

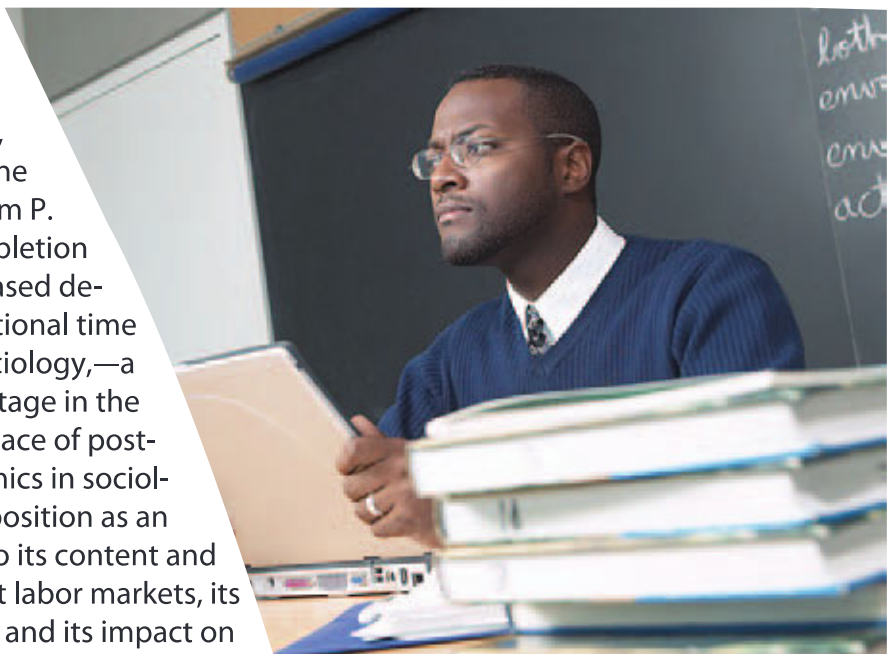
POSTDOCTORATES: ANOTHER STAGE IN THE SOCIOLOGY PIPELINE?

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Higher education has seen many changes that affect newly-minted PhDs. These include the constriction of the academic job market for PhDs, the increased number of publications required for tenure, the effort to shorten the years to PhD (referred to as the end of what City College of New York President William P. Kelley refers to as the “roach motel” view of PhD completion (Flaherty 2013). These changes may result in an increased desire for specialized training beyond the PhD and additional time to become more competitive in the job market. In sociology,—a field that has not traditionally used the postdoc as a stage in the career trajectory—there is increasing interest in the place of postdoctoral training in the discipline. Do aspiring academics in sociology need this additional step before qualifying for a position as an assistant professor? More general questions arise as to its content and structure, its role in providing a job alternative in tight labor markets, its preparation of new PhDs for cutting-edge specialties, and its impact on the current structure of the profession. In 2010, the American Sociological Association’s (ASA) elected Council approved a Task Force on the Postdoctorate in Sociology that would study the current status and content of the postdoc compared to other disciplines, and the longer-term impact of expanding this type of position in the discipline. However, little information exists about the role of the postdoc and its implication for sociology’s future. This data brief—based on information found in three datasets—provides preliminary information about the experiences of a small group of postdoctorates and the scope and type of postdocs available to sociologists.



THE BIOLOGICAL SCIENCES: A POTENTIAL MODEL FOR SOCIOLOGY?

The postdoc appears to be an institutionalized stage in the natural and physical science pipeline. The largest number of postdocs is found in the biological sciences. According to a recent study conducted by the National Academy of Sciences (NAS) titled *Bridges to Independence: Fostering the Independence of New Investigators in Biomedical Research* (2005), the “ideal type” of postdoctoral grant in the biological sciences is for independent research conducted by a person who is a recent PhD. Its purpose is to deepen their scholarship and research techniques in a specialized subject area, often one that is previously unexplored. Yet, the report suggests that many postdocs in the biomedical sciences do not meet this model. Many

postdocs serve for more than five years, move from position to position, and are well into their 40s before they move on to faculty positions, if such positions are available. The report comments further that many of these postdocs are working on projects funded to support the work of senior researchers. As a result, there is a lack of “high risk, high-reward work” by postdocs that could move the discipline forward (p. 2). The National Academy of Sciences study recommends that it is important to shorten the length of postdocs and to increase their independence, rather than using them as a low-wage, contingent labor force.

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LEARNING ABOUT THE POSTDOCTORATE IN SOCIOLOGY

In contrast to postdocs in the biological sciences, what do we know about the postdoc in sociology and especially compared to other disciplines? Does sociology as a discipline wish to adopt or modify the biology model, or is there another model? Or, should the postdoc be avoided as a stage in the sociology career trajectory?

DATASETS

As noted, three datasets were used in this analysis of the postdoc in sociology. Each has a different unit of analysis. The first is based on an evaluation of the impact for participants in a small National Science Foundation (NSF)-funded and ASA-managed fellowship program designed to be a model for postdoc programs in sociology. The second is based on a national sample of those who have postdoctoral positions. And, the third dataset is based on the postdoctoral positions advertised in the ASA Job Bank. Each dataset is described below.

1. Evaluation of a National Science Foundation/American Sociological Association Postdoctoral Fellowship Program

An example of an “ideal type” of postdoc in sociology might be similar to the small NSF-funded competitive program run by ASA in which the selected postdocs complete a two-year, independent research project under the tutelage of a senior scholar in economic sociology. This research is centered on “the causes and consequences of the Great Recession.” This program has had two major purposes. The first has been to provide an alternative for new PhDs to a poor job market, and the second has been to create a cohort of new PhDs who would work with established scholars to further develop and enrich the subfield of economic sociology. ASA has been responsible for evaluating the program. In the first round of the program (2010-2012), three online surveys were sent to the six chosen postdocs and an additional three interviews were sent to the 30

candidates who applied to the program but were not selected.

2. The NSF/NIH Survey of Graduate Students and Postdoctorates in Science and Engineering

The *Survey of Graduate Students and Postdoctorates in Science and Engineering* is a biennial census of all known academic institutions in the United States that grant master’s degrees or research doctorates in science and engineering fields (including sociology) and also in selected health fields. The data collected in 2009 represent national estimates of graduate student enrollment and postdoctoral employment. The survey universe consisted of 703 schools at 575 academic institutions. Data collected included demographic and funding information for graduate students and postdocs.

3. The ASA Job Bank

Each year, the ASA Research Department receives a listing and a description of positions advertised in the ASA Job Bank, run by the ASA Membership and Publications Departments. These position announcements include type of position, a description of the position, and any desired characteristics of applicants such as fields of specialization. To create the database that is used for the job market study, the ASA research staff first examines each posting, verifies whether any employers submitted an announcement for the same position more than once, and categorizes the unduplicated advertisements by type and characteristics of each position. One such type is advertisements for postdoctoral positions.

FINDINGS

NSF/ASA POSTDOCTORAL FELLOWSHIP PROGRAM

As a whole, the 2010-2012 cohort of the NSF/ASA Postdoctoral Fellowship Program reported several successful outcomes as a result of the Program, since recipients moved on to other career opportunities predominantly in academic settings. All of the six recipients expressed high levels of

satisfaction with the opportunities and advantages of the Fellowship. The two aspects that they thought were most valuable were publishing a book based on their dissertation and help in the academic job search. All six Fellows presented papers and prepared and submitted publications based on their dissertations. All six Fellows reported obtaining full-time (but not necessarily permanent) professional positions upon completion of their Fellowships. However, only two out of six Fellows obtained permanent tenure-track teaching positions at a university or four-year college—the “ideal” academic position. Another two accepted a second postdoctoral position, one obtained a (full-time) non-tenure-track teaching position, and another one obtained a position as director of a university-affiliated international research center. It may be that the job market—though it had improved from its lowest years—was still not strong enough to provide the kinds of positions these postdocs were seeking (see ASA’s analysis of the 2011/2012 job market by Spalter-Roth, Kisielewski, and Jacobs; 2012). The primary means by which the six 2010-2012 Fellows discovered their new/forthcoming positions varied greatly, but it was not their postdoctoral faculty mentor. Two cited a colleague as the primary means, but the remaining four either relied upon a PhD mentor, the *Chronicle of Higher Education*, a job bank, or a listserv or web site.

Along with the six recipients who were awarded a postdoc, an additional 30 applicants were not awarded one. Of these, only 12 percent reported that they had found a tenure-track assistant professor position, with the remainder continuing in postdocs or holding teaching positions that were either part-time or visiting, or being in research positions at university institutes. Although they received less mentoring than the ASA/NSF Fellows, they appeared to have relatively high publication rates, although not as high as those who went through the ASA/NSF program. These data suggest that that participating in the prestigious ASA/NSF program does appear to make a difference for these individuals in terms of

publication rates, access to mentors, and the next stage in their careers, but these findings clearly cannot be generalized.

NSF/NIH SURVEY OF GRADUATE STUDENTS AND POSTDOCTORATES

The data from the NSF/NIH Survey of Graduate Students and Postdoctorates in Science and Engineering shows that the total number of postdocs for all fields has increased from 2002-2008 by about 24 percentage points, from 46,700 postdocs in 2002 to 57,714 in 2008 (see Figure 1). There was significant variation between fields, however, with some showing a steady increase and others fluctuating over time. As noted, the largest number of postdocs was found in the biological sciences, since this is an institutionalized step on the biology career ladder. Within the biological sciences, the largest increase (about 84 percent) is in biological sciences—not otherwise classified (nec). The postdocs found in this subcategory may be cutting-edge new subfields of biology that have not as yet become institutionalized. In contrast to the biological sciences, the changes in the social sciences fluctuate between these years, with increases in some years and decreases in others.

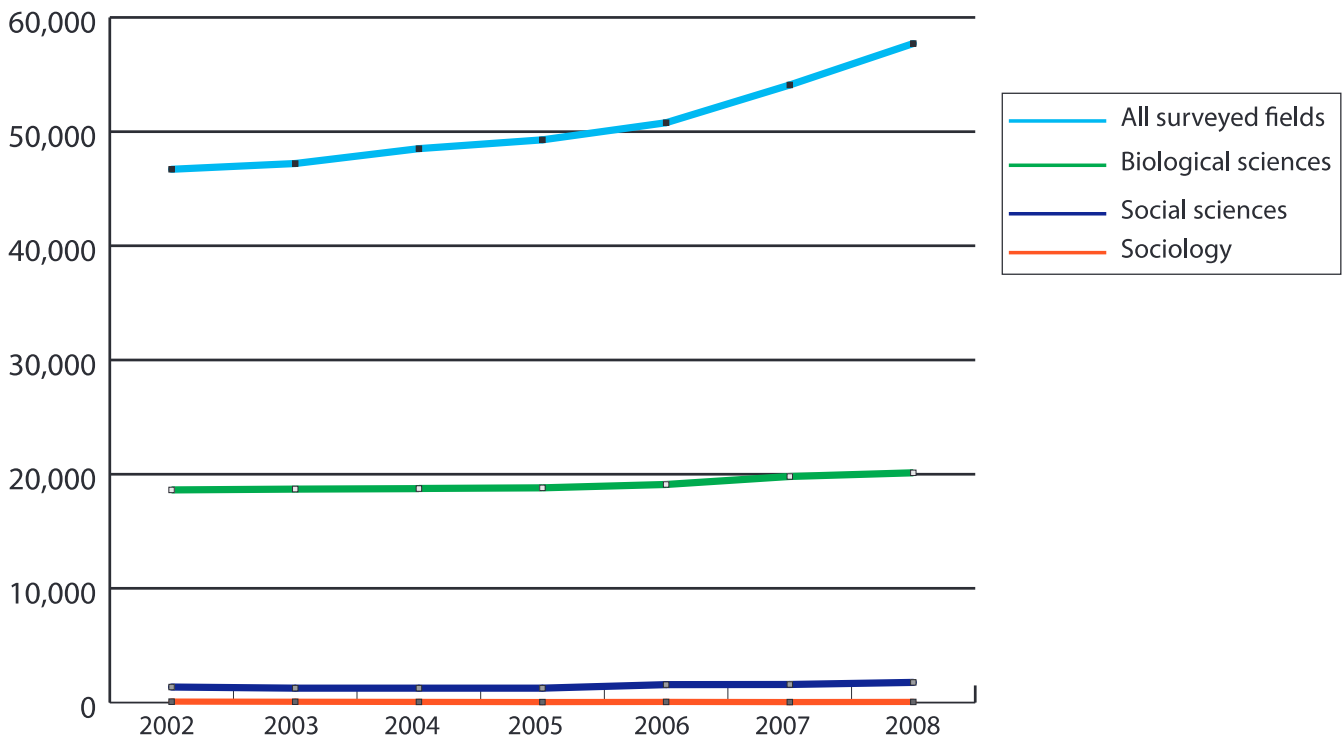
“This is a great opportunity to build new area(s) of expertise and launch post-dissertation research. Really appreciate the meetings at ASA both last year and this year—ideal for forging ties among postdocs and forging ties.”

Across all social sciences (not including psychology), the number of postdocs dipped between 2003 and 2005, but it increased thereafter for a 39 percent increase overall. Likewise in sociology, there were no consistent patterns of increase or decrease in the number of postdocs filled. Overall, there was a 20 percent decline in the number of postdocs between 2002 and 2008. In contrast to the decline in sociology, there was an almost equal percentage increase in multidisciplinary postdocs, although data are only available for 2007 and 2008. These figures do reflect the growth of interdisciplinary fields in the academy.

ASA JOB BANK

Compared to the number of teaching positions available to assistant professors in the four years between 2008-2009 and 2011-2012, there were rela-

Figure 1. Postdoctoral Appointees in All and Select Disciplines, from Doctoral Degree-Granting U.S. Institutions: 2002-2008.



Source: National Science Foundation. 2011. Graduate Students and Postdoctorates in Science and Engineering: Fall 2009, Table 69. Available at www.nsf.gov/statistics/nsf12300/content.cfm?pub_id=4118&id=2. Accessed 8 Feb 2013.

tively few postdocs (1,730 vs. 326,¹ respectively), or four percent of academic positions available to new PhDs, further suggesting that the postdoc does not appear to be an institutionalized stage in the sociology pipeline (Spalter-Roth, Kisielewski, and Jacobs 2012). Based on a content analysis of the 326 advertisements for postdocs, we divided them into several types. The first division was whether the position was research-oriented, a combination of research and teaching, or primarily geared to teaching. A second distinction was between advertisements for postdocs for sociology projects and postdocs for interdisciplinary projects. The latter type of advertisements might have desired a sociology specialist for an interdisciplinary project or it may be that other PhDs from other disciplines could apply, and there is no guarantee that a sociologist will have been hired for the position. Finally, a third distinction was whether the position was to be performed individually or collaboratively (see Table 1 for the number of postdoc positions advertised by type).

Not all of these decisions as to how to label positions were crystal clear—especially those that advertised teaching-oriented postdocs. Given this problem, the findings may not be totally reliable. This problem aside, Table 1 suggests that 193 (or 59 percent) of these positions were research-oriented. An additional 118 (or 36 percent) were a combination of research and teaching positions. Most of these were like the NSF/ASA Postdoctoral Fellowship, which include working on research projects, but also teaching at least one course. A substantially smaller share of positions was for teaching only. It is unclear whether these positions are substitutes for adjunct or full-time faculty, or are a training position. Equal numbers of positions were collaborative versus independent, with fewer than half as many described as a combination of both (33 positions versus 80 and 80, respectively). In general, the number of interdisciplinary positions, regardless of type of work, is substantially higher than the number of sociology positions (64 percent versus 36 percent of all positions). In sum, the largest type of positions is re-

¹An earlier version of this brief reported an undercount of postdoctoral positions at 73.

Table 1. Postdoctoral Fellowship Advertisements in the ASA Job Bank: 2008-2011.

	Collaborative ^a	Independent ^b	Collaborative/ Independent ^c	Total	Percent of Total
Research Based^d	80	80	33	193	59%
Sociology	29	22	11	62	
Interdisciplinary ^e	51	58	22	131	
Research and Teaching Combination^f	17	71	30	118	36%
Sociology	9	27	11	47	
Interdisciplinary	8	44	19	71	
Teaching Based^g	--	15	--	15	5%
Sociology	--	11	--	11	
Interdisciplinary	--	4	--	4	
Total	97	166	63	326	100%

Source: ASA Job Bank Database, 2011.

^aCollaborative: Research involves working with faculty and/or other students.

^bIndependent: Recipients are expected to complete their own research projects.

^cCollaborative/Independent: Recipients are expected to collaborate with faculty and other students on research projects as well as complete their own research.

^dResearch based: Recipients are required to complete their own research/dissertations and/or support faculty/others in carrying out research projects.

^eInterdisciplinary: The position requires one to participate in research/work that crosses disciplinary boundaries or makes use of multiple knowledge fields outside of sociology.

^fResearch/Teaching: Recipients are required to complete research projects in addition to teaching at least one course per semester.

^gTeaching based: Recipients are expected to teach at least one course per semester with no research requirements.

search-based interdisciplinary positions, to be done collaboratively, independently, or a combination of both. In contrast to research positions, research/teaching combination positions were split almost evenly between sociology and interdisciplinary, with the majority requiring the recipient to work independently—that is—to teach their own courses.

SUMMARY AND NEXT STEPS

In sum, what do we know about the postdoctorate in sociology compared to other disciplines? Based on the NSF/NIH and the ASA Job Bank databases, we find that compared to the steady growth in the natural sciences, the growth of the postdoc in sociology is sporadic and is far from being an agreed-upon stage in the sociology career trajectory. The small NSF-funded, ASA-managed and evaluated, two-

year Postdoctoral Fellowship Program provides for stipends, space, and mentoring for those selected to do independent research on a topic of current interest in sociology. This model varies from what appears to be the common—rather than the ideal model in the biological sciences. Thus, if the NSF/ASA program in sociology is taken as a model, it would be a modification of the common, but not the ideal, model in the natural sciences. However, sociology as a discipline cannot control the postdoc market for its new PhDs and the types of postdoctoral positions that are advertised. Findings from the ASA Job Bank suggest that the demand is more likely to be for postdocs who would do interdisciplinary work rather than focus on sociology alone.

The ASA Research Department—with the guidance and help of the ASA Task Force on the Postdoctorate

in Sociology—intends to continue to examine the effects of the postdoc on sociology career trajectories. Some questions to examine, at least anecdotally, are whether PhD graduates apply for postdocs because they need more mentoring than they receive as part of their PhD programs in order to obtain full-time, tenure-track positions in the profession. Or, is a postdoc a substitute for a full-time position? Is it a space and time to increase numbers of publications? Are those who have held postdocs more successful in achieving professional goals such as publications, grant receipt, tenure, and promotion than those who did not obtain these positions? Or does participation in a postdoc program lengthen the time to tenure, without other visible rewards? How should PhD students be trained and prepared for interdisciplinary postdocs? And, what data are available or easily collected that would allow these questions to be answered and would help concerned members of the discipline to decide whether to encourage postdocs, and particular models of postdoctoral training, as a stage in the sociology career trajectory?



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