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What is important in Career Tracking?



Center for Innovation
and Research in
Graduate Education

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Overview



- 1. What is career tracking?**
- 2. Why is career tracking important? to whom?**
- 3. Which questions does it need to answer?
Which can it not answer?**
- 4. What can be learned?**
- 5. What are approaches and methods?**

What is Career Tracking?



- **Career tracking (CT) means to find out what people with a doctorate do or have done **after** completion of the master's/doctoral degree:**
 - how they transitioned to work
 - how their careers developed over time
 - what were the circumstances of their career development
 - what is the quality of the research training of the program, department, or university
- **CT answers **essential questions** of the various **stakeholders** of research career development.**

For Whom is C.T. Important and Why?

Stakeholder



Reasons



- **National funding agencies** → research labor market trends, accountability of public money spent, labor force planning purposes, mobility of local and international researchers.
- **Universities** → profile building, recruitment- outcomes of doctoral education, impact of reform efforts (GS, BGN internships, mentoring, international collaborations) on career outcomes, compare to peer institutions, evaluation of quality

For Whom is C.T. Important and Why?

Stakeholder



Reasons



- **Current and future doctoral candidates** → **employment options, choices of university, career planning/development.**
- **Professors** → **feedback of quality and process of research training, improvement of doctoral education, career information to pass on to students, goodness of fit.**
- **Professional Association/Societies** → **changes in employment opportunities in their discipline/field, competencies need of the researchers in various employment sectors, needed changes in the education during postgraduate study.**

Which Questions does Career Tracking need to answer?



- 1. Are PhDs employed? in what sectors, in which organization, in what positions?**
- 2. What are influential factors, such as career goals, relationships, and family influences, future-oriented scholarly employment preparedness?**
- 3. How useful is the doctoral education for the subsequent career path?**
- 4. How satisfied are PhDs with their careers?**
- 5. Does career outcomes information relate to doctoral program quality?**
- 6. What kind of information is needed to provide feedback to doctoral programs to improve their quality?**

Which Questions Can it (currently) NOT answer Easily?



Difficult questions about research training quality:

How does information on career outcomes relate to doctoral program quality? How can we generate comparative benchmark criteria by institution/program for the quality of doctoral education? (different institutional mission, orientation, infrastructure)

Relationship to Innovation and Economic Growth- We cannot answer

Currently we cannot empirically prove that the production of more PhDs produces more innovations and more economic growth.

Many innovators do not have a Dr. or a PhD, Steve Job, Bill Gates, Carl Djerassi)

What can be Learned from Career Tracking?



Selected Examples of Interesting, unexpected findings

- PhD are employed - **low unemployment**
- Professional skills- **training needed and provided**
- Women doctorates/ relationship/ children- **partners influence the career most**
- Career tracking must continue beyond year 2 or start at year 5 after doctoral degree attainment- **stable employment kicks in after year 4**

Three U.S. CIRGE National Surveys of PhDs 10+ and 5+ Years Later



1. PhDs—Ten Years Later (*surveyed 1997*)

MELLON FOUNDATION AND NSF funded

61 US universities, 6 disciplines

Survey population: 5,864 response rate: **66%**

Biochemistry - Computer Science - Electrical Engin.

English – Mathematics - Political Science

2. PhDs in Art History – Over a Decade Later (*surveyed in 2002*)

GETTY GRANT FOUNDATION funded

54 US universities, all art history PhD programs

survey population: 746 response rate: **68%**

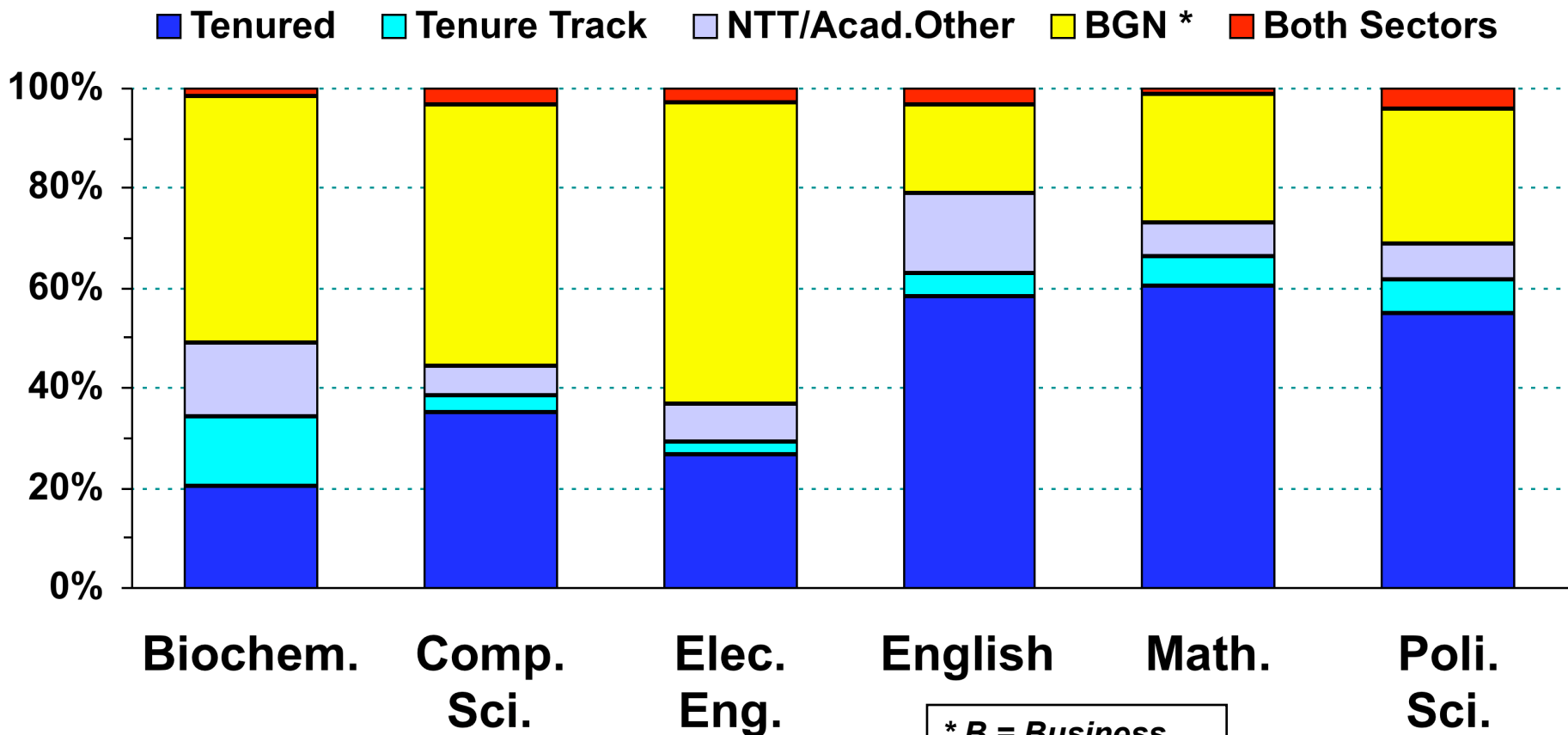
3. Social Science PhDs- Five+ Years Out (*surveyed 2005/06*)

FORD FOUNDATION funded

65 universities, 6 disciplines, Population: 6,670, response rate **45%**

Anthropology, Communication, Geography, History,
Sociology, Political Science

Employment at Survey, 1996/97 10+ Years after PhD (PhD 10)



* B = Business
 G = Government
 N = Non-profits

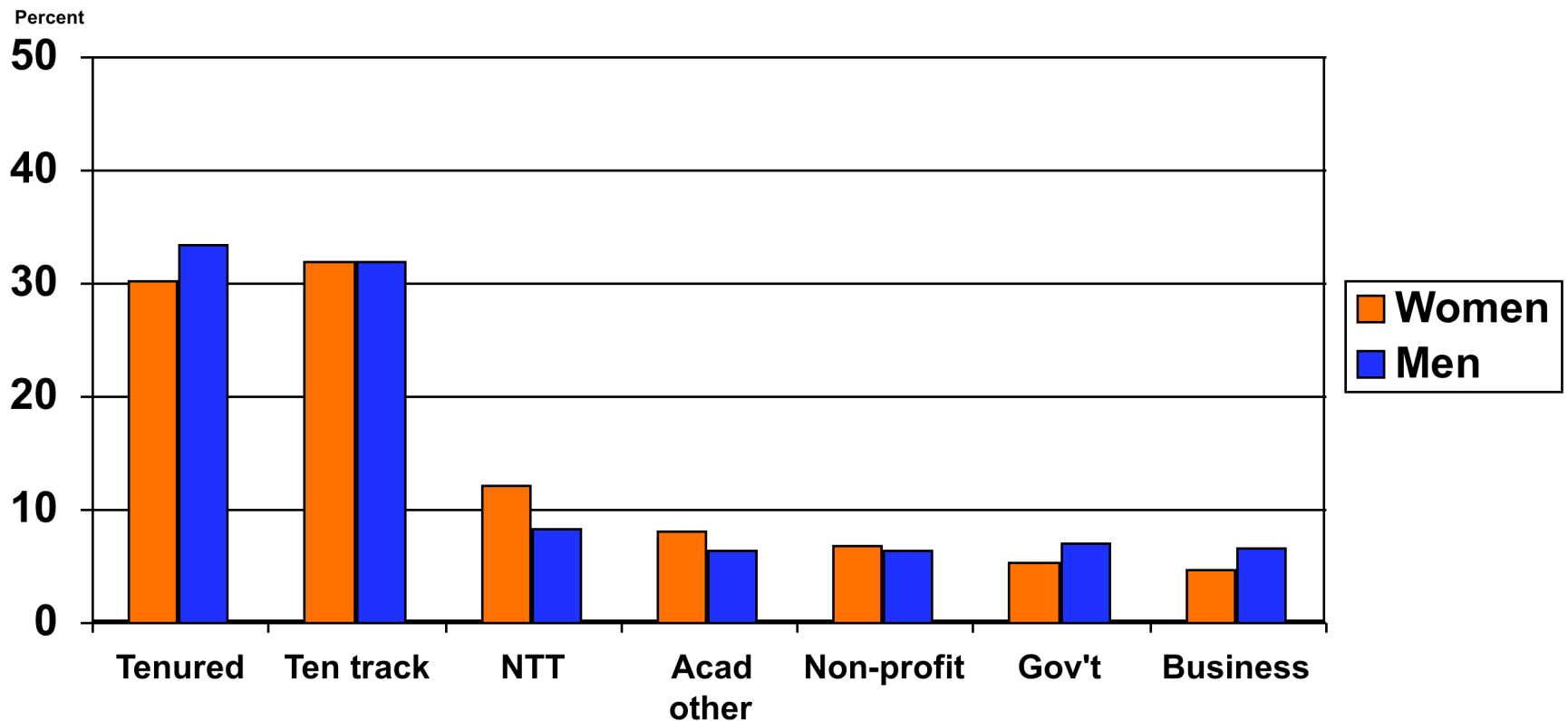
Not in the Paid Work Force

(*PhD 10*)₁₉₉₅

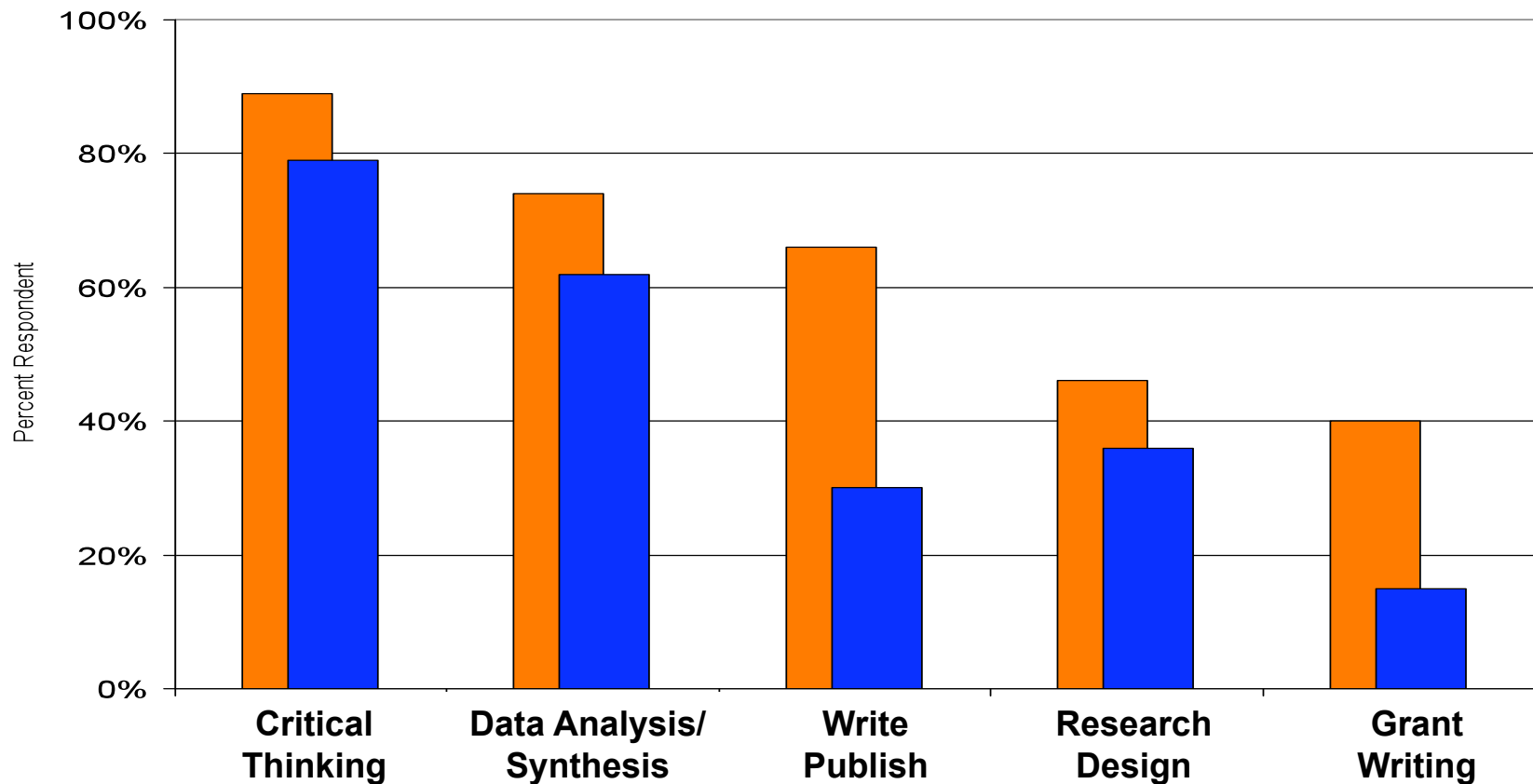


	E	Γ	Total	
1. Caretakers	15	1	16	
2. Retired (Age & Other)	16	8	24	
3. Medical Condition	1	1	2	
4. Between Jobs/Other	3	12	15	
5. Fringe Employment	3	2	5	} 1.5%
6. Don't Know Why	17	24	41	
7. Unemployed	8	3	11	
Total (N=3,667)	63	51	114	→ 3.1%

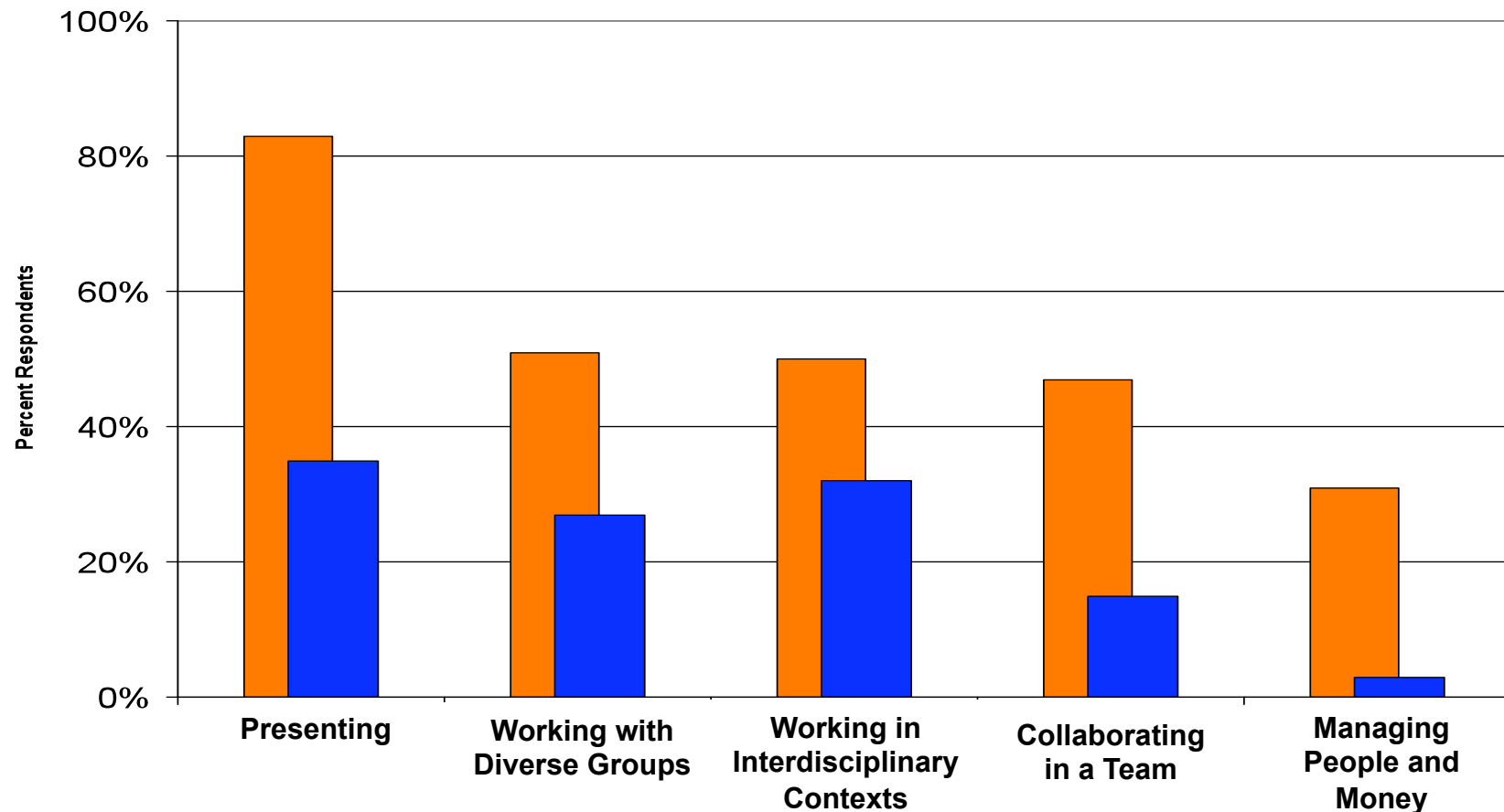
Social Science PhDs—Five+ Years Out Jobs at Survey by Gender (2006)



Importance of Skill at Current Job versus Quality of Training in this Skill During PhD Studies (SS 5Yr- 2006)

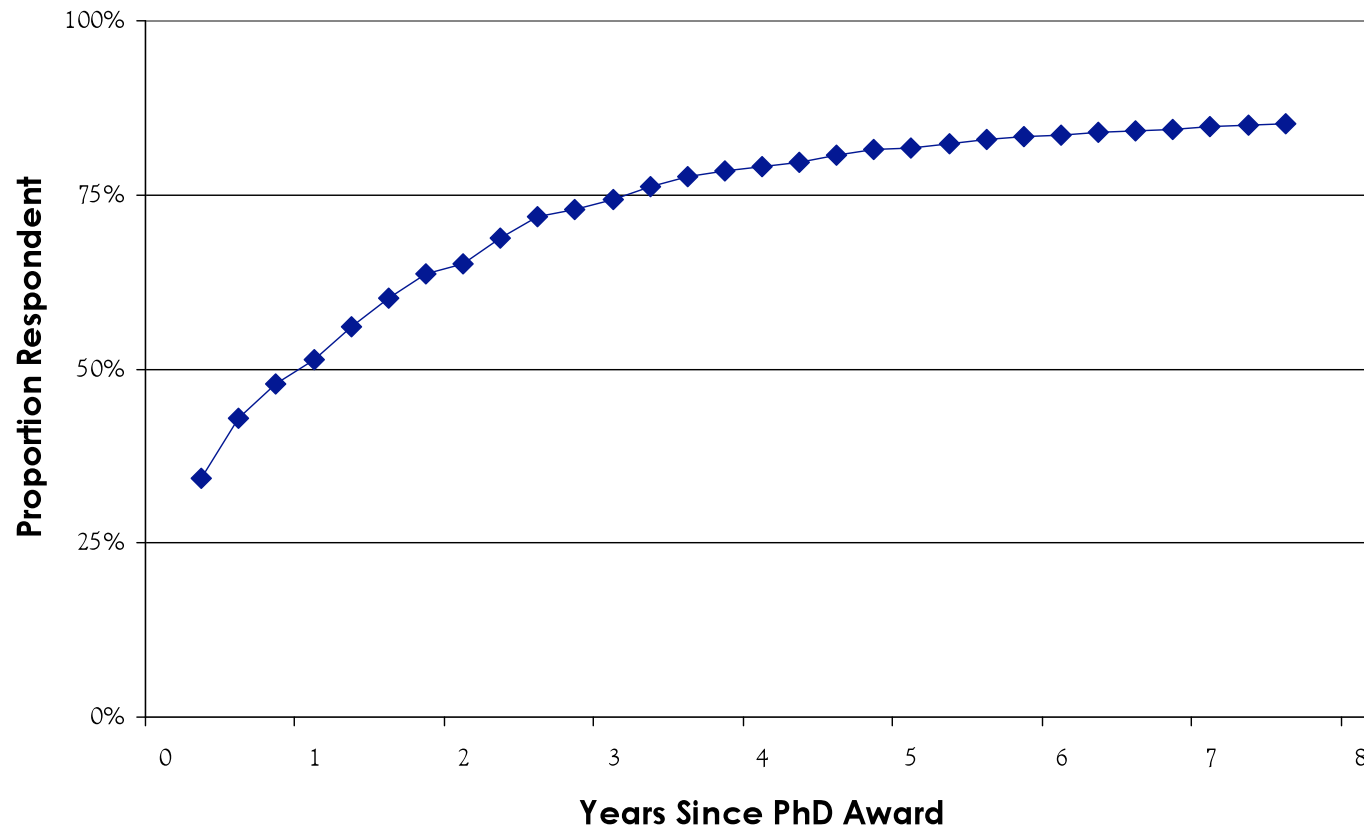


Importance of Skill at Current Job **versus** Quality of Training in this Skill During PhD Studies (SS5Y- 2006)



Center for Innovation and Research in Graduate Education (CIRGE), Graduate School & College of Education, University of Washington, Seattle, <http://depts.washington.edu/coe/cirge/> 6-25-2008

Time to stable, full-time Job (Social Sciences 2006)



Center for Innovation and Research in Graduate Education (CIRGE), College of Education, University of Washington, Seattle

Who Influenced the Career Path?

Art History



	<i>Women</i>	<i>Men</i>
<i>Partner</i>	44%	26%
<i>Children</i>	38%	13%
<i>Taking Care of Relatives</i>	13%	4%

Source: CIRGE, University of Washington, Oct. 8-9, 2006, CHERI Policy Conference, Cornell

What are Approaches and Methods for Career Tracking?



1. Cohort studies: same type of people every year, those who complete → trends
2. Panel Study: the same people every year → career progression, geographical mobility
3. Cross-sectional, retrospective study (design-informed by years of work) one point in time → all the above +assessment of quality of training
4. Cross-sectional, retrospective study,+ consecutive cohorts (large # program or institution), cyclical → all the above +comparative analysis by program or institutions

Empirically Based Findings



“PhD programs that prepare students only for research and writing as lonely scholars in purely disciplinary context are providing inadequate preparation for many PhD careers.”

**Highlight report, *Social Science PhDs – Five Years Out: A National Survey of PhDs*
Nerad et al. (2008)**

Thank you!



Center for Innovation and Research
in Graduate Education



CIRGE website

<http://www.cirge.washington.edu>