IDENTIFYING CAREER PATHWAYS FOR POSTDOCS:

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National Postdoctoral Association Meeting
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COLLECTING NEW DATA
We still lack the data we need...
AVAILABLE DATA SETS: NSF

- Survey of Earned Doctorates (SED)
- Survey of Doctorate Recipients (SDR)
- Survey of Graduate Students and Postdoctorates (GSS)
- [Early Career Doctorates Survey (ECDS)]
WHAT GAPS EXIST IN THE DATA?

- Council of Graduate Schools report
  - *Understanding PhD Career Pathways* (2014)
  - Gap analysis, p. 37
### Council of Graduate Schools new report: gap analysis

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<td>Fields of study</td>
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<td>All</td>
<td>Humanities</td>
<td>STEM</td>
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**Variable Clusters**

**General Information.** Variables include, but are not limited to, completion rates, median time-to-degree, department size, sources of financial support, etc.

**Career.** Variables include, but are not limited to, topics such as career development experiences, the relationship between doctoral training and current work, etc.

**Degree.** Variables include, but are not limited to, topics such as details about the degree, specific fields, cumulative debt, etc.

**Demographics.** Variables include, but are not limited to, topics such as citizenship, race, marital status, etc.

**Education.** Variables include, but are not limited to, topics such as the student experience including level of educational preparation, obstacles to success, participation in professional development opportunities, etc.

**Other.** Variables include, but are not limited to, topics such as contact information for follow-up, preferred future survey mode, willingness to participate in future surveys, etc.

**Postgraduate plans.** Variables include, but are not limited to, topics such as postgraduate plans, employment sector, etc.

**Reflection.** Variables include, but are not limited to, topics such as whether or not a student would follow the same path if they could do it over again.

**Work.** Variables include, but are not limited to, topics such as academic positions held, current employer information, salary, etc.

**Work–life.** Variables include, but are not limited to, topics such as activities completed between graduation and work, extended time off, feelings about current position, etc.
HARVARD EXPERIMENT

- Interest in constructing new instrument and taxonomy
- Constructed research proposal, sent to Harvard’s IRB
- Embarked on large-scale research project
RESEARCH QUESTIONS

- What skills, if any, are developed organically during graduate and postdoctoral training?
- Are these same skills required to enter different occupations?
- In what sectors are recent science PhD graduates currently employed?
- What type of experiences are required for these positions?
- Are PhDs in science satisfied in their work?
Used mixed methods design

Phase I: Qualitative Data Collection and Analysis

Survey Construction

Embedded cognitive testing

Phase II: Pilot Quantitative Data Collection and Analysis

Phase III: Large-scale Quantitative Data Collection and Analysis

Survey Revision
Collecting information on:

- Sector
- Job Title
- Job Activities
- Skills Required
- Experience Required
STATUS

- Pilot survey approval pending
- Large-scale survey to be launched this spring
- Outreach to NPA, GCC, largest scientific societies
- Results to be published in 2016
LESSONS LEARNED

- IRB approval takes a loooooong time
- We need more data, more research
- Closer to creating standards than we ever have been
Standards and Protocols for the Collection and Dissemination of Graduating Student Initial Career Outcomes Information For Undergraduates

Developed by the NACE First-Destination Survey Task Force

Approved by the NACE Board of Directors, January 2014
NACE is working with the Graduate Career Consortium (GCC) to establish standards for data collection for PhDs.

Stakeholders are discussing next steps to determine:

- What data to collect
- Who will collect it
- How it will be collected
- How it will be used