

WOMEN ARCHIVISTS IN THE FEDERAL GOVERNMENT: A GLASS CEILING?

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ABSTRACT: The status of female federal archivists in 1992 shows considerable improvement over their status in 1974. Nevertheless, their numbers and representation in mid- and upper-level positions remain lower than that of male federal archivists. The lower numbers furthermore constitute a pipeline problem: Fewer women than men are in position for promotion to the highest levels. This study finds that years of government service and education, two of the most important factors in career advancement, account for only a small portion of the disparity between men and women archivists. Any glass ceiling that exists, therefore, must depend on other factors.

Over the last two decades, the number of women employed by the federal government greatly increased, and women's representation in white-collar, executive branch jobs grew from 41 percent in 1974 to 48 percent in 1990. Yet a study by the U.S. Merit Systems Protection Board found that federal women still hold a small percentage of high-level positions and that a "glass ceiling," subtle barriers bearing no relationship to women's qualifications, limits women's advancement.¹ Has this been true for women archivists in the federal government? This study compares the status of federal women archivists in 1974 and 1992. It further presents results with a comparison group: women professionals and administrators in the federal government as a whole in 1974 and 1990, as reported in the U.S. Merit Systems Protection Board's study, *A Question of Equity: Women and the Glass Ceiling in the Federal Government*.

The *Glass Ceiling* study and this current statistical study of archivists draw on data compiled by the U.S. Office of Personnel Management (OPM). The OPM's Central Personnel Data File (CPDF) is a computerized database with information on approximately two million civilian employees. Most employees of the executive branch are included, with exceptions such as the Central Intelligence Agency, but not all employees from the judicial or legislative branch are included in the database.² The CPDF is scheduled by the U.S. National Archives and Records Administration for permanent retention, and the Center for Electronic Records currently holds data from 1973, when the file began, through 1984. This study used the file from 1974, and OPM made an extract from its December 1992 file for this study.³

Some explanation of federal job classifications and grade levels will help in understanding this study. Each federal job category (archivist, librarian, historian, etc.) is assigned a job classification number, and archivists are number 1420 in any federal agency. Besides being assigned a job classification number, each federal employee has a grade level rating from grade 1, with the lowest pay level, through grade 18, the highest pay level. Since 1978 most grade 16-18 positions have become Senior Executive Service, or SES, positions. A job classification is often linked to a minimum grade level for entry and also may have a career ladder of advancement through several grades. For example, at the National Archives a typical archivist with a Master's degree enters at grade 7. With one year of training and satisfactory performance, the archivist becomes a grade 9 and in another year a grade 11, the journeyman level. Beyond that, promotions in grade level are competitive.

This study uses the SAS or Statistical Analysis System and includes all archivists in the OPM files: 290 in 1974 and 479 in 1992. The OPM files show that archivist positions in the federal government exist overwhelmingly at the National Archives: in 1974, 95 percent and in 1992, 92 percent. Archivists in

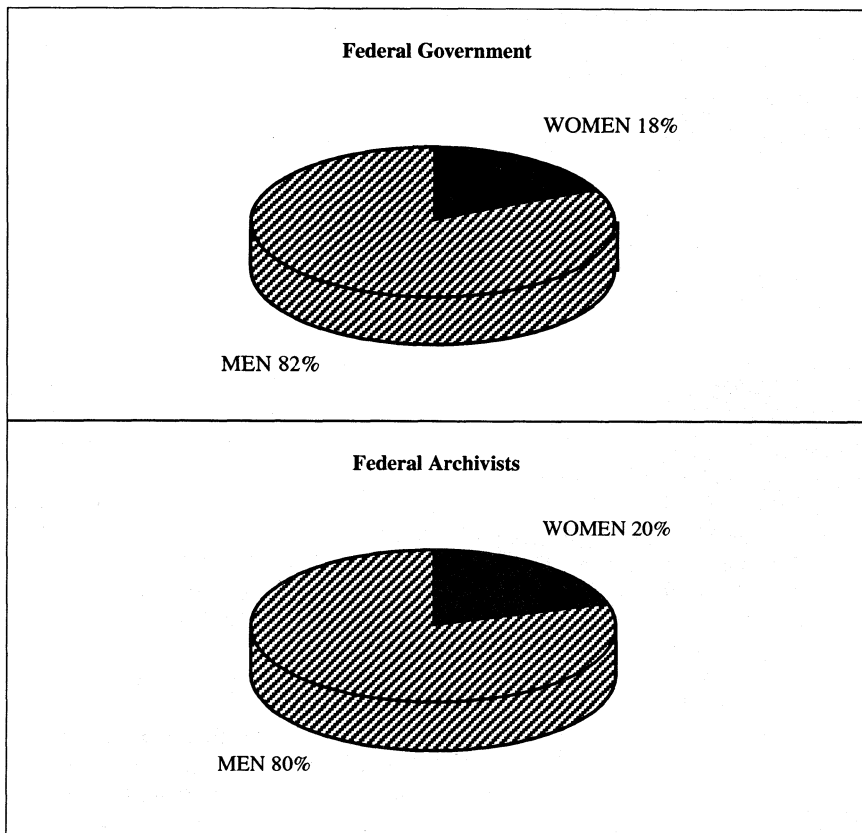


Chart 1
Percentages of Men and Women Employees, 1974

other agencies are spread widely throughout the government, typically no more than one or two per agency for 1974 and 1992.⁴

This study discusses federal female and male archivists in 1974 and 1992 in the following categories: numbers and percentages, grade levels, years of government service, education, and the correlation between sex and grade level. The study concludes with a discussion of other factors.

Numbers and Percentages

Chart 1 shows the numbers and percentages of female and male federal workers and federal archivists in 1974. In the federal government as a whole, women were 18 percent of professional workers and men were 82 percent. That same year women were 20 percent of federal archivists and men were 80 percent. Archivists numbered 290: 59 women and 231 men. Chart 2 shows that in 1990 women professionals in the federal government were 34 percent and men were 66 percent. Percentages for women archivists in 1992 were almost the same: 35 percent women and 65 percent men. There were 479 archivists in 1992: 168

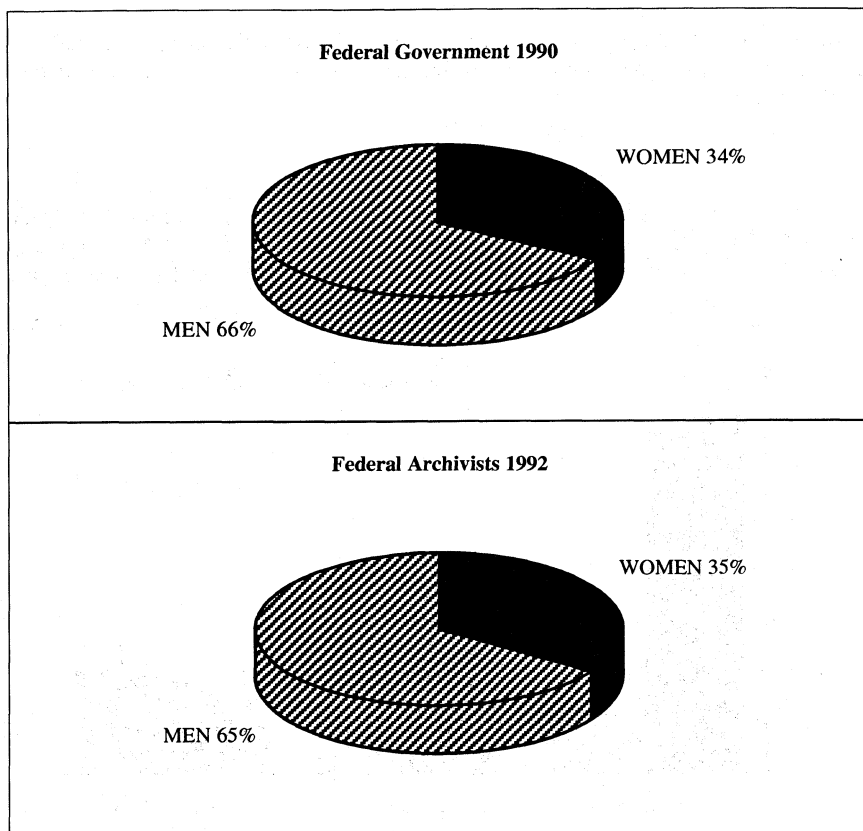


Chart 2
Percentages of Men and Women Employees

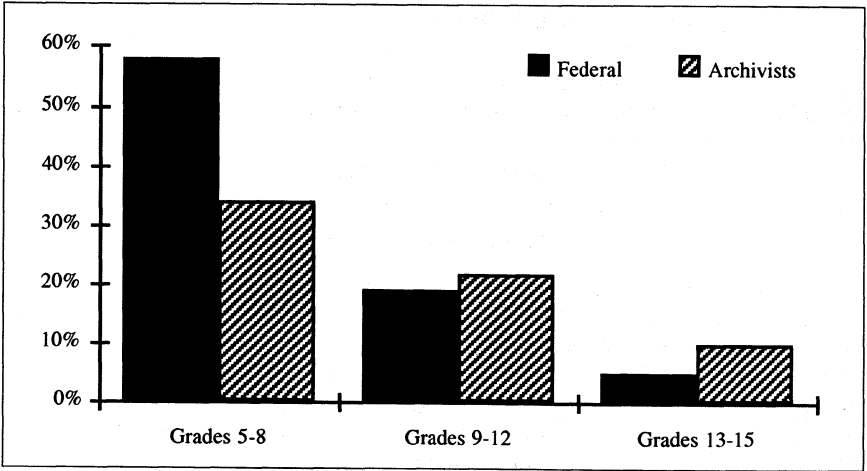


Chart 3
Women Within Grade Level Groupings, 1974

women and 311 men. As is evident, the ratio of male to female federal archivists parallels the ratio shown in the larger picture of the professional federal workforce.⁵

Grade Levels

Chart 3 shows the distribution of women in the federal government in grade levels 5-15 in 1974, with a concentration of women in grades 5-8.⁶ The notably lower percentage of women archivists in grades 5-8 undoubtedly reflected the

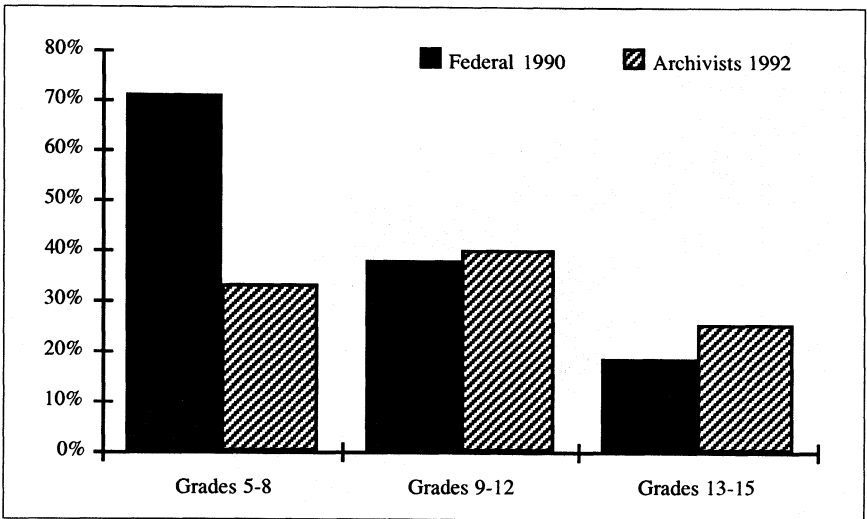


Chart 4
Women Within Grade Level Groupings

career ladder mentioned earlier, which is an almost automatic promotion to the archivist journeyman level of grade 11. Not all job series had or have a career ladder. Women archivists also outranked other federal women in grades 9-12 and grades 13-15, although the latter category for archivists included only seven women. By 1990, federal women as a whole, and by 1992 women archivists, notably increased their representation in mid- and upper-level positions (see chart 4). Federal women doubled their representation at grades 9-12 and tripled it at grades 13-15. The increase for women archivists was not as dramatic but shows much improvement.

Chart 5 shows mean grade levels for archivists. In 1974 the mean for women was 10.47 versus 11.11 for men, a difference of .64. In 1992 the mean grade levels were 11.22 for women and 11.60 for men, a difference of .38. The less than one-half grade level difference in 1992 is not glaringly inequitable, but it does matter. Each grade has a pay scale, and a higher grade means a higher salary. Thus, women earn less money than men.

Perhaps of more importance, not as many women as men are in position for promotion. In the federal government, an employee must have one year in grade before promotion to the next higher grade. Although women archivists considerably improved their representation in higher grade levels from 1974 to 1992, men still occupy 68 percent of those positions (see chart 6).⁷ Furthermore, the actual numbers of women reflect the "pipeline" problem, that is, lower numbers of women than men in position for promotion. For example, at grade 14 in 1992, twice as many men as women could be promoted to grade 15; at grade 13 three times as many men as women were in position for promotion to grade 14.⁸

Years of Government Service

One of the most important factors in career advancement is years of government service. Those at the highest grade levels generally have more years.⁹ As

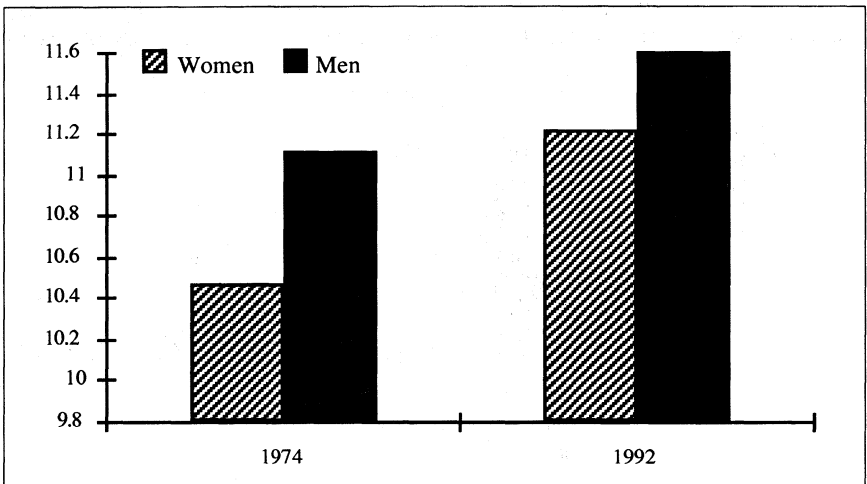


Chart 5
Archivists Average Grade Levels, 1974 and 1992

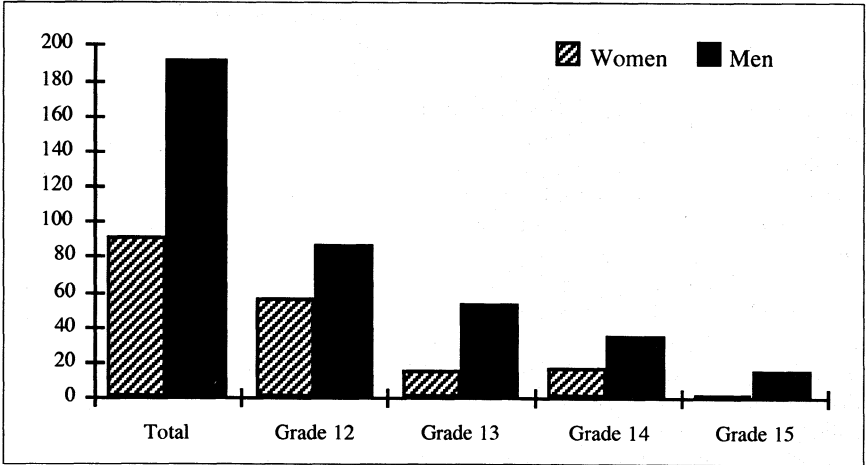


Chart 6
Number of Archivists, Grades 12-15, 1992

chart 7 indicates, women archivists have fewer years of federal service, 12.8, than women professionals in the government as a whole, who have 13.7 years of government service.

In 1974, as shown in chart 8, the mean for women archivists was 11.46 years of government service; for men the mean was 12.96 years. In 1992 the mean was 12.84 years for women and 16.95 years for men.

Women and men archivists were closer in length of service in 1974, with a one and one-half year average difference, yet further apart in representation in higher grade levels as shown earlier. In 1992 the disparity between men and women archivists in length of service grew larger, to slightly over four years difference, yet women were much better represented at higher grade levels.

The statistical correlation between the two variables in 1974 and 1992 offers some explanation (see chart 9). A perfect correlation is 1. For archivists in

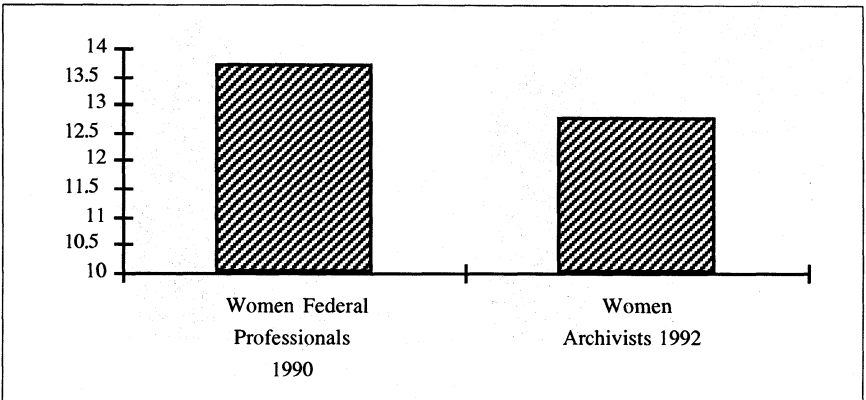


Chart 7
Average Years of Government Service

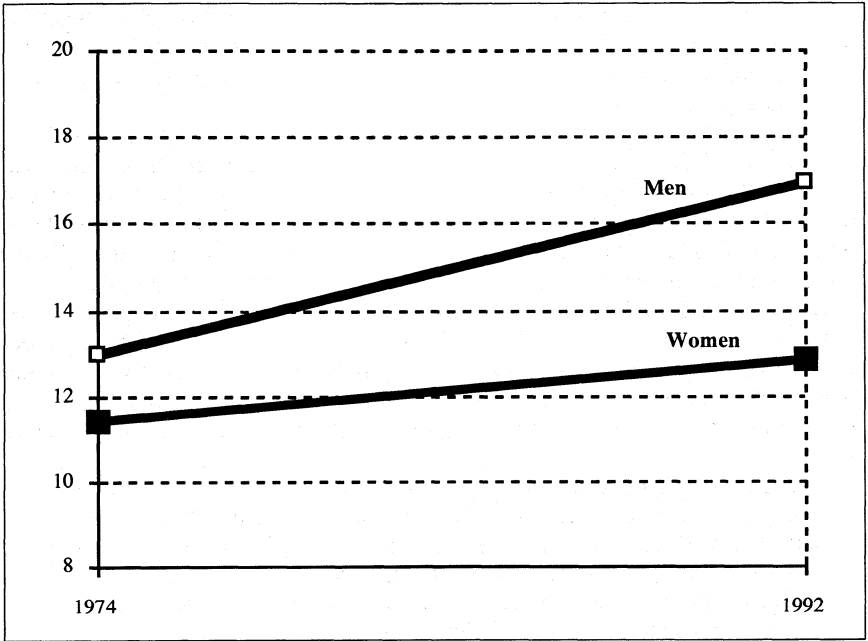


Chart 8
Archivists Average Years of Government Service, 1974 and 1992

1974, the correlation was .43 and in 1992 the correlation was .34. While the former is more meaningful statistically than the latter, years of government service as a determinant of grade level has diminished, and by 1992 was much less important than in 1974.

Education

A second important factor in advancement in the federal government is education, and those with the most formal education generally occupy higher

CORRELATIONS		
	1974	1992
	Grade Level	Grade Level
Years Government Service	.43	.34
Education	.03	.24
Sex	.11	.08

MODEL		
Grade Level = Govt. Service + Education + Sex		
r ²	1974	.22
r ²	1992	.55

Chart 9

grades.¹⁰ As chart 10 indicates, women archivists have notably more education than their federal counterparts. Except for those with less than a bachelor's degree, women archivists earn two-thirds of a grade less, or with a doctorate one whole grade less, than their sister federal workers.

Chart 11 shows the comparison of women and men archivists and educational level: in 1974 the mean educational level for women was 16.42 and for men 16.97, both just under a Master's degree, which is 17. The difference between men and women was .55, about one-half year of education. In 1992 the educational levels widened between men and women, 15.62 for women and 16.74 for men, with a difference between them of 1.12, or just over one year of education.

As shown earlier in chart 9, the correlation between educational level and grade level was weaker in 1974, (.03), when both men and women had more education, and the correlation was stronger in 1992 (.24), when both men and women had less education. Educational level is not strongly related to grade level in either case and is even less relevant to grade level than length of federal service.

The *Glass Ceiling* study found that the amount of formal education has become less of a distinguishing factor for promotion than in the past, probably because the work force in general has attained higher levels of education in the last two decades.¹¹ This is not true for archivists, who have less education than in the past. Nevertheless, education as a factor for promotion for women archivists also appears to have little importance.

Correlation Between Sex and Grade Level

After running correlations for years of government service and educational level as determinants of grade level, sex as a determinant of grade level was

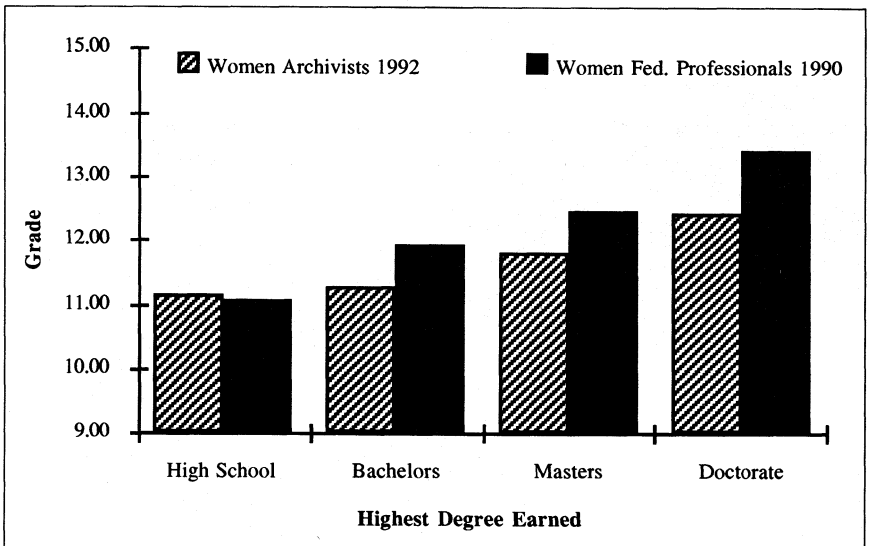


Chart 10
Average Grade Level by Highest Degree Earned

then added (see chart 9). The correlation between sex and grade level was stronger in 1974, which is not surprising given the generally lower status of women archivists then. In 1992 the correlation between sex and grade level was weaker, and in both years the statistical correlation is weak. In fact, the model to assess the importance of three variables—federal service, education and sex—as determinants of grade level is statistically not a very good one. The strength of the relationship among variables for the model were .22 for 1974 and .18 for 1992. We can interpret this to mean that the model for 1974 indicates that 22 percent, and for 1992 18 percent, of the variation in grade level is explained by years of federal service, education and sex operating jointly.

Other Factors

The disparity between men and women archivists and grade level must depend, then, on factors other than years of government service and education. The *Glass Ceiling* study found factors in addition to government service and educational level that contributed to women’s lack of equity, such as the number of promotions for women and men. “Men received an average of 3.92 promotions during their Federal career, while women have received an average of only 3.15 promotions...a significant difference.”¹² The *Glass Ceiling* study explored still other factors, including mobility, job commitment, expectations of work and family, mentors and networks, and attitudinal issues such as stereotypes, expectations, and perceptions. The study found these issues significant in explaining why federal women are not promoted as often as men and are per-

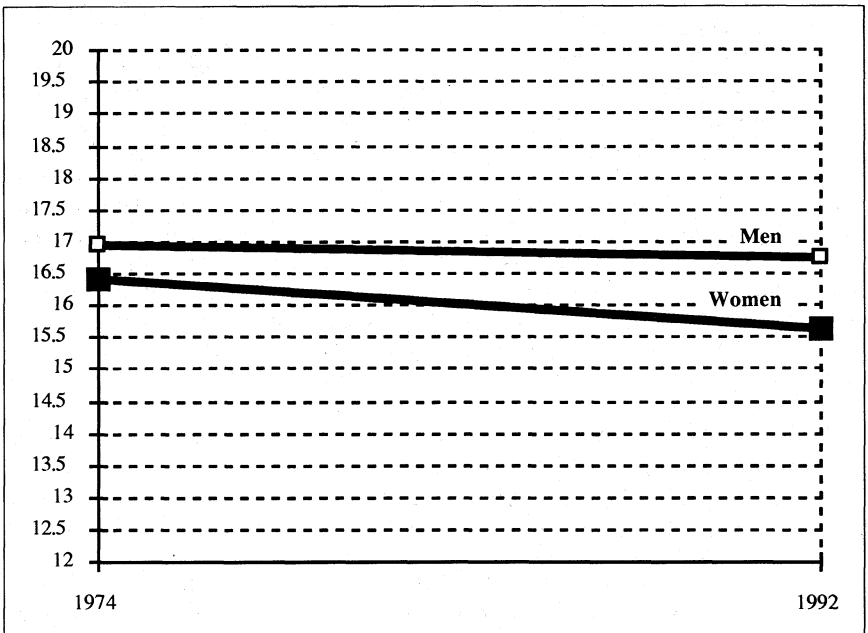


Chart 11
Archivists Average Educational Level, 1974 and 1992

ceived not to be promotable.¹³ The study derived this information from a government wide survey and focus groups. An exploration of these other factors for women archivists as a subgroup of federally employed women professionals would, however, more fully determine the extent to which a glass ceiling exists for federal women archivists. Unfortunately, such data about women archivists are unavailable.

The increase in representation from 20 percent in 1974 to 35 percent in 1992 shows progress for women federal archivists. But women are already 48 percent of the federal workforce as a whole in 1990, and over 50 percent of the archival profession.¹⁴ Furthermore, as noted earlier, women archivists hold only 32 percent of positions in grades 12-15, those beyond the journeyman level. Again, this is great improvement over 1974, but the lower representation for women in 1992 still results in a pipeline problem, the lack of numbers of women in position for promotion to higher graded positions.

This situation seems unlikely to improve in the coming years. The *Glass Ceiling* study used a mathematical forecasting model to project how the grade-level distribution of women relative to men will change over the next 25 years. The results of applying the model show that "by the year 2017, women will comprise over half of the [federal] workforce, but will continue to hold considerably less than half of the jobs in grades above GS 12. Twenty-five years from now, if current trends continue, women will still hold less than one-third of senior executive jobs, and only slightly more than one-third of GS/GM 13-15 jobs."¹⁵ Given the close statistical parallel of federal women archivists and women in the federal government as a whole, as noted in the prior discussion, this forecasting model might apply to women archivists as well. The projections may be optimistic, however, because they assumed an increase in the number of higher-graded positions.¹⁶

Since this study was compiled, the federal government has launched the National Performance Review (NPR), also known as the reinventing government initiative. One major objective is to reduce the federal workforce, particularly in middle- and upper-level management. Agencies subsequently have offered incentives for employees to leave, such as early retirement and "buy-outs." How the NPR will affect federal women employees or federal women archivists is unclear. At the National Archives, 15 employees in the 1420 Archivist job series took the buyout in 1994. Two-thirds were men; one-third were women.¹⁷ While these statistics are too small to provide helpful information, women archivists might benefit if these percentages held with larger numbers. Whether a shrinking federal employment market enables women archivists to increase their representation as a whole or in middle- and upper-level positions remains to be seen.

This study of women federal archivists at two points in approximately 20 years raises some questions. The question of why women federal employees, and women federal archivists, grew in numbers and improved their status is probably answered by larger demographic changes: women in society as a whole increasingly moved into the paid workforce and achieved higher positions in the last twenty years than they had before that time. The role of affirmative action in the federal workplace is unclear, although the Civil Service Reform Act of 1978 called for eliminating the under-representation of women at all levels in the federal government. Federal women professional employees and

federal women archivists are not equally represented at all levels, although progress has been made. The low representation of women archivists in 1974, only 20 percent of the archivist positions, raises the question of whether any measure short of hiring and promoting only women would have resulted in equal representation in 20 years. Such a measure was not taken in the past, and surely would not be taken now or in the future. Finally, the question of whether a glass ceiling exists for federal women archivists cannot be answered fully without more research. Like the *Glass Ceiling* study, which found that the amount of education and years of government service explained only some of the imbalance between men and women in higher grades, this study also found that these two factors do not explain much about the imbalance between men and women federal archivists. Similarly, since the *Glass Ceiling* study found that women federal workers “face unfounded stereotypes and assumptions about their abilities and job commitment that serve as subtle barriers to their advancement,”¹⁸ research which explores whether women archivists also face similar barriers will help answer the question of whether a glass ceiling exists for them.

ABOUT THE AUTHOR: Linda J. Henry is an archivist at the Center for Electronic Records of the U.S. National Archives and Records Administration. She presented a version of this article at the fifty-seventh annual meeting of the Society of American Archivists in New Orleans in September 1993 and at the Fall 1994 meeting of the Mid-Atlantic Regional Archives conference in Richmond, VA. She thanks Thomas E. Brown, who suggested this study because it would help her in work with statistical databases as well as providing information about women archivists. She also thanks Alice Lausier, Division of Computer Research and Technology at the National Institutes of Health, and colleagues at the Center—Thomas Southerly, Mark Conrad and Don Smith—for their help and patience. This article does not reflect the views of the U.S. National Archives and Records Administration.

NOTES

1. *A Question of Equity: Women and the Glass Ceiling in the Federal Government, A Report to the President and the Congress of the United States by the U.S. Merit Systems Protection Board* (Washington, DC: U.S. Merit Systems Protection Board, 1992), ix, 1, hereafter *Glass Ceiling*.
2. The Library of Congress, as part of the legislative branch, is not included in CPDF data. The numbers of 1420 employees in both 1974 and 1992, however, were not high enough to affect the percentages in this study. Furthermore, the comparison group, as detailed in the *Glass Ceiling* study, also does not include legislative branch employees. Archivists at the Smithsonian Institution are included in the CPDF data.
3. The CPDF electronic datafile began in 1973. The 1974 file permits direct comparison with the *Glass Ceiling* study. I have treated data from 1990 for federal workers and 1992 for archivists as comparable. I do not think the 2-year difference affects my overall conclusions, however. Expert statisticians may find weaknesses in this statistical study. For example, the study is a snapshot of two years, and does not provide information about the intervening years. However, the *Glass Ceiling* study also uses two years and thus permits a comparison between federal women archivists and federal women at large. In addition to this statistical issue, the *Glass Ceiling* study combines professional and administrative categories. OPM classifies positions by five categories: professional, administrative, technical, clerical, and other. The 1420 archivists are all classified as professional. However, at the National Archives many 1420 archivists are in

managerial positions that other agencies are more likely to classify as administrative rather than professional.

4. The Smithsonian Institution had six archivists in 1974, all men, and 26 in 1992, 14 men and 12 women.
5. The ratio also matches the ratio in the pool from which archivists are drawn, historians. The percentages of women archivists roughly match the percentages of women historians for 1974 and 1992, see Frederic Miller, "Feminization in Related Professions," paper presented at the annual meeting of the Society of American Archivists, New Orleans, Louisiana, 4 September 1993, 10. This is largely predictable, however. Since the archivist job series in any federal agency requires 18 hours of college-level American history courses, history majors are largely the pool for archivists in the federal government. Changes in the pool of potential employees will likely result in changes in employment from that pool.
6. In 1974 there were five grade 16-18 archivist positions, all held by men. In 1992 there were six SES positions, but two were held by women and four by men. These positions are included in this statistical study. They are not shown on this or the following charts, however, because the very small numbers preclude graphic display.
7. The 1992 figures are for archivists in grades 12-15, beyond the journeyman level.
8. Women and men earn the same amount at each step in any grade level. Male and female archivists thus begin the career ladder with equal pay, and both progress to the journeymen level at an equal pace. The disparity between male and female archivists in grade levels in 1992 indicates that more men were hired as archivists and/or that male archivists are promoted more often than female archivists.
9. *Glass Ceiling*, 13.
10. *Ibid.*
11. *Ibid.*, 14
12. *Ibid.*, 13.
13. *Ibid.*, 27-32.
14. Telephone call, Debra S. Mills, Society of American Archivists, to author, 21 February 1995. The figure represents Society of American Archivists members, 55 percent of whom are women. The percentage is probably similar for the profession as a whole.
15. *Glass Ceiling*, 10.
16. *Ibid.*
17. E-Mail message, Felipa Coleman, Equal Employment Opportunity staff, National Archives, to author, 2 February 1995.
18. *Glass Ceiling*, i.