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ABSTRACT

This report on the supply of newly qualified teachers (NQTs) is based primarily on data from the Recent College Graduate Study of 1987. The survey, which was originally designed to provide information on NQTs alone, was expanded to cover graduates in all major fields of study; however, it continues to emphasize graduates qualified to teach at the elementary school or secondary school level. For the 1987 study, newly qualified teachers were defined as: individuals who received a bachelor's or master's degree between July 1, 1985 and June 30, 1986; who became eligible or certified to teach during that same period; and who had not been employed as teachers before receiving their degree. The number of NQTs who graduated from the nation's colleges and universities increased from 105,000 in 1984 to 126,000 in 1986 after declining for almost 10 years. The number of NQTs at the master's level increased by 124%, from 6,300 in 1984 to 14,100 in 1986. Nearly 73% of the NQTs at the bachelor's level in 1986 were women. An average of 48% of all other bachelor's degree recipients were women. Forty-eight percent of NQTs reported grade point averages of 3.25 or higher, compared to 42% of other bachelor's degree recipients. Fifty-seven percent of the NQTs in 1986 majored in education, a large drop from 1984 when 71% majored in education. Eighty-nine percent of the NQTs were employed 1 year after graduating from college. Only 3% were unemployed, and 8% were not working and not seeking employment. Only 61% of the NQTs in 1986 were teaching in April 1987. Seventy-four percent of the NQTs were certified in the field they were teaching. The average annual salary for NQTs who were employed full time was $16,000 in 1987, compared to an average of $20,700 for other bachelor's degree graduates. Ten tables and 3 graphs present study data. Appendix A contains technical notes for the survey, Appendices B and C provide, respectively, nine tables containing standard errors for data categories and two additional tables on teacher characteristics, and Appendix D presents the 1987 survey instrument. (SLD)

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NATIONAL CENTER FOR EDUCATION STATISTICS

Survey Report **July 1990**

ED 320 808

New Teachers in the Job Market, 1987 Update

Martin Frankel
and
Peter Stowe
Postsecondary Education Statistics Division

Data Series:
DR-RCGS-1987-1.21

U.S. Department of Education
Office of Educational Research and Improvement **NCES 90-336**

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National Center for Education Statistics

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July 1990

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HIGHLIGHTS

- The number of newly qualified teachers who graduated from the Nation's colleges and universities increased from 105,000 in 1984 to 126,000 in 1986 after declining for almost 10 years.

- The number of newly qualified teachers at the master's level increased by 124 percent. from 6,300 in 1984 to 14,100 in 1986.

- Nearly 73 percent of the newly qualified teachers at the bachelor's level in 1986 were women. An average of 48 percent of all other bachelor's degree recipients were women.

- Forty-eight percent of the newly qualified teachers reported grade point averages of 3.25 or higher, compared to 42 percent of other bachelor's degree recipients.

- Fifty-seven percent of the newly qualified teachers in 1986 majored in education, a large drop from 1984 when 71 percent majored in education.

- Eighty-nine percent of the newly qualified teachers were employed (either full time or part time in teaching or nonteaching jobs) 1 year after graduating from college. Only 3 percent were unemployed, and 8 percent were not working and not seeking employment.

- Newly qualified teachers who were employed full time, in either teaching or nonteaching positions, earned an average annual salary of $16,000 in 1987, compared to an average of $20,700 for other bachelor's degree graduates.

- Only 61 percent of the newly qualified teachers in 1986 were teaching in April 1987. Seventy-four percent of these teachers were certified in the field they were teaching, ranging from 86 percent of new teachers in general elementary to 31 percent in physical sciences and 27 percent in art.

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INTRODUCTION

This report on the supply of newly qualified teachers (NQTs) is based primarily on data from the Recent College Graduate Study (RCGS) of 1987. The National Center for Education Statistics conducted this survey for the first time in 1976, and has since conducted it in 1978, 1981, 1985, and 1987. The RCGS is designed to analyze the postdegree employment and education experience of people who obtained a bachelor's or master's degree from an American college or university. The study was originally designed to provide information on newly qualified teachers in response to a congressional mandate. Although the study has been broadened to cover the educational and occupational experiences of graduates in all major fields of study, the survey emphasizes graduates qualified to teach at the elementary or secondary level.

For the purposes of the 1987 study newly qualified teachers were defined as individuals who received a bachelor's or master's degree between July 1, 1985 and June 30, 1986; who became eligible or certified to teach during that same period; and who had not been employed as teachers before receiving their degree. NQTs constitute a major source of new hires to fill teaching openings resulting from increased enrollments, teacher retirements and teachers leaving the profession. However, not all NQTs entered teaching directly after graduation. For example, some NQTs took nonteaching positions or entered graduate school. Nonetheless, they continue to be a potential source of teacher supply, and thus are included in this report. Out of 112,100 NQTs at the bachelor's degree level in 1987, 43,500 (39 percent) were not employed as teachers.

Furthermore, 8,800 bachelor's degree graduates who did not report that they were eligible or certified to teach were employed as teachers in 1987. As employed teachers, they are obviously a source of new teacher supply, and thus are included in the data on NQTs. However, these graduates, who constitute 8 percent of all NQTs, did not have the same education experiences as other NQTs, and their characteristics are different as well. Therefore, an analysis of the characteristics of these NQTs is presented in appendix table C1. Their inclusion in the NQT statistics in this report has only a minor impact, because such teachers constitute a small percentage of all NQTs.

Although approximately 987,800 people received bachelor's degrees in 1985-86, only 933,100 were eligible for this study, one year later. Graduates not in the country at the time of the survey in April 1987 were excluded from the study. Many of these graduates were foreign students who had returned to their own countries. In addition, graduates who had died or who were institutionalized were not included in the study.

NEW TEACHERS IN THE JOB MARKET: 1987 UPDATE

The number of newly qualified teachers who graduated from the Nation's colleges and universities increased in 1985-86 after declining for almost 10 years. In 1986 more than 126,000 graduates with bachelor's and master's degrees were qualified to teach for the first time in elementary and secondary schools. This number was up from 105,000 in 1984, but still far below the 1975 level of 261,000.

The increased number of NQTs reflects improved job opportunities for teachers, as the "baby boom echo," children born to the baby boomers, swells the enrollment ranks in the Nation's elementary and secondary schools. These enrollment increases are expected to fuel an increased demand for new teachers well into the 1990s.[1]

The percentage increase in NQTs at the master's degree level was much larger than at the bachelor's degree level. The number of NQTs at the master's level increased 124 percent, from 6,300 in 1984 to 14,100 in 1986. During the same period, NQTs at the bachelor's level increased 14 percent, from 98,700 to 112,100. As a percentage of all bachelor's degree recipients, NQTs at the bachelor's level increased from 10 percent in 1984 to 11 percent in 1986. However, this percentage is still far below the 1975 level of 25 percent.

Table 1.--Trends in newly qualified teachers: Selected years, 1975 to 1986

Year	Newly qualified teachers (NQTs)			All bachelor's degrees	Percent of bachelors who are NQTs
	Total	Master's	Bachelor's		
1975	261,000	34,000	227,000	922,900	24.6
1977	183,400	12,300	171,100	919,500	18.6
1980	139,000	6,800	132,200	929,400	14.2
1984	105,000	6,300	98,700	974,300	10.1
1986	126,200	14,100	112,100	987,800	11.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Surveys, 1976, 1978, 1981, 1985, and 1987; Digest of Education Statistics, 1988.

[1]U.S. Department of Education, National Center for Education Statistics, Projections of Education Statistics to 1997-98, (Washington, D.C.: 1988), pages 7 and 67.

CHARACTERISTICS OF NEWLY QUALIFIED TEACHERS AT THE BACHELOR'S LEVEL (TABLES 2 AND 3)

The demographic characteristics of NQTs differ somewhat from those of other graduates (Table 2). Although approximately 70 percent of the graduates in both groups were 25 years old or less, and 88 percent were white, nearly 73 percent of the NQTs at the bachelor's level in 1985-86 were women, compared to only 48 percent for bachelor's degree recipients in all other fields. Almost 10 percent of the NQTs were blacks or Hispanics, compared to 8 percent for all other graduates. In contrast, only 1 percent of NQTs were Asians compared to 3 percent for other bachelor's degree recipients. Thirty-five percent of NQTs were married, compared to 28 percent of other graduates. Table 3 shows that women were primarily responsible for this difference--37 percent of the women NQTs were married one year after graduation, compared to 28 percent for other women graduates.

More NQTs than other graduates expected to earn a degree beyond the bachelor's degree. Almost 90 percent of NQTs expected to earn a degree beyond the bachelor's, compared to 77 percent for other graduates. In addition, NQTs reported higher grades than other graduates, with 48 percent reporting an undergraduate grade point average of 3.25 or higher, compared to 42 percent for other graduates. In contrast to NQTs' expectations and grades, only 51 percent of their fathers attended college, compared to 56 percent for other graduates. Forty-three percent of the mothers of both groups attended college.

FIELDS OF STUDY (TABLE 4)

As one might expect, the majority (57 percent) of NQTs at the bachelor's level in 1986 majored in education (Table 4). However, this number is a considerable drop from 1984 when 71 percent of the NQTs majored in education.[2] The increase of NQTs who majored in fields other than education may reflect State policy changes in requirements for a teaching license. Those NQTs, who did not major in education, showed a great diversity in their choice of a major field of study. The proportion of NQTs majoring in other fields ranged from lows of 1 percent in public affairs/social services and 2 percent each in engineering and biological sciences to a high of 11 percent in humanities.

Nearly 70 percent of all bachelor's degree graduates who majored in education were also newly qualified to teach. Not surprisingly, this is a far larger proportion than any other field. The percentage of NQTs in other fields ranged from a low of 2 percent in business and management to a high of 15 percent in the humanities. In general, graduates in the professional fields other than education were far less likely to be newly qualified to teach than graduates in the arts and sciences (3 versus 9 percent).

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[2]U.S. Department of Education, National Center for Education Statistics, New Teachers in the Job Market: 1985 Update, (Washington, D.C.: 1987).

Table 2.--Characteristics of newly qualified teachers (NQTs) and other bachelor's degree recipients: 1987

Selected characteristic	NQTs	Other bachelor's degree recipients
Total (number)	112,100	821,100
Total (percent)	100.0	100.0
Age		
20-23	36.0	34.8
24-25	34.6	35.1
26 and older	29.4	30.1
Sex		
Males	27.4	52.2
Females	72.6	47.8
Race and ethnicity		
American Indian	0.6	0.9
Asian	1.2	2.8
Black, non-Hispanic	5.0	4.3
White, non-Hispanic	87.8	87.6
Hispanic*	4.8	3.3
Marital status		
Single	61.4	68.3
Married	34.8	28.0
Separated, divorced or widowed	3.9	3.8
Highest level of father's education		
High school degree or less	42.4	36.7
Vocational or technical	6.8	6.9
College education	31.1	35.5
Postbaccalaureate education	19.8	21.0
Highest level of mother's education		
High school degree or less	48.1	46.5
Vocational or technical	9.2	10.6
College education	34.3	34.3
Postbaccalaureate education	8.4	8.6
Educational expectations		
Bachelor's degree	10.2	22.8
Master's degree	68.2	57.0
Doctoral degree	19.3	11.8
First-professional degree	2.2	8.4
Grade point average		
3.75-4.00	13.4	11.5
3.25-3.74	34.4	30.5
2.75-3.24	37.7	37.3
2.25-2.74	12.8	17.5
1.75-2.24	1.7	3.1

*Hispanics may be of any race.

NOTE: Percents in each category may not add to 100 due to cases with unreported values.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table 3.--Newly qualified teachers (NQTs) and other bachelor's degree recipients, by sex and marital status: 1987

Marital status	NQTs		Other bachelor's degree recipients	
	Men	Women	Men	Women
Total	100.0	100.0	100.0	100.0
Single	68.4	58.6	70.5	65.9
Married	29.2	37.0	27.8	28.1
Divorced, separated, or widowed	2.4	4.4	1.7	6.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

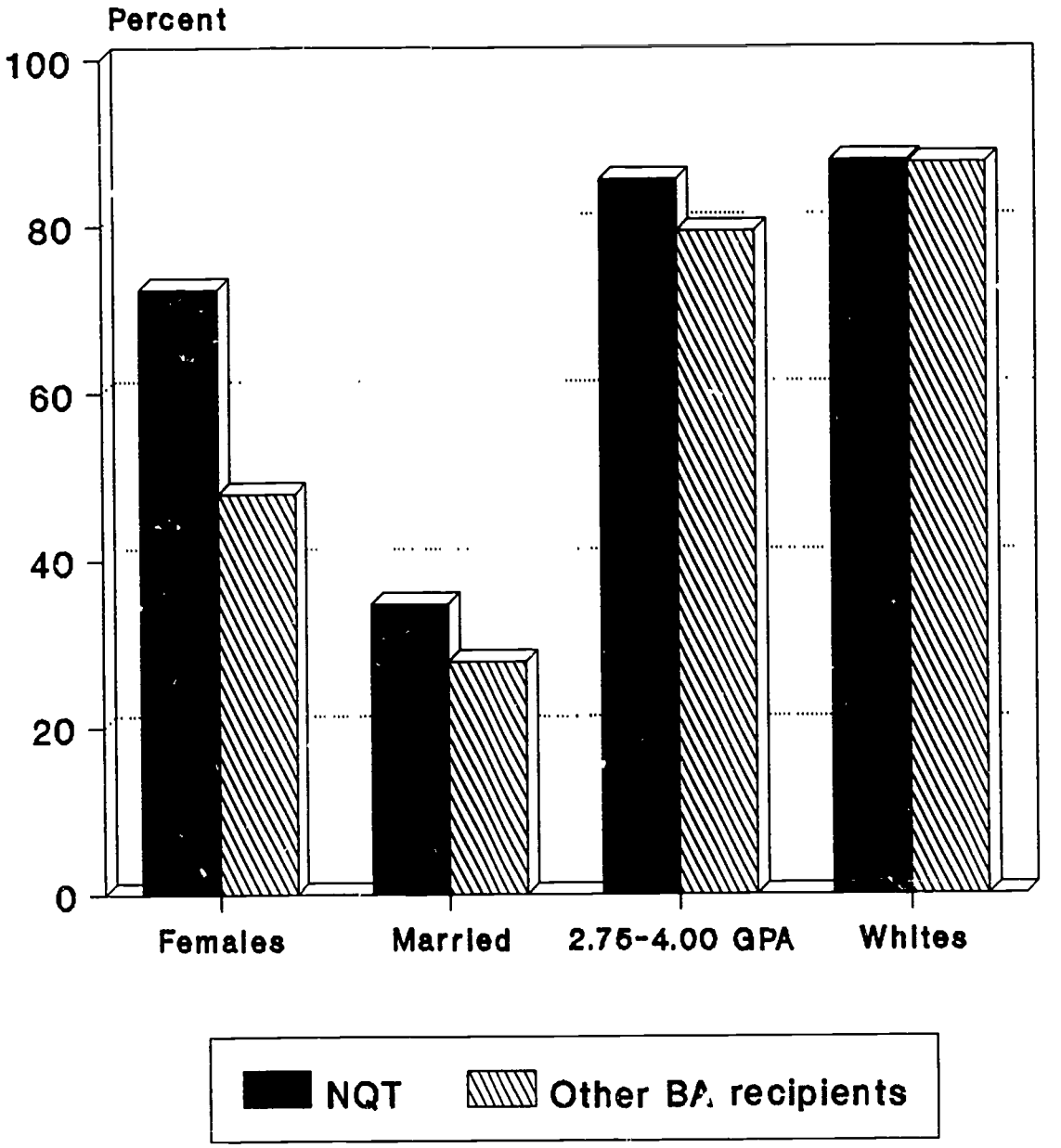
Table 4.--Bachelor's degree recipients and newly qualified teachers (NQTs) who received their degree during the 1985-86 academic year, by major field of study: 1987

Major field of study	Bachelor's degree recipients	NQTs	Percent NQTs
Total	933,100	112,100	12.0
Professional fields	507,500	75,100	14.8
Business and management	242,400	3,900	1.6
Education	84,200	63,900	75.9
Engineering	89,900	2,500	2.8
Health professions	65,000	3,500	5.3
Public affairs/social services	26,100	1,300	5.2
Arts and science fields	333,200	30,100	9.0
Biological science	37,800	2,500	6.6
Mathematics, computer science, and physical sciences	92,500	6,000	6.4
Social sciences	81,200	5,500	6.7
Humanities	82,700	12,300	14.8
Psychology	39,100	3,900	9.9
Other fields	88,900	6,400	7.2

NOTE: Details may not add to totals due to rounding or to cases who did not respond to the major field of study item.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Figure 1.--Selected characteristics of newly qualified teachers and other bachelor's degree recipients: 1987



SOURCE: U.S. Department of Education, National Center for Education Statistics Recent College Graduates Survey, 1987

LABOR FORCE STATUS (TABLES 5 AND 6)

Newly qualified teachers fared well in the 1987 labor market, one year after receiving their bachelor's degree. Eighty-nine percent were employed either full or part time, in teaching or nonteaching positions. Only 3 percent were unemployed, while an additional 8 percent were not working and not seeking employment (not in the labor force).

The labor force status of NQTs in 1987 is comparable to newly qualified teachers observed in earlier surveys (1978, 1981, and 1985), with one notable exception. In 1987 only 77 percent of the employed NQTs were working full time, compared to 80 percent in 1985 and 83 percent in 1978 and 1981. In contrast, the percentage of employed other graduates working full time has increased from 84 percent in 1978 to 88 percent in 1987.

NQTs differed from other bachelor's degree recipients in the proportion who were not in the labor force. Eight percent of NQTs were not in the labor force compared to 11 percent for other graduates. When the 11 percent figure for other graduates is disaggregated, the percent for professional fields is 6 percent, somewhat less than the 8 percent rate for NQTs. In contrast, 18 percent of the arts and science graduates were not in the labor force in 1987, ranging from 10 percent for mathematics, computer science, and physical sciences graduates to 39 percent for biology graduates.

AVERAGE ANNUAL SALARY (TABLES 7-9)

In 1987, NQTs at the bachelor's level who were employed full time in either a teaching or nonteaching position reported an overall average annual salary of $16,000. This was an increase of almost 12 percent in two years over the $14,300 average salary NQTs earned in 1985.[3] However, other bachelor's degree recipients earned considerably more, averaging $20,700 in 1987, 29 percent more than salaries for NQTs. This is somewhat less than the salary differential in 1985 when other graduates averaged 31 percent more in salaries than NQTs. When average annual salaries for 1985 are converted to 1987 dollars using the consumer price index, NQTs experienced a real increase of 6 percent compared to a 4 percent increase for other graduates.

[3]Only the salaries for graduates working full time were included in the average salary computations. Salaries for teachers on 9-, 10-, 11-, or 12-month contracts were included in the average salaries of NQTs as reported. This means, for example, that the teaching salaries reported by two teachers, one for a 9-month contract and the other for a 12-month contract, were both treated as annual teaching salaries, without any adjustments made to the 9-month salary. See appendix table C-2 for average teacher salaries by length of teaching contract.

Table 8 shows that, in general, NQTs--regardless of major field of study -- earn less than other graduates. Similarly. table 9 shows that the average salaries for new teachers tend to be lower than the average salaries for nonteachers, regardless of major field of study. The average salary of new teachers was 24 percent lower than the average for other graduates--$15,700 compared to $20,600. The largest salary differentials were in health professions and mathematics, computer science, and physical sciences. New teachers who majored in health professions earned 33 percent less than health professions majors in nonteaching positions. For mathematics, computer science, and physical science, the salary differential was 32 percent. The salary differentials were the smallest (less than 5 percent) between new teachers and other graduates who majored in education and humanities.[4]

TEACHING STATUS (TABLE 10)

Only 61 percent of the NQTs who received a bachelor's degree in 1985-86 were teaching in April 1987. Seventy-eight percent of these teachers were eligible or certified in the field they were teaching, with general elementary teachers being the most likely to be eligible or certified in the field.[5] General elementary teachers' level of 89 percent certified or eligible was considerably higher than any other teaching field. Less than 70 percent of the teachers in most of the other teaching fields were certified or eligible to teach in their field.

In April 1987, only 74 percent of the NQTs who were teaching were certified in their teaching field. Eighty-six percent of the general elementary teachers were certified in their field, followed by new teachers of special education (64 percent), physical education (61 percent), music (58 percent), and pre-elementary education (55 percent). Fifty percent or more of the teachers in all other fields were either not certified in any field or were teaching out-of-field. The percentages of NQTs certified in their teaching field was 31 percent in physical science, 50 percent in mathematics, 38 percent in business, 47 percent in biological science, 39 percent in social science, and 43 percent in English.

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[4]Because there were too few cases for reliable estimates, average salaries for teachers were not computed for several major fields of study.

[5]NQTs who were eligible to teach were those who reported completing all of the courses, including student teaching, required by at least one State. In general, NQTs who were certified were those eligible teachers who also had met all other State certification requirements, such as successfully completing a State teacher's test. However, some certified teachers included in the data have emergency, temporary, or provisional certificates or licenses.

Table 5.--Labor force status of newly qualified teachers (NQTs) and other bachelor's degree recipients one year after graduation: 1978, 1981, 1985, and 1987

[In percentages]

Year	Labor force status			Employment status	
	Not in labor force	Employed	Unemployed	Full-time	Part-time
			Newly qualified teachers		
1978	9	87	4	83	17
1981	6	91	3	83	17
1985	5	93	2	80	20
1987	8	89	3	77	23
			Other bachelor's degree recipients		
1978	16	80	4	84	16
1981	15	81	4	87	13
1985	12	84	4	87	13
1987	11	84	4	88	12

NOTE: Details may not add to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987; U.S. Department of Education, National Center for Education Statistics, New Teachers in the Job Market: 1985 Update, 1987.

Table 6.--Percentage of newly qualified teachers (NQTs) and other bachelor's degree recipients who were not in the labor force 1 year after graduation, by major field of study: 1987

Major field of study	NQTs	Other bachelor's degree recipients
Total graduates	112,100	821,100
Percent not in the labor force	8.0	11.0
Professional fields	6.2	6.5
Business and management	5.0	5.6
Education	6.2	6.5
Engineering	8.3	6.4
Health professions	6.5	9.7
Public affairs/social services	--	6.8
Arts and science fields	10.9	17.8
Biological science	21.4	38.7
Mathematics, computer science, and physical sciences	13.3	9.8
Social sciences	5.1	21.2
Humanities	9.3	14.9
Psychology	13.6	15.3
Other fields	12.6	9.5

--Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table 7.--Average annual salary of newly qualified teachers (NQTs) and all other bachelor's degree recipients employed full time: 1985 and 1987

Major field of study	1985		1987		Percent increase	
	NQTs	Other bachelor's degree recipients	NQTs	Other bachelor's degree recipients	NQTs	Other bachelor's degree recipients
	(In current dollars)					
Total	$14,300	$18,800	$16,000	$20,700	11.9	10.1
Professional fields*	14,400	20,200	16,000	21,900	11.1	8.4
Arts and sciences fields	14,100	17,500	15,700	19,400	11.3	10.9
Other fields	13,800	16,200	16,300	17,500	18.1	8.0
	(In constant 1987 dollars)					
Total	$15,100	$19,800	$16,000	$20,700	6.0	4.5
Professional fields	15,200	21,300	16,000	21,900	5.3	2.8
Arts and sciences fields	14,900	18,500	15,700	19,400	5.4	4.9
Other fields	14,600	17,100	16,300	17,500	11.6	2.3

*For a more detailed breakout of professional and arts and science fields, see table 8.

NOTE: Current dollars were converted to 1985 constant dollars using the consumer price index.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987; U.S. Department of Education, National Center for Education Statistics, New Teachers in the Job Market: 1985 Update, 1987.

Table 8.--Average annual salary of newly qualified teachers (NQTs) and all other bachelor's degree recipients employed full time, by major field of study: 1987

Major field of study	NQTs	Other bachelor's degree recipients
Total	$16,000	$20,700
Professional fields	16,000	21,900
Business and management	18,700	20,900
Education	15,400	17,000
Engineering	24,700	26,400
Health professions	18,000	22,800
Public affairs/social services	--	17,900
Arts and science fields	15,700	19,400
Biological science	--	16,600
Mathematics, computer science, and physical sciences	17,000	22,600
Social sciences	16,900	19,700
Humanities	14,900	16,200
Psychology	--	17,400
Other fields	16,300	17,500

-- Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table 9.--Average annual salary of bachelor's degree recipients working full time in teaching and nonteaching positions, by major field of study: 1987

Major field of study	Teaching positions	Non-teaching positions
Total	$15,700	$20,600
Professional fields	15,600	21,800
Business and management	--	20,800
Education	15,600	16,200
Engineering	--	26,400
Health professions	15,200	22,700
Public affairs/social services	--	17,800
Arts and science fields	15,800	19,300
Biological science	--	16,500
Mathematics, computer science and physical sciences	17,100	22,500
Social sciences	--	19,600
Humanities	15,700	16,100
Psychology	--	17,400
Other fields	16,300	17,500

-- Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Table 10.--Teaching status of newly qualified teachers (NQTs), by teaching field: 1987

Teaching field	Total	Eligible or certified in some field		Eligible or certified in teaching field		Certified in teaching field	
		Number	Percent	Number	Percent	Number	Percent
Newly qualified teachers	112,100	103,300	92.2	(+)	(+)	(+)	(+)
NQTs employed as teachers	68,600	59,800	87.2	53,800 *	78.4 *	50,600 *	73.8
Selected teaching fields of NQTs:							
General elementary	26,600	25,700	96.8	23,600	88.9	23,000	86.5
Art	3,800	3,300	87.5	1,400	36.7	1,000	26.8
Biological sciences	3,600	3,100	87.2	2,200	60.7	1,700	47.2
Business	1,400	1,200	87.1	700	47.6	500	37.7
English language arts	7,000	6,100	86.5	3,600	50.7	3,000	42.9
Mathematics	8,900	8,000	90.0	5,100	57.4	4,500	49.9
Music	3,800	3,500	91.8	2,400	61.4	2,200	57.5
Physical science	5,000	4,400	88.5	2,400	48.5	1,600	31.1
Physical education	6,600	6,000	91.1	4,400	66.7	4,000	61.1
Pre-elementary education	4,700	4,000	83.9	3,000	62.5	2,600	54.8
Social science/social studies	5,900	5,300	88.7	3,200	54.2	2,300	39.0
Special education	9,200	8,600	93.6	6,700	73.2	5,900	64.1

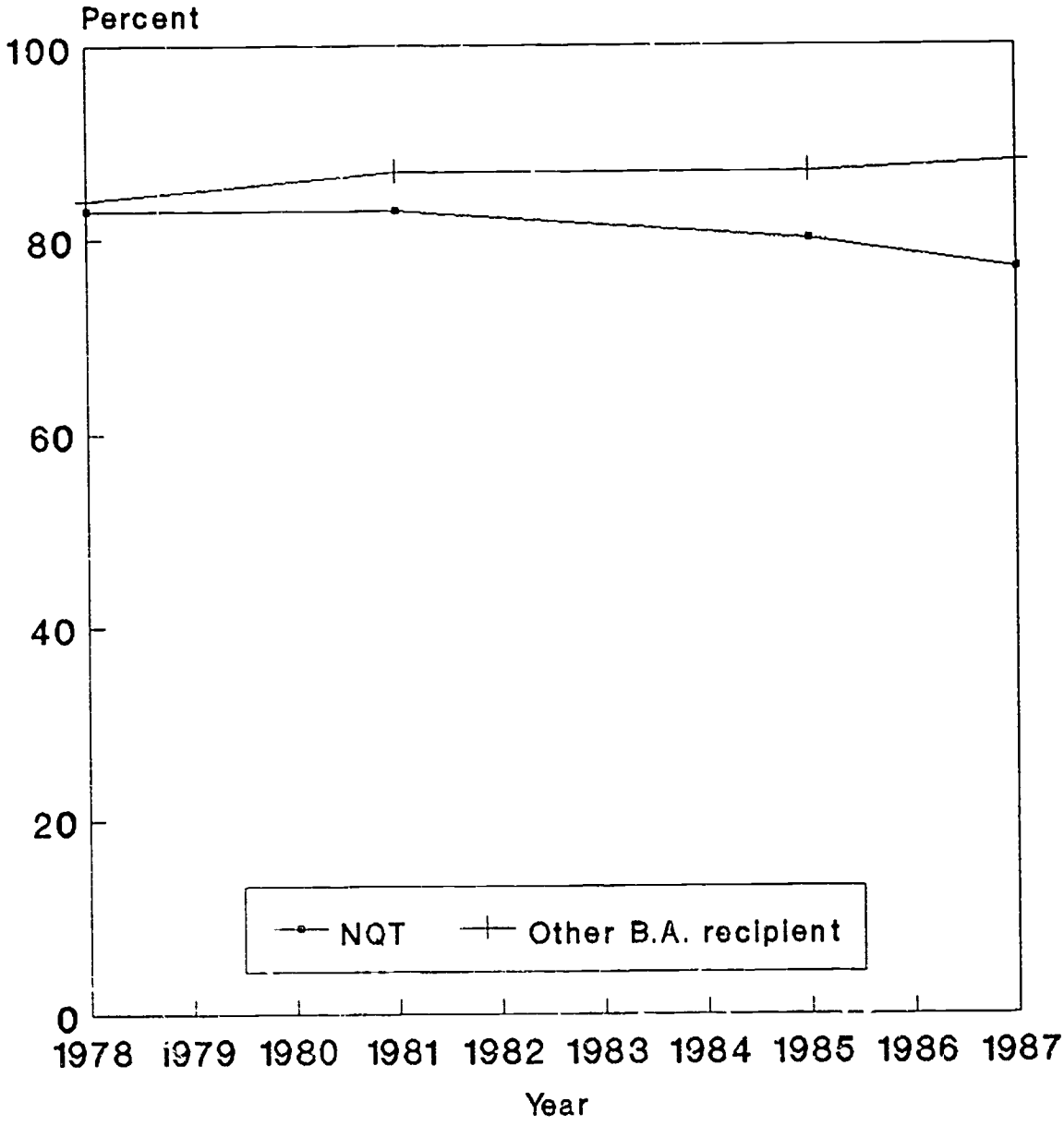
* Includes an estimate for teachers who did not report a teaching field. See "Variables Used in the Report" in appendix A for details.

+ Not applicable.

NOTE: Details may not add to totals due to rounding.

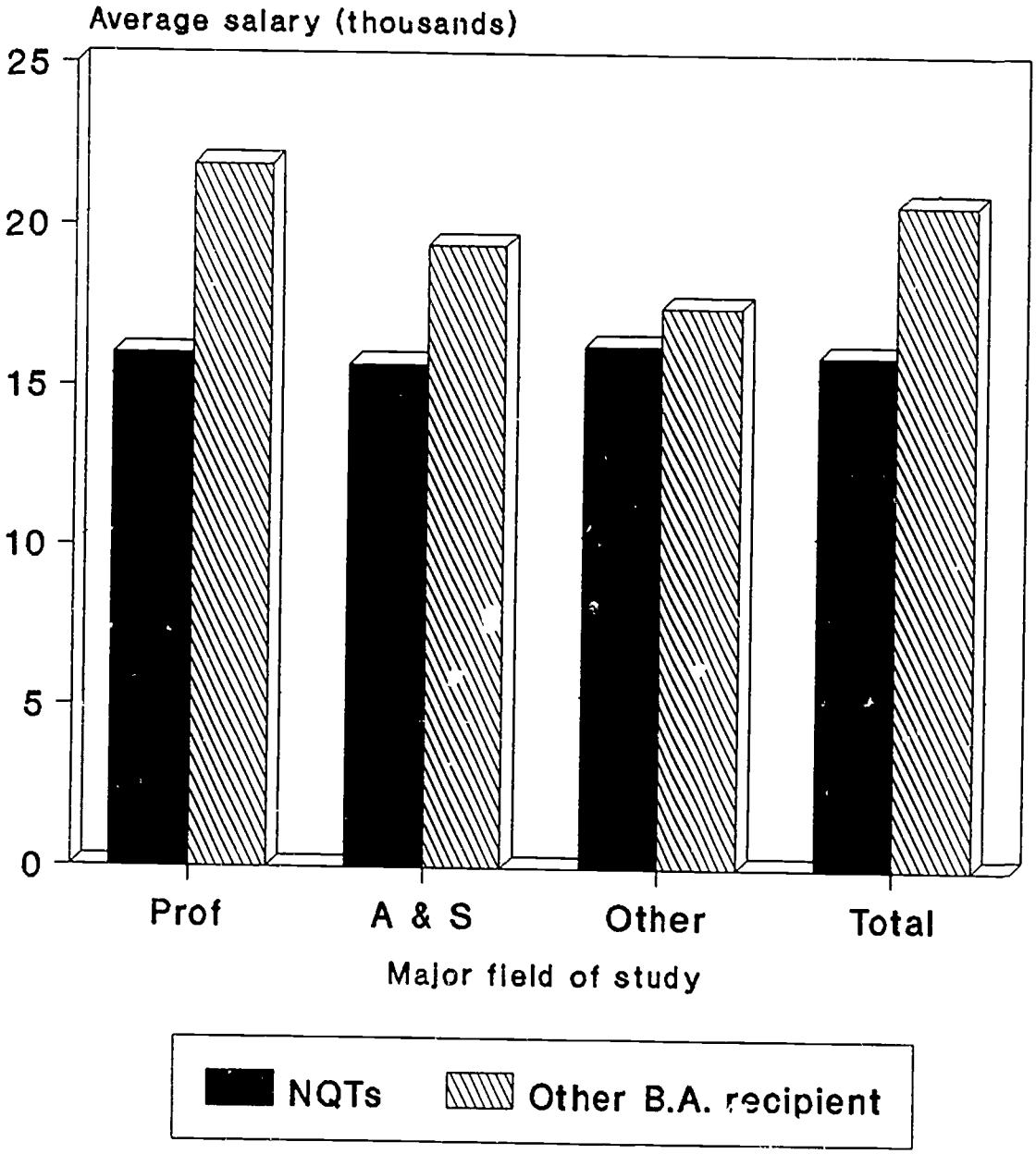
SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Figure 2.--Percent of employed NQT's and other bachelor's degree recipients who were working full time: 1978-87



SOURCE: U.S. Department of Education, National Center for Education Statistics Recent College Graduates Survey, 1987

Figure 3.--Average annual salary of newly qualified teachers and other bachelor's degree recipients: 1987



SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987

APPENDICES

APPENDIX A: TECHNICAL NOTES

Methodology

The Recent College Graduate Survey was designed to obtain data on the postdegree employment and education experiences of bachelor's and master's degree recipients from American colleges and universities who received their degrees between July 1, 1985 and June 30, 1986. The survey was conducted from September 1987 to February 1988, and obtained data on the employment experiences of graduates as of April 27, 1987. A sample of approximately 22,400 graduates was selected in the second stage of a two-stage sample. The first-stage sample was selected from all institutions in the Nation awarding bachelor's and/or master's degrees. A methodological report providing more detail than provided below on sample design, data editing, and imputation is available upon request.

Type of Data Collected

The questionnaire requested information regarding educational financing, additional education or training following receipt of degree, employment experience, and selected biographical and background information. Additional information about employment experience was obtained from graduates who were qualified to teach in elementary and secondary schools.

Status of Data and Response Rates

The questionnaire was sent to 21,180 eligible sample members (18,825 bachelor's and 2,355 master's degree recipients) and responses were obtained from 16,878 (80 percent) by mail and followup telephone interview.

Table A1.--Final status of questionnaire data collection

	Bachelor's recipients	Master's recipients	All sample members
Eligible sample*	18,825	2,355	21,180
Prior refusals	30	0	30
Post-mailing ineligibles	648	129	777
Post-mailing refusals	347	64	411
Respondents	15,088	1,790	16,878
Nonrespondents	3,360	501	3,861
Response rate	80.1%	76.0%	79.7%

*Excludes ineligibles identified prior to initial mailout.

Data Editing

Prior to key-entry, each form was scan edited for completeness, readability, and critical items. Telephone calls were made to individuals whose forms failed scan edit in order to resolve errors. Forms that passed scan edit were keyed and submitted for machine edit, which checked for range errors, logical inconsistencies, and erroneous skip patterns. For cases in which error patterns or frequencies suggested coding or keying errors, hard copy documents were reviewed. When resolution from hard copy was not possible, imputation was applied to the data as appropriate. All forms requiring error resolution were resubmitted for machine edit until no further errors were identified.

Imputation

Imputation was carried out for item nonresponse using several different strategies. Implicit or explicit routing (skip) patterns were evaluated to identify items for which it was possible to assign values to missing items by performing logical imputation. When logical imputation procedures could not be used, regression imputation procedures were considered. This procedure made use of a regression equation to calculate a value for a missing item (dependent variable) based on data reported by the individual for other related items (independent variables). The parameters of the regression equation were estimated from complete responses within the imputation class. Finally, if neither logical nor regression imputation procedures could be used, random imputation within class was carried out. For each imputed survey item, each nonrespondent was assigned the value of a respondent randomly selected from the same imputation class.

Sample Design

The design of the sample called for the selection of 16,000 bachelor's degree recipients and 2,000 master's degree recipients from 400 institutions that granted bachelor's or master's degrees during the 1985-86 academic year. This core sample was subsequently augmented within the same 400 schools to include (1) 3,400 bachelor's degree recipients in nursing and (2) 1,000 bachelor's and master's degree recipients in fields of study likely to provide bilingual education teachers.

The sample was selected with a two-stage cluster sample design, with institutions offering degrees of interest as the first-stage units and graduates of these institutions (within the specified time period and degree type) as the second stage units. The first-stage sampling frame was composed of the 1,867 institutions that granted bachelor's or master's degrees in 1983-84, the most recent data available at time of sample selection.

A first-stage sample of 400 institutions was selected with probability proportionate to size. Except for traditionally black institutions (TBIs), the size measure used was the sum of bachelor's and master's degrees in 1983-84. TBIs were assigned three times the number of degrees awarded in order to increase the number of black graduates in the sample. Institutions on the frame were stratified into four strata by crossing public and private with educational and noneducational. Educational schools were those that granted 100 or more education degrees or those who granted half or more of all bachelor's and master's degrees in education. Of the 400 institutions selected, 240 were selected with certainty. The remaining 160 sample selections were proportionally allocated to each of the four strata on the basis of size and were selected within strata with probability proportional to size.

In selecting the sample of graduates, the primary goal was to select a sample of graduates containing specified numbers of sample members in the seven defined strata or subgroups shown in table A2. Lists of graduates were requested from each sampled institution, and discrepancies between the numbers of graduates listed and the numbers reported on the 1984-85 Survey of Earned Degrees were resolved. Simple random samples of graduates were then selected from each subgroup with sampling rates that would attain the desired stratum sample sizes and make the overall selection probabilities assigned to each graduate in the same stratum equal whenever possible. Table A2 shows the distribution of the sample of graduates by subgroup.

Table A2.--Distribution of the sample of graduates

Subgroups	Number of graduates		
	Population	Sample	Augmentation*
Total	1,260,669	22,400	4,400
Bachelor's	975,540	19,665	3,665
Math, Computer Science Physical Science, Letters	111,069	3,262	0
Education	88,017	2,964	265
Nursing	33,252	3,742	3,400
Foreign Languages	9.954	500	0
All other bachelor's	733,248	9,197	0
Master's	284,112	2,000	0
Bilingual Education (bachelor's and master's)	1,017	735	735

*Graduates whose inclusion in the sample is attributable to augmentation

SOURCE: U.S. Department of Education, National Center for Education Statistics, the HEGIS XX survey, The 1984-85 Survey of Earned Degrees.

Sampling Error

The sampling standard errors for all of the statistics shown in this report have been estimated by a procedure called Ultimate Cluster Taylor Series Approximation. This procedure takes into account the complexities of the sample design, resulting in significantly higher sampling errors than those that would have been calculated using formulas based on the assumption of simple random sampling.

Tables B1 through B9 contain the standard errors for each of the estimates shown in this report. For example, the average salary for newly qualified teachers was $16,000 with a standard error of $74. This standard error may then be used to construct a confidence interval around the estimate. To establish the 95 percent confidence interval the standard error is multiplied by 1.96 and the resulting value is added to and subtracted from the estimate.

$$\$74 \times 1.96 = \$145$$

$$\$16{,}000 - \$145 = \$15{,}855$$

$$\$16{,}000 + \$145 = \$16{,}145$$

If all possible samples were selected, each being chosen under the same conditions as the current sample, then 95 percent of the confidence intervals for all samples would contain the "true" average salary for newly qualified teachers. The "true" value is the value that would have been obtained if all graduates had been surveyed rather than just a sample of graduates.

Analytical Methodology

Each comparison cited in this report is significant at the .05 level as determined by a pairwise t-test for independent samples. The variance of the difference of two estimates was calculated as

$$SE_d^2 = SE_1^2 + SE_2^2$$

When an entire "family" of comparisons was made, each pairwise comparison within the "family" was tested against an adjusted significance level to ensure that all the comparisons within the family were significant at the .05 level. Adjustments were made for the number of comparisons within the "family" by means of the Bonferroni adjustment.

Nonsampling Errors

Nonresponse to the survey is one source of nonsampling error. Survey estimates may be biased if nonrespondents have different educational and occupational experiences than those who responded. To account for non-participating institutions and nonresponding graduates, a poststratification ratio adjustment procedure was used with 14 poststrata (the 7 groups shown in table A2 divided into public and private subgroups). The initial weight for each graduate was adjusted so that the sum of the graduate weights in each poststrata equaled the corresponding number of graduates tabulated from the U.S. Department of Education, National Center for Education Statistics, the HEGIS XXI Survey, 1985-86 Survey of Earned Degrees. Based on a validation study conducted in 1979[1], the earned degrees data are very accurate. Therefore, the use of the poststratification adjustment should reduce nonresponse bias.

In addition to nonresponse, many other potential sources of non-sampling error exist. These include definition difficulties, differences in the interpretation of questions, errors by the respondents, and errors made in recording the data. No measure of the nonsampling error from such sources is currently available.

---

[1] Peng, Samuel, HEGIS Post-Survey Validation Study, 1979.

Variables Used in the Report

The following provides a brief discussion of how the analysis variables were coded. In the discussion which follows, most variables have a "Q" followed by a number. Together, the "Q" and the number refer to a particular question number on the attached survey questionnaire. For example, Q29 refers to question 29 of the survey questionnaire. Variables which begin with the letter "X" are constructed variables whose values are based on more than one variable on the file.

With the exception of the data on NQTs at the master's degree level in table 1, the analysis for this report was restricted to bachelor's degree recipients by requiring that the variable AQlDEG = 'B'.

In general, nonresponses and legitimate skips were recoded as missing. The exception to this occurred with the coding of the employment status variables.

An NQT is identified on the file if the variable XNQT = 1 XNQT was created with the following code:

```
If Q28a=1 and [(6.5<=Q28BM<=12.5 and Q28by=85) or
   (0.5<=Q28BM<=6.5 and Q28BY=86)] and Q35=3 then
   XNQT = 1;
Else if Q29=1 and Q30=2 and Q35=3 then XNQT = 1;
Else if (Q28A=2 or Q29=2 or Q29=3) and Q37=1 and
   [(Q38M>=6.5 and Q38Y=85) or (Q38Y>=86)] and
   Q35=3 then XNQT=1;
Else if Q26a=1 and Q26B=1 and Q35=3 then XNQT = 1;
Else XNQT = 0;
```

The remainder of this section will discuss the coding of variables by the table in which they first appear.

Table 2:

Race/ethnicity:

Persons who indicated that they were of Hispanic origin in Q60 and indicated in Q61 that their race was either black or white were placed in the Hispanic category, leaving the black and white categories to consist of black and white non-Hispanics.

Highest level of parents' education:

High school degree or less.	Q67 = 1, 2, or 3;
Vocational or technical:	Q67 = 4, 5, or 6;
College education:	Q67 = 7, 8, or 9;
Postbaccalaureate education:	Q67 = 10, 11, or 12;

Table 4:

Major field of study:

The file contains a constructed variable, XQ3B, of two digit CIP codes which were used to create the following major fields of study. A table of two digit CIP codes with associated fields of study may be found at the end of this section on variable coding.

Business and management:	XQ3B = 6, 7, or 8;
Education:	XQ3B = 13;
Engineering:	XQ3B = 14 or 15;
Health professions:	XQ3B = 17 or 18:
Public affairs/social service:	XQ3B = 31, 43, or 44;
Biological science:	XQ3B = 26;
Mathematics, computer, and physical sciences:	XQ3B = 11, 27, 40, or 41;
Social science:	XQ3B = 45;
Humanities:	XQ3B = 16, 23, 38, 39, or 50;
Psychology:	XQ3B = 42.

Table 5:

All others:	XNQT = 0.
Employed:	Q16 = 1.
Unemployed:	Q16 = 2 and Q17 = 1 and Q18a =1.
Not in the labor force:	Q16=2 and (Q17 not equal to 1 or Q18a not equal to 1).
Employed full-time:	Q20=1.

Table 7:

Salary data:

The variable X22A was used and winsorized so that values below $3,000 (1st percentile) were set equal to $3,000 and values above $43,200 (99th percentile) were set equal to $43,200.

Salary of full-time NQT:	X22A>0 and Q20=1 and XNQT=1.
Salary of full-time non-NQT:	X22A>0 and Q20=1 and XNQT=0.

Table 9:

Teacher:

Is a teacher:	If Q39=1 or XQ19B=2 then TCHR=1.
Teacher status unknown:	If Q30=-1 and XQ19B=-1 then TCHR=-1.
Is not a teacher:	Else TCHR=2.

Table 10:

NQTs:	
Eligible or certified in some field:	Q28A=1 or Q29=1 or (Q39 not equal to 1 and X19B not equal to 2).
Certified or eligible in teaching field:	[(Q32A2=1 or Q32B2=1) and Q42_1=1] or..... or [(Q32A28=1 or Q32B28=1) and Q42_27=1].
Teachers (who were also NQTs, XNQT=1):	
Teaching and eligible or certified in some field:	TCHR=1 and (q28A=1 or Q29=1).
Teaching and eligible or certified in teaching field:	TCHR=1 and ([(Q32A2=1 or Q32B2=1) and Q42_1=1] or ....or ([(Q32a28=1 or Q32B28=1) and Q42_27=1]).

Since TCHR=1 includes those who said that they were teachers in question 19b but who did not specify their teaching field, the percent of teachers teaching in their field (78.4 percent) is based on responses to Q39 only. This percent was then applied to those who indicated that they were teachers in Q19 but not in Q39, 8000 such respondents, and the product was added to those who were known to be teaching in their field.

Not teaching:	TCHR not equal to 1.
Teaching general education and eligible or certified to teach in some field:	Q42_1=1 and (Q28A=1 or Q29=1).
Teaching general education and eligible or certified to teach general education:	Q42_1=1 and (Q32A2=1 or Q32B2=1).

Two-digit Classification of Instructional Programs Codes

Codes	Description
01	Agribusiness and agricultural production
02	Agricultural sciences
03	Renewable natural resources
04	Architecture and environmental design
05	Area and ethnic studies
06	Business and management
07	Business administrative support
08	Marketing and distribution
09	Communications
10	Communications technologies
11	Computer and information sciences
12	Consumer, personal, and miscellaneous services
13	Education
14	Engineering
15	Engineering-related technologies
16	Foreign languages
17	Allied health
18	Health sciences
19	Home economics
20	Vocational home economics
22	Law
23	Letters
24	Liberal/general studies
25	Library and archival sciences
26	Life sciences
27	Mathematics
28	Military sciences
30	Multi-/Interdisciplinary
31	Parks and recreation
32	Basic skills
38	Philosophy and religion
39	Theology
40	Physical sciences
41	Science technologies
42	Psychology
43	Protective services
44	Public affairs
45	Social sciences
46	Construction trades
47	Mechanics and repairers
48	Precision production
49	Transportation and material moving
50	Visual and performing arts
-1	Nonresponse
-2	Uncodeable

APPENDIX B:

STANDARD ERROR TABLES

Table B1.--Standard errors for the characteristics of newly qualified teachers (NQTs) and other bachelor's degree recipients: 1987

Selected characteristic	NQTs	Other bachelor's degree recipients
Age		
20-23	0.52	0.35
24-25	0.51	0.33
26 and older	0.47	0.37
Sex		
Males	0.43	0.29
Females	0.43	0.29
Race and ethnicity		
American Indian	0.10	0.04
Asian	0.19	0.12
Black, non-Hispanic	0.22	0.15
White, non-Hispanic	0.41	0.22
Hispanic*	0.31	0.10
Marital status		
Single	0.61	0.34
Married	0.59	0.28
Separated, divorced, or widowed	0.18	0.10
Highest level of father's education		
High school degree or less	0.52	0.31
Vocational or technical	0.22	0.11
College education	0.54	0.26
Postbaccalaureate education	0.42	0.24
Highest level of mother's education		
High school degree or less	0.54	0.32
Vocational or technical	0.33	0.14
College education	0.52	0.30
Postbaccalaureate education	0.33	0.16
Educational expectations		
Bachelor's degree	0.33	0.21
Master's degree	0.51	0.26
Doctoral degree	0.41	0.16
First-professional degree	0.23	0.20
Grade point average		
3.75-4.00	0.35	0.19
3.25-3.74	0.49	0.22
2.75-3.24	0.44	0.21
2.25-2.74	0.33	0.21
1.75-2.24	0.08	0.09

*Hispanics may be of any race.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Table B2.--Standard errors for newly qualified teachers (NQTs) and other bachelor's degree recipients, by sex and marital status: 1987

Marital status	NQTs		Other bachelor's degree recipients	
	Men	Women	Men	Women
Single	0.97	0.71	0.39	0.40
Married	0.95	0.68	0.38	0.32
Divorced, separated, or widowed	0.22	0.26	0.08	0.19

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Table B3.--Standard errors for percent that newly qualified teachers (NQTs) ar· of all bachelor's degree recipients for the 1985-86 academic year, by major field of study

Major field of study	Standard error
Professional fields	0.37
Business and management	0.08
Education	0.68
Engineering	0.31
Health professions	0.33
Public affairs/social services	0.53
Arts and science fields	0.22
Biological science	0.59
Mathematics, computer, and physical sciences	0.25
Social sciences	0.37
Humanities	0.40
Psychology	0.68
Other fields	0.40

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table B4.--Standard errors for the labor force status of newly qualified teachers (NQTs) and other bachelor's degree recipients one year after graduation: 1987

Bachelor's degree recipients	Percent not in labor force	Percent employed	Percent unemployed	Percent employed full time
Newly qualified teachers	0.30	0.32	0.11	0.51
All others	0.19	0.21	0.10	0.18

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table B5.--Standard errors for the percent of newly qualified teachers (NQTs) and other bachelor's degree recipients who were not in the labor force 1 year after graduation, by major field of study: 1987

Major field of study	NQTs	Other bachelor's degree recipients
Professional fields	0.31	0.17
Business and management	2.38	0.22
Education	0.35	0.52
Engineering	0.94	0.40
Health professions	1.10	0.45
Public affairs/social services	--	0 55
Arts and science fields	0.55	0.37
Biological science	4.10	1.41
Mathematics, computer science, and physical sciences	0.94	0.41
Social sciences	0.43	0.78
Humanities	1.14	0.67
Psychology	0.94	1.04
Other fields	2.18	0.54

--Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Table B6.--Standard errors for the average annual salary of newly qualified teachers (NQTs) and all other bachelor's degree recipients employed full time: 1987

Major field of study	NQTs	Other bachelor's degree recipients
Total	$75	$46
Professional fields	92	54
Arts and sciences fields	140	81
Other fields	387	129

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987; U.S. Department of Education, National Center for Education Statistics, New Teachers in the Job Market: 1985 Update, 1987.

Table B7.--Standard errors for the average annual salary of newly qualified teachers (NQTs) and all other bachelor's degree recipients employed full time by major field of study: 1987

Major field of study	NQTs	Other bachelor's degree recipients
Total	$75	$46
Professional fields	92	54
Business and management	205	75
Education	74	282
Engineering	1,117	92
Health professions	633	79
Public affairs/social services	--	171
Arts and science fields	140	81
Biological science	--	240
Mathematics, computer science, and physical sciences	263	105
Social sciences	228	206
Humanities	294	106
Psychology	--	209
Other fields	387	129

--Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

Table B8.--Standard errors for the average annual salary of bachelor's degree recipients working full time in teaching and nonteaching positions, by major field of study: 1987

Major field of study	Teaching positions	Non-teaching positions
Total	$65	$47
Professional fields	74	55
Business and management	--	75
Education	75	320
Engineering	--	96
Health professions	572	81
Public affairs/social services	--	169
Arts and science fields	144	79
Biological science	--	240
Mathematics, computer science, and physical sciences	248	105
Social sciences	506	200
Humanities	237	95
Psychology	499	213
Other fields	316	125

-- Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table B9.--Standard errors for the teaching status of newly qualified teachers (NQTs), by teaching field: 1987

Teaching field	Eligible o certified i.. some field	Eligible or certified in teaching field	Certified in teach- ing field
Newly qualified teachers	0.32	(+)	(+)
Teachers	0.53	0.64	0.63
Teaching field of NQTs:			
General elementary	0.54	0.76	0.80
Art	2.81	2.43	1.85
Biological sciences	3.49	4.02	3.72
Business	3.13	3.16	2.76
English language arts	2.12	2.19	2.13
Mathematics	0.98	1.98	1.84
Music	0.96	2.83	2.80
Physical science	1.23	2.06	1.97
Physical education	1.1.	2.12	2.12
Pre-elementary education	3.08	2.75	2.99
Social science/social studies	1.83	2.38	2.13
Special education	1.27	1.96	1.86

+ Not applicable

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

APPENDIX C: ADDITIONAL TABLES

Table C1.--Characteristics of newly qualifed teachers (NQTs) who were not eligible or certified and all NQTs: 1987

Selected characteristics	NQTs not eligible or certified	All NQTs
Total (number)	8,800	112,100
Total (percent)	100.0	100.0
Age		
20-23	56.3	36.0
24-25	20.0	34.6
26 and older	23.7	20.4
Sex		
Males	66.5	27.4
Females	33.5	72.6
Race and ethnicity		
American Indian	0.0	0.6
Asian	2.5	1.2
Black, non-Hispanic	5.2	5.0
White, non-Hispanic	84.7	87.8
Hispanic*	7.7	4.8
Marital status		
Single	77.5	61.4
Married	49.9	34.9
Separated, divorced or widowed	2.6	3.9
Highest level of father's education		
High school degree or less	58.0	42.4
Vocational or technical	7.7	6.8
College education	23.2	31.1
Postbaccalaureate education	11.1	19.8
Highest level of mother's education		
High school degree or less	60.8	48.1
Vocational or technical	4.7	9.2
College education	26.7	34.3
Postbaccalaureate education	7.7	8.4
Educational expectations		
Bachelor's degree	11.3	10.2
Master's degree	39.2	68.2
Doctoral degree	41.9	19.3
First-professional degree	7.6	2.2
Grade point average		
3.75-4.00	13.9	13.4
3.25-3.74	26.8	34.4
2.75-3.24	44.6	37.7
2.25-2.74	13.8	12.8
1.75-2.24	0.9	1.7

*Hispanics may be of any race.

NOTE: Percents in each category may not add to 100 due to cases with unreported values.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduates Survey, 1987.

Table C2.--Average annual salary of 1985-86 bachelor's degree recipients working full time in teaching position in 1987

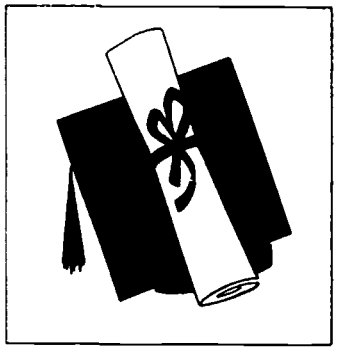
Contract length	Average annual salary
Total	$15,700
9 months	$14,800
10 months	$15,800
11 months	--
12 months	$16,400

--Too few cases for a reliable estimate.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Recent College Graduate Survey, 1987.

APPENDIX D: SURVEY QUESTIONNAIRE

Form Approved
OMB No. 1850-0532
Expiration Date: 12/87



1987
Survey of 1985-86 College Graduates

U.S. Department of Education
Center for Education Statistics
Washington, D.C. 20208

All information which would permit identification of the individual respondent will be held in strict confidence, will be used only by persons engaged in and for the purposes of the survey, and will not be disclosed or released to others for any purposes except as required by law. This survey is authorized by law (20 U.S.C. 1221e.1). While you are not required to respond, your cooperation is needed to make the results of this survey comprehensive, accurate, and timely.

1987 Survey of 1985-86 College Graduates

VERIFICATION OF INFORMATION

1. **According to information obtained from the institution identified on the label below, you received the degree specified between July 1, 1985 and June 30, 1986.**

1a. Did you receive the degree listed (regardless of any others you may have earned) from that school during this time period?

(CIRCLE ONE)

Yes ..... → SKIP TO Q3a
No ..... 2 → CONTINUE WITH Q2

2. Did you obtain any bachelor's or master's degree from any school, between July 1, 1985 and June 30, 1986?

Yes ..... 1 → PLEASE MAKE THE NECESSARY CORRECTIONS ON THE LABEL IN Q1 ABOVE AND THEN CONTINUE WITH Q3a

No ..... 2 → SKIP TO Q68a ON LAST PAGE

THE FOLLOWING QUESTIONS REFER TO YOUR EDUCATION FOR THE DEGREE LISTED ON THE (CORRECTED) LABEL IN Q1.

3a. When did you receive this degree? Month ☐☐ Year 19☐☐

3b. What was your major field of study for this degree?

Major field: _____

3c. If this degree was a master's degree, what was your major field of study at the *undergraduate* level?

Major field: _____

4. **Please estimate how well you did in all of your coursework for your *undergraduate* degree.**

(CIRCLE ONE)

MOSTLY A (3.75-4.00 grade point average) 1
ABOUT HALF A AND HALF B (3.25-3.74 grade point average) 2
MOSTLY B (2.75-3.24 grade point average) 3
ABOUT HALF B AND HALF C (2.25-2.74 grade point average) 4
MOSTLY C (1.75-2.24 grade point average) 5
ABOUT HALF C AND HALF D (1.25-1.74 grade point average) 6
MOSTLY D OR BELOW (Less than 1.25) 7
HAVE NOT TAKEN ANY COURSES FOR WHICH GRADES WERE GIVEN 8

5. **For the degree listed in Q1, about what proportion of your total education expenses was paid for by each of the following sources?**

a. Your own earnings and personal savings . . . . . _____%
b. Your spouse's earnings . . . . . _____%
c. Contributions or loans from parents . . . . . _____%
d. Contributions or loans from other relatives or friends . . . . . _____%
e. Contributions or loans from employers . . . . . _____%
f. Loans (other than from parents, relatives, or friends) . . . . . _____%
g. Grants/scholarships . . . . . _____%
h. Assistantships or fellowships . . . . . _____%
i. Other financial aid . . . . . _____%

Total = 100%

6a. **Did you ever *apply* for financial aid to help pay the costs of school for this degree (grants, scholarships, loans, etc.)?**

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q6b
No . . . . . 2 ⟶ SKIP TO Q8a

6b. **Were you ever *awarded* financial aid during your enrollment for this degree?**

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q7
No 2 ⟶ SKIP TO Q8a

7. **For each type of financial aid listed below, please indicate whether you *ever* received such aid for your education for this degree.**

(CIRCLE ALL THAT APPLY)

Grants/scholarships

a. Federal Pell/BEOGS 1
b. Other Federal 2
c. State 3
d. Institutional 4
e. Other 5

Loans

f. Federal GSL 6
g. Other Federal 7
h. State 8
i. Institutional 9
j. Other 10

Other type of aid

k. Work study 11
l. Fellowship 12
m. Assistantship 13
n. Other 14

8a. **What was the *total* amount of money you borrowed for education toward this degree? Include all loans from parent(s), other relatives and friends, or loans that have been repaid.** (IF NONE, ENTER 0)

Total $_____.00

8b. **Of your total education loans, about how much do you still owe?** (IF NONE, ENTER 0.)

Total $_____.00

ADDITIONAL EDUCATION

9. **During or after completing the degree listed in Q1, did you apply to any school for additional formal training?**

(CIRCLE ONE)

Yes . . . . . 1 → CONTINUE WITH Q10
No, I had no plans to continue my education . . 2
No, I wanted to work before continuing my education . . . 3
No, I wanted to take time off before continuing my education 4 → SKIP TO Q16
No, I could not afford to continue my education . . . 5
No, for other reasons (SPECIFY) _____ 6

10. **To how many schools did you apply?**

Number of schools: _____

11. **For your first two choices of schools to which you applied, please answer the following questions (Q11a-Q11e).** (NOTE: IF YOU APPLIED TO ONLY *ONE* SCHOOL, PLEASE ANSWER THE QUESTIONS FOR "FIRST CHOICE" ONLY.)

11a. **Schools applied to:**

	1st choice	2nd choice
School name:	_____	_____
City:	_____	_____
State:	_____	_____

11b. **Were you accepted?**

1st choice	2nd choice
Yes 1	Yes 1
No 2	No 2

11c. **Did you apply for financial aid?**

1st choice	2nd choice
Yes 1	Yes 1
No 2	No 2

11d. **Were you offered financial aid?**

1st choice	2nd choice
Yes 1	Yes 1
No 2	No 2

11e. **How much total aid (grants, loans, fellowships, assistantships, etc.) were you offered?** (IF NONE, ENTER ZERO.)

1st choice	2nd choice
$_____.00	$_____.00

12a. Have you *enrolled* in school at any time since receiving the degree listed in Q1?

(CIRCLE ONE)

Yes, currently enrolled 1
Yes but not currently enrolled 2
→ CONTINUE WITH Q12b

No . . . . . 3 → SKIP TO Q16

12b. Was the school in which you enrolled your first or second choice?

(CIRCLE ONE)

Yes, first choice 1
Yes, second choice 2
→ SKIP TO Q13

No . . . . . 3 → CONTINUE WITH Q12C

12c. What was the name and location of the school in which you enrolled?

School name: _____

City: _____ State: _____

13. Please indicate your major field of study at this school.

Major field: _____

14. What other degree, certificate, or award (are/were) you working toward at this school?

(CIRCLE ONE)

Courses not leading toward a degree, certificate, or other formal award . . . . . 1 → SKIP TO Q16
Diploma (not high school) 2
Associate's degree 3
Bachelor's degree 4
Postbaccalaureate certificate 5
Master's degree 6
Doctoral degree (Ph.D. or Ed.D.) 7
First-professional degree (MD, OD, DVM, Law, etc.) 8
Other certificate/award (SPECIFY)_____ 9
→ CONTINUE WITH Q15

15. When did you (or do you expect to) obtain this degree, certificate or award?

Month ☐☐ Year 19☐☐

EMPLOYMENT EXPERIENCE

16. Were you working for pay during the *week of April 27, 1987*?

(CIRCLE ONE)

Yes . . . . . 1 ——► SKIP TO Q19
No . . . . . 2 ——► CONTINUE WITH Q17

17. Were you looking for work during the week of April 27, 1987?

(CIRCLE ONE)

Yes 1
No 2

18a. Were you available for work during the week of April 27, 1987?

(CIRCLE ONE)

Yes 1
No 2

18b. What was the *main* reason you were not working during the week of April 27, 1987?

(CIRCLE ONE)

I was going to school 1
I had family responsibilities (including pregnancy) 2
I could not find the kind of job I wanted 3
I did not want to work 4
I had already secured a new job to begin sometime after April 27, 1987 (including jobs starting in the summer or fall) 5
I was laid off 6
Other reason (SPECIFY)_____ 7

——► SKIP TO Q27

19. Please describe below the *principal* job you held during the week of April 27, 1987 (IF YOU HAD MORE THAN ONE JOB AT THE SAME TIME, ANSWER FOR THE JOB FROM WHICH YOU EARNED MOST OF YOUR INCOME.) PLEASE DO NOT USE ABBREVIATIONS IN ANSWERING THESE QUESTIONS.

19a. For what type of business, industry, or organization were you working? (FOR EXAMPLE: OUTPATIENT CARE FACILITY, ACCOUNTING FIRM, T.V. MANUFACTURER, DAYCARE CENTER, SCHOOL.)

_____

_____

19b. What type of work were you doing? (FOR EXAMPLE: REGISTERED NURSE, ELECTRICAL ENGINEER, ACCOUNTANT, SCHOOL GUIDANCE COUNSELOR, SCHOOL TEACHER.)

_____

_____

19c. What were your major activities or duties on the job? (FOR EXAMPLE: CARING FOR PATIENTS, AUDITING FIRM'S BOOKS, DESIGNING, WIRING CIRCUITS, ADVISING AND COUNSELING STUDENTS, CARING FOR CHILDREN, TEACHING STUDENTS.)

_____

_____

19d. Were you:

(CIRCLE ONE)

An employee of a PRIVATE company or business, or individual, for wages, salary, or commissions? 1
A FEDERAL government employee? 2
A STATE government employee? 3
A LOCAL government employee (city, county, etc.)? 4
Self-employed in your OWN business, professional practice or farm;
Not incorporated? 5
Incorporated? 6
Employed in other type of firm? (SPECIFY)_____ 7

19e. Where was this principal job located?

City: _____

State: _____ Zip code:_____

20. Was this job full-time?

(CIRCLE ONE)

Yes 1
No, I specifically wanted full-time work, but I could not find any 2
No, I did not want full-time work 3

21. How many hours per week were you employed at this job?

Hours per week: _____

22. **At what rate (before deductions) were you paid on this job?**

(CIRCLE ONE)

$ _____

- Per year 1
- Per month 2
- Per week 3
- Per day 4
- Per hour 5

23. **Was a college degree required in order to obtain this job?**

(CIRCLE ONE)

- Yes . . . 1
- No 2
- Don't know . . . 3

24a. **Please indicate the extent to which your work on this principal job was related to your major field of study for the degree listed in Q1.**

(CIRCLE ONE)

- Closely related 1
- Somewhat related 2

→ SKIP TO Q25

- Not related . . . . . 3 → CONTINUE WITH Q24b

24b. **What was the *main* reason you took a job not related to your field of study?**

(CIRCLE ONE)

- I could not find a job in my field 1
- The pay was better than for a job in my field 2
- Better opportunity for advancement than for a job in my field 3
- I wanted to see if I liked this kind of work 4
- This is the job I held prior to completing my degree 5
- I wanted to work in a "manual" occupation 6
- Better opportunity to help people or be useful to society 7
- Other (SPECIFY)_____ 8

25. **Which of the following statements *best* describes your principal job?**

(CIRCLE ONE)

- A job with possible career potential 1
- A job with definite career potential 2
- A temporary job until a better one could be found 3
- A temporary job while waiting to report to a new job 4
- A job to earn money while I decided what kind of work I wanted 5
- A temporary job to earn money for something else (e.g., travel, school, to have free time, or to complete career preparation) 6
- Other (SPECIFY)_____ 7

26a. In addition to the principal job you already described, were you working for pay at a *second* job during the week of April 27, 1987?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q26b
No . . . . . 2 ⟶ SKIP TO Q27

26b. Was this second job that of a school teacher at any level (prekindergarten through grade 12)?
(EXCLUDE JOB AS TEACHER'S AIDE OR DAY CARE CENTER WORKER WITH NO INSTRUCTIONAL DUTIES.)

(CIRCLE ONE)

Yes 1
No 2

27. Did you have any full-time work experience *prior* to receiving the degree referred to in Q1?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ (Number of years: _____)
No 2

28a. Do you have a certificate or license to teach school at any or all level(s) (prekindergarten through grade 12) in at least one State?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q28b
No . . . . . 2 ⟶ SKIP TO Q29

28b. When did you first receive a certificate or license to teach? Month ☐☐ Year 19☐☐

28c. What *kind* of certificate or license do you have?

(CIRCLE ONE)

Regular or standard . . . . . 1 ⟶ SKIP TO Q30
Emergency 2
Temporary 3
Provisional . . . . . 4 ⟶ CONTINUE WITH Q29
Letter of waiver 5
Other (SPECIFY)_____ 6

29. Are you eligible (that is, have you completed all the courses required including student or practice teaching) for a regular or standard certificate or license to teach school at any or all level(s) (prekindergarten through grade 12) in at least one State?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q30
No . . . . . 2 ⟶ SKIP TO Q35
Don't know . . . . . 3 ⟶ SKIP TO Q35

30. When did you *first* become certified or eligible for a certificate or license?

(CIRCLE ONE)

Before July 1, 1985 1
July 1, 1985 - June 30, 1986 2
After June 30, 1986 3

31. Circle below all the grades that you are certified or eligible to teach.

a. **Certified to teach:** None Pre-K K 1 2 3 4 5 6 7 8 9 10 11 12 Ungraded

b. **Eligible to teach:** None Pre-K K 1 2 3 4 5 6 7 8 9 10 11 12 Ungraded

32. Below is a list of teaching *fields.* Please indicate the field(s) that you were certified and/or eligible to teach.

(CIRCLE ALL THAT APPLY IN EACH COLUMN)

Fields	Certified to teach	Eligible to teach
None	01	01
General, elementary	02	02
Art	03	03
Bilingual education	04	04
Biological science	05	05
Business	06	06
Computer science	07	07
English language arts	08	08
English as a second language (ESL)	09	09
Foreign languages	10	10
Health	11	11
Home economics	12	12
Industrial arts	13	13
Mathematics	14	14
Music	15	15
Physical sciences	16	16
Physical education	17	17
Pre-elementary education	18	18
Reading	19	19
Social sciences/social studies	20	20
Special education:		
Mentally retarded	21	21
Hearing impaired, deaf	22	22
Speech impaired	23	23
Seriously emotionally disturbed	24	24
Specific learning disability	25	25
General certificate (no specific condition)	26	26
Other special education	27	27
Vocational education	28	28
Other field	29	29

33. If you indicated in Q32 that you are eligible or certified to teach in more than one field, specify the field in which you are *best* qualified and write the corresponding number (1-29) below.

Field number: _____

60

34. Did you take an examination, either national or State, as part of your certification process?

(CIRCLE ALL THAT APPLY)

a. Yes, National Teacher's Exam 1
b. Yes, other national exam 2
c. Yes, State exam 3
d. Yes, other exam (SPECIFY)_____ 4
e. No 5

35. *Prior to* completing the requirements for the degree referred to in Q1, were you at any time employed as a school teacher at any level (prekindergarten through grade 12)? (EXCLUDE STUDENT OR PRACTICE TEACHING AND WORK AS A TEACHER'S AIDE.)

(CIRCLE ONE)

Yes, full time 1
Yes, part time 2
No 3

36a. Have you *applied* for a job as a school teacher at any level (prekindergarten through grade 12) since or immediately prior to receiving the degree referred to in Q1?

(CIRCLE ONE)

Yes, applied . . . . . 1 ⟶ SKIP TO Q37
No, did not apply . . . . . 2 ⟶ CONTINUE WITH Q36b

36b. Which statement *best* describes your decision *not* to apply for a teaching job?

(CIRCLE ONE)

I was never interested in teaching 1
I wanted another degree or more course work before applying for a teaching job 2
I had all the course work I needed but I wasn't ready to apply for a job 3
Teaching jobs were so hard to get, I didn't bother to apply 4
Student or practice teaching before graduation discouraged me from wanting to teach 5
I received a job offer for more money outside of teaching 6
I received a job offer with more prestige than teaching 7
I didn't like the low pay 8
I didn't like the teaching conditions 9
Other (SPECIFY)_____ 10

37. Have you taught at any level (prekindergarten through grade 12) *since* receiving the degree referred to in Q1?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q38
No . . . . . 2 ⟶ SKIP TO Q49

38. When did you first start teaching?

Month ☐☐ Year 19☐☐

39. Was your principal job during the week of April 27, 1987 that of a school teacher?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q40
No . . . . . 2 ⟶ SKIP TO Q49

40. In which of the following types of public or private schools did you teach in this principal job?

(CIRCLE ONE)

A public school operated by a local school district 1
A public school operated by state or federal agency 2
A private school (religiously affiliated) 3
A private school (nonreligiously affiliated) 4

41. Circle below *all* the grades that you were teaching during the week of April 27, 1987.

Pre-K K 1 2 3 4 5 6 7 8 9 10 11 12 Ungraded

42. In what field(s) were you teaching in this job?

(CIRCLE ALL THAT APPLY)

General, elementary 01
Art 02
Bilingual education 03
Biological science 04
Business 05
Computer science 06
English language arts 07
English as a second language (ESL) . . . 08
Foreign languages 09
Health 10
Home economics . . . . . 11.
Industrial arts 12
Mathematics 13
Music 14
Physical sciences 15

(CIRCLE ALL THAT APPLY)

Physical education 16
Pre-elementary education 17
Reading 18
Social sciences/social studies 19
Special education:
- Mentally retarded 20
- Hearing impaired, deaf 21
- Speech impaired 22
- Seriously emotionally disturbed 23
- Specific learning disability 24
- General certificate (no specific condition) . . 25
- Other special education 26

Vocational education 27
Other field 28

43a. If you indicated in Q42 that you were teaching in more than one field, specify the field in which you taught most of the time and write the corresponding number (1-28) below.

Field Number: _____

43b. Was this teaching assignment:

(CIRCLE ONE)

Full-time? 1
3/4 time? 2
1/2 time? 3
1/4 time? 4
Other? (SPECIFY) _____ 5

44a. Did you teach any of the fields in Q42 (other than foreign languages) in a language other than English?

(CIRCLE ONE)

Yes (SPECIFY LANGUAGE) _____ 1 ⟶ CONTINUE WITH Q44b
No . . . . . 2 ⟶ SKIP TO Q46a

44b. How did you use your ability to teach in this language?

(CIRCLE ALL THAT APPLY)

a. I used it for instruction in subject areas such as mathematics, science, etc 1
b. I taught the Language Arts of the language to pupils for whom it is the home language 2
c. I used it to clarify directions and instructions to pupils for whom it is the home language 3
d. Other (SPECIFY) _____ 4

45. Which of the following special services for limited English proficient students did you provide?

(CIRCLE ALL THAT APPLY)

a. Transitional bilingual education 1
b. English as a second language 2
c. Structured immersion 3
d. Sheltered English 4
e. Other (SPECIFY) _____ 5
f. No special services 6

46a. Were you teaching in the field of special education?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q46b
No . . . . . 2 ⟶ SKIP TO Q47

46b. Were you teaching any other class(es) in addition to teaching in a program of special education to handicapped students?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q46c
No . . . . . 2 ⟶ SKIP TO Q46d

46c. Did you spend more of your time teaching in a program of special education for handicapped students than in your *other* class(es)?

(CIRCLE ONE)

Yes 1
No 2

46d. Have you ever received any preparation for teaching handicapped students?

(CIRCLE ALL THAT APPLY)

a. Yes, formal education (courses taken for college credit in a regular undergraduate or graduate course or program prior to and/or during employment) 1

b. Yes, other education (study or training program completed either prior to or during employment other than in a regular undergraduate or graduate course or program) 2

c. No 3

47. How many months per year was your teaching contract?

Number of months per year: _____

48. Which statement *best* describes your decision to become a teacher?

(CIRCLE ONE)

I have always wanted to be a teacher 1
I like to work with children 2
I like the job security offered by teaching 3
I get satisfaction from teaching 4
I feel the salary for teaching is good 5
I couldn't find any other job 6
Other (SPECIFY) _____ 7

49. Are you currently licensed to practice as a registered nurse?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q50
No . . . . . 2 ⟶ SKIP TO Q58

50. Were you licensed prior to completing the degree listed in Q1?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q51
No . . . . . 2 ⟶ SKIP TO Q52

51. Did you qualify for this license as a result of completing an associate's degree, diploma nursing program, or some other program?

(CIRCLE ONE)

Yes, associate's degree 1
Yes, diploma nursing program 2
Yes, some other program
(SPECIFY)_____ 3

52. When were you issued your *first* license to practice as a registered nurse?

(CIRCLE ONE)

1986 1
1985 2
1984 3
Prior to 1984 4

53. In which State were you issued your first license?

Name of State: _____

54. Have you held any job in nursing since receiving the degree listed in Q1?

(CIRCLE ONE)

Yes . . . . . 1 ⟶ CONTINUE WITH Q55
No . . . . . 2 ⟶ SKIP TO Q58

55. How long after graduation did it take you to find your first job in nursing?

(CIRCLE ONE)

Held job prior to graduation 1
Less than one month 2
1-3 months 3
Over 3 months 4

56. What type of position was this job?

(CIRCLE ONE)

Staff nurse 1
Charge nurse 2
Public health nurse 3
Head nurse 4
Other (SPECIFY) _____ 5

57. Was this position also the principal job that you held on April 27, 1987?

(CIRCLE ONE)

Yes 1
No 2

BACKGROUND INFORMATION

58. What was your age as of your last birthday?

Enter age: _____

59. What is your gender?

(CIRCLE ONE)

Male 1
Female 2

60. Are you of Hispanic or Spanish origin?

(CIRCLE ONE)

Yes 1
No 2

61. What is your race?

(CIRCLE ONE)

American Indian or Alaskan Native 1
Asian or Pacific Islander 2
Black 3
White 4
Other (SPECIFY) _____ 5

62. What was your marital status during the week of April 27, 1987?

(CIRCLE ONE)

Single, never married 1
Married, living with spouse 2
Other (separated, divorced, widowed) 3

63. How many dependent children do you have?

(CIRCLE ONE)

None 1
One 2
Two 3
Three 4
Four 5
Five or more 6

64a. Regarding your high school education, did you receive:

(CIRCLE ONE)

A high school diploma? 1
A diploma through GED or equivalency test? 2
A certificate of high school completion? 3
Other? (SPECIFY)_____ 4

64b. In what year did you receive your high school diploma or certificate?

Year 19 ☐☐

65. What is the highest level of education you *expect* to complete?

(CIRCLE ONE)

Bachelor's degree 1
Master's degree or equivalent 2
Doctoral degree (Ph.D. or Ed.D.) 3
First-professional degree (MD, OD, DVM, Law, etc.) 4

66a. What kind of work does your father (or male guardian) do, or did he most recently do (for example: salesperson, executive, waiter, physician, technician, secretary, assembler.)?

Occupation: _____

67

66b. What kind of work does your mother (or female guardian) do, or did she most recently do (for example: salesperson, executive, waiter, physician, technician, secretary, assembler)?

Occupation: _____

67. What was the highest level of education each of your parents (or guardians) completed?

(CIRCLE ONE IN EACH COLUMN)

	Father or male guardian	Mother or female guardian
Less than high school diploma	1	1
GED	2	2
High school graduation	3	3
Vocational, trade, business or nursing school after high school		
Less than 1 year	4	4
1 but less than 2 years	5	5
Two years or more (before bachelor's degree)	6	6
College or university		
Less than 2 years of college	7	7
2 or more years of college (including 2-year degree)	8	8
Completed college (4- or 5-year degree)	9	9
Master's degree or equivalent	10	10
Ph.D., M.D., or other advanced professional degree	11	11
Don't know	12	12

68a. THANK YOU FOR TAKING THE TIME TO COMPLETE THIS QUESTIONNAIRE.
If we should need to contact you regarding the questionnaire, what is the best time to call?

_____

68b. What is your telephone number?

☐☐☐ ☐☐☐ ☐☐☐☐

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