Social Science PhDs–Five+ Years Out

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Sociology Report:
PhD Program Quality, Early Careers, and Gender Stratification

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EXECUTIVE SUMMARY

To assess the career paths of PhD recipients and the quality of doctoral education in U.S. social science programs, the Center for Innovation and Research in Graduate Education (CIRGE) at the University of Washington, Seattle surveyed a national sample of recent PhD graduates in anthropology, communication, geography, history, political science, and sociology. The survey yielded career and family data spanning the time from the beginning of graduate school to 6 to 10 years post-PhD and retrospective evaluations of the quality of each respondent's PhD program, skills training, and mentoring received during graduate school. The sample of 3,025 respondents includes 546 sociologists from the 1995 to 1999 cohort of doctoral recipients.

The sociologists in this study, like respondents in other fields, reported positive evaluations of their graduate training programs. They rated their programs highly with respect to academic rigor and training in thinking critically. However, ratings were substantially lower for training in skills for presenting, writing, and publishing. Despite low evaluations of the quality of training in these skills sociologists reported that these skills were critical for their jobs.

The study suggests that sociologists from these cohorts encountered a relatively strong job market, especially as compared to historians and anthropologists. Sociologists, like those in other fields, reported that they ultimately obtained jobs that they found satisfying and that used their PhD training. However, many sociologists spent a considerable amount of time after the PhD in insecure and unstable employment, albeit less time than PhD holders in other studied fields.

Sociology, the field in this study with the most women, is also the only field with clear evidence of gender inequalities in careers. SS5 found that men and women experience graduate education differently, with women rating less favorably the quality of their training in writing and publishing, mentoring received from their dissertation advisor, and socialization into an academic community. However these differences do not explain the gender gap in career outcomes and neither do gendered effects of family roles. The gender gap in career outcomes is perhaps best understood in terms of a glass escalator framework (Williams, 1992) in which men gain advantages in fields with high concentrations of women.

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Sociology PhDs Awarded to Women 1966 - 2006

Sources: National Science Foundation (2006) *A Century of U.S. Doctorates*
WebCASPAR Tabulations (http://webcaspar.nsf.gov/index.jsp)

"Sociology has a foremost place in the thought of modern men. Approve or deplore the
fact at pleasure, we cannot escape it." (Albion Small, 1895, 1).

INTRODUCTION

Today U.S. departments of sociology annually award more than 500 sociology PhDs.[1] Over half of
these doctorates go to women. This report examines graduate education experiences and career outcomes
of recent sociology PhDs. It is based on *Social Science PhDs–Five+ Years Out (SS5)*, a national sample of more
than 3,000 social science PhD recipients, including anthropologists, communication PhD holders,
geographers, historians, political scientists and more than 500 sociologists. We find that most sociologists,
like respondents in the other fields, found jobs they enjoy that use their graduate education. Respondents
in all fields evaluated their training in academic skills more highly than their training in needed
professional skills. However, we find puzzling gender inequalities in sociology. Among the fields studied in
the *SS5*, sociology is the only one in which men were more likely to begin careers in tenure-track faculty
positions and in which, among ladder faculty, men were likely to be employed at more prestigious
institutions than women. We identify salient differences in men's and women's experiences of graduate
education, and follow this by investigating the impact of graduate education experiences and family
situations on the gender gap in career outcomes. We conclude the gender gap in career outcomes for

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[1] Estimates of 10-year completion rates for PhD programs in the social sciences hover between 50 and 60% (Council of Graduate
Schools, n.d.), so those who actually complete the PhD are the diehards who are exceptionally strongly drawn to sociology.

sociologists is not explained by reported gender differences in the graduate program experience nor by gendered effects of family roles. Instead, we note a need for an alternative framework to account for men's career advantages in sociology.

Background to *SS5*

The *Social Science PhDs–Five+ Years Out* study was motivated by debates about how to evaluate doctoral education and how to explain women's under-representation in science. In 1995, the influential report of the Committee on Science, Engineering and Public Policy (COSEPUP, 1995) called for accessible data on employment trends of PhD holders. About 5 years later, the Committee on Women in Science and Engineering called for renewed attention to gender stratification in science with its report *From Scarcity to Visibility: Gender Differences in the Careers of Doctoral Scientists and Engineers* (Long, 2001). Finding gender stratification in science careers less marked than in previous times, the authors concluded:

> Marriage and children are associated with increased rates of full-time employment for men, but declining rates for women. The negative effect of marriage and young children has declined for women over time. (p. 4)

Long's (2001) report on women in science and engineering argues that marriage and family variables largely explain women's career disadvantages. This is in line with a large body of previous literature documenting better career outcomes associated with marriage and parenting for men, but "worse" outcomes associated with marriage and parenting for women (Rudd, Morrison, Sadrozinski, Nerad, & Cerny, 2008; Mason & Goulden, 2004; Perna, 2001; Bellas 1997; Bellas 1992; Hochschild, 1975).

Sociologists have posed similar questions about sociology. For instance, similar to the issues posed within the COSEPUP report, Keith and Moore (1995) argued that

> . . . the extent of students satisfying their career aspirations must be explored further in several ways. For instance, is the discipline [sociology] training too many students? If so, for which career paths? Moreover, what public- and private-sector markets are likely to be open in the next decade? (p. 213)

With regard to issues of stratification, the American Sociological Association (ASA) has used its "1998 Survey of Recent PhD Graduates in Sociology" to examine gender and careers (Spalter-Roth & Lee, 2000). In contrast to findings for natural sciences and engineering fields, this study found significant markers of gender equality in sociology careers, for the sociology doctoral cohort of 1997-98. For instance, men and women attended equally prestigious PhD-granting programs and were equally likely to hold teaching assistantships, research assistantships, and fellowships. Further, in the year after earning the PhD, men and women were equally likely to hold a permanent position, to be employed in academia, and to hold a tenure-track position. Nevertheless, this study also found that men and women experienced their graduate education differently in the key dimension of receiving help from faculty in publishing. The authors ask whether this gender difference in the graduate school experience contributes to a gender gap in career outcomes. In posing this question, they join a perspective on science careers which seeks the roots of gender and racial/ethnic inequality in graduate studies. In this perspective, graduate students are divided by race, gender, and class such that middle-class white men are more likely to receive better mentoring which has consequences for post-PhD careers (Tinto, 1993). For instance, Keith and Moore (1995) argued "that factors such as race and age were related significantly to key variables in the [professional] socialization process" (p. 210).

Most studies of how race and gender affect graduate school success observe outcomes that occur *during* graduate school, such as attrition, completion, time-to-degree, and career aspirations (Herzig, 2004;

Seagram, Gould & Pyke, 1998; Keith & Moore, 1995; Girves & Wemmerus, 1988). But it is reasonable to suppose that the impact of differences in professional socialization and mentoring experiences extends beyond the years in graduate school and into the post-PhD career. Clark and Corcoran (1986) argued that even small differences experienced early in graduate training could contribute to progressively increasing levels of gender inequality due to the "Matthew effect" (Merton, 1968). The Matthew effect refers to the accumulation of career advantages over time so that small early advantages lead to resources that can be converted into higher levels of productivity and increased visibility and status. When beginning their first professional position, the person who obtains a more prestigious position may have only modestly distinguished themselves from others but differential access to material and symbolic resources over time amplifies differences in career achievements.

Along with describing how the process of cumulative advantage works in academia, Merton (1968) calls attention to the importance of prestige as the principle that structures the stratification system in the sciences. He writes: "graded rewards in the realm of science are distributed principally in the coin of recognition accorded research by fellow scientists." Thus Merton offers an articulation of the 'prestige value system,' first identified by Wilson (1942). The prestige value system has been reaffirmed in numerous analyses of the academic marketplace (e.g., Caplow and McGee, 1958; Clark, 1987; Burke, 1988; Burris 2004) and it describes a logic in which faculty have a core motivating desire to maximize the prestige of the institution to which they are affiliated. Geiger (2002) notes that the institutional prestige hierarchy is driven by two related factors: "an institution's selectivity of undergraduate students and the scholarly reputation of faculty." Taking seriously the importance of the 'prestige value system,' we focus attention in this report on gender differences within sociology in the student selectivity of the institutions in which faculty work. Moreover, we examine how graduate school experiences and family roles may contribute to a gender gap in the prestige of employing institutions among sociology professors.

Using data from SS5, this report first examines sociologists in relation to the other studied disciplines, revealing that gender differences in career outcomes are more salient in sociology. In the second part of the report, we investigate the contribution to gender inequality in careers, of differences between men and women in several aspects of the graduate education experience, and of differential effects of family status. We pay particular attention to the prestige of employing institutions among ladder faculty.

METHODS

Data

Social Science PhDs–Five+ Years Out (SS5) was designed to answer questions about PhD career paths and about how well PhD education prepared graduates for their careers. With funding from the Ford Foundation, in 2005 – 2006 the Center for Innovation and Research in Graduate Education (CIRGE) fielded a national survey of people who earned a PhD in anthropology, communication, geography, history, political science, or sociology between July 1, 1995 and June 30, 1999. A total of 3,025 respondents accounts for nearly 20 percent of all those who received a PhD from a U.S. institution in these six fields during the study time frame. The sample was drawn from 65 participating institutions selected to be diverse with respect to geography, control (public/private), and prestige as measured by the 1995 National Research Council (NRC) ranking of reputation (Goldberger, Maher, & Flattau, 1995). The survey was retrospective. It collected comprehensive information on career and family transitions from the time the respondent began graduate studies in the program that granted his or her PhD to the time of the survey.[2] It also collected qualitative evaluations on aspects of graduate training. The survey includes both closed ended and open ended items (see Picciano, Rudd, Morrison, & Nerad, 2007 for details).

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[2] Including employment and education transitions involving spouses and partners.

Sample

The National Opinion Research Center (NORC) conducted a non-response analysis comparing *SS5* respondent demographics to findings of the Survey of Earned Doctorates (SED).[3]   The *SS5* sample is representative along most characteristics that could be observed in both surveys. However, the *SS5* respondents overrepresented women (47.6% to 43.4%), whites (87.6% to 81.7%), U.S. citizens and permanent residents (96.2% to 92.1%), people who were single when the PhD was awarded (43.6% to 41.4%) and those with definite plans for an academic job (83.4% to 78.4%) (Picciano, et al., 2007).[4]

Of the 3,025 respondents, 546 (18%) were sociologists. The 546 sociologists account for nearly one-fourth (24%) of the total sociology PhDs awarded to the sampled cohorts. Table 1 displays sociology sample demographics. There were three types of survey respondents: those who completed the survey on-line (57%), those who did not fully complete the survey (32%), and those who completed a shorter mail survey (11%).

Table 1: Sociology Sample Demographics

	%	# With Valid Information
Female	62.8	532
Disadvantaged Minority	10.0	459
U.S Citizens/Permanent Residents	95.5	466
Under 30 at PhD	22.5	462
Over 40 at PhD	21.9	462
Married/Committed Partnership at PhD	68.8	461
Married/Committed Partnership at Survey	76.1	460
Parent by PhD	28.3	442
Parent by Survey	63.6	448
1995 NRC Program Score $\geq$"Strong"	33.0	546
1995 NRC Score $\geq$ "Good" and < "Strong"	25.2	546
1995 NRC Program Score Below "Good"	41.8	546
On-Line (Long form) Survey Completers	57.1	546
On-Line (Long form) Survey Partial Completers	31.5	546
Mail Survey (Short form) Completers	11.4	546
Total Sociology Respondents		546

Analysis

The analysis proceeds in three phases. We first compare sociology to the five other social science fields from the *SS5* with respect to the prominent findings from *Social Science PhDs-Five+Years Out: A National Survey of PhDs in Six Fields: Highlights Report* (Nerad et al., 2007). Here the guiding question is: Is sociology different? We describe findings in four topical areas: motivations for graduate study, assessment of PhD program quality, transition from graduate school to work, and gender equity in career outcomes.

In order to assess the motivations for pursuing a PhD, we employ an exploratory discrete latent factor analysis (Vermunt & Magidson, 2004) to characterize patterns of response to the question: '*which of the following were crucial considerations in your decision to pursue a PhD in your field (Check all that apply)'*. This

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[3] Nearly all PhD recipients complete the Survey of Earned Doctorates (SED) at the time of receiving the PhD.
[4] The former number in each comparison is from the *SS5*, the latter number is from the *SED*.

resulted in three latent factors based on 10 survey items indicating factors critical in the decision to get a PhD. These factors are labeled: (1) absence, (2) career, and (3) field considerations for pursuing the PhD (see p. 6 below for details on the factor analysis). Absence considerations are operable if the respondent indicated that s/he pursued the PhD because s/he could not get a job or felt there had been no better option. Career considerations apply if the person pursued the PhD in order to promote a particular career path. Field considerations apply if the respondent was attracted to an intrinsic aspect of the field. Cases were assigned to binary classes which indicate whether each of these considerations was operable or not.

Having established gender inequalities in career outcomes among sociologists in phase 1, the second step identifies salient gender differences in perception of the quality of graduate education experiences. We use ordinal logistic regression to examine gender, class background, race/ethnicity, age at PhD award, parental status at PhD award, marital status at PhD award, and NRC ranking of the PhD-granting program in relation to the following dependent variables: evaluation of (1) quality of training in writing and publishing reports and articles; (2) quality of training in critical thinking; (3) quality of the program in socializing students into an academic community; and (4) satisfaction with the overall quality of mentoring received from the dissertation chair. (See the Methods Appendix for item wording.)

Because motivations to pursue a PhD might affect both graduate education experiences and retrospective evaluations of that experience, we include four variables indicating individual orientations to graduate school. The first is a measure of career aspirations: the variable career goal "professor" vs. all other career goals (when beginning PhD studies). The other three are the class assignments for the three latent factors described above.

The third phase of analysis examines the contribution of graduate education experience variables and family situation to gender inequality in the prestige of academic appointments among ladder faculty. We derive a measure of prestige from the U.S. News and World Report rankings of undergraduate institutions; this measure reflects the selectivity of undergraduate admissions. While we find in the first phase of our analysis several notable gender differences in career outcomes, we focus our attention on explaining prestige of academic appointments. We focus on this outcome in part, because: (1) prestige is perhaps the most important factor in structuring the academic marketplace (Caplow and McGee, 1958; Clark, 1987; Burke, 1988; Geiger, 2002); (2) the gender differences in prestige among the *SS5* sociologists are particularly strong; (3) the patterns of findings in the analysis that we obtain using prestige as the dependent variable are indicative of general patterns that we find when we model other career outcomes. We ran a set of nested models predicting prestige of the employing institution to find out if graduate education experience and family variables could account for observed gender differences. We also ran models separately by gender to see if family status variables have different effects on career outcomes for men and women. In addition to the control variables used in the second analysis phase, log-transformed time to degree is also included in these models.

FINDINGS 1: IS SOCIOLOGY DIFFERENT?

The *SS5* study was designed to serve three primary purposes. It serves as a tool to evaluate the quality of graduate training from the perspective of the alumni who experienced the program. It can also be used to evaluate aspects of job markets and career paths. Third, it allows analysis of stratification within the social sciences–particularly gender stratification.[5] The *SS5 Highlights Report* (Nerad et al., 2007), presents findings relevant to each of the three purposes applicable to the studied social science fields. With regard to alumni evaluation of their graduate training: social scientists reported that while both academic skills and professional skills are important to their careers, their graduate programs only prepare them well in the

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[5]Due to the low number of under-represented minorities among social science PhDs, *SS5* does not allow for analysis of racial/ethnic stratification.

academic skills. With regard to academic job markets and career paths: most respondents wanted to become a professor; many eventually obtained faculty positions; respondents reported high levels of job satisfaction, and high levels of use of their graduate training. However, many respondents reported a long time—sometimes years—between completing their degree and finding secure employment; it took especially long to obtain a ladder faculty position. With regard to gender equity: men and women reported remarkably similar career paths. However, men and women also reported substantial differences in work-family trade-offs in order to achieve these similar career paths.

This report builds on the general findings presented in the *Highlights Report* and examines sociology in comparison to the other fields. We begin with motivations for graduate study, revealing sociologists to be different from the others.

Motivations for Graduate Studies

Respondents to the *SS5* survey were asked "Which of the following were crucial considerations in your decision to pursue a PhD in your field?" The survey included ten options for the respondent to identify as motivators, and the instructions to check all that apply. Table 2 displays response frequencies. The most common response was "intense interest in the field," which was identified by 78% of all respondents as a crucial consideration. However, sociologists were significantly less likely to identify this item as a consideration: 69% of sociologists compared to 80% of the others. Sociologists were also significantly less likely to have responded that new developments in the field made it an exciting area to study: 6% of sociologists compared with 13% of others. Sociologists were more likely to indicate that one of the crucial reasons for deciding to pursue the doctorate in the field was "it was my best option at the time."

Table 2: Percent Agree Item is a Crucial Consideration in Decision to Pursue a PhD in Field and Item Loadings on Factors for Three Factor Model with Field of Study and Gender as Covariates						
			Item Loadings			
	Sociology	Other Fields	Absence	Career	Field Specific	3-Factor Model R^2
It was my best option at the time.	22.0	16.1**	0.791	0.005	0.028	0.328
I was unable to find work with the degree I had.	3.8	3.6	0.298	0.067	0.032	0.106
It was a necessary credential for my desired position.	50.5	54.9	0.093	0.625	0.177	0.447
Career opportunities in field.	20.7	23.3	0.048	0.254	0.113	0.081
Desire to have impact in the field.	22.5	23.8	0.061	0.224	0.381	0.210
New developments in the field made it an exciting area of study.	5.9	13.4**	0.054	0.105	0.344	0.143
Intense interest in field.	69.2	79.7**	0.159	0.109	0.300	0.137
For the challenge; it was a goal for its own sake.	37.2	39.3	0.055	0.081	0.218	0.057
Encouragement from family or friends.	20.0	21.9	0.094	0.150	0.199	0.073
Encouragement from faculty in my undergraduate program.	39.0	37.7	0.011	0.099	0.094	0.019

An exploratory discrete latent factor analysis (Vermunt & Magidson, 2004) was applied to identify salient dimensions which characterize these response patterns.[6] Table 2 presents the item loadings on each of the three factors from this model. An inspection of the item loadings led us to label the three factors as "absence factors"–indicating push rather than pull motivations, "career factors"—indicating the pull of a career, "field specific factors"—indicating the draw of the field.[7]

The exploratory latent discrete three factor model presented in this analysis was estimated with all SS5 respondents from all fields.   Two covariates were included in this estimation: 'sociology'—1 if the respondent received the PhD in sociology, 0 otherwise; 'female' –1 if female, 0 if male. The influences of these two covariates on assignment to each of the discrete factors were estimated simultaneously with the item loadings on the three factors. Table 3 presents the findings from this analysis. 'Sociology' has a positive effect on 'absence factors' – within this model, sociologists are 27% more likely to be classified as being motivated by 'absence factors' than the respondents from the other five fields. Sociology has a negative effect on 'field specific' attractors – sociologists are 30% less likely to be classified as being motivated by attraction to qualities of the field. Gender does not have an effect on either of these two dimensions. However, gender does affect the odds of being classified as motivated by 'career.' Women are 21% more likely to be classified as being motivated by career considerations than are men.

Table 3: Effects of Sociology and Gender on Crucial Considerations to Pursue a PhD (Factors)

	Absence	Career	Field Specific
Female	0.04	0.19**	-0.01
	(0.65)	(2.85)	(0.19)
Sociology	0.24**	-0.14	-0.37**
	(2.76)	(1.67)	(3.84)
Intercept	-0.69**	-0.42**	-0.40**
	(5.19)	(2.77)	(3.16)

Compared with the other social sciences, sociology is more likely to attract graduate students who report they pursued their degree merely because it was the best option at the time rather than because they were drawn by some attractive quality of the field. This finding suggests a potentially important public relations problem endured by sociology relative to other social science disciplines.[8]

Assessment of PhD Program Quality

Nearly half of respondents in all fields evaluated the overall quality of their program as excellent. Respondents tended to provide strongly positive evaluations on an array of program dimensions including academic quality. For example, two-thirds of respondents rated "academic rigor" of their program "excellent" and 80% reported they had "excellent" training in "thinking critically." In absolute terms, sociology respondents had a very high likelihood of rating these items as "excellent." However, compared

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[6]A model with three latent dimensions performed optimally. A Bayesian approach to model selection was applied, and models between one and five discrete factors were estimated. A three discrete factor model was determined to be the preferred model through comparisons of BIC statistics (Raftery, 1995).

[7]Substantively, "encouragement from family and friends" and "encouragement from undergraduate faculty" – neither of which load very highly on any of the other three factors – fit together. However, the Bayesian approach suggests the three factor model more optimally fits the data, and therefore no fourth factor is considered in this analysis.

[8]In analyses not shown, controlling for field, those who report career motivations or attraction to the field as a motivation for pursuing a PhD have more favorable career outcomes than those who do not; those who report absence considerations as motivations have less favorable career outcomes.

to those in other fields, sociologists have significantly lower odds of providing an "excellent" rating both for training in critical thinking and for the academic rigor of their program.

Compared to ratings of program elements and academic quality, evaluations of the quality of training (formal or informal) in specific skills received during PhD studies were less favorable. For example, fewer than 1/3 considered their training in writing and publishing articles and reports "excellent." Figure 2 compares sociology to other fields in the rating of skills traditionally associated with graduate training in the social sciences. Figure 3 displays findings for skills that are sometimes referred to as "generic," "transferable," or "professional" because they are thought to be especially valuable (therefore, "transferable") in non-faculty labor markets.[9] The two figures also present the percentage of respondents who reported that the skill is very important in their current job. These figures show that social scientists in general, and sociologists in particular, gave relatively low ratings to their programs for training in transferable skills. At the same time, many respondents indicated that these skills are necessary for their jobs.

Figure 2. Skills Traditionally Associated with PhD Training
Quality of Training (Formal or Informal) "Excellent" vs. Skill "Very Important"

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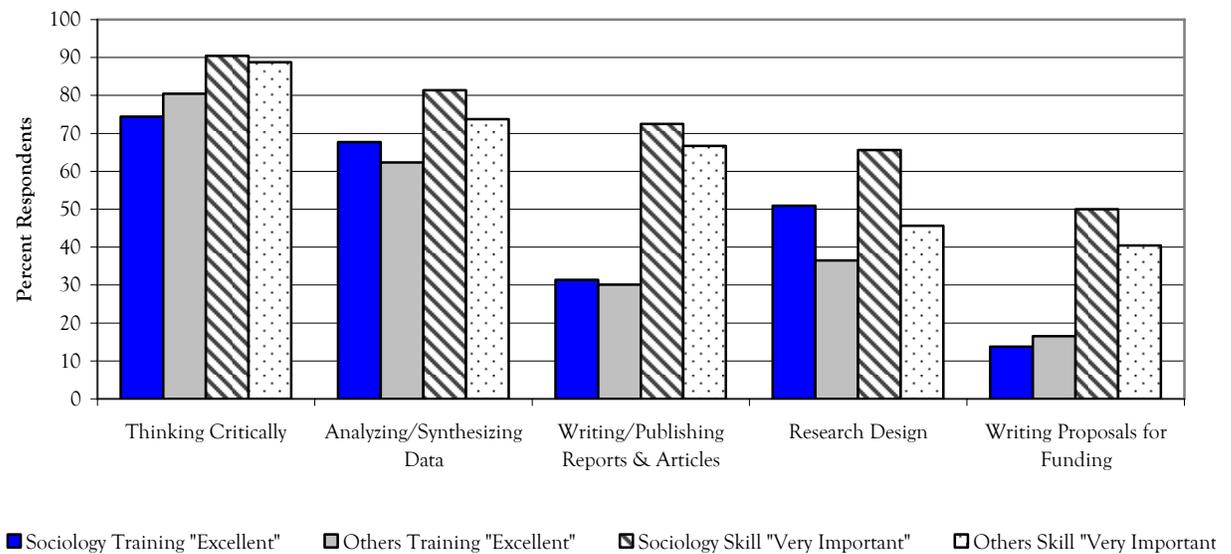
[9]There is currently widespread discussion in relevant research and policy circles of expanding the core competencies to be acquired during PhD studies (beyond mastering specialized knowledge and contributing original research) to include so-called "professional" skills, such as skills in team work and collaboration, career management skills, and managing people and budgets (Nyquist, 2002; Nerad, 2008)

Figure 3. "Professional" Skills
**Quality of Training (Formal or Informal) "Excellent" vs. Skill "Very Important"**
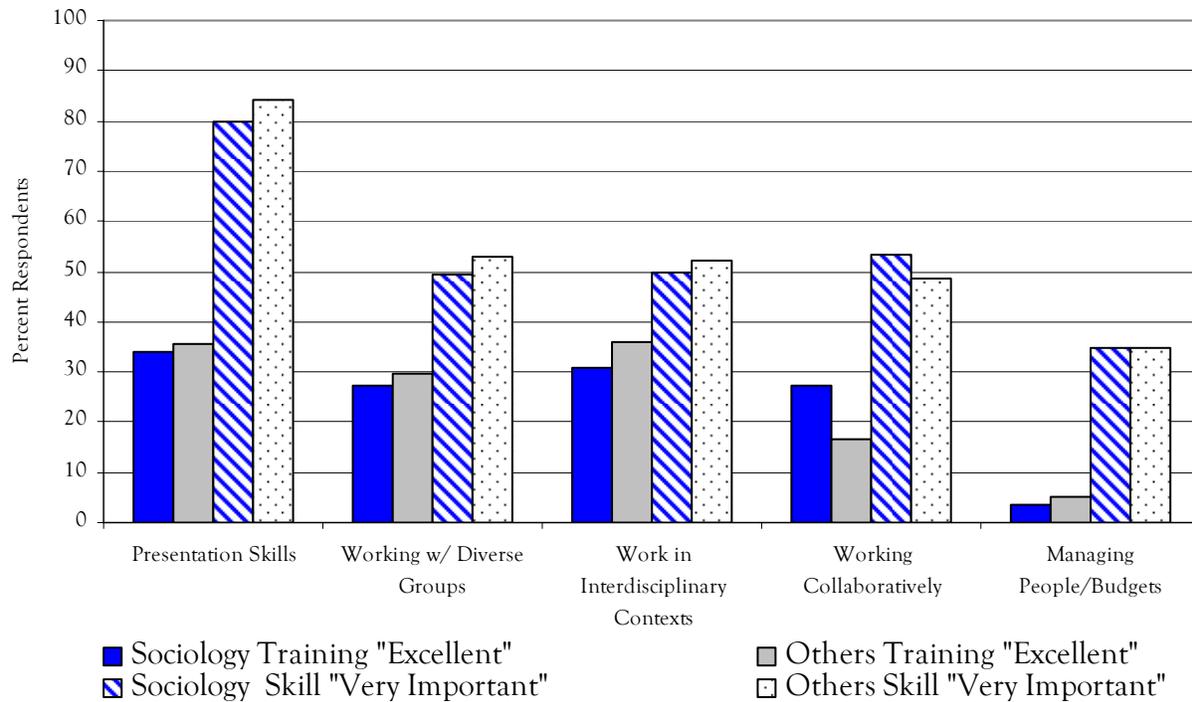
Transition from Graduate School to Work — Career Goals, Career Outcomes, and Job Satisfaction

How well are social science PhD programs preparing graduate students for fulfilling careers that make use of their graduate training? Among *SS5* respondents, nearly all were employed. Most respondents eventually found work as tenure-track faculty. Among sociologists, three-fourths reported their career goal at the time they earned the PhD was to become a professor and of those 78% were professors when surveyed. Among those wanting to become professors, sociologists and political scientists were about equally successful, while anthropologists and historians were less likely to achieve this goal and those in geography and communication were more likely to do so. Most respondents in all disciplines reported that they apply knowledge acquired in their doctoral training in their jobs. In all fields, they report high levels of job satisfaction and most report having either met or surpassed their career expectations (Nerad et al., 2007).

In these ways sociology is like the other fields. For example, satisfaction with particular dimensions of current employment was nearly the same for sociology as for the other fields combined (Figure 4).

Figure 4. Sociology vs. Others
% Respondents Very and Somewhat Satisfied with Six Job Dimensions
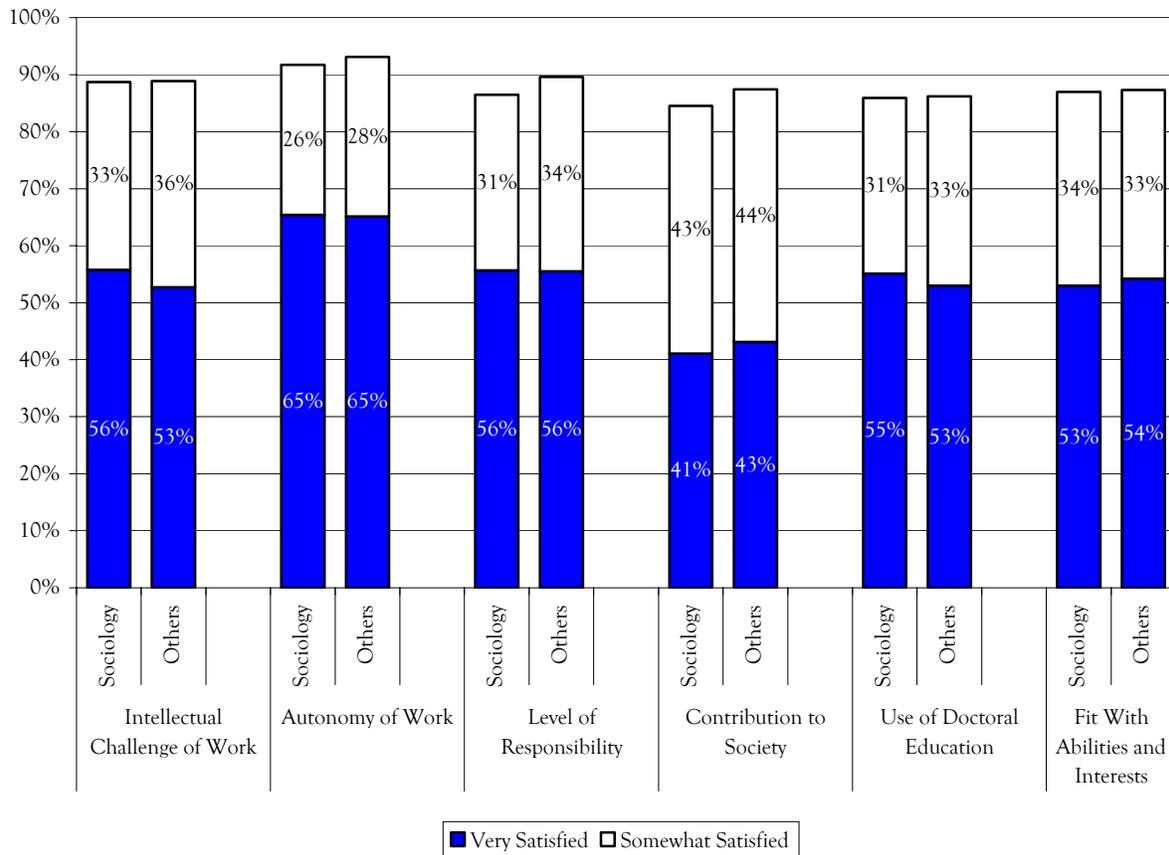
Compared to others, sociologists settled down more quickly into stable employment. It took a little over 2.25 years post-PhD for 75% of the sociology doctorates to transition into stable, non-temporary employment and in the other disciplines this took 3.6 years.[10] Among those wanting to become a professor, sociologists were a little quicker as well, with 75% of sociologists landing a ladder faculty position within 3.5 years of graduating compared to over 7 years for those in the other five fields. About 10 percent of sociologists had not transitioned into stable employment within eight years of earning the PhD (Figure 5).

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[10]This difference is due to the weak academic job market for anthropologists and historians.

Figure 5. Sociology Compared to Five Other Fields
Time from PhD to Primary Sector Job (Whole Sample)
Time from PhD to Ladder Faculty Job (Sample with Career Goal "Professor")
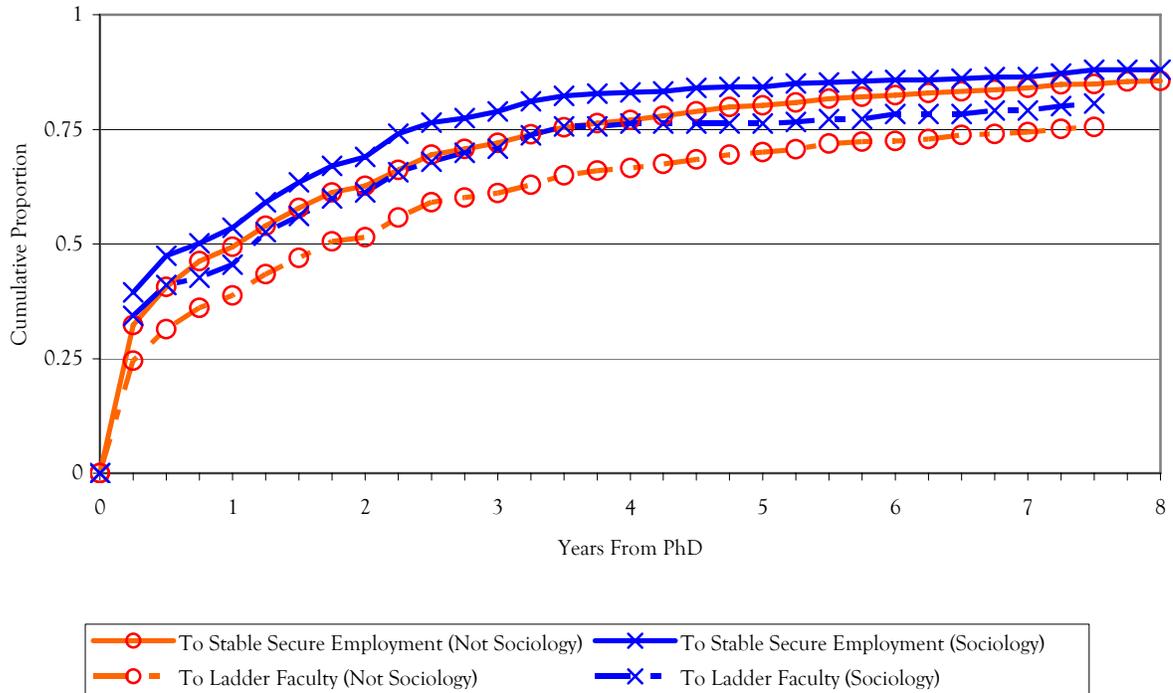

Income

Sociologists, political scientists, and communication PhD holders reported similar earnings and they reported higher earnings than did anthropologists, geographers, and historians (Table 4). Controlling for gender and sector of employment, sociologists earned significantly more than anthropologists and geographers on three measures of income: basic salary from primary job, earned income from all jobs, and total household income. Sociologists also earned more than historians in the basic salary and the income from all jobs, but historians reported higher total household income. In all fields except anthropology, respondents employed in the business, government, or non-profit (BGN) sector reported higher incomes than people in academia.

Table 4: Median Annual Income (Respondent Total Income from All Sources) by Discipline and Job Sector (U.S. $)*

	Ladder faculty	NTT faculty	Acad. other	BGN	Total
Anthropology	55,000	48,800	51,500	55,000	55,000
Communication	60,000	60,000	65,000	83,000	61,490
Geography	59,000	47,600	45,000	80,000	60,000
History	55,000	40,250	56,000	69,500	55,000
Political Science	62,000	55,000	73,400	89,850	65,000
Sociology	62,000	58,000	61,600	77,000	63,450

*Excludes those not in the labor force. Reported in academic year 2005-2006.

**Figure 6. Career Outcomes by Gender and Time from PhD Award
Sociology vs. Others**
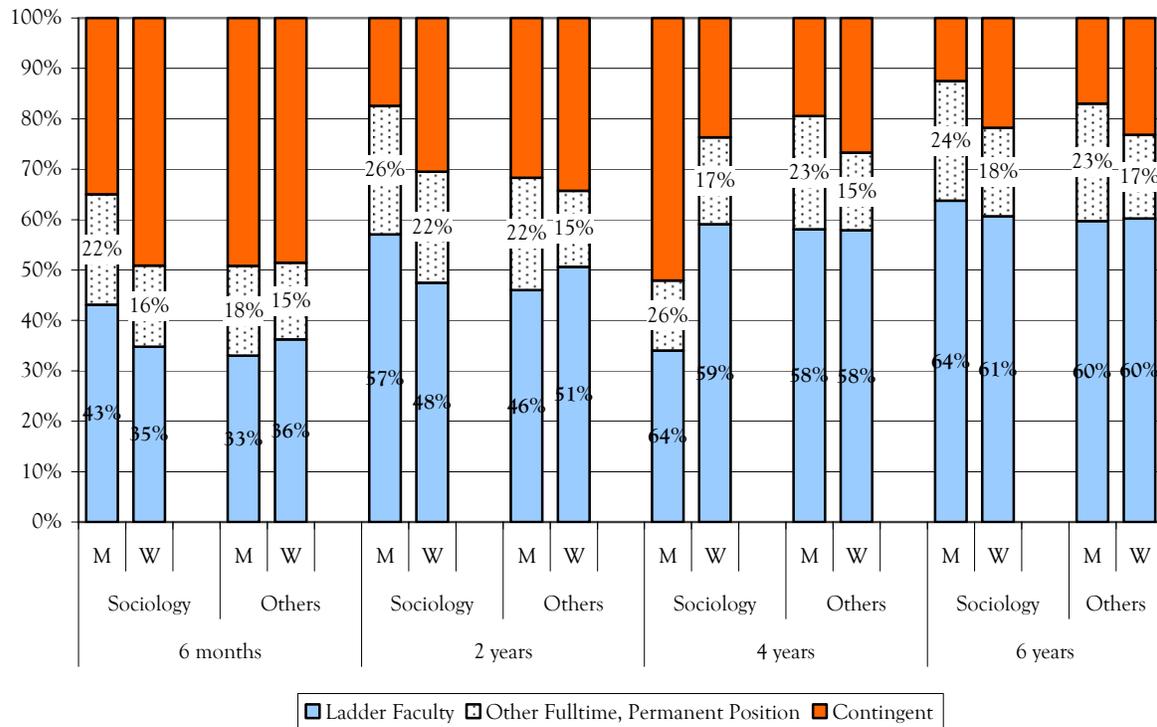
Gender Differences in Careers

According to some rough indicators, among the social scientists sampled, men's and women's career outcomes were very similar. Women and men were equally likely to obtain ladder faculty positions and transitioned into faculty positions at comparable rates. Using a measure of institutional prestige derived from the U.S. News and World Report rankings of higher education institutions (Morse, Flannigan, & Yerkie, 2005), men and women in ladder faculty positions were similarly distributed across the levels of institutional prestige. (See the Methods Appendix for details on this measure.)

However, on average, men attained tenure faster than women due to a small number of men who received tenure rapidly. Among those not in ladder faculty positions, women were more likely than men to be in non-tenure-track faculty positions or to have part-time or temporary jobs. Further, controlling for field and sector of employment, women in all fields annually earned $4,500 less than men in earnings from the primary job and $8,500 less in earnings from all sources combined. On the other hand, women reported annual household incomes $15,500 higher than men reported.

Beyond these differences in the social sciences generally, there are gender disparities specific to sociology. Figure 6 presents career outcomes by gender at four time points: 6 months after PhD completion, and 2, 4, and 6 years post-PhD and compares sociology to the remaining respondents. Early in the career, among sociologists a higher proportion of men than women enter a ladder faculty position. In the other five fields, men and women have essentially the same odds of working as ladder faculty at all four

points in time. At all four points in time, compared to men, women in sociology are substantially more likely to work in contingent jobs. This is not so in the other fields until year six.

Figure 7 shows the distribution of men and women with ladder faculty positions in U.S. institutions across the prestige hierarchy of their employing institutions. The x-axis arrays institutions from low to high in prestige based on ratings derived from U.S. News and World Report rankings (Morse et al., 2005).[11] The y-axis represents density. From Figure 7 we see in sociology among ladder faculty, men tend to be employed at significantly more prestigious institutions than women (almost one-half a standard deviation higher in terms of prestige). In the other five fields men and women are similarly distributed along the prestige hierarchy (not shown).

Figure 7: Distribution of Sociology Professors Across the Institutional Prestige Hierarchy by Gender
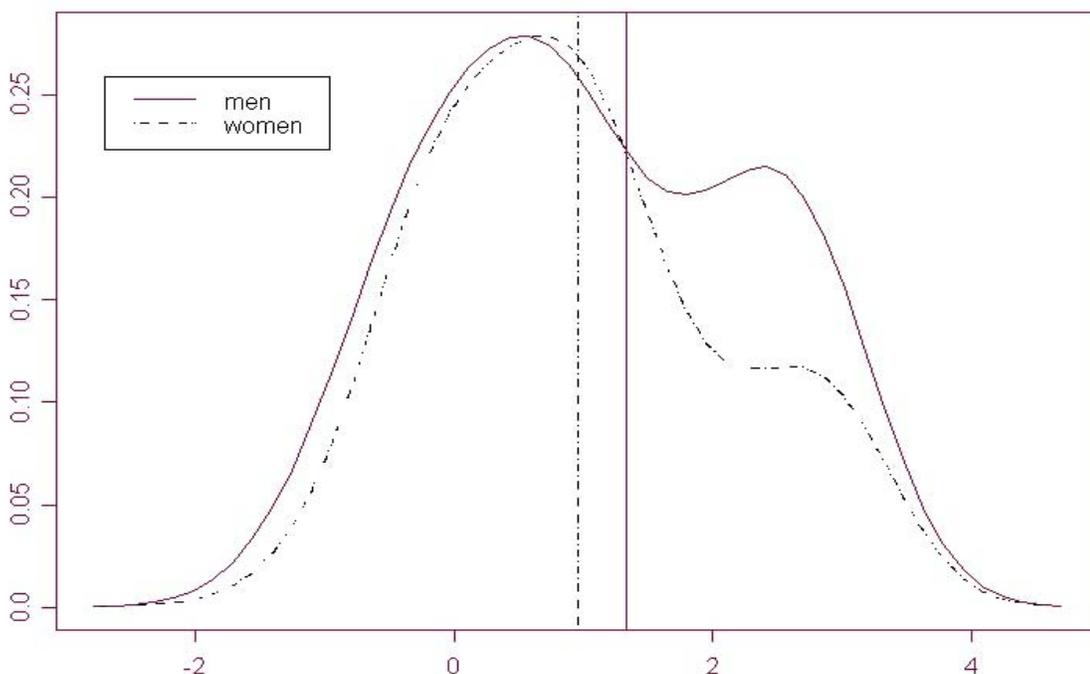
The advantages for men within sociology are consistent with the glass escalator phenomenon, whereby men enjoy increased relative advantage in occupations in which women predominate (Williams, 1992). As shown by Table 5, among the six social science fields in the SS5, sociology has the highest proportion of women.

One additional observation regarding gendered career outcomes in the SS5 makes the glass escalator metaphor even more compelling: in Figure 6, the career outcomes for women in sociology resemble those for both men and women in other fields. The salient

Table 5: Percent Women in *SS5* Sample by Field

	% Women	N
Anthropology	58	422
Communication	56	332
Geography	34	158
History	44	823
Political Science	37	681
Sociology	63	532
All Fields	49	2948

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[11] Using standard units. All institutions are scored on a prestige scale. The median institution would be located at 0 on this scale. An institution with a score of 1 is one standard deviation above the mean, among all rated institutions. The fact that the means of the distributions for both men and women in Figure 5 are above 0 occurs because the larger institutions employ more faculty and tend to score higher on the prestige scale. See the Methods Appendix for details on the derivation of this measure.

distinction is that men in sociology are advantaged relative to women in sociology *and* relative to all others in the other fields.

FINDINGS 2: GENDER DIFFERENCES IN GRADUATE TRAINING

In their survey of sociology PhD holders within a year after graduation, Spalter-Roth and Lee (2000) find that women's evaluations of the training they received in publishing during graduate school are much less favorable than men's evaluations. They found no gender differences in employment status immediately post-PhD, nor did they find a relationship between quality of training in writing and immediate career outcomes. Nevertheless, the notable difference in men's and women's evaluations lead them to ask whether gender differences in training may lead to gender differences later in careers. Because it collected both evaluations of graduate education and career path data 6 to 10 years post-PhD, *SS5* offers data to address this question. Table 6 displays response frequencies by gender among sociologists on the item evaluating the quality of training in writing and publishing. Men were much more likely to report "*excellent*" whereas women more often reported "*poor.*"

Men and women, the *SS5* shows, also perceived other dimensions of their graduate training differently. Men returned higher ratings of the quality of mentoring received from their dissertation chair (Table 7). Women were 4.7 times more likely than men to report they were "very unsatisfied" with overall mentoring by their dissertation advisor. Women were also 1.7 times more likely than men to rate the quality of socialization into the academic community provided by their program as "poor" (Table 8). However, women did not evaluate all items dealing with the graduate program experience less favorably than did men. For example, there were no differences in how men and women rated the quality of their training in "thinking critically" (Table 9). The data do not suggest the conclusion that women were simply more critical evaluators or were expressing a general malaise that colored their interpretation of all aspects of the graduate program. Rather, the answer patterns suggest that women were communicating a lower satisfaction with specific items.

Table 6: Quality of Training in Writing & Publishing by Gender*		
	Men	Women
Poor	17.7%	33.2%
Adequate	41.1%	41.2%
Excellent	41.1%	25.6%
N	141	238

Response by Gender to Prompt: "*please indicate the quality of your doctoral training (either formal or informal) in writing and publishing reports and articles.*"

Table 7: Satisfaction with Overall Mentoring by Dissertation Advisor by Gender*

	Men	Women
Very Unsatisfied	2.4%	10.3%
Somewhat Unsatisfied	10.1%	11.4%
Somewhat Satisfied	38.1%	30.8%
Very Satisfied	49.4%	47.6%
N	168	273

*Response by Gender to Prompt: "*As you look back on your doctoral studies, to what extent were you satisfied with the following types of support from your dissertation chair or advisor? The overall quality of mentoring you received from your dissertation chair.*"

Table 8: How Well PhD Program Did Socializing Students to an Academic Community by Gender*		
	Men	Women
Poor	16.4%	25.1%
Adequate	43.6%	42.4%
Excellent	40.0%	32.5%
N	165	271

*Response by Gender to Prompt: "*How would you evaluate your doctoral program on each of the following? Please evaluate your perception of your program for the years that you were in the program: Socializing students into an academic community.*"

Table 9: Quality of Training in Thinking Critically by Gender*

	Men	Women
Poor	1.4%	0.8%
Adequate	25.4%	24.1%
Excellent	73.2%	75.1%
N	142	237

*Response by Gender to Prompt: "*For each activity, please indicate the quality of your doctoral training (either formal or informal): Thinking critically*"

Table 10 presents ordinal logistic regression models predicting responses on each of the four items reflecting perceptions of quality in graduate program experience discussed above. The analysis is structured to: (1) see if the effect of gender on perception of aspects of the graduate program experience remain when controlling for basic demographic variables, family situation, and orientation to graduate school and (2) whether including controls for general response tendencies change the findings. Looking first at the impact of gender on ratings of the quality of training in writing and publishing, Model A-1 shows that gender has a more powerful effect than class background, race, age, family situation, orientation to graduate school, and career goal. Furthermore, in Model A-2 in addition to the eleven control variables, the perception of the quality of other aspects of the graduate experience are controlled. After these controls are added, the effect of gender on the perceived quality of training in writing and publishing articles and reports remains strong and significant. This coefficient in Model A-2 suggests that the gender difference in reporting on quality of training in writing and publishing cannot be dismissed as a function of women generally applying more rigid evaluation criteria or being due to women displaying a general malaise vis-à-vis graduate school.

Table 10: Exponentiated Ordinal Logistic Regression Coefficients for Models Predicting Quality of Graduate School Experience Outcomes

	Writing & Publishing		Overall Mentoring		Socialization		Critical Thinking	
	A-1	A-2	B-1	B-2	C-1	C-2	D-1	D-2
Female	0.53**	0.59*	0.71^	0.87	0.73	0.92	1.19	1.60
Parents Education	1.02	0.94	1.01	0.99	1.20^	1.20^	1.03	0.98
Disadvantaged Minority	1.13	0.94	1.09	1.12	0.78	0.94	2.08	1.99
Under 30 at PhD	1.39	1.15	1.62*	1.36	1.38	0.93	1.41	1.36
Over 40 at PhD	0.59^	0.67	1.05	1.11	0.92	0.89	1.06	1.27
Child at PhD	0.71	0.65	0.96	1.21	0.92	0.94	0.99	1.09
Unmarried at PhD	0.59*	0.71	1.02	1.23	0.86	0.90	0.63^	0.68
Professional Spouse at PhD	0.89	0.88	1.11	1.30	0.94	0.76	1.60	1.70
PhD Program Prestige Tier	1.06	1.06	0.85	0.73*	1.17	1.25	1.23	1.28
"Absence" Considerations	0.88	1.01	0.80	0.82	1.01	1.07	0.61^	0.63
"Career" Considerations	0.79	0.63^	1.05	1.22	1.14	1.23	1.55	1.64
"Field" Considerations	1.29	1.31	1.12	1.01	1.03	0.80	1.31	1.20
Goal to be a Professor	1.39	1.40	0.98	0.71	1.55*	1.64*	1.01	0.85
Training in Publication				2.13**		2.73**		1.54*
Training in Critical Thinking		1.78*		1.38		1.68*		
Quality of Socialization		2.79**		2.07**				1.64*
Overall Mentoring		1.87**				1.66**		1.25
N	366	358	406	358	401	358	366	358
Cox & Snell R-Squared	0.10	0.32	0.02	0.21	0.06	0.29	0.05	0.12

Model B shows that women evaluate the quality of their overall mentoring less favorably than do men. With the same set of controls the effect of gender on perception of mentoring is significant at the $p < .1$

level and is notable among the other variables in the size of the effect. Having established gender differences in graduate education experiences, we now turn to the question of whether these differences could be related to later career outcomes.

FINDINGS 3: GENDER DIFFERENCES IN EMPLOYER PRESTIGE

In the first phase of this analysis, we observed in sociology advantages for men in a number of career outcomes, including: early transitions to ladder faculty positions, avoidance of the contingent labor force, and—among those in ladder faculty appointments—the prestige of the institution where they work. We selected the latter outcome for analysis to determine if gender disparities in perceived graduate school training and gender differences in the effect of family roles were associated with the observed gender inequality in prestige of employing institution among ladder faculty. We used ordinary least squares regression with the dependent variable being a measure of prestige derived from the U.S. News and World Report's ranking of the employing institution (Morse et al., 2005). This score is a z-score. The series of nested models displayed in Table 11 show that the impact of gender on the prestige of the employing institution among ladder faculty is strong and is not accounted for by class background, age, family situation, orientation to graduate school, career goal, perceived quality of graduate education, nor time to degree.

As shown in Table 11's Model 1, women in sociology on average, work at institutions with scores 0.4 lower on the institutional prestige scale.[12] Model 2 shows that class background, age, and parental status do not explain the gender prestige gap, which remains strong. Model 3 includes measures of marital status and the estimate of the prestige gap remains the same. As seen in Model 4, orientations to graduate school also do not account for the prestige gap. Including a control variable for the prestige of the PhD-granting department (Models 4 and 5) also does not change the gender prestige gap, although the prestige of the PhD-granting department is strongly related to the prestige of the employing institution. Finally, Model 5 shows that adding the variables for perception of quality of graduate education also does not account for the gender prestige gap. If gender differences in the graduate school experience explained the gender effect on this career outcome, the gender effect estimated in Model 5 would be greatly diminished relative to the estimated effect in Model 1. It is not.

Finally, the sample is split by gender and effects on prestige are estimated separately for men and women. The family status variables warrant particular attention, since previous research has documented that traditional family roles (father and husband) benefit male careers, but mother and wife roles hinder female careers (Rudd et al., 2008; Mason & Goulden, 2004; Perna, 2001; Bellas 1997; Bellas 1992; Hochschild, 1975). We defined marital status categories to distinguish between marriage (or committed partnership) with a professional spouse, marriage (or committed partnership) with someone who has less education, and not being married. Based on previous literature, we would expect that for men the estimated effect on prestige of employing institution of being unmarried at PhD would be negative and so would the effect of being married to a professional spouse (the reference category is partnership with someone with less education). However, this pattern does not emerge. Instead, we find that men married to a professional spouse attained significantly more prestigious appointments than those married to non-professional spouses. For women, previous research would suggest that motherhood ('child at PhD') would have a negative effect and that being unmarried ('unmarried at PhD') would have a positive effect on the prestige of the institution of appointment. These patterns do not emerge.

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[12] Since the institutional prestige scale is a z-score, the effect may be interpreted as slightly less than one-half a standard deviation different.

Table 11: Ordinary Least Squares Regression Coefficients For Models Predicting Prestige Of Employer For Those In U.S. Ladder Faculty Positions

	Model 1	Model 2	Model 3	Model 4	Model 5	Men	Women
Female	-0.40**	-0.37*	-0.37*	-0.45**	-0.36*		
	(2.65)	(2.35)	(2.33)	(2.81)	(2.12)		
Parents Education		0.10	0.05	0.06	0.06	-0.04	0.04
		(1.30)	(0.62)	(0.84)	(0.78)	(0.34)	(0.40)
Disadvantaged Minority		0.13	0.14	0.01	-0.12	-0.34	-0.25
		(0.51)	(0.56)	(0.04)	(0.45)	(0.89)	(0.65)
Under 30 at PhD		0.29	0.19	0.21	0.15	0.13	0.17
		(1.60)	(1.06)	(1.16)	(0.76)	(0.44)	(0.74)
Over 40 at PhD		-0.57*	-0.17	-0.24	-0.25	-0.26	-0.36
		(2.45)	(0.65)	(0.90)	(0.89)	(0.74)	(1.29)
Child at PhD			-0.17	-0.15	-0.18	-0.31	0.24
			(0.79)	(0.73)	(0.79)	(1.18)	(0.98)
Unmarried at PhD			0.00	-0.05	-0.01	0.20	0.13
			(0.00)	(0.27)	(0.05)	(0.78)	(0.60)
Professional Spouse at PhD			0.19	0.14	0.02	0.64^	-0.06
			(0.83)	(0.63)	(0.08)	(1.65)	(0.26)
PhD Dept. Prestige Tier			0.50**	0.48**	0.48**	0.41**	0.39**
			(4.79)	(4.60)	(4.41)	(2.67)	(3.35)
"Absence" Considerations				-0.38*	-0.42*	-0.53*	-0.09
				(2.00)	(2.13)	(1.96)	(0.44)
"Career" Considerations				0.06	0.00	0.29	-0.11
				(0.36)	(0.02)	(1.16)	(0.49)
"Field" Considerations				-0.08	0.01	0.32	-0.39
				(0.41)	(0.03)	(1.15)	(1.55)
Goal to be a Professor				-0.34^	-0.29	0.32	-0.45*
				(1.89)	(1.51)	(1.12)	(2.27)
Training in Publication					-0.04	0.03	0.06
					(0.35)	(0.16)	(0.42)
Training in Critical Thinking					-0.01	0.28	-0.04
					(0.04)	(1.07)	(0.21)
Quality of Socialization					0.04	-0.26	-0.06
					(0.27)	(1.41)	(0.43)
Overall Mentoring					0.14	0.68**	-0.08
					(1.44)	(3.66)	(0.73)
Log Time to Degree					-0.06	0.14	0.01
					(0.19)	(0.33)	(0.02)
N	256	226	220	219	205	180	111
Cox & Snell R-Squared	0.03	0.09	0.18	0.20	0.21	0.16	0.29

DISCUSSION

Of the six fields examined in the *SS5*, sociology has the highest concentration of women among recent doctoral recipients. It is also the one field that is marked by a clear advantage for men in career outcomes. Notably—given the centrality of prestige in structuring the stratification system in academia—in sociology, men, on average, have higher placement in terms of prestige than women. This advantage for men in sociology is unrelated to either gendered family effects on careers or to gender differences in the graduate school experience. In addition to the higher average prestige of men's academic appointments, men are faster to transition into ladder faculty appointments and less likely to be in the contingent labor force. In analysis not shown in this report, we find that these advantages are not fully explained by gendered family effects or gender differences in the graduate school experience.

This report suggests alternative frameworks for understanding the source of gender inequality in sociology careers. One promising framework is the notion of the 'glass escalator' phenomenon described by Williams (1992) in which men in fields where men are rare tend to receive extra encouragement, resources and attention from superordinates promoting advancement. This framework not only explains why sociology is unique among the studied fields in the male advantage, but also explains why men in sociology are advantaged relative to all others in the other social science fields (Figure 6). Spalter-Roth and Lee (2000) offer evidence of a particular glass escalator mechanism in sociology in their analysis of gender differences among sociology graduate students in mentoring received from faculty:

> We found that women did not report receiving more faculty help from female advisors, whereas men—especially white men—benefited from having female advisors (although the number was small). (p. 6)

The notion of the glass escalator is also consistent with the more general finding (beyond the social sciences) that among fields in academia, the higher the percentage of women among doctoral recipients, the more likely are men to obtain faculty positions at a higher rate than women do (Aanerud, Morrison, Rudd, Homer, Nerad & Cerny, 2007; Rudd et al., 2008).

This report's focus on gender differences in career outcomes among sociologists derived from the original intent of the report–to identify meaningful ways in which sociology differed from other social science fields in terms of the quality of PhD education, job markets and career paths, and gender equity. We found that in many ways sociology is like the other studied fields. Most sociologists wanted to become professors when they entered and when they left graduate school; most found jobs in which they were satisfied and which made use of their graduate training. Sociologists, like respondents in other fields, also spent much time after their PhD without stable secure employment. However, the job market for sociology doctorates was better than the market for anthropologists and historians.

Sociologists, like those in other fields, tended to rate the quality of their programs quite highly, especially with regard to abstract academic dimensions such as academic rigor and training in critical thinking. Also like those other fields, sociologists were not as positive about the quality of their training in writing and publishing articles and reports and in presentation skills. Low evaluations on these items are notable because respondents reported that these skills are very important in their jobs and, further, because these items elicited different responses from men and women (for both social scientists in general and for sociologists in particular). Those concerned with gender equity in academia should be interested in understanding why women reported lower quality of training in these critical skill areas.

We found that on a number of items pertaining to the graduate program experience women reported less satisfaction (or lower quality) than men. Women perceived lower quality of training in writing and publishing and in socializing students into the academic community. They also reported less satisfaction

with mentoring. These differences could reflect different levels of global satisfaction with the PhD program or different internal calibrations of the rating scales on these items. However, multivariate analyses show that compared to other characteristics gender is an important influence on how people evaluate training in writing and publishing and mentoring by the dissertation chair. Because the impact of gender on evaluations of the quality of training in writing and publishing remains after controlling for how respondents rated other items, we argue that observed differences reflect dissatisfaction with specific concrete domains.

CONCLUSION

The *SS5* provides data that enable sociology graduate programs to evaluate their efforts in delivering doctoral education, from recruitment to the quality of graduate education to the early career. Findings point towards several aspects of this process that could be changed or improved.

In terms of recruitment, sociology attracts fewer graduate students with intense interest in the field and more graduate students who instead reveal a more lukewarm motivation – 'best option at the time.' This finding may be indicative of a public relations problem unique to sociology in which those outside the profession do not see what goes on inside as compelling.

In terms of program evaluation, alumni indicate relatively low opinions of the quality of training in particular skills that many consider critical in their careers, including presenting, writing, and publishing. Moreover, sociology programs should be aware that men and women evaluate programs differently. Women tend to evaluate their programs less favorably in terms of training in writing and publishing, socialization into an academic community, and overall mentoring by the dissertation advisor.

The current process of transitioning from graduate school to a permanent job often leaves sociologists exposed to long durations of insecurity and uncertainty. Given that the average PhD graduate is already in his or her 30s, this extended period of insecurity and uncertainty may create strains on family and life balance. Although individual departments clearly cannot change the labor markets for sociology PhDs, departments (and/or universities) can offer students resources for learning career management skills, create opportunities for students to connect with professional networks within and beyond academia, and can provide students with realistic information about job opportunities and how the job market works.

Finally, SS5 identified a gender gap in the prestige of appointments among sociology faculty. This gap could not be explained as an outcome of gender differences in graduate training nor could it be accounted for by family variables. Williams' (1992) notion of the "glass escalator" might help explain this unexpected finding, which poses both theoretical and practical questions for sociologists.

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METHODS APPENDIX

Exact Item Wording

Job Satisfaction Items
How satisfied are you with the following aspects of your current job? (If you are currently not employed, please answer for your most recent job)

Items	Scale*
Intellectual challenge of work	1 very satisfied
Autonomy of work	2 somewhat satisfied
Level of responsibility	3 somewhat dissatisfied
Contribution to society	4 very dissatisfied
Use of doctoral education	
Job is a good fit with my abilities and interests	*Reverse coded for analysis

Assessment of PhD Program Quality
How would you evaluate your doctoral program on each of the following? Please evaluate your perception of your program for the years that you were in the program.

Items	Scale*
Clear program requirements	
Feedback on student progress	1 Excellent
Financial support	2 Adequate
Socializing students into an academic community	3 Poor
Having a diverse student population	
Students were encouraged by faculty to take initiative in shaping academic activities	
Preparation for qualifying examination	
Support and guidance during dissertation writing	
Academic rigor	
Academic career preparation	
Non-academic career preparation	
Overall program quality	*Reverse coded for analysis

Skills Inventory
For each activity, please indicate the quality of your doctoral training (either formal or informal):

Items	Scale*
Analyzing or synthesizing data	1 Excellent
Thinking critically	2 Adequate
Research design (experiments, surveys, etc)	3 Poor
Writing proposals for funding	
Writing and publishing reports and articles	
Managing people and budgets	
Working collaboratively, in a team	
Working in an interdisciplinary context	
Working with people from diverse educational and social backgrounds	
Presentation skills	*Reverse coded for analysis

Mentoring by Dissertation Advisor

As you look back on your doctoral studies, to what extent were you satisfied with the following types of support from your dissertation chair or advisor?

Item	Scale*
The overall quality of mentoring you received from your dissertation chair	1 Very Satisfied 2 Somewhat Satisfied 3 Somewhat Unsatisfied 4 Very Unsatisfied *Reverse coded for analysis

Career Expectations

Item	Scale*
To what extent have the career expectations you had when you finished your PhD been fulfilled so far?	1 To a much greater extent than you expected 2 About what you expected 3 To a lesser extent than you expected 4 Not at all what you expected *Reverse coded for analysis

Status Characteristics Variable Definitions

Gender	
Disadvantaged Minority	White, Asian vs. Black, Native American, Hispanic
Parents Education	1-High school or less 2-More than HS, less than master's 3. Master's 4. Professional degree or PhD
Age	Under 30 at PhD, between 30 and 40, over 40
Parental Status at PhD	Reports having a child (of any age) vs. No child
Marital Status at PhD	Not married Married or committed partnership—partner less educated Married or committed partnership—partner has PhD or professional degree
Prestige of PhD-Granting Department	1995 NRC Program Score > "Strong" 1995 NRC Program Score < "Strong" but > "Good" 1995 NRC Program Score Below "Good"
Career Goal Professor	To be a professor vs. All other goals

Measure of the Prestige of Academic Institutions Employing Sociology Professors

We used the 2005 U.S. News and World Report (USNWR) rankings of undergraduate institutions to derive a measure of the prestige of the employing institution for ladder faculty based primarily on the selectivity of undergraduate admissions. This is a valid measure of the prestige of an institution (Geiger, 2002), however, the U.S. News rankings cannot be used to construct a uni-dimensional measure of prestige valid across all institutions because the rankings are regional (and within college type). For instance, we cannot use the USNWR rankings to compare institutions classified in the southern region with those classified in the western region, nor can we compare rankings of selective colleges with those of national universities. Instead, with data reported by the USNWR, we constructed ordinary least squares regression models predicting the 75th and 25th percentile scores on both the SAT and the ACT of incoming freshmen for each institution. Independent variables in the model were classification (akin to Carnegie class), region, tier of ranking, the peer assessment, the graduation rate, acceptance rate, and the percent of freshmen in the top quarter of their high school class. Models explained from 86 percent of the variation in first quartile SAT scores to 71 percent of the variation in third quartile ACT scores. The models enabled the

prediction of test scores where none were reported (for example the first quartile ACT scores among freshmen in a university that relies exclusively on SAT scores for admission). For each employing institution, the four predicted data points were converted into *z*-scores and averaged. Thus each institution rated by USNWR in 2005 was assigned a single measure on a continuous scale that reflects the selectivity of its student body. These scores are our measure of the prestige of the employing institutions for *SS5* respondents.

SOCIAL SCIENCE PHDS—FIVE+ YEARS OUT

Participating Universities

Arizona State University
Boston College
Brandeis University
Catholic University of America
City University of New York
Clark University
Columbia University
Cornell University
Duke University
Emory University
Florida State University
Harvard University
Howard University
Indiana University
Johns Hopkins University
Kent State University
Louisiana State University

Massachusetts Institute of Technology
Michigan State University
New York University
Northwestern University
Ohio State University
Pennsylvania State University
Princeton University
Purdue University
Rutgers University
Southern Illinois University
Stanford University
State University of New York at Buffalo
Syracuse University
UC - Berkeley
UC - Davis
UC – Irvine

UC - Los Angeles
UC - Riverside
UC - San Diego
UC - Santa Barbara
UC - Santa Cruz
University of Chicago
University of Colorado at Boulder
University of Connecticut
University of Georgia
University of Illinois
University of Iowa
University of Kansas
University of Maryland
University of Massachusetts
University of Michigan
University of Minnesota
University of Missouri

University of Nebraska at Lincoln
University of North Carolina
University of Oregon
University of Pennsylvania
University of Pittsburgh
University of Rochester
University of Tennessee
University of Texas at Austin
University of Virginia
University of Washington
University of Wisconsin
Washington State University
Washington University in St. Louis
Wayne State University
Yale University

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Social Science PhDs—Five+ Years Out is the third national survey of doctorate recipients directed by CIRGE Principal Investigator Maresi Nerad. *PhDs—Ten Years Later*, fielded in academic year 1996 – 1997 and funded by the Andrew W. Mellon Foundation and the National Science Foundation, surveyed biochemists, computer scientists, electrical engineers, English PhDs, mathematicians and political scientists. *PhDs in Art History—Over a Decade Later*, fielded in 2001 and funded by a grant from the Getty Grant Program, surveyed art historians. Results of these studies are available through the CIRGE website at www.cirge.washington.edu.

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