

Postdoc Data Project

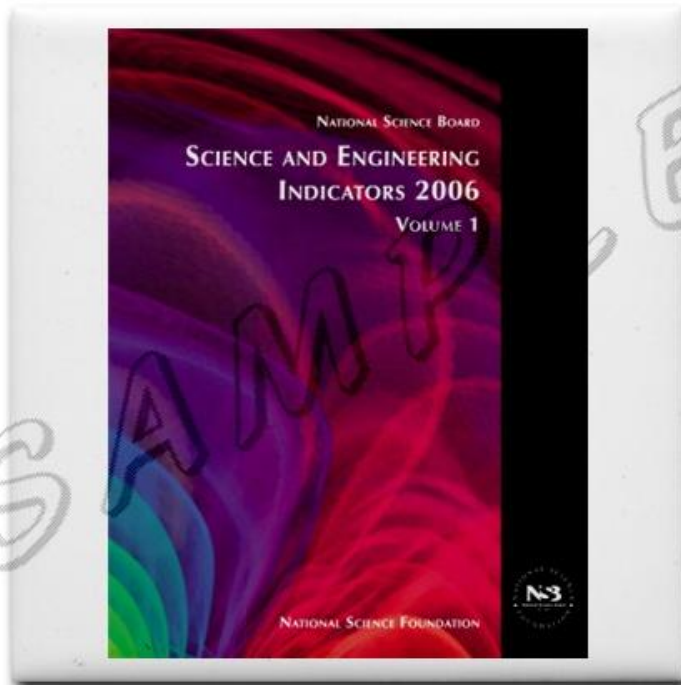
Emilda B. Rivers

GREAT Group Postdoctorate Leaders Meeting

October 9, 2006

National Science Foundation
Division of Science Resources Statistics
www.nsf.gov/statistics

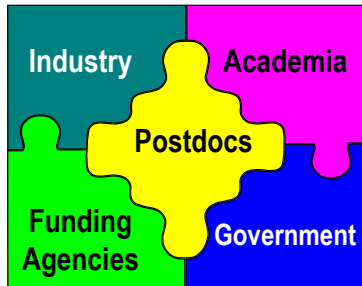
Division of Science Resources Statistics (SRS)



Federal Statistical Agency

**Fulfills the legislative mandate
of the National Science
Foundation Act to...**

- *Provide a central clearinghouse for the collection, interpretation, and analysis of data on scientific and engineering resources, and*
- *Provide a source of information for policy formulation by other agencies of the Federal Government. . .*

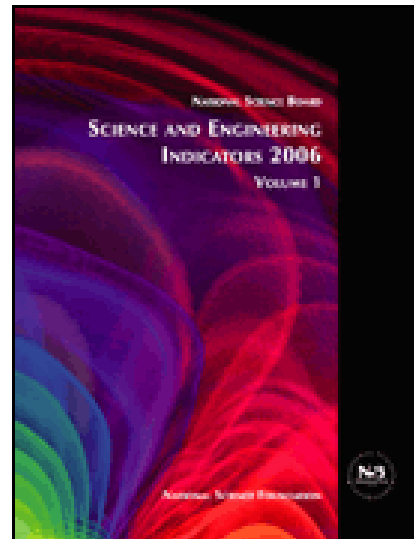


Postdoc Data Project

- Impetus
- Goals
- Plan
- Next Steps



Impetus

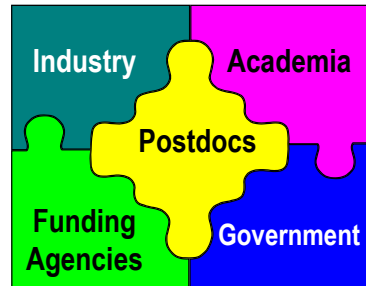




Impetus

Unknown implications on the U.S. research enterprise, U.S. labor force, and science and engineering (S&E) employment markets of the increasing number of ...

- Non-U.S. postdocs
- Total postdocs and the increased duration of the postdoc appointment

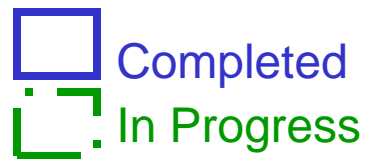
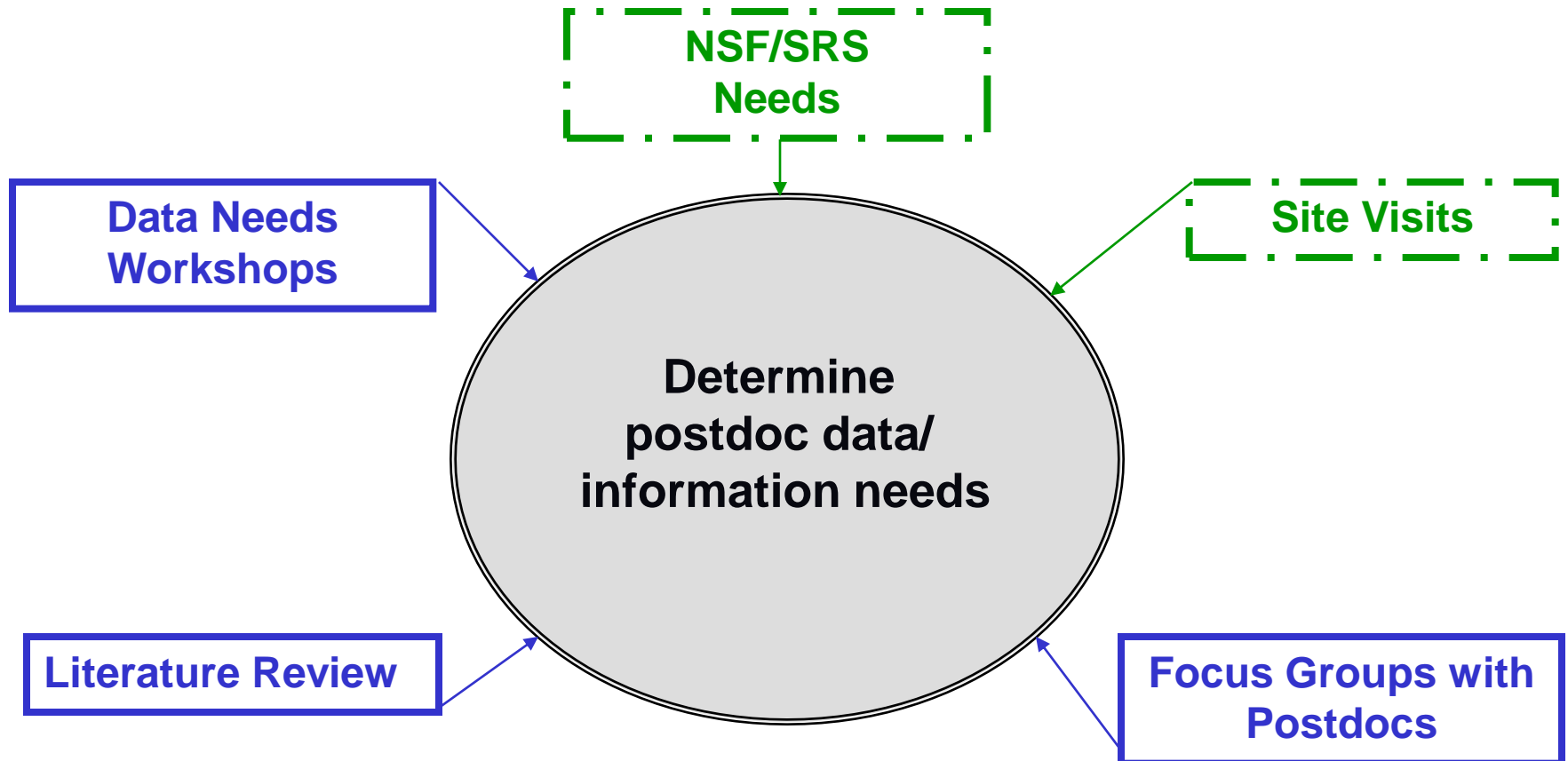


Goals

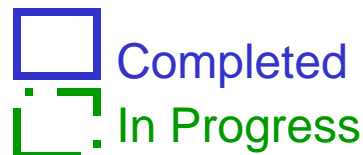
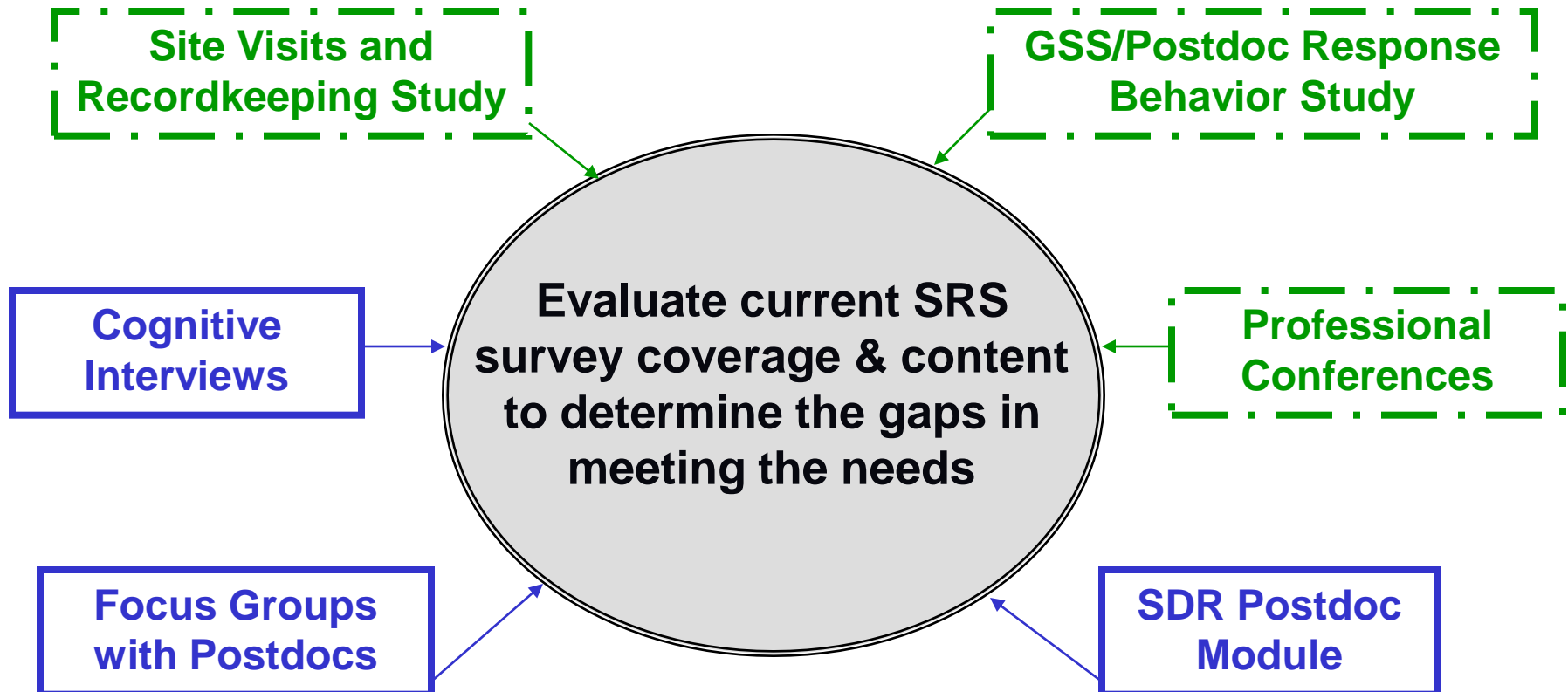
Through a multi-year project,

Assess the **feasibility of gathering**
more **comprehensive** information
on all types of postdocs in the U.S.
across employment sectors

Plan



Plan





SRS postdoc-related surveys

- **GSS, the Survey of Graduate Students and Postdoctorates in Science and Engineering**

An annual establishment survey of academic institutions at the department level that provides a major source of counts about postdocs

- **SED, the Survey of Earned Doctorates**

An annual census of newly granted research doctorates from U.S. institutions about their postgraduation plans at the time of graduation

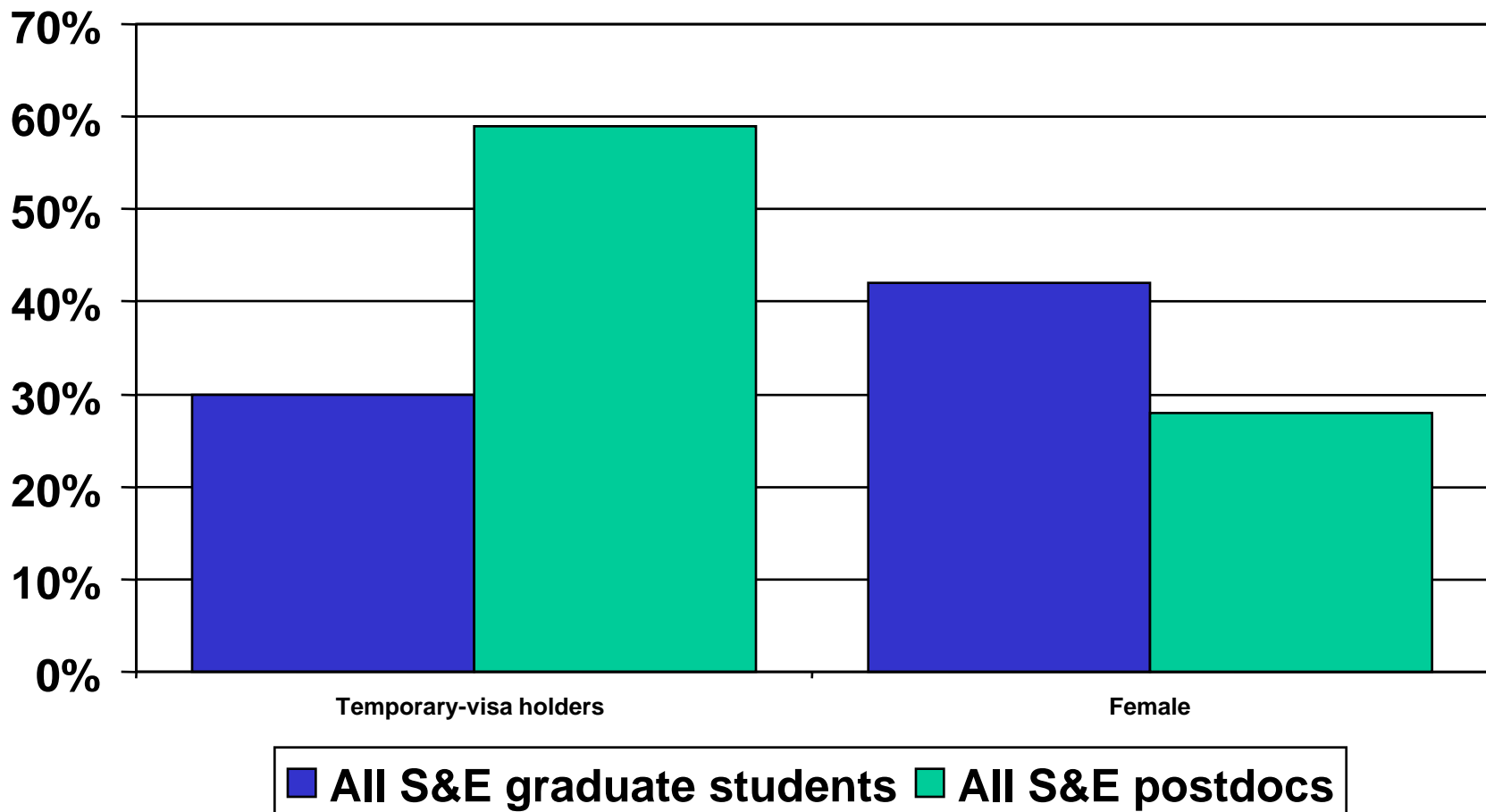
- **SDR, the Survey of Doctorate Recipients**

A sample survey of research doctorates from the SED conducted biennially and as a longitudinal survey

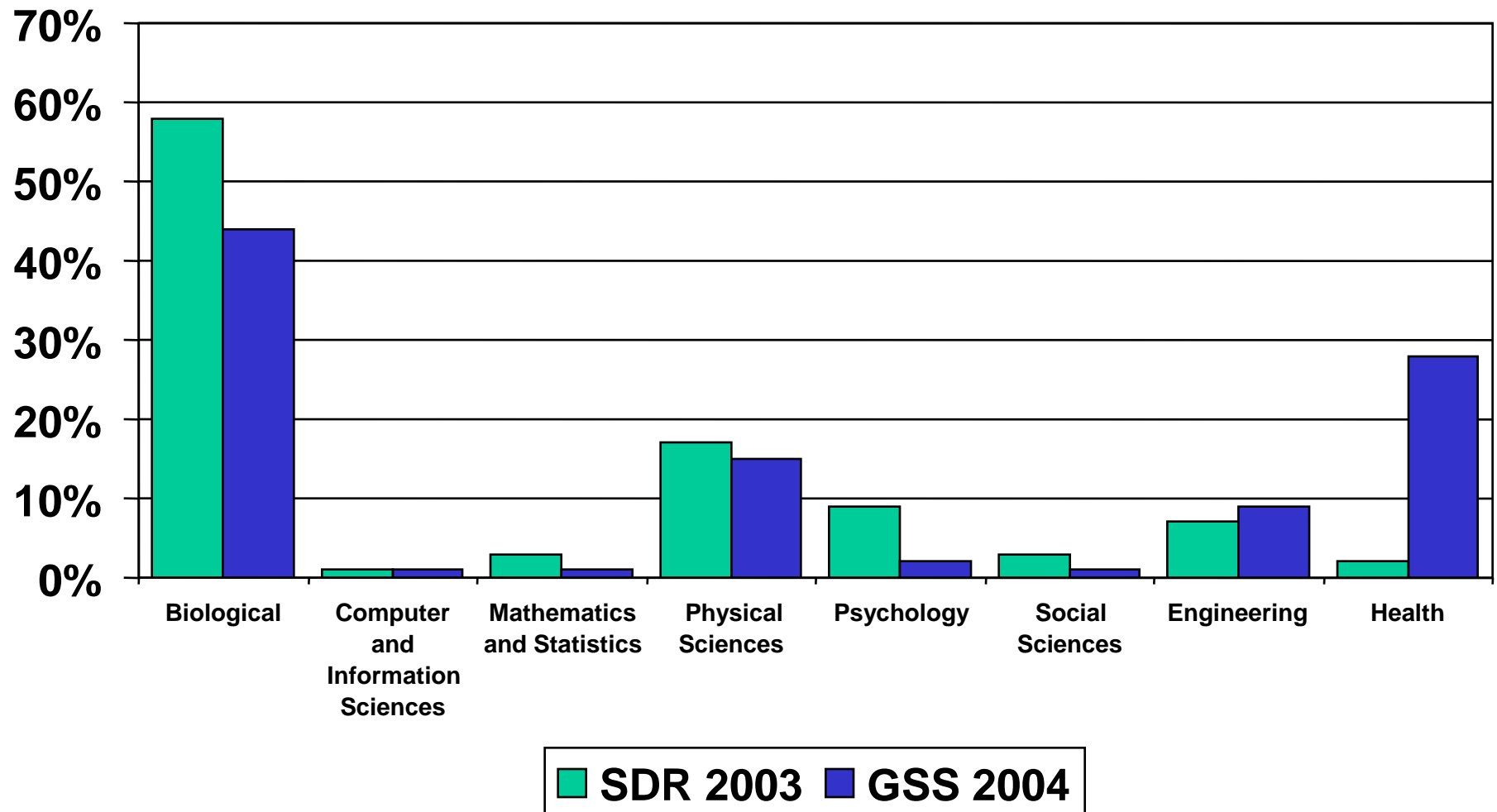
- **NSCG, National Survey of College Graduates**

A sample survey designed to provide data on the number and characteristics of individuals with degrees and/or employment in S&E in the U.S

S&E graduate students and postdocs, percent temporary-visa holders and percent female



Distribution of S&E and Health Postdocs by Field and SRS Survey (First S&E PhD for SDR)



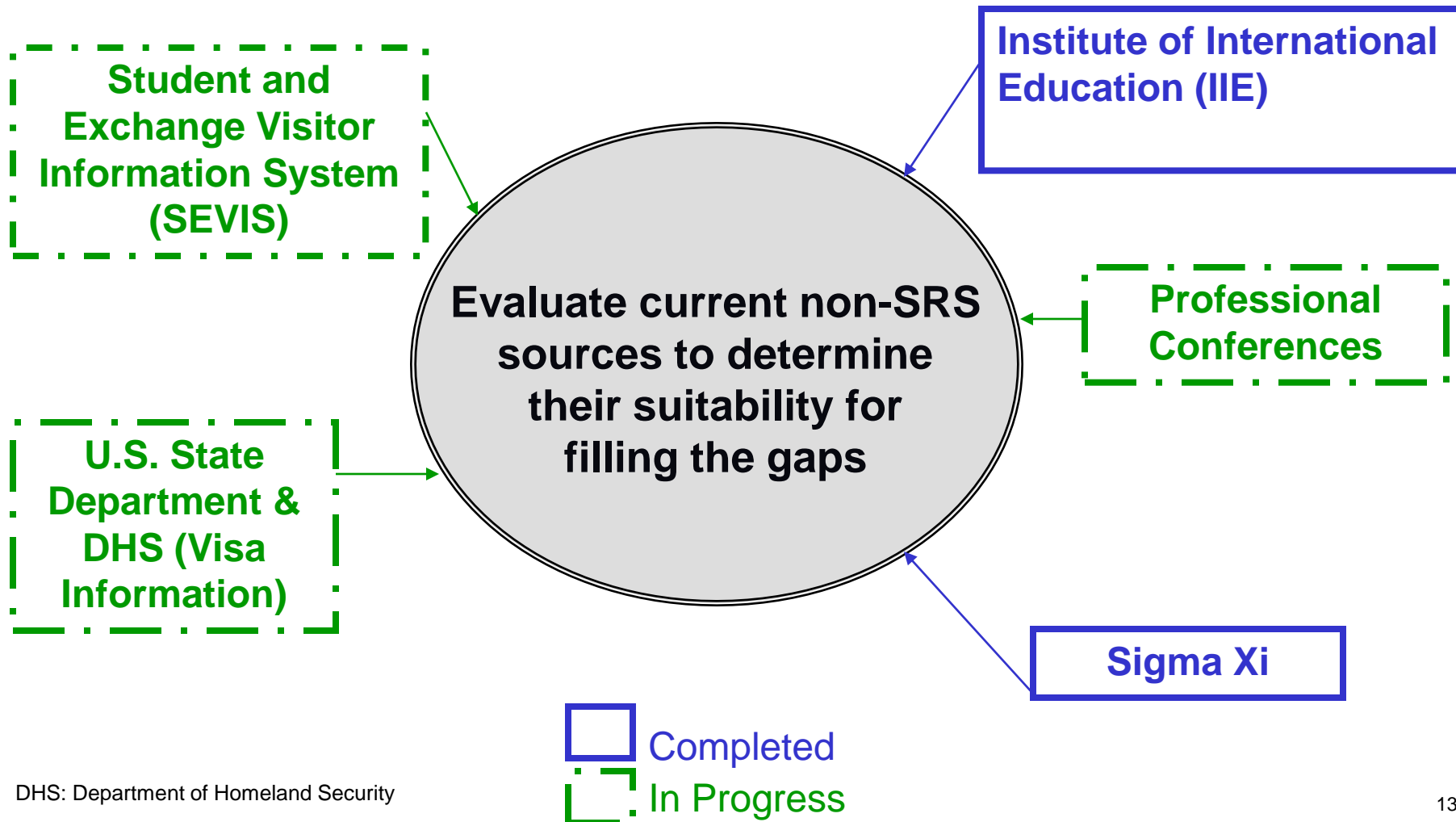


Postdoc Population Coverage of SRS Surveys

Segment	GSS	SED	SDR
Type of PhD			
Research PhD	X	X	X
PhD Equivalent Professional Degrees (MDs)	X		
Country of PhD and Residency/Citizenship			
U.S. PhD Degree, Citizen/Permanent	X	X	X
U.S. PhD Degree, Temporary Visa	*	X	X
Foreign PhD 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

Plan





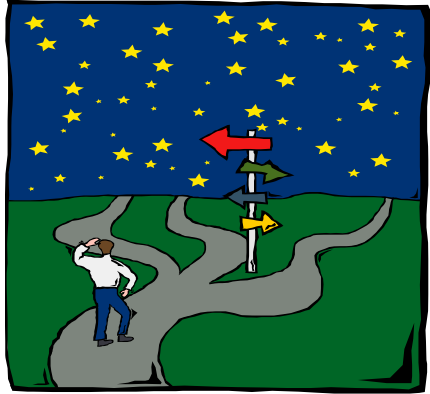
Next Steps

- Develop a Comprehensive Integrated Postdoc Information Strategy
- Expand/improve postdoc data from academic institutions
- Enhance aggregate postdoc data with data from nonacademic institutions
- Build a sampling frame that supplements current SRS postdoc-related surveys

Next Steps



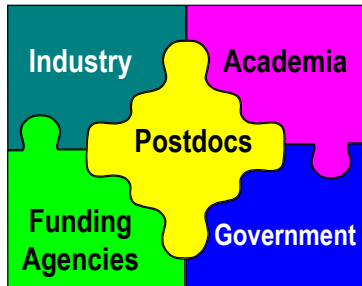
- How do we build a sampling frame of postdocs that supplements current SRS postdoc-related frames?
- What are the sources for lists of foreign-degreed PhD postdocs? Of PhD Equivalent Professional Degreed Postdocs?
- How do we define, for frames and surveys, what is a postdoc?



Next Steps

Postdoc survey content needs

- Postdoc quality and experience indicators
- Career transitions to and from postdoc
- Pipeline issues (discouraged from entering S&E field?)



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Postdoc Definitions - GSS

POSTDOCTORATES – Columns (A) through (F): Include all postdoctorates receiving research training through the department or program. Use the following criteria to determine postdoctorate status:

- The appointee holds a PhD or equivalent doctorate (e.g., ScD, MD, DDS, DO, DVM, or foreign degrees equivalent to U.S. doctorates)
- The doctorate was awarded recently, generally within the last 5 years
- The appointment is for a limited term, the limit generally being 5-7 years
- The appointment is primarily for the purpose of training in research or scholarship
- The appointee works under the supervision of a senior scholar in a department or research unit affiliated with the university



Postdoc Definitions - GSS

These postdoctorates may have different titles – do not include clinical fellows and those with appointments in residency training programs in medical and health professions, unless training under the supervision of a senior mentor is the primary purpose of the appointment.

Report postdoctorates by source of support in columns (A) through (D), with the total number of postdoctorates reported in column (E). Of this total, report the number who are foreign in column (F).

Foreign postdoctorates—Column (F): Include all postdoctorates who are in this country on temporary visas. Postdoctorates who are native residents of a U.S. possession or are permanent residents holding green cards should be included under U.S. citizens and permanent residents.

If you included postdoctorates who are part of your department or program but work in interdisciplinary research centers or other organized research units outside of the department or program, please provide a list of the names of those research centers or units:



Postdoc Definitions – GSS

RBS pretest results

Which of the following characteristics are included in this department's/program's/center's standard definition of a postdoctorate?

- 90.4% included, The appointee holds a PhD or equivalent doctorate (e.g., ScD, MD, DDS, DO, DVM, or foreign degrees equivalent to U.S. doctorates)
- 60.8% included, The doctorate was awarded recently, generally within the last 5 years
- 54.3% included, The appointment is for a limited term, the limit generally being 5-7 years
- 71.1% included, The appointment is primarily for the purpose of training in research or scholarship
- 77.0% included, The appointee works under the supervision of a senior scholar in a department or research unit affiliated with the university
- 12.4% indicated, Other (specify)



Postdoc Definitions - SED

What best describes your immediate (within the next year) postgraduate plans?

- Postdoctoral fellowship
- Postdoctoral research associateship
- Traineeship
- Other Study – Specify



Postdoc Definitions - SDR

During the week of December 1, 2004, what type of academic position (s) did you hold at this institution?

President, etc

.
. .
.

Postdoc (e.g. postdoctoral fellow or associate)

.
. .
.

Other – Specify



Postdoc Definitions - SDR

Was this job a "postdoc"?

A "postdoc" is a temporary position awarded in academe, industry, or government primarily for gaining additional education and training in research.

Yes

No



Postdoc Module - SDR

- Date postdoc started and ended (or you left)
- What was your primary reason for taking this postdoc
 - Additional training in PhD field
 - Training in area outside of PhD field
 - Work with a specific person or place
 - Other employment not available
 - Postdoc generally expected for a career in this field
 - Some other reason - specify
- Which sector BEST describes where you worked...
 - Educational institution
 - Business/industry or Non-profit
 - Government (any level)
 - Other - specify
- For this postdoc, did you receive...
 - Health benefits
 - Retirement benefits

Timeline for SRS postdoc-related surveys