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Minorities at Three Stages in the Sociology Pipeline

This brief compares the status and activities of members of racial and ethnic groups at three critical stages of the academic pipeline in sociology. These stages are (1) the production of minority PhDs; (2) the initial hiring process and its outcome; and (3) the tenure and promotion process. It focuses on outcomes for minority groups at each of these stages. Information comes from three data sets—the National Science Foundation (NSF)'s *Survey of Earned Doctorates*, the American Sociological Association (ASA)'s *1997-98 Graduate Department Survey*, and the ASA's *1998 Survey of Recent PhD Graduates in Sociology*.¹ Although we previously examined these stages with aggregate data (Spalter-Roth, Levine, and Sutter 1999), the *Survey of Recent PhD Graduates in Sociology* allows us to use individual-level data to illuminate the job search process for new PhDs and the outcomes of this process. We compare the results for sociologists with other selected social science disciplines for which similar data are available.

The concern with the representation of U.S. minorities in education and efforts to provide equal opportunity grew out of the U.S. civil rights movement of

the 1950s and 1960s and, in particular, the historic struggle by African Americans and their supporters. The laws, regulations, and practices that resulted from this movement supported equal opportunities in all public educational institutions (or those receiving federal funding) for U.S. citizens regardless of race, color, national origin, or religion. Ongoing information on U.S. minority groups, who historically were excluded from these opportunities, allows us to determine if progress has been made. Following conventional definitions of "U.S. minority," we focus primarily on U.S. citizens and non-citizen permanent residents. Nevertheless, we also provide limited information on PhDs awarded to non-U.S. citizens who are temporary residents because more than half of this growing category intends to stay in the United States and may change the minority mix at each stage of the pipeline.

THE PRODUCTION OF MINORITY PHDS

Along with equal opportunity laws, programs of affirmative action were designed to overcome discrimination and increase opportunities for U.S. citizens belonging to minority groups. During the

¹ The ASA survey was part of a 14-discipline study that was coordinated by the Commission for Professionals in Science and Technology (CPST) and funded by the National Science Foundation and the Sloan Foundation. The PhD survey in sociology included those persons who received their degrees between July 1, 1996 and August 31, 1997. The survey went into the field in February 1998 and obtained a 72 percent response rate (for a total of 435 respondents). According to information provided by graduate advisors regarding nonrespondents, women were more likely to respond to this survey than men, and U.S. citizens were more likely to respond than non-U.S. citizens. Among the respondents who were U.S. citizens or permanent residents, the percentage of each race/ethnic group matched the percent reported in the 1998 NSF figures. The employment information in the survey focused on the week of October 13, 1997.

Table 1. Percent Distribution of PhD Recipients by Race and Ethnicity, for Selected Social and Behavioral Science Disciplines: 1978, 1988, 1998

Year and Discipline	Race/Ethnic Identity of U.S. Citizens or Permanent Residents							Non-U.S. Citizens/ Temporary Residents	Total Degrees ^{a)}
	Total	White	Black	Asian-Pacific Islander	Hispanic	Native American	Other		
1978									
Sociology	100.0 (543)	83.6 (454)	5.3 (29)	2.9 (16)	2.4 (13)	0.2 (1)	5.5 (30)	(55)	(610)
Psychology	100.0 (2858)	88.3 (2524)	3.5 (100)	1.0 (28)	1.8 (51)	0.1 (3)	5.3 (152)	(61)	(3055)
Economics	100.0 (569)	85.2 (485)	1.1 (6)	5.6 (32)	1.2 (7)	0.2 (1)	6.7 (38)	(178)	(778)
Political Science	100.0 (536)	84.5 (453)	5.0 (27)	2.1 (11)	1.7 (9)	NA	6.7 (36)	(52)	(603)
1988									
Sociology	100.0 (342)	82.5 (282)	6.4 (22)	3.8 (13)	4.7 (16)	0.6 (2)	2.0 (7)	(68)	(449)
Psychology	100.0 (2728)	89.6 (2445)	3.8 (103)	1.7 (47)	3.4 (93)	0.3 (7)	1.2 (33)	(84)	(3064)
Economics	100.0 (477)	82.4 (393)	3.1 (15)	9.9 (47)	2.5 (12)	NA	2.1 (10)	(291)	(826)
Political Science	100.0 (253)	85.0 (215)	6.3 (16)	2.4 (6)	2.4 (6)	NA	4.0 (10)	(82)	(392)
1998									
Sociology	100.0 (427)	78.9 (337)	8.9 (38)	5.4 (23)	3.3 (14)	0.7 (3)	2.8 (12)	(81)	(549)
Psychology	100.0 (3259)	80.7 (2630)	4.8 (155)	3.5 (114)	6.4 (207)	1.0 (31)	3.7 (122)	(151)	(3681)
Economics	100.0 (480)	74.8 (359)	3.8 (18)	14.8 (71)	4.6 (22)	NA	2.1 (10)	(396)	(973)
Political Science	100.0 (542)	82.3 (446)	5.9 (32)	4.8 (26)	4.2 (23)	0.6 (3)	2.2 (12)	(71)	(662)

Source: 1978 & 1988: National Science Foundation/SRS, Science and Engineering Doctorates: 1960-90 (NSF91-310) final. Detailed Statistical Table 3. 1998: National Opinion Research Center (NORC), Doctoral Recipients from U.S. Universities: Summary Report 1998. Appendix Table A-2.

Note: Numbers in parentheses are the total number of Ph.D.s awarded.

^{a)} Includes individuals who did not report their citizenship at the time of their doctorate.

1970s, the U.S. Department of Health, Education, and Welfare (now the Department of Health and Human Services) began to require universities with large government contracts to develop affirmative action strategies to increase the presence of women and minorities in education. Since then, slow progress has been made in recruiting and training underrepresented groups, as seen in the percent minority among new PhDs in sociology as well as in other social science disciplines (Table 1).

In sociology, members of minority groups who were U.S. citizens or permanent residents accounted for 16 percent of new PhDs in 1978, if Asian-Pacific Islanders are counted as a minority group.² This share increased to 18 percent in 1988 and to 21 percent in 1998. By 1998, all four social science disciplines had experienced small positive changes and were more diverse than 20 years earlier. Only economics had a larger share of minorities than sociology (25 percent compared to 21 percent), mainly because

² The categorization of Asian-Pacific Islanders as a "minority" group has varied among institutions and geographic locations. For example, the National Science Foundation does not count Asian-Pacific Islanders as a minority in the sciences (e.g., fellowship applications), where their share far exceeds their share of the population (20 percent of new PhDs in the sciences compared to 4 percent of the population).

of a high percent of Asian-Pacific Islanders who were citizens and permanent residents receiving degrees. Sociology awarded the greatest share of PhDs to blacks, while psychology had the highest percent of Hispanics earning PhDs in 1998 among the four disciplines.

For each of the social sciences, the percent of non-U.S. citizens who were temporary residents increased between 1978 and 1998, although this increase varied substantially across the disciplines. In economics, 41 percent of PhDs were awarded to temporary residents, while only 4 percent of psychology degrees were obtained by temporary residents. Fifteen percent of degrees in sociology were awarded to temporary residents. In 1978, the majority of temporary residents were classified as white, but by 1998, the largest share of temporary residents was classified as Asian in all of the social science disciplines except for psychology (data not shown). In sociology, 56 percent of the respondents to ASA's 1998 *Survey of Recent PhD Graduates in Sociology* who said that they were tempo-

rary residents classified themselves as Asian. Many of these new PhDs hope to become U.S. citizens or permanent residents if they obtain employment in the United States, adding to the mix of minorities and nonminorities at the next stages of the pipeline.³

THE INITIAL HIRING PROCESS

The next critical juncture in the pipeline is the initial hiring process. Job search methods, numbers of applications, interviews, and job offers are examined as part of unraveling this important stage for new sociology PhDs.⁴ This stage often begins when the new sociologist has completed all requirements for the PhD except the dissertation (ABD). For many of these new sociologists, the preferred position is a tenure-track position in the academy.

Job Search

Job candidates used both institutional channels open to all and personal networks in their job search (Table 2). By far, the most widely used method by all racial/ethnic groups was the ASA's *Employment*

Table 2. Percent of PhD Graduates Using Specified Job-Search Methods by Race and Ethnicity, 1998

Job Search Method	Race/Ethnicity					Total
	White	Black	Asian-Pacific Islander	Hispanic	Native American/ Other	
Personal Network						
Faculty advisor(s)	48.1	50.0	44.4	45.5	50.0	48.1
Informal channel (e.g., friend)	52.3	46.7	44.4	54.6	64.3	51.9
Institutional Channel						
ASA <i>Employment Bulletin</i>	85.9	86.7	55.7	90.9	57.1	83.3
ASA employment service at Annual Meeting	27.1	33.3	11.1	18.2	7.1	25.7
Newspaper ads	27.5	30.0	44.4	36.4	42.9	29.6
<i>Chronicle of Higher Education</i>	49.6	36.7	22.2	54.6	50.0	47.2
Professional journals/newsletters	19.5	10.0	11.1	27.3	21.4	18.5
Electronic sources	21.4	20.0	33.3	9.1	35.7	22.1
Number of Respondents	262	30	18	11	14	335

Source: American Sociological Association, 1998 Survey of Recent Ph.D. Graduates in Sociology.

Note: Respondents were asked to check all the job-search methods they used upon entering the job market.

³ According to the NSF's 1998 Survey of Earned Doctorates, over two-thirds of Asians who were temporary residents who earned their doctorates in 1998 and who had definite employment plans responded that they would be located in the United States.

⁴ The ASA 1998 Survey of Recent PhD Graduates in Sociology is the only source of job search information at this early stage of the career trajectory. Unfortunately, the number of minorities in the cohort is small, so that the presence of a small number of nonrespondents may skew the findings.

Bulletin—more than 8 out of 10 respondents used this institutional channel. About half of all respondents reported also relying on informal personal networks composed of faculty advisors or friends for job information.

Racial and ethnic groups differed in their use of job search techniques. Asian-Pacific Islanders were substantially less likely than whites, African Americans, or Hispanics to use the total array of job-search techniques, while Hispanics were the most likely to do so, closely followed by whites, Native Americans, and blacks. Asian Americans were least likely of all groups to use the *ASA's Employment Bulletin or the Chronicle of Higher Education*. They were about as likely, however, to use personal channels, and they were more likely to use electronic sources.

When asked to report the most effective job-search method that they had used, almost half the respondents, cited *ASA's Employment Bulletin* (see total col-

umn in Table 3). New PhDs in political science and psychology also listed their professional association's employment newsletter as the first or second most important job-search method used. Economists, in contrast, listed informal channels as the most effective route.⁵

Among sociologists, Asian-Pacific Islanders were least likely to cite the *Employment Bulletin* as the most effective strategy. Only about one-fourth of Asian-Pacific Islanders cited this method compared to about half of whites, blacks, and Hispanics and one-third of Native Americans. Even those Asian-Pacific Islanders who did use the *Employment Bulletin* were less likely than other groups to pick it as the most effective job-search technique (data not shown). They were much more likely than other groups to see the *Chronicle of Higher Education* as most effective. Turning to personal channels, blacks and Asian-Pacific Islanders were more than twice as likely as whites to report faculty advisors as the most effective

Table 3. Percent Distribution of PhD Graduates by Most Effective Job Search Method by Race and Ethnicity, 1998

Most Effective Job Search Method	Race/Ethnicity					Total
	White	Black	Asian-Pacific Islander	Hispanic	Native American/ Other	
Personal Network						
Faculty advisor(s)	9.1	26.9	20.0	0.0	0.0	10.7
Informal channel	13.9	15.4	13.3	28.6	41.7	15.5
Institutional Channel						
<i>ASA Employment Bulletin/</i> Employment Services at Annual Meeting ^a	50.4	46.1	26.7	42.9	33.3	47.9
<i>Chronicle</i> , journals/newsletters, newspaper ads	12.6	3.9	33.3	0.0	8.3	12.4
Other	13.9	7.7	6.7	28.6	16.7	13.5
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of respondents	230	26	15	7	12	290

Source: American Sociological Association, 1998 Survey of Recent Ph.D. Graduates in Sociology.

^a Only a few respondents ($N = 6$) cited employment services at the *ASA* annual meeting.

⁵ For additional information on job-search strategies and their outcomes across disciplines, see the website for the Commission on Professionals in Science and Technology at www.cpst.org/web/site/pages/pubs/employment.htm.

job-search channel. None of the small number of Hispanic or Native American respondents cited faculty advisors as their most effective job-search technique, although they were much more likely to cite other informal channels as the most effective.

Job Applications, Interviews, and Offers

Most members of this cohort of sociology PhDs (about 85 percent) began applying for jobs during their last year of graduate school prior to completing their degrees (as ABDs). The average number of jobs for which they applied as ABDs was 25 versus 19 as PhDs (Table 4). Of all racial/ethnic groups, whites applied for the most jobs as ABDs, on average (27 jobs), while Asian-Pacific Islanders applied for the fewest (8 jobs). Although blacks applied for fewer jobs than whites, on average, as ABDs they were the most likely of all the racial/ethnic groups to land job interviews. Asian-Pacific Islanders, despite their lack of applications (both as ABDs and PhDs), obtained a mean number of job interviews similar to most

other ethnic groups (but fewer than African Americans). Hispanics had noticeably fewer job interviews as PhDs than did other racial/ethnic groups.

Finally, as the culmination of this initial hiring process, blacks were significantly more likely as ABDs to receive job offers than other racial/ethnic groups. They received an average of 2.3 job offers compared to 1.3 offers for whites and 1.4 jobs for Asian-Pacific Islanders. By the time they had received their PhDs, however, blacks' lead in job offers was reduced. This suggests that blacks tend to be recruited vigorously before receiving their degrees, while they lose much of their competitive lead in the job market after they receive their degrees.

Table 4 also shows the mean number of applications made per job offer received (an average of 18 for all groups at the ABD level and 19 at the PhD level). Whites, Hispanics, and Native Americans appear to cast their net broadly and filed more applications to

Table 4. Mean Number of Job Applications, Interviews, and Job Offers, by Race and Ethnicity, 1998

Job Search Activity	Race/Ethnicity					Total
	White	Black	Asian-Pacific Islander	Hispanic	Native American/ Other	
Job Search as ABDs						
Mean Number of Applications	26.8	15.2	8.4	22.7	24.5	24.6
Mean Number of Interviews	2.3	3.0	1.9	1.6	1.4	2.3
Mean Number of Offers	1.3	2.3	1.4	0.8	1.1	1.4
Mean Number of Applications Per Job Offer	21	7	6	32	22	18
Job Search as Ph.D.s						
Mean Number of Applications	19.4	19.8	4.3	17.0	28.2	18.9
Mean Number of Interviews	2.1	1.9	1.8	0.6	1.8	2.0
Mean Number of Offers	0.9	1.4	1.1	0.1	1.1	1.0
Mean Number of Applications Per Job Offer	22	14	4	17	27	19

Source: American Sociological Association, 1998 Survey of Recent Ph.D. Graduates in Sociology.

produce a job offer compared to blacks and Asian-Pacific Islanders (both as ABDs and PhDs). Hispanics had the highest number of job applications per offer as ABDs (32). In contrast, Asian-Pacific Islanders cast a narrow net. They pursued a relatively small number of applications to produce a job offer both as ABDs and PhDs (6 and 4, respectively). Only blacks as ABDs came close to this rate (with 7 applications per offer).

Type of Job Obtained

The great majority of this cohort of sociology PhDs had obtained jobs by October 13, 1997, with an overall unemployment rate of three percent. Of those employed, about 84 percent obtained academic jobs. Sociology had the highest rate of academic employment among the four social science disciplines discussed above—78 percent for political science, 60 percent for economics, and 40 percent for psychology.⁶

Among new sociology PhDs, almost 6 out of 10 found what might be termed a “career ladder” job in the academy (tenure-track or postdoctoral positions) by October 1997 (Table 5). Of those who obtained career ladder jobs, 80 percent found tenure-track positions and 20 percent obtained postdoctoral positions. Fewer than 3 out of 10 were in non

tenure-track or part-time jobs (excluding those in postdoctoral positions) that may or may not be the initial stage to a career ladder. The remaining 16 percent obtained nonacademic jobs. The share of new PhDs obtaining tenure-track jobs at this early stage of their careers compares favorably with political science, another social science discipline with a high proportion of new PhDs holding academic positions.

There were notable differences by race and ethnicity in the type of jobs obtained among new sociology PhDs. Blacks were the most likely to obtain academic career-ladder jobs, with about 7 out of 10 holding tenure-track positions or postdoctoral fellowships. In contrast, Asian-Pacific Islanders were the least likely to hold these academic career ladder jobs (31 percent), while they were the most likely to hold non tenure-track or part-time jobs (50 percent). Similar percentages of whites, Hispanics, and Native Americans/Other—about 6 out of 10—obtained tenure-track or postdoctoral positions, although the total numbers of Hispanics and Native Americans/Other in these positions were very small.

Overall, blacks in this cohort were recruited with some vigor at the ABD level and hired mostly for

Table 5. Percent Distribution of PhD Graduates by Type of Job Obtained by Race and Ethnicity, 1998

Type of Job	Race/Ethnicity					Total
	White	Black	Asian-Pacific Islander	Hispanic	Native American/Other	
Tenure-track or postdoctoral job	57.6	71.9	31.3	63.6	57.1	57.8
Non tenure-track or part-time job	27.0	9.4	50.0	18.2	28.6	26.2
Non academic job	15.5	18.8	18.8	18.2	14.3	16.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number of Respondents	278	32	16	11	14	351

Source: American Sociological Association, 1998 Survey of Recent PhD Graduates in Sociology.

⁶For a more detailed comparison with other disciplines, see Spalter-Roth, Thomas, and Levine (2000).

tenure-track or postdoctoral positions. Hispanics were the least likely to receive job offers. Asian-Pacific Islanders, despite their fewer job applications, received a similar number of job offers compared to other groups, but they were least likely to obtain their first choice jobs, which were tenure-track academic positions.⁷

It is unclear why the patterns for Asian-Pacific Islanders differ from those for other groups. The composition of the group may provide a partial answer. There were few Asian Americans in the *ASA Survey of Recent PhD Graduates in Sociology*, and the majority of those categorized as U.S. citizens or permanent residents were permanent residents, not citizens. Whatever the reason, this group seems to be less successful in landing tenure-track posts—despite their stronger preferences for such jobs compared to

other groups. Another reason for this lack of success may be that they were less likely to use the *ASA Employment Bulletin*, the major source of job advertisements for tenure-track academic jobs. Moreover, they tended to pursue a narrower job search, submitting a relatively small number of applications as either ABDs or PhDs. Further research is necessary to determine why Asian-Pacific Islanders display such different job search strategies and employment patterns from both whites and other minority group members exiting graduate school.

THE TENURE AND PROMOTION PROCESS

The third step in the pipeline is promotion to the senior levels of the profession, as initially reported in Spalter-Roth et al. (1999). Compared to their representation at the lower rungs of the academic ladder, the percent of African Americans, Hispanics, and

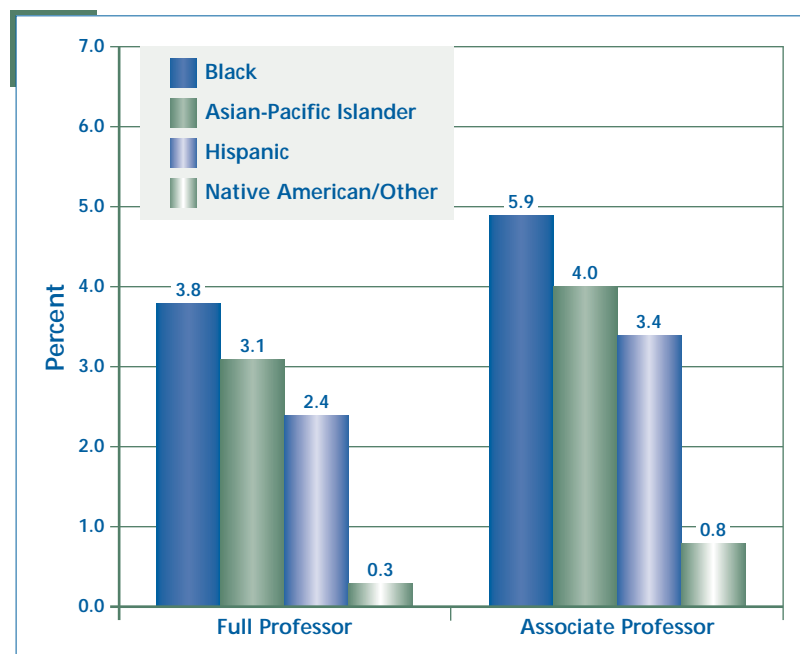


Figure 1. Percent of Minorities Among Full-Time Faculty in Graduate Departments of Sociology, Selected Ranks, 1998

Source: American Sociological Association, 1998 Survey of Graduates of Sociology.

⁷ Two-thirds of Asian Pacific Islanders who did not obtain their first job choice would have preferred a permanent faculty position, compared to 43 percent of whites, 39 percent of blacks, 57 percent to Hispanics, and 20 percent of Native Americans.

Asian-Pacific Islanders is still relatively small at the higher rungs of the academic ladder, especially at the rank of full professor (Figure 1). Spalter-Roth et al. (1999, p. 5) suggested two reasons for this finding. The first reason was cohort differences: The proportion of minority group members was much smaller among older cohorts of PhD graduates at the lower stages of the career pipeline, so even fewer made it to the top. The second reason was labeled as “business as usual” hiring and promotion practices that, prior to affirmative-action efforts, favored whites.

Whites, who made up 83 to 84 percent of the new sociology PhDs in 1978 and 1988, accounted for 91 percent of the full professors in the 1997-1998 academic year. For blacks, because their share of new sociology PhDs was about 5 to 6 percent in 1978 and 1988, one would have expected a somewhat higher percentage of African American full professors by the 1997-1998 academic year than 3.8 percent. Although their numbers are small, Hispanics also accounted for almost 5 percent of the sociology PhDs in 1988, but only 3.4 percent held the rank of associate professor in graduate departments in the 1997-1998 academic year. There are also few Asian-Pacific Islanders at the top rungs of the academic ladder, although their share of the higher ranks matches their share of PhDs in earlier years.

The increasing numbers of blacks and Asian-Pacific Islanders at the PhD level suggest that these groups should advance to the top rungs of the academic ladder as the older cohorts of PhDs dominated by whites retire. Also, the career prospects of minority groups should further improve as discriminatory promotion practices of the past are abandoned and as the mentoring of minorities continues to increase throughout the career pipeline.

CONCLUSIONS

There are some signs of increased equal opportunity in the sociology pipeline. The data suggest that sociology has done comparatively well in bringing African Americans into the academic career pipeline as doctoral recipients, as initiators of successful job search activities, and as persons obtaining tenure-track or postdoctoral positions. The picture appears less positive for blacks attaining senior-level academic positions thus far. Hispanics have done comparatively less well in sociology: Their share of PhDs remains small, and the job-search process appears to result in less success when compared to other minority groups. The number of Asian-Pacific Islanders in the sociology career pipeline has been growing steadily; yet, there appears to be some failure to make full use of the job-search process to obtain their first-choice jobs, possibly because most of them are permanent residents whose experience in the pipeline is different from those who are U.S. citizens.

The numbers of U.S. minorities in sociology and other social and behavioral science disciplines remains small (with the exception of Asian-Pacific Islanders in economics), despite their steady increase in the population. To overcome “token” status and to expand the core fields and paradigms of these disciplines, their representation needs to increase to keep pace with demographic changes in the United States. These disciplines can look to a largely untapped pool of minority BAs (almost 34,000 in 1997) that could be brought into the career pipeline. Also, the continuing increase in PhD recipients who are not citizens or permanent residents, but who stay in the United States, should increase the diversity of these professions.

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