP

- Two goals
 - Postdoc count (all sectors)
 - Sample frame of postdocs (gaps for foreign-Ph.D. degreed, M.D., M.D./Ph.D., D.O., D.D.S., and D.V.M.)
- Many potential sources of information
 - Places that:
 - ♦ Employ postdocs
 - ♦ Fund postdocs
 - Postdocs themselves
 - Organizations/associations
 - Immigration records



Exploring potential sources of information

- Assess whether each source can provide counts, lists of postdocs for frame, both, neither
- Document the feasibility, quality, availability and coverage of the sources and the effectiveness of various methodologies used to obtain the sources
- Continue to pursue access to additional sources
 - Immigration records
 - Federal grants databases



Assessment Strategies

- Administrative review of source
- List Assessment Surveys (LAS)
 - Two types: one for establishments and one for individual postdocs
 - Determine:
 - ♦ Periodicity of obtaining/maintaining/updating the frame
 - ♦ The variables needed for a de-duplication process if multiple sources are used
 - ♦ The screening rate needed to find an eligible respondent



Data Collection

- Establishment List Assessment Surveys (ELAS)
 - Postdoc counts
 - Key characteristics such as gender, race/ethnicity, funding source, and foreign-degree status
 - Postdoc definitional elements
 - Postdoc policies
 - Respondent characteristics
 - Can the institution provide lists of individual postdocs
 - Relative ease, difficulty, willingness to provide the list
- Postdoc List Assessment Surveys (PLAS)
 - Postdoc definitional elements
 - Postdoc policies (knowledge and impact of)
 - Demographics
 - Group memberships/associations
 - Current job characteristics



Potential Sources of Information	ELAS	PLAS
<ul style="list-style-type: none"> Academic Institutions – institutions not in <i>The Survey of Graduate Students and Postdoctorates in Science and Engineering (GSS)</i> 	✓	?
<ul style="list-style-type: none"> Government Agencies (employers) 	✓	?
<ul style="list-style-type: none"> Nonprofit Institutions 	✓	?
<ul style="list-style-type: none"> Federally Funded Research and Development Centers (FFRDCS) 	GSS	?
<ul style="list-style-type: none"> For-Profit Industry 	SDR	SDR

ELAS – Establishment List assessment survey
 PLAS – Postdoc list assessment survey
 ✓ - In progress
 ? – May not get information from that source
 SDR – Survey of Doctorate Recipients



Potential Sources of Information (cont'd)	ELAS	PLAS
• Principal Investigators	?	?
• Federal Government Grants Databases	✓	NSF
• Student and Exchange Visitor Information System (SEVIS)	✓	?
• Labor Condition Application (LCA) /H-1B	✓	?
• American Association for the Advancement of Science (AAAS)	✓	✓
• American Veterinary Medical Association (AVMA)	✓	?
• American Association of Medical Colleges (AAMC)	✓	?
• National Postdoctoral Association (NPA)	✓	✓



Next Steps

- Assess results of administrative reviews, ELAS and PLAS activities
- Identify feasible sources to meet both goals
 - Will be overlap
 - May still be gaps

Phase II: PDP – Goal 2, Sample Frame

(Fill gaps for foreign-Ph.D. degreed & MD/Ph.D.)

