

Accounting Faculty in U.S. Colleges and Universities: Status and Trends, 1993 – 2004

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Executive Summary

The number of accounting faculty declined 13.3% over the period 1988 – 2004. According to National Study of Postsecondary Faculty (NSOPF) data, there were 20,321 accounting faculty (full- and part-time, in all types of institutions) in 1993, and 17,610 in 2004. But as the number of faculty has declined, student (undergraduate) enrollment has increased (12.3%) over the same period. The most serious loss of full-time faculty has occurred at 4-year, non-doctoral-granting universities – amounting to 31% of the 1993 total. There was little change in the number of full-time accounting faculty at both research/doctoral universities and community colleges between 1993 and 2004. There was also very little change in the total number of accounting faculty holding Ph.D.'s.

Accounting is roughly average (among all disciplines) in the proportion of females in tenure-eligible positions, as well as roughly average in the rate at which women have entered the field. However, the total number of female accounting faculty remained almost perfectly stable between 1993 and 2004, while the number of male faculty declined substantially.

The number of accounting faculty over the age of 55 increased faster than the number under the age of 40 during the 1993 – 2004 period. Both this study and Plumlee's (2004) study estimate that the number of retirements is likely to exceed the number of qualified replacements in the immediate future. Given the stability of Ph.D. production at about 140 per year on average, and with retirements estimated at about 500 per year, the production of new Ph.D.'s does not appear sufficient to fill the demand.

Key findings with implications for the future include:

- The total number of accounting faculty (all institutions, all ranks) declined an estimated 13.3% between 1993 and 2004. (Tables 1, 2, and 3). In contrast, business fields other than accounting have added substantial numbers (an estimated 22.6%) during the same period.
- The decline has been principally among male faculty; the number of women accounting faculty has not increased in any significant way, although they are an increasing proportion of all accounting faculty.
- The mean age of accounting faculty increased between 1993 and 2004 (by 3 years for full-time faculty and 5 years for part-time faculty).
- The number of individuals within ten years of "normal" retirement (age 55 and over) increased between 1999 and 2004, while the number of accounting faculty under the age of 40 declined during the same period. (Figures 8 and 9).
- Ph.D. program output has remained relatively steady over the past 10 years (Figure 10). There is no evidence that this level of output will increase sufficiently to replace the Ph.D. retirements estimated to take place over the coming decade.

1. Numbers and status¹.

The number of accounting faculty at institutions offering baccalaureate and higher degrees, both tenure-eligible and not tenure-eligible, is estimated to have declined over the period 1993 – 2004. According to National Study of Postsecondary Faculty (NSOPF) data the decline in full-time tenure-eligible faculty between 1993 and 2004 at these institutions was over 19%. Table 1 (and Figure 1) shows the estimated (NSOPF) numbers of full-time, tenure-eligible faculty in accounting and all business fields other than accounting in 1993, 1999, and 2004. (The estimated number of tenure eligible faculty in business fields other than accounting rose over 20% during the same period.) Table 2 presents the counts for full-time non-tenure-eligible faculty.

Table 1: NSOPF estimated number of full-time, tenure eligible faculty in accounting and all other business fields, 1993 – 2004. (Institutions offering baccalaureate degrees and higher.)

	1993	1999	2004	% Change
Accounting	6331	4555	5121	-19.11%
All other business fields.	16,933	16,027	20,352	+20.20%

¹ See appendix for data sources. Results derived from federal government data (NSOPF) were generated using the Data Analysis System of the National Center for Education Statistics, and should be considered estimates from sampled data. Totals vary as different items on the NSOPF survey were necessarily used to generate tables and graphs (each with a different response rate). Minor differences in wording and aggregation of item responses from year to year of the survey may also affect comparability.

Table 2: NSOPF estimated number of full-time NON-tenure eligible faculty in accounting and all other business fields, 1993-2004 (Institutions offering baccalaureate degrees and above).

	1993	1999	2004	% Change
Accounting	1169	1976	1079	-7.7%
All other business fields.	3649	5573	6148	+68.0%

Figure 1: NSOPF estimated number (in 1000's) of full-time tenured or on-track faculty in accounting and other business fields at institutions granting baccalaureate or higher degrees, 1993, 1999, and 2004.

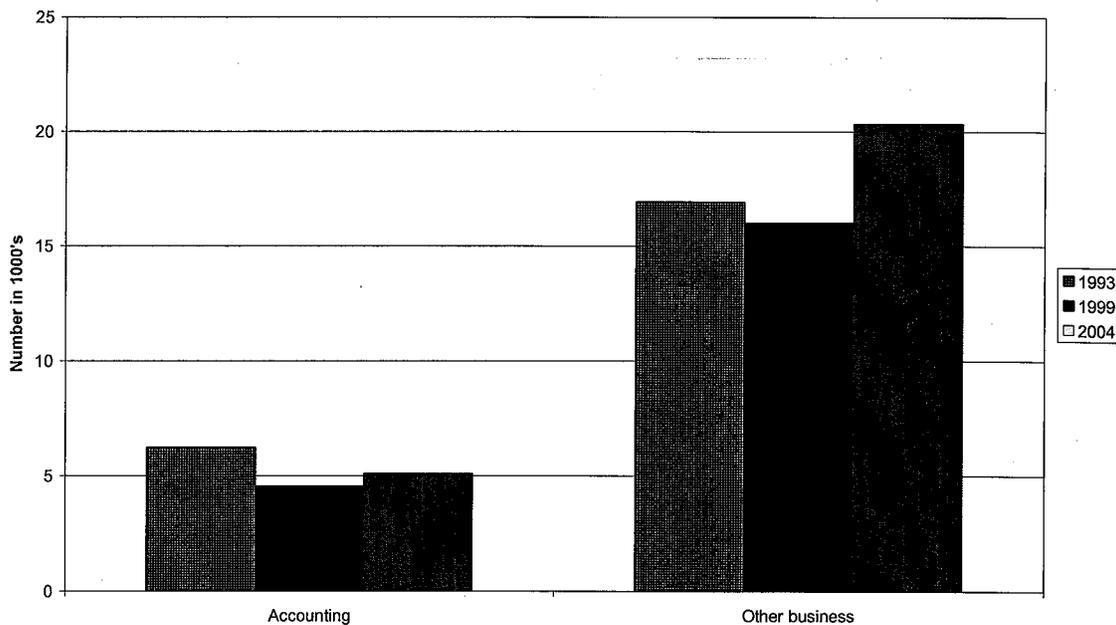


Table 3 presents the overall estimated number of accounting faculty at all types of institutions, including 2-year, by tenure status. The number of tenure track (but not yet tenured) faculty declined for the period, but rose over 36% between 1999 and 2004. (The number of all other business faculty is estimated to have increased by 22.6% for the same period.)

Table 3: Number of all accounting faculty at all types of institutions (including 2-year) by tenure status, and percent change from 1993 to 2004.

	1993	1999	2004	% Change
Tenured	5,825	4,900	4,779	-18.0%
On-Track	2,384	1,400	1,909	-19.9%
Not Eligible	12,112	11,100	10,922	-9.8%
Total	20,321	17,400	17,610	-13.3%

As the number of faculty has declined, undergraduate student enrollment has increased over the same period. Table 4 shows American Institute of Certified Public Accountants' (AICPA) estimates.

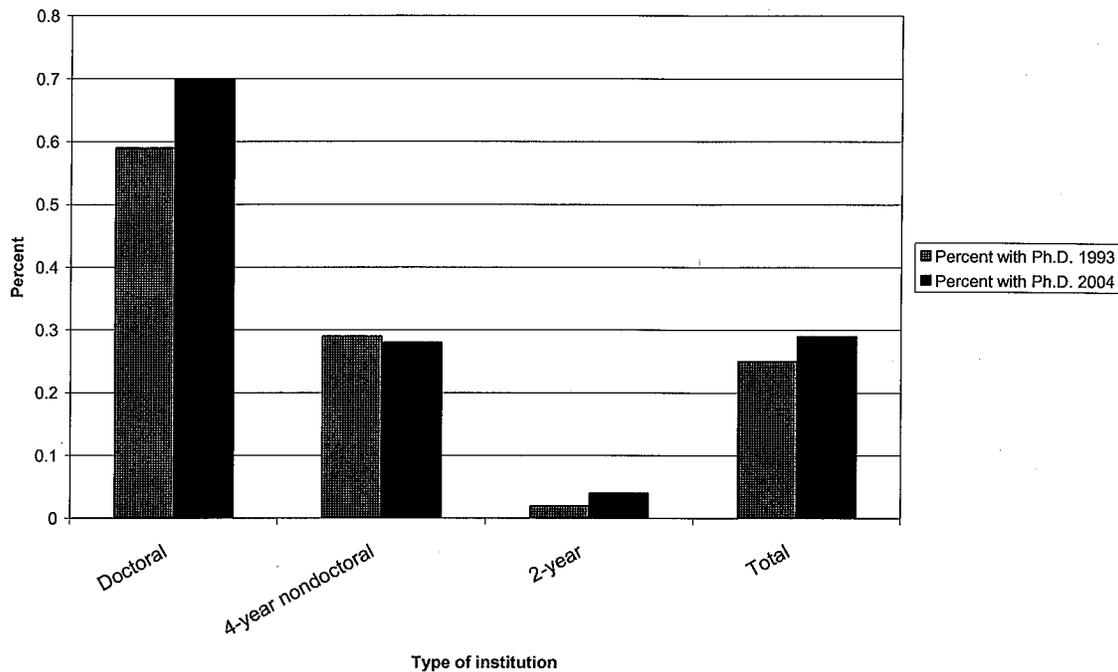
Table 4: Estimated (total) undergraduate enrollment in accounting (AICPA) and net change, 1999-00 to 2003-04.

Year	1999-00	2000-01	2001-02	2002-03	2003-04	% Change
Estimated (total) undergraduate enrollment	127,960	134,775	133,435	141,175	143,735	12.33%

With the increase in student enrollments and decline in full-time tenured (or on-track) faculty, the ratio of students per full-time faculty member (baccalaureate or above institutions) has increased sharply from 20.54:1 in 1993 to 28.0:1 in 2004.

The proportion of all accounting faculty (all types of institutions) with PhD degrees increased (from about 25% to about 29%) between 1993 and 2004, as indicated in Figure 2. Not only do doctoral granting universities employ the highest percentage of faculty with PhDs, but the increase was most substantial (59% to 70%) among these institutions. While the proportion holding Ph.D.'s increased, the actual number of accounting faculty holding Ph.D.'s declined slightly (about 144 from 5025 to 4881).

Figure 2: Percent of accounting faculty with Ph.D., 1993 - 2004



2. Gender.

Accounting, as has been typical of most fields, remains predominantly male. Figure 3 shows that accounting is roughly average in the proportion of females in tenure-eligible positions. In general, accounting falls in the mid-range of disciplines; about 1/3 of its tenure-eligible faculty are female and a little more than 1/3 of its non-tenure-eligible faculty are female. The difference between the '93 and '04 lines in Figure 3 roughly corresponds to the expanded opportunity for women. Accounting (red triangles) again was roughly average in expanding opportunity. The number of (all) female accounting faculty remained almost perfectly stable between 1993 and 2004, while the number of (all) male faculty declined substantially, resulting in an increase in percentage of women faculty from 29.5% to 35.1% (See Table 5.)

Figure 3: Percentage of females by teaching field, tenure-eligible only, '93 - '04

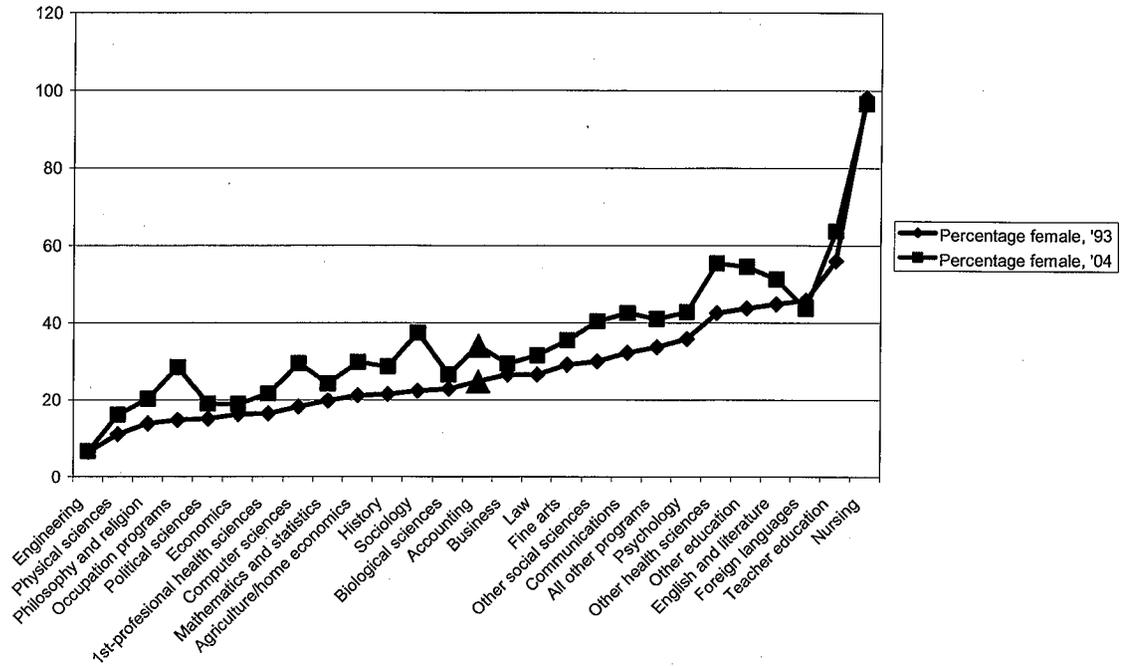


Table 5: Numbers of male and female accounting faculty by tenure status, all institutions, 1993 – 2004.

	Males, 1993	Males, 2004	Females, 1993	Females, 2004
Tenured or eligible	6,068	4,361	2,000	2,253
Not Tenure-eligible	7,838	6,500	3,815	3,628
Total	13,906	10,861	5,815	5,881

Figure 4: Male accounting faculty (all) by tenure status, 1993-2004.

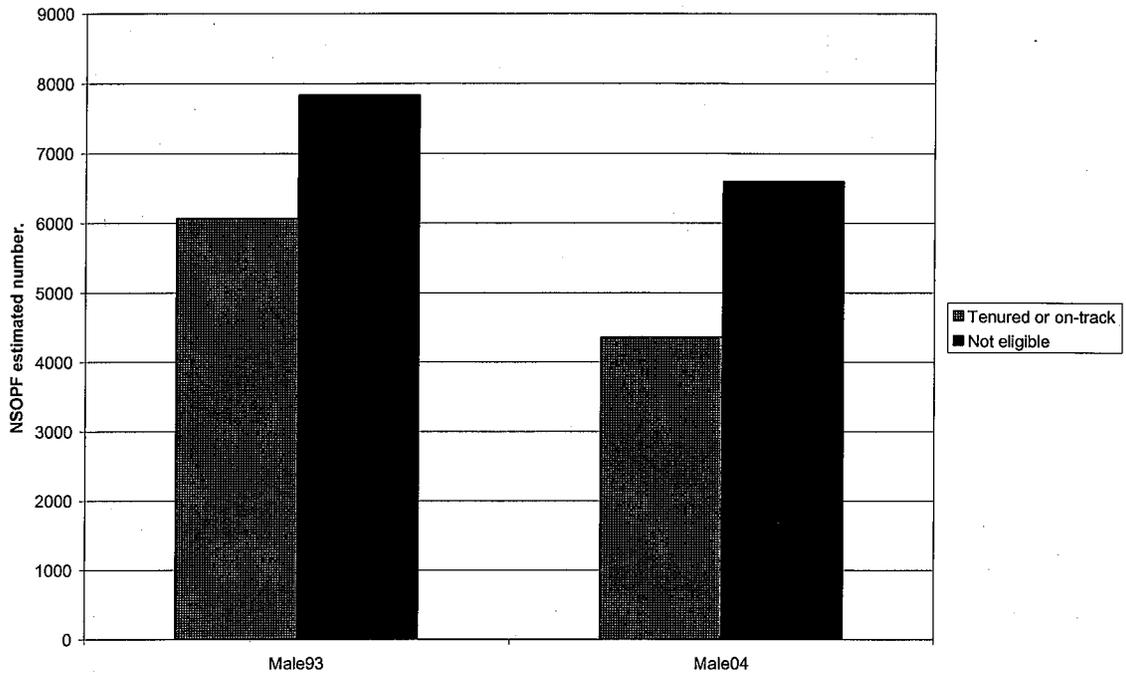
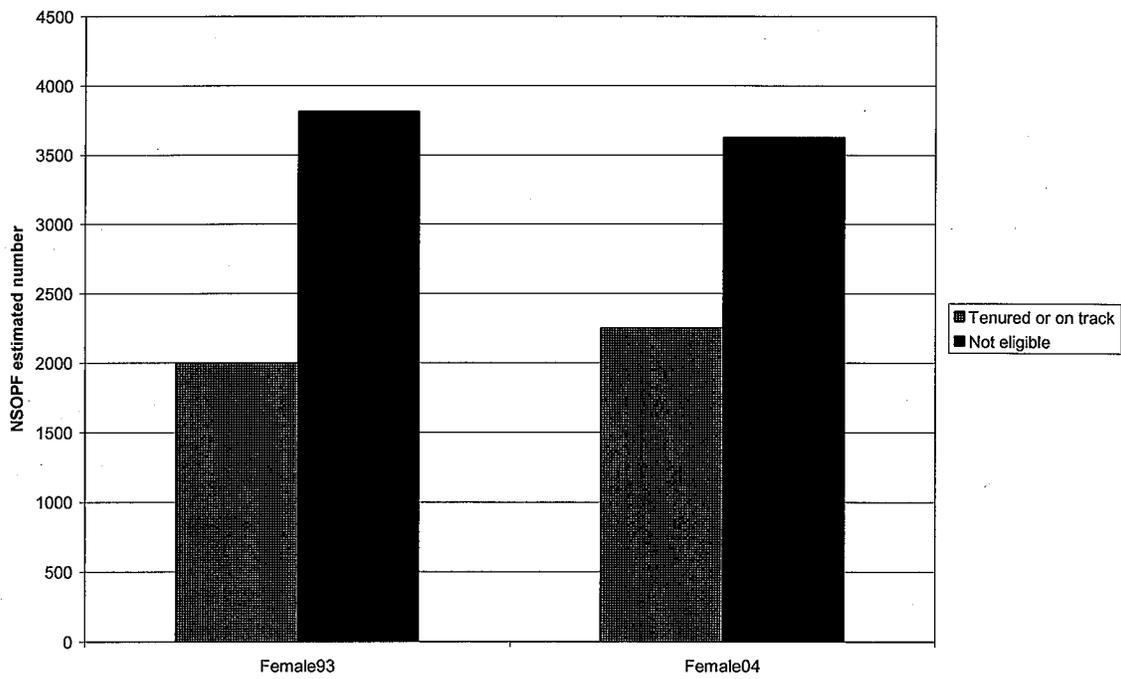


Figure 5: Female accounting faculty (all) by tenure status, 1993 - 2004



3. Age and retirement.

Accounting faculty are aging. The mean age of full-time accounting faculty increased from 48.5 to 51.6 between 1993 and 2004. The mean age of part-time accounting faculty also increased (from 45.4 to 50.5). Figures 6 and 7 show that women and faculty who are not tenure-eligible are younger on average than males and tenured faculty.

Figure 6: NSOPF estimated mean age of male accounting faculty (all) by tenure status, 1993-2004

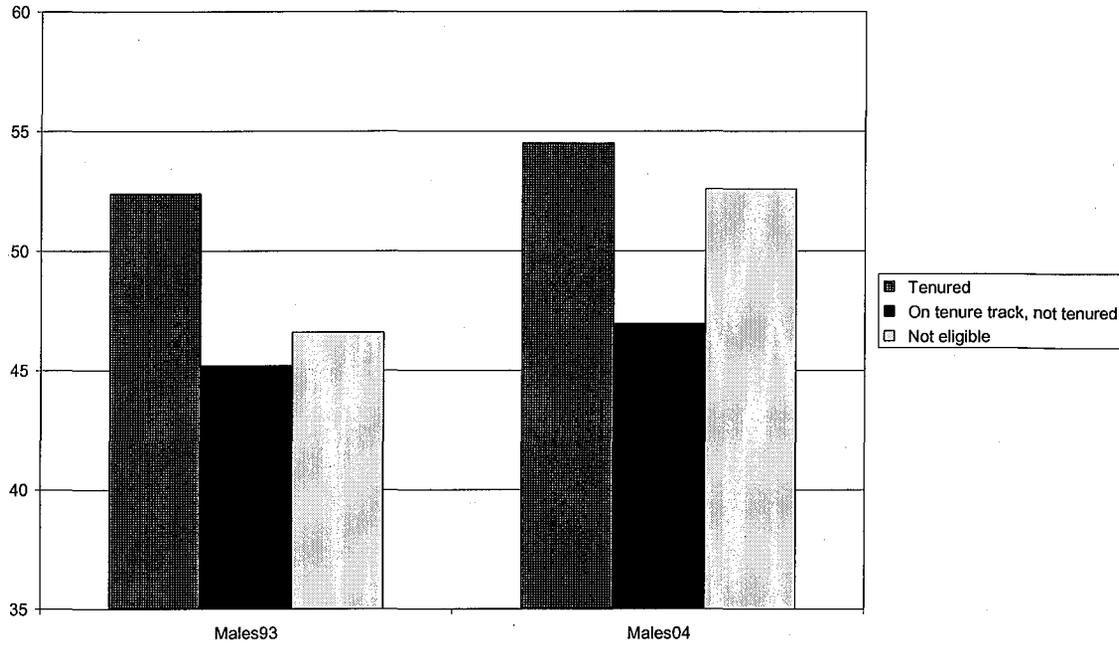
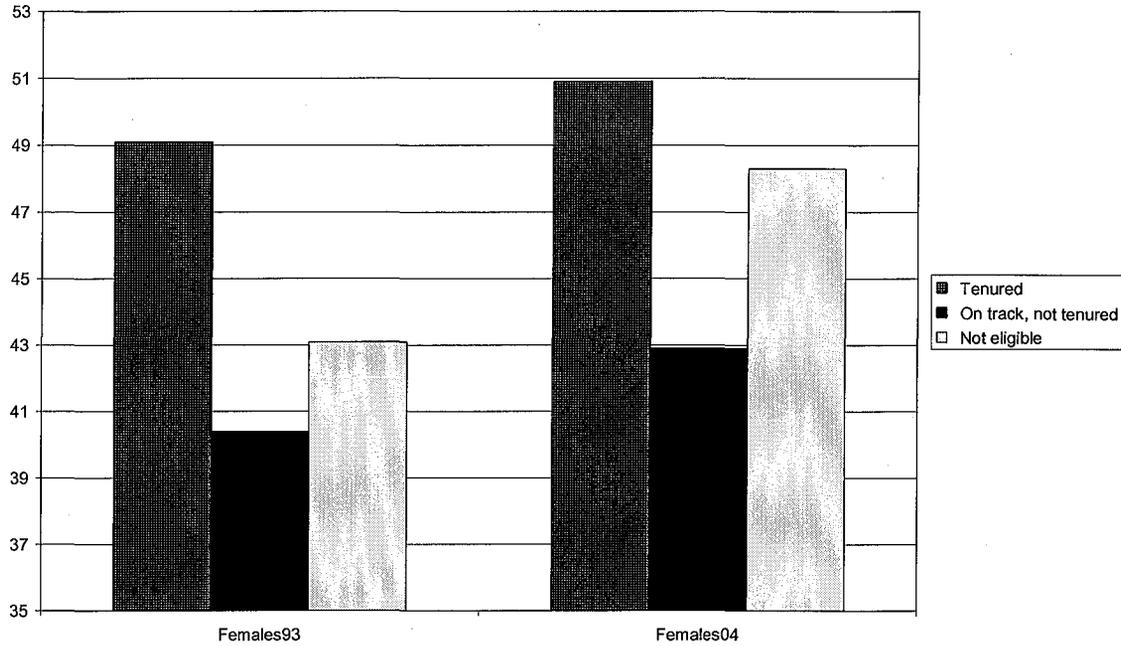


Figure 7: NSOPF estimated mean age of female accounting faculty (all) by tenure status, 1993 - 2004



Although accounting faculty are aging at roughly the average for all fields, this trend should be a particular concern for a field that has experienced a 20% decline in the number of faculty eligible for tenure, but who remain in probationary status. Figures 8 and 9 show the estimated numbers of (all) male and female accounting faculty (in 1000's) who were under age 40 and over the age of 55 in 1993 and 2004. The trend for both genders show that there were fewer accounting faculty under the age of 40 in 2004, and more accounting faculty over the age of 55. These trends may indicate that too few younger faculty are entering the profession to replace those who are nearing retirement.

Figure 8: NSOPF estimated number (1000's) of male accounting faculty under age 40 and over age 55, 1993 - 2004

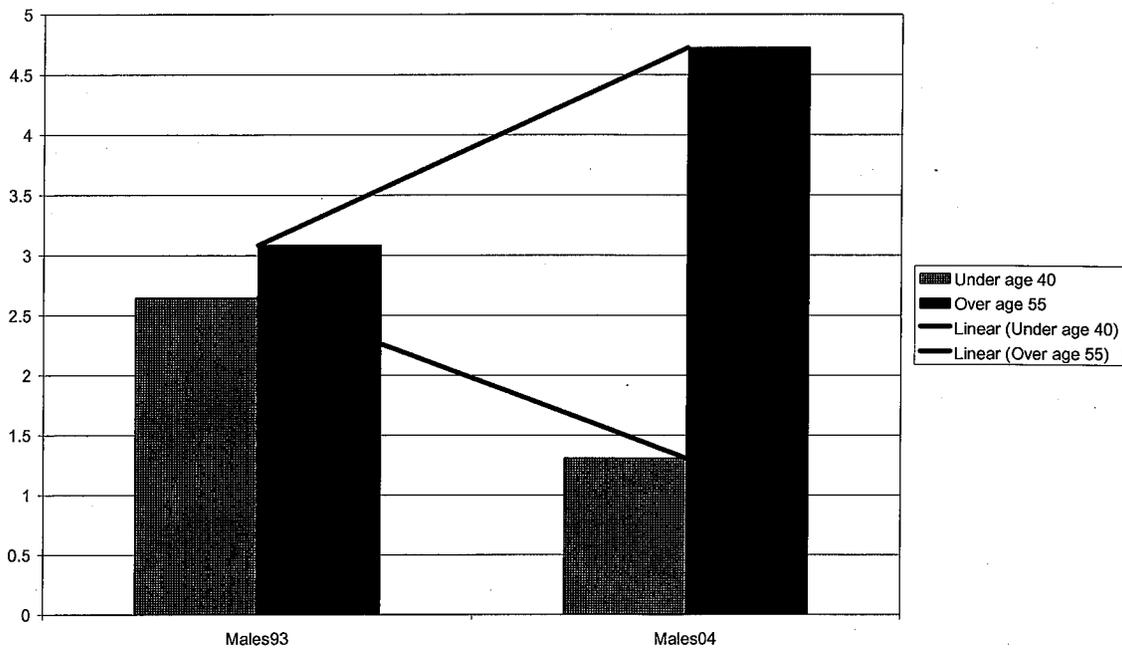
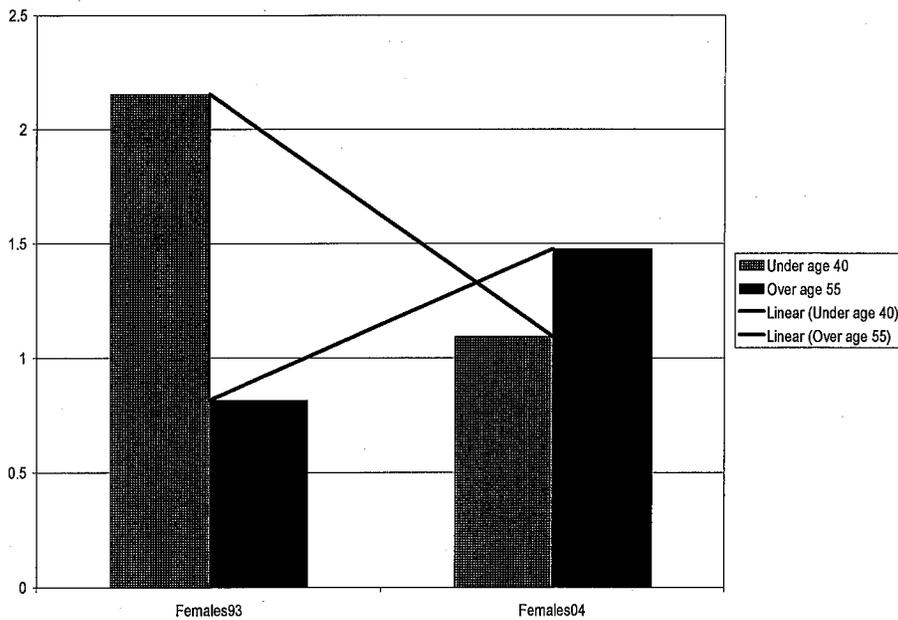


Figure 9: NSOPF estimated number (1000's) of female accounting faculty under age 40 and over age 55, 1993 - 2004.

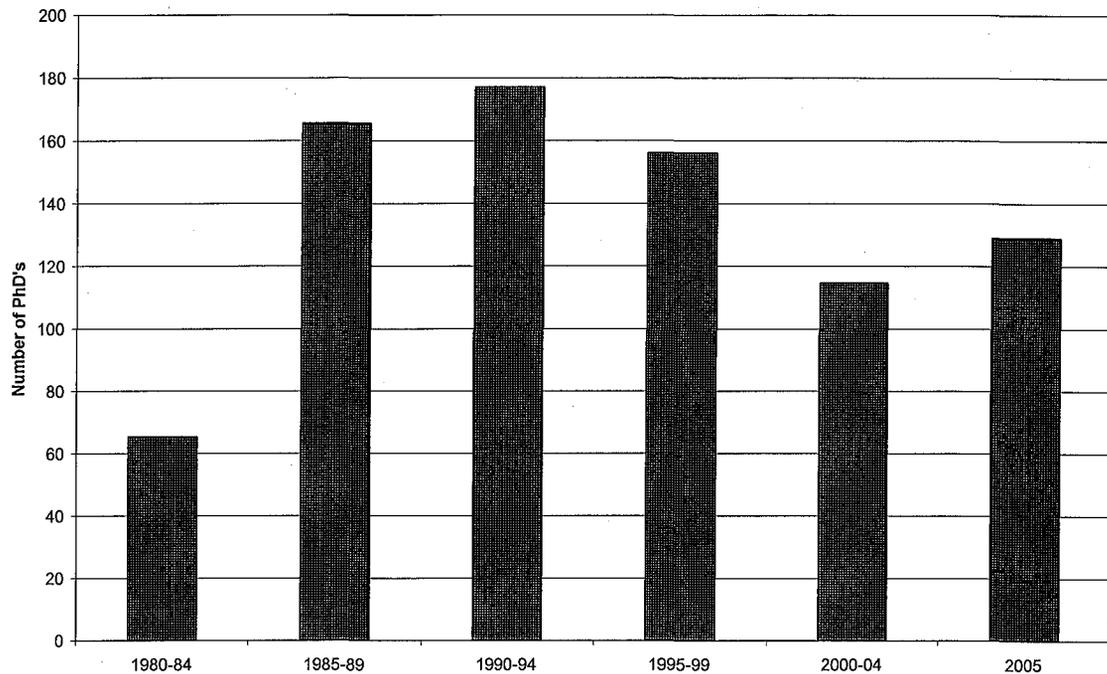


4. Replacements by new Ph.D.'s.

Average annual production of Ph.D.'s in accounting over the past 25 years has been in the range of 135 - 140 per year, according to data from the Survey of Earned Doctorates. (Figure 10). But the number has fluctuated, with 129 graduates in the

most recent year, 2005.

Figure 10: Average annual production of Ph.D.'s in accounting



AICPA's 2005 (Sanders 2005) survey of supply and demand shows roughly the same numbers of Ph.D. graduates, an average of about 140 a year, but with a similar pattern of fluctuation:

TABLE 3B
Accounting Ph.D.'s Awarded
1999-2000 Through 2003-04

	Number of Graduates	Rate of Growth
1999-00	195	+ 5%
2000-01	115	- 41%
2001-02	110	- 4%
2002-03	145	+ 32%
2003-04	150	+ 3%

The age profile of accounting faculty suggest as many as 500 – 700 retirements per year in the foreseeable future, which, even if too high, suggests that there will not be enough new Ph.D.'s to replace them one-for-one. Plumlee's (2005) survey of supply and demand for Ph.D. accounting faculty estimates demand at 350 – 590 per year between 2005 and 2007, and estimates there is supply to fill about 50% of that demand, with supply unevenly matched to subspecialties.

5. Conclusions.

- The estimated number of accounting faculty (all institutions, all ranks) declined 13.3% between 1993 and 2004, while estimated undergraduate enrollment grew

over 12%. Business fields other than accounting have added substantial numbers of faculty during the same period.

- The aggregate number of students per faculty member in accounting has increased from 20.5:1 to over 28:1.
- The decline in numbers of faculty has been principally among males; the number of women accounting faculty has not increased in any significant way, although they are an increasing proportion of all accounting faculty (as the number of males has declined).
- The mean age of accounting faculty is increasing.
- The number of individuals within ten years of “normal” retirement (age 55 and over) increased between 1999 and 2004, while the number of accounting faculty under the age of 40 declined during the same period.
- Ph.D. production has remained relatively steady at roughly 140 per year (with annual fluctuations) over the past 10 years.
- Demand for replacement faculty in accounting is estimated at roughly 500 per year for the next 5 – 10 years, while available supply is estimated to be about half of that.

Appendix: Sources of data.

1. National Study of Postsecondary Faculty <http://nces.ed.gov/surveys/nsopf/design.asp>

The first cycle of NSOPF was conducted in 1987-1988 with a sample of 480 institutions (including 2-year, 4-year, doctorate-granting, and other colleges and universities), over 3,000 department chairpersons, and over 11,000 instructional faculty. The response rates for the three surveys were 88, 80, and 76 percent, respectively.

The 1992-93 study (NSOPF:93) was limited to surveys of institutions and faculty, but with a substantially expanded sample of 974 public and private not-for-profit degree-granting postsecondary institutions and 31,354 faculty and instructional staff. The response rates for the two surveys were 94 and 84 percent, respectively.

The 1998-99 National Study of Postsecondary Faculty (NSOPF:99) included 960 degree-granting postsecondary institutions and an initial sample of faculty and instructional staff from those institutions. Approximately, 28,600 faculty and instructional staff were sent a questionnaire. Subsequently, a subsample of 19,813 faculty and instructional staff was drawn for additional survey followup. Approximately 18,000 faculty and instructional staff questionnaires were completed for a weighted response rate of 83 percent. The response rate for the institution survey was 93 percent.

The 2003–04 National Study of Postsecondary Faculty (NSOPF:04) included a sample of 1,080 public and private not-for-profit degree granting postsecondary institutions and a sample of 35,000 faculty and instructional staff. The weighted response rates for the two surveys were 86 and 76 percent, respectively.

All four cycles of NSOPF gathered information regarding the backgrounds, responsibilities, workloads, salaries, benefits, attitudes, and future plans of both full- and part-time faculty. In addition, information was gathered from institutional and department-level respondents (department-level data collected in 1988 only) on such issues as faculty composition, turnover, recruitment, retention, and tenure policies.

The institution universe for NSOPF has been defined by the following criteria: Title IV participating, degree-granting institutions; public and private not-for-profit institutions; institutions that confer associate's, bachelor's, or advanced degrees; and institutions that are located in the United States.

A two-stage stratified, clustered probability design was used to select the various NSOPF samples. For instance, the first-stage sampling frame for NSOPF:04 consisted of the 3,381 postsecondary institutions in IPEDS that were public or private not-for-profit Title IV participating institutions and provided formal degree programs of at least two years' duration. While the IPEDS universe includes private institutions that are both for-profit and not-for-profit, the institutional universe for NSOPF excludes the private for-profit institutions.

The 3,381 institutions in the NSOPF:04 universe were stratified based on the highest degrees they offered and the amount of federal research dollars they received. These strata distinguished public and private institutions, as well as several types of institutions based on the Carnegie Foundation's classification system.

Unlike NSOPF: 88, which were limited to faculty whose assignment included instruction, the faculty universes for NSOPF: 93, NSOPF: 99 and NSOPF: 04 were expanded to include all those who were designated as faculty, whether or not their responsibilities included instruction, and other (non-faculty) personnel with instructional responsibilities. Under this definition, researchers and administrators and other institutional staff who held faculty positions, but who did not teach, were included in the samples. Instructional staff without faculty status also were included. Teaching assistants were not included in any cycle of NSOPF.

2. NORC Survey of Earned Doctorates.

<http://www.norc.org/projects/Survey+of+Earned+Doctorates.htm>

Survey of Earned Doctorates (SED)

The Survey of Earned Doctorates (SED) is a federal agency survey conducted by NORC for the National Science Foundation and five other federal agencies (National Institutes of Health, U.S. Department of Education, National Endowment for the Humanities, U.S. Department of Agriculture, and the National Aeronautics and Space Administration). The SED gathers information annually from 45,000 new U.S. research doctorate graduates about their educational histories, funding sources, and post-doctoral plans. Each year the SED data are added to a larger historical record of doctorate-degree graduates, the Doctorate Records File (DRF). Begun in 1920, the DRF contains annual information used to track the number of graduates in various fields; the educational paths

of scientists, engineers, and humanists; movement of graduates into the labor market; and similar information.

3. National Postsecondary Student Aid Study.
<http://nces.ed.gov/surveys/npsas/design.asp>

The design for the NPSAS sample involves selecting a nationally representative sample of postsecondary education institutions and students within those institutions.

To be eligible for inclusion in the institutional sample, an institution must have satisfied the following conditions: 1) offered an education program designed for persons who have completed secondary education; 2) offered an academic, occupational, or vocational program of study lasting 3 months or longer, 3) offered access to the general public, 4) offered more than just correspondence courses; and 5) was located in the 50 states, the District of Columbia, or Puerto Rico. Also, beginning with NPSAS: 2000, eligible institutions must have a signed Title IV participation agreement with the U.S. Department of Education.

Part-time and full-time students enrolled in academic or vocational courses or programs at these institutions, and not concurrently enrolled in a high school completion program, are eligible for inclusion in NPSAS. The 1987 NPSAS sampled students enrolled in the fall of 1986. Beginning with the 1990 NPSAS, students enrolled at any time during the year were eligible for the study. This design change provided the data necessary to estimate full-year financial aid awards.

Because NPSAS is a large, nationally representative sample of institutions and students, it provides a highly efficient and cost-effective way of identifying a nationally representative sample of other student subpopulations of particular interest to policymakers, and to provide baseline data for a longitudinal study of these subpopulations. Specifically, beginning with the NPSAS: 90 survey, alternate NPSAS data collections provide the base year sample for either the Beginning Postsecondary Students (BPS) longitudinal study or the Baccalaureate and Beyond (B&B) longitudinal study. For NPSAS:90, NPSAS: 96, and NPSAS:04, the longitudinal cohort comprised students who began their postsecondary education during the NPSAS year; the BPS surveys followed these students over time to examine such issues as persistence and the effects of financial aid on subsequent enrollment. NPSAS:93 and NPSAS:2000 have provided the base year cohort for a sample of students who completed a baccalaureate degree during the NPSAS year; the B&B surveys followed these students over time to examine issues such as the transition from college to work and access to graduate school.

NPSAS data come from multiple sources, including institutional records, government databases, and student telephone interviews. Detailed data concerning participation in student financial aid programs are extracted from institutional records. Data pertaining to family circumstances, background demographic data, educational and work experiences and expectations were collected from students using a computer-assisted telephone interview.

4. Sanders, B. The Supply of Accounting Graduates and the Demand for Public Accounting Recruits–2005 for Academic Year 2003–2004. New York: American Institute of Certified Public Accountants, 2005.

http://ceae.aicpa.org/NR/rdonlyres/11715FC6-F0A7-4AD6-8D28-6285CBE77315/0/Supply_DemandReport_2005.pdf

5. Plumlee, D. H. et al. Report of the AAA/AAPLG *Ad Hoc* Committee to Assess the Supply and Demand for Accounting Ph.D.s. American Accounting Association, 2005.

http://aaahq.org/about/reports/FINAL_PhD_Report.pdf