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ABSTRACT

Data about teachers in the United States using variables which the U.S. Department of Education has specified for comparison with corresponding data about the teachers in Japan is presented. Statistical data is employed in each of the four sections. The sections are: demographic overview, academic qualifications, status of teachers, and inservice education. The first section includes such items as racial makeup of the teaching population and averages of age, teaching experience, hours on the job per week, and advanced degrees held. The second section includes exhaustive data on the college entrance examination scores of education majors compared with those of other majors, as well as information on teacher education programs, graduate education programs, and teacher certificates. The third section includes data on how teacher salaries and benefits compare to other professions, and looks at the comparative social status of teachers. The fourth section discusses inservice educational programs, certification regulations, continuing education credits, and the teacher center approach. A two-page list of references concludes the document. (BZ)

TEACHERS IN THE UNITED STATES

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TEACHERS IN THE UNITED STATES

The educational reform movement in the United States in the 1980s has placed particular emphasis on the quality of the teachers and administrators of the public schools. The public schools,organized into 15,535 school districts, account for 89 percent of the enrollments in grades kindergarten through 12 in the U.S., and they employ approximately 2.1 million classroom teachers in the 50 states. The characteristics, qualifications and preparation of the teachers with whom the students spend between 7 and 8 hours for 180 days of the usual school-year have a tremendous impact on the quality of education the students obtain. This paper presents data about teachers in the United States on the basis of the variables which the U.S. Department of Education has specified for comparison to corresponding data about the teachers in Japan.

DEMOGRAPHIC OVERVIEW

In 1984-85, the public schools in the U.S. employed 2,145,542 teachers, with 55% of these teaching elementary and 45% secondary students. One third of the teachers are male, and two-thirds are female(Feistritzer, 1983-a). The ratio of women to men, however, differs in elementary schools and secondary schools. In the secondary schools, approximately one-half of the teachers are male. In the elementary schools, there are five women to each man.

The median age of America's teachers in 1981 (Feistritzer, 1983-a) was 37 years. During America's "baby-boom" period of the 1960's and 1970's, school enrollments and teacher employment

expanded rapidly, requiring the addition of many new young teachers in the 1960's. Therefore for a time the median age of teachers was somewhat younger than it is now, with declining enrollments and fewer new recruits. The proportion of teachers in the U.S. who are not white varies depending on the data source. According to the National Education Association survey for 1980-81, only 8% of the teachers were not white (including 11 minorities.) Other sources have shown a somewhat higher proportion of 12 percent , with blacks constituting 8.6 percent (Feistritzer, 1983-a and 1983-b).

The Proportion of minority teachers in the teaching force is lower than the proportion of minority children in the schools. The decline in teacher education enrollments has been more severe among minorities than among whites, and exacerbates the problem of minority representation in the teaching profession. Almost three-fourths of all teachers were married in 1981. Approximately 19% were single, and the balance were widowed, divorced or separated. The median years of teaching experience for teachers in that same year was reported as 12 years. The average length of teaching experience is gradually rising reflecting the reduced number of young recruits in recent years, but is expected to decline again in the 1990's as substantial numbers retire who began their careers during the rapid expansion of the 1960's.

The relatively short average tenure of teachers in their careers (12 years) reflects the large number of teachers who leave the career shortly after they enter. Schlechty and

Vance(1981) in their study of North Carolina teachers found that only a bit more than half of the teachers initially hired in 1983 were still teaching in North Carolina in 1980. The retention rates for white males were only slightly higher than for the white females, so leaving to raise a family cannot really explain the high separation rates for women in teaching.

The average hours a teacher spends weekly on all teaching duties is 46 hours, and the average hours in the required school day is 7.3. In secondary schools, teachers generally have five periods of teaching assignments, and 23 pupils per class. In elementary schools, teachers averaged 25 pupils each in 1981(Feistritzer, 1983-a).

O'Neill (1985) shows the average ratio of public elementary and secondary students to teachers as having declined from 29.1 in 1939 to 18.5 in 1984. The differences in these results may represent inclusion of specialist teachers who are not assigned to classrooms.

Almost half of all teachers hold a master's degree. Many of the teachers obtain their master's degree after initial employment. The high percentage of teachers with a master's degree is a reflection of two factors: 1) teacher salary schedules are generally tied to degrees earned and years of experience, and 2) some states now require teachers to earn advanced credits and/or degrees to obtain regular certification, or to maintain their certificates.

In 1946, only 20 states required elementary teachers to have a baccalaureate degree, while some 40 states required secondary teachers to have this degree. (Stinnett, 1974). Today, all

states require teachers to hold a baccalaureate degree, and 16 states require the completion of a master's or another year beyond the baccalaureate for the second-stage certificate for continued employment (NASDTEC,1984).

The advanced degrees teachers hold are primarily in education, or education-related fields. Very few teachers pursue advanced study in an academic discipline.In the past the route toward substantial pay increases for teachers depended on their being promoted out of teaching into counseling or administration. Therefore many teachers have pursued graduate studies in educational administration, "banking" the necessary credits for possible eventual certification as principals. Thus many teachers hold state certificates that qualify them for administrative jobs, should the opportunity for promotion occur.

ACADEMIC QUALIFICATIONS

College-bound high school students in the U.S. take one of two tests to measure their academic aptitudes: The Scholastic Aptitude Test (SAT) or the American College Board Test(ACT) Most individual colleges and universities in the U.S. use one or the other of these two tests in their selection and admission of college applicants.(The organizations that produce and administer these tests are private organizations.)

Substantial information exists that compares the SAT scores of college-bound students by their intended college majors. Analysis of SAT scores demonstrates two major findings:

1. Students intending to major in education score approximately 80 points or (10 percent) lower than the average

for all college bound seniors. According to Weaver (1979) the average SAT score for education was below that of the six largest college majors (business administration, biological sciences, engineering, health and medical fields, physical sciences and social sciences. On the ACT, the average scores of freshmen in educational fields ranked 14 to 17 from the top for the total of 19 fields.

In 1982, the average SAT score of students indicating education as their intended major was fourth from the bottom of 29 fields of study (Feistritzer, 1983-a)

2. The poor standing of prospective teachers relative to other fields of study has worsened. In 1970-71, freshmen entering teacher education had higher verbal and math SAT scores than the national average (Kerr,1983). Earlier evidence, however, indicates that prospective teachers were not intellectual paragons then, as compared to other students. The Pennsylvania General Culture test used in that state in the 1930's obtained results similar to education's rankings in the 1980's (Tyler,1985).

The gap between average scores for all students and those intending to major in education widened for a decade, although the latest comparisons show a slight narrowing in this differential. This decline in the academic ability levels of teachers has been corroborated by several analyses. For example Schlechty and Vance(1981) examined the National Teacher Examination scores of new North Carolina teachers from 1973 to 1980.*They

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* The National Teacher Examination scores at the time of graduation from college are closely correlated to the same individuals' SAT scores four years earlier (Ayres 1982).

found a substantial decline in scores for white females, who comprised over two-thirds of these new teachers. The same researchers examined the results of a longitudinal study of college graduates, and confirmed that those who enter teaching have lower scholastic test scores than the rest of the graduates (Vance and Schlechty, 1982).

Since the students who graduate in a given major do not comprise exactly the same group of students who indicated a major before they even enter college, some critics have suggested that the differential scores of students by intended majors are imprecise measures of final outcomes. The Southern Regional Education Board Transcript Study, however, suggests that the differentials are maintained throughout the college experience (Galambos and others,1985). In that analysis SAT and ACT scores were examined for two sets of graduates with (1) education and (2) arts and sciences majors. The average score of the education graduates was approximately 7 percent below the arts and sciences' scores. The relative gap seems to narrow somewhat by graduation, as compared to matriculation into college, but it is still substantial. During the 1970's the demand for teachers in the United States declined in response to the drop in the number of school-age children. At the same time the substantial emphasis on equal opportunities for women and minorities led to their employment in fields which had previously been shut to most of them. As women and blacks prepared for law, medicine, business, engineering and other fields in which their numbers had once been quite small, fewer of these groups sought entrance into the college of education.The newly emerging

opportunities attracted the most qualified among thse groups. As undergraduate enrollments in the colleges of education declined by 50 percent during the seventies, these colleges dipped lower into the ability pools in an effort to stem their sharp losses. Thus the quality of the new teaching force was attacked by two forces: the exodux of talented women and minorities into new fields that were once closed to them, and the erosion of admission requirements by colleges of education that were trying to survive. Not only were these trends documented by the data that were summarized earlier, but the public took notice of inadequate teachers. Popular magazines that had once featured stories of "Why Johnny Can't Read," now had cover stories about teachers who could not spell. This led to actions in a growing number of state legislatures to put a minimum floor on admissions into the colleges of education.

Initial state mandates in the early 1980s to enforce an admission standard on the colleges of education generally were based on SAT or ACT scores. For example, Florida, one of the first states in the nation to mandate objective tests for teachers as well as for students, established a minimum SAT score of 840 for admission into teacher education. For comparison purpose, the average SAT score nationally for all college-bound seniors in 1985 was 897, while in Florida for the same year it was 890. Thus the minimum entrance requirement for education studies in Florida, and most other states, is well below the national average for all students. A score of 400 on the SAT is earned merely by signing the test, and 1600 is the maximum SAT score. As

one point of reference, the average SAT score for students actually admitted by colleges of engineering in 1985 was 1105.(Southern Regional Education Board,1986)

As more states, either by legislation or regulations, enacted minimum admission standards into teacher education, new tests were developed for use in lieu of the scholastic aptitude tests for college entrance. Among these are the Pre-professional Skills Test, and the Core Battery portions of the National Teacher Examination, with both of these developed by the Educational Testing Service, a private organization.
By the end of 1984, twenty states had enacted test requirements for entry into teacher education (Galambos, 1984).

Another response to the growing public discontent, and one taken especially by the colleges of education in those states without mandated admission tests,has been the establishment of higher minimum grade point averages (gpa's) for prospective education majors. Students generally have to show a 2.5 gpa (on a scale of 4) in their college work prior to entry into teacher education programs generally at the end of their sophomore year. However, given the pluralism of American higher education, with vastly different standards, students and curriculum between colleges, minimum gpa's do not constitute a hard and fast yardstick of academic competence.

A further gatepost has been widely erected to control the minimum academic competence of teachers. This control, via another test, occurs after prospective teachers have completed their undergraduate education, but before they may be certified for employment as teachers. Each state makes its own decision

regarding what test to use, and what score to accept, for certifying teachers. By the end of 1984, 27 states had committed themselves to using a test, and many more were considering the use of certification tests (Galambos, 1984). The majority of states use the National Teacher Examination (NTE) which was developed and is administered by a private organization.

The NTE consists of several portions covering general education or the liberal arts(including a writing sample test), professional education principles, and the subject for which the teacher seeks certification. There are 28 NTE subject area tests, ranging from elementary education to English, mathematics or specific foreign languages. As stated earlier, each state establishes its own minimum score for each test and/or test portion, as is also the case for the admission tests into teacher education programs. The cut-off scores vary widely, but in some states they are set as low as the 10th to 15th percentiles, relative to national norms. Generally states that have had the greatest problems regarding teacher quality are also the ones with fairly low cut-off scores, since to do otherwise would be to foreclose teaching to almost all minority candidates.

Some states instead of using the NTE, have developed their own tests for teacher certification. One state's basic skills test for teachers was taken by a group of private school six-graders, most of whom were able to pass the test.

Suggestions have been made in the last year that a national teacher certification test be developed with a national cut-off score. This would provide a common standard for teachers in all

states. If the test is a highly respected one, passing it would also serve as a means of elevating the prestige of teachers. However, to date this proposal has not moved beyond the discussion stage. Since public education is a state and not federal function in the U.S., states control standards regarding teachers and curriculum, and it will be difficult to change the present system of different cut-off scores depending on states and local district decisions, as well as the use of different tests, depending on the states involved.

Since the teacher certification tests have been required for only a few years in most states, the bulk of the teachers, who were employed before these tests were instituted,has not been tested. This has led to demands for the testing of all teachers, as enacted in three states so far. None of the three states is far enough into the process to yield final results on how the teachers will eventually be affected by these tests.

The emphasis of the foregoing discussion on minimum academic standards does not indicate that all the teachers are clustered around these minima in terms of their scholastic abilities. The mean scores for the various NTE subjet tests range from 580 to 628 for tests that have minimum scaled scores of 250 to 350, and maximum socres of 820 to 990. Earlier reference to some states with cut-off scores at the 15th to 20th percentiles refer to scores that are 60 to 100 scaled points below the means.

Further evidence suggests that teachers in the U.S. do not generally represent the most academically able college graduates. The Graduate Record Examination (GRE) is taken by students seeking admission into graduate schools. This exam is required

for admission into many, but not all graduate programs. The Educational Testing Service, which administers the test, reports that scores for candidates indicating Education, Educational Aministration and Educational Psychology as their graduate majors score below the average on both verbal and quantitative tests. From 1974 to 1981 the verbal scores for the "education" group declined more than the average for all candidates. On the quantitative test, the average increased 13 points for candidates, but declined from 7 to 21 points for the two education majors (Personal communication from Dr. Roy Hardy, Educational Testing Service, 1982).

Unfortunately there is additional evidence showing that among graduates who prepare to teach, it is the least academically able who go into teaching, are hired by school districts, and then remain in teaching. Vance and Schlechty (1982) found that among those who prepared to teach, the SAT's were lower for those going into teaching jobs than for those who did not go into teaching. Furthermore, those who stayed in teaching jobs had lower scores than all other groups that left or never entered teaching.

Perry (1981) examined the records of a group of education graduates in Texas who sought teaching jobs. From his sample he concluded that school districts made no effort to employ the most academically able among those who applied. Of those who applied, 36% had failed a basic skills test, but of those who were hired, 55% had failed the same test!

Schlechty and Vance's study of North Carolina teachers

(1981) found that among white females (who comprised two-thirds of the total), 47% had left their jobs after seven years. Unfortunately the higher the NTE score was for these teachers, the more likely they were to have left teaching earlier rather than later.

TEACHER PREPARATION AND CERTIFICATION

Some 1300 colleges and universities in the United States offer teacher education programs. Since there are approximately 2,000 institutions offering at least a baccalaureate degree in the U.S., this means that teacher preparation is available in some form in two-thirds of all these colleges. Only 12 percent of all the institutions that offer undergraduate teacher preparation are "doctoral universities." Approximately one-third of the institutions are comprehensive universities, that also offer master's degrees, and 54 percent are baccalaureate colleges. Many of the latter are private institutions. Indeed, three-fifths of all the institutions that offer teacher education programs are private colleges (Holmstrom, 1985). Feistritzer (1984) estimates that at least one-half of all new teachers are prepared in no more than 17 percent of the institutions engaged in teacher preparation. These tend to be the large state universities.

Each of the 1300 institutions engaged in teacher preparation offers at least one specialty out of a great variety of specialties that prepare teachers for various grades and for various subjects taught in the schools. Programs vary all the way from preparing teachers generically for elementary schools,

or specifically to teach physics or even driver education in high schools. Most of the comprehensive universities that offer baccalaureate programs in education also offer master's degrees in education.

In 1983, the estimate of the total number of graduates who completed teacher education programs (including those who may have earned an arts and sciences degree in addition to completing the education program sequence) was approximately 135,000, down precipitously from a decade earlier when 289,000 graduated (Feistritzer, 1984).During this same period, the total number of undergraduate degrees in the U.S. in all disciplines rose by 100,000.

The sharp drop in undergraduate enrollments is a result of sharply reduced new teaching jobs in the late 1970's and 1980's, and the rising interest among women and minorities in other professions.

As was mentioned earlier, the baccalaureate degree as a requirement for teaching in elementary schools is a recent phenomenon in the U.S., that has prevailed only since World War II. Well into this century, most elementary teachers were prepared in normal schools. In the 1800's normal schools admitted students who had not completed secondary schools, but by the turn of the century normal schools began their transformation into "teachers' colleges." Gradually these colleges were transformed into multipurpose institutions, so that in the present age it is difficult to remember that some very large universities began as normal schools and teachers' colleges.

Concurrently with the transformation of the normal schools,

pedagogy and psychology became accepted fields of study in existing universities. The current configuration of teacher education in the U.S. includes programs that originated as normal schools, as well as consolidations of university pedagogy, philosophy and psychology departments which emerged as colleges of education.

The usual route to teacher certification is via completion of an "approved" teacher education program. Each state examines public and private teacher education programs to determine if they meet state standards. Some of the standards are designed by an individual state, but many states used the "NASDTEC" standards developed by the various state directors of teacher education.

The National Council for Accreditation of Teacher Education (NCATE), a private organization, accredits teacher education programs. Not all programs that have state approval gain NCATE accreditation. One estimate is that only four of every 10 institutions that prepare teachers in the U.S. have been accredited (Feistritzer,1984). However, the accredited institutions account for a much larger percentage of students than indicated by their proportion of total institutions.

In addition to program approval standards, states also establish and administer certification regulations. These regulations describe the requirements an applicant must meet to teach a given subject or grade level in the public schools. Private schools in most states do not have to limit themselves to the employment of certified teachers. This distinguishes the licensing process from certification. No doctor may practice

anywhere, for example, without a state license, but teachers need certificates generally only to teach in public schools, rather than to practice their profession anywhere.

Many states provide three routes toward certification:

1. completion of an approved teacher education program in the state, or

2. completion of a set of prescribed courses for various teaching specialties, or

3. alternative certification programs, which are discussed on page 32.

A graduate from an approved program in his or her state who passes the teacher certification test and is of good moral character obtains initial certification. For an applicant from another state, the second route generally applies, although via reciprocity agreements, many states accept graduates of other states' approved programs. Although the program approval process is technically separate from the individual applicant's certification process, the certification regulations regarding specific courses teachers should complete tend to shape the configuration of teacher education programs offered by colleges and universities in a state.

The length of validity of teacher certificates varies among states. Many states now issue an initial short-term certificate valid for no more than three years, during which time new teachers are evaluated to determine whether they should be issued regular longer-term certificates. Only a small proportion is denied the longer-term certificates. At one time the regular certificates had life-time validity. The trend is away from

that, however, and the most frequent term of the regular certificates is now five to six years, with renewal contingent on completion of continuing education requirements. (See page 47)

The program approval standards generally specify that the programs must include a general education sequence, professional education coursework, and subject area preparation in the fields for which teachers will seek certification. Very few institutions in a state fail to obtain state approval for some of their teacher education programs, although approval is sometimes withheld for one or another program by the state review process.

The general education sequence covers the "liberal education" of teachers, ie., the necessary background in English, mathematics, science, social science and umanities. The professional education coursework usually covers the philosophical, historical and socio-cultural context of education, educational psychology, "methods" courses, and practice teaching.

For secondary teachers, and for single subject teachers (art and music, for example) the subject area preparation usually consists of a major in the discipline, or, in some states, it may consist of two minors, or a major and a minor. Most states do not require a subject area major for elementary teachers.

General Education

Typically the general education and the subject area courses are offered by the arts and sciences faculties, while education courses are offered by education faculties in the colleges of

education.

The percentage that general education comprises of the total baccalaureate program for teachers ranges from 30 to 40 percent of total courses. Ishler (1984) surveyed 103 large institutions, and concludes that general education averages 51 to 47 semester hours for elementary and secondary education majors. (For a baccalaureate degree, the minimum semester hours is usually 120-128.) The range he reports for elementary education is 33 to 81 hours, and for secondary, 30 to 65 hours.

The National Commission for Excellence in Teacher Education (1985) reports that approximately 40 percent of the total program is devoted to general education. The median general education requirement for those states with clearly stated standards who responded to a National Education Association survey of state certification standards falls within the range of 33 to 37 percent of total baccalaureate credits (Feistritzer, 1983-c).

The SREB Transcript study (Galambos and others, 1985) was undertaken to obtain a more definitive view of the actual courses teachers complete in their college programs. The study is based on a course-by-course examination of the college transcripts of over 6,000 college graduates in 1982-83. Approximately half of these graduates completed approved teacher education programs, and the other half were majors in one of the arts and sciences. This study included the university producing the largest number of teachers in each of the 14 southern states, plus three additional large universities. Seven of the total 17 institutions represent the "flagship" or leading institution of higher education in those seven states. The results of this

study are representative of educational practices in large public universities throughout the nation, where the majority of teachers are produced. The data from this transcript study provide the most detailed current information about what courses future teachers take in college, as contrasted to what colleges, or certification requirements suggest that teachers should study.

General education, for this study, counts every arts and sciences course a graduate completed. In this calculation, however, courses in a student's major are excluded. For example, all English courses are counted except Enlgish courses taken by an English or English education major, or except biology courses if the student is a biology or science education major.

The average general education credits earned are shown in Table 1. In four of the five major divisons the future teachers completed less coursework than the arts and sciences graduates.

TABLE 1

AVERAGE GEMERAL EDUCATION HOURS;PERCENT OF TOTAL CREDIT

	Teachers		Arts and Sciences	
	Credit Hours	Percent of Total Credits	Credit Hours	Percent of Total Credits
Mathematics	6.0	4.2%	7.2	5.2%
Sciences	11.6	8.2	12.2	9.1
English	11.3	8.0	11.8	8.8
Social Sciences	21.6	15.3	20.4	15.0
Other Lib.Arts	11.4	8.1	17.8	13.4

Source: Galambos,An Analysis of Transcripts of Teachers and Arts and Sciences Graduates,Atlanta, Georgia:Southern Regional Education Board,1985.

In the social sciences division, the teachers complete more credits because of their emphasis on educational psychology courses, which are often housed in arts and sciences departments.

Not only did teachers take fewer arts and sciences courses, but they also completed less work at the upper (junior or senior years) level than the arts and sciences students.

The average 6.0 semester hours teachers earned in mathematics is composed primarily of courses below college-level. (College-level mathematics is defined as a course with the prerequisite that algebra I, II and geometry had been previously completed.) The mathematics courses that future teachers took are often called "mathematics for elementary teachers," and deal with understanding decimals and real numbers, geometry, measurement and the metric system. Another course frequently found on the transcripts of future teachers is labeled "basic concepts of mathematics," and has the intriguing description that it deals with "the cultural-historical point of view with emphasis on ideas...rather than on manipulative processes or computations." While almost half of the arts and sciences graduates completed a college-level mathematics course, only 16% of the future teachers took such a course. In other words, from an analysis of mathematics courses, for which catalog descriptions very explicitly describe the level of work required, future teachers completed high school-level work, at best, in college, rather than college level work. Approximately 7% or the teachers and 11% of the arts and sciences graduates completed their college degrees without taking a single mathematics course. This is possible in many institutions because the requirements for general education are worded in broad language that permits substitution of philosophy or science courses for mathematics.

In science,two-thirds of the teachers took no general education coursework in physics or chemistry.* Teachers were more likely to complete biology or geology courses than is the case with arts and sciences majors.

Although remedial courses (preparing students to tackle college-level work) are generally not supposed to count for graduation credit, the transcript analysis reveals that these courses were counted in both mathematics and English. In the former discipline, 3% of the teachers and of the arts and sciences graduates had completed a remedial mathematics course that earned credit, and these graduates took no additional mathematics courses. In English, 4% and 2% of the teachers and the arts and sciences graduates, respectively, earned credits for remedial work. One-quarter of the arts and sciences graduates completed an upper level English course, as compared to 17% of the teachers.

In the social sciences, in which teachers completed an average 21.6 credit hours, approximately six credits were earned in both history and in psychology. (Psychology may mean educational psychology, but is counted as an arts and sciences course if offered by such a department and not by the college of education.) On the average, teachers earned only 2.2 hours in political science, and .9 hours in economics. These are the two

*It is emphasized again that in calculating general education science credits, science teachers are excluded. The science credit for these teachers are analyzed under their "majors

disciplines that presumably teach future teachers about the democratic processes and economic system of the United States. The remaining social sciences credits teachers earned (6.2 hrs.) are in sociology, anthropology and geography.Another perspective on the social sciences coursework of teachers is the finding that 75% of them never took a course in economics, as compared to 59% of the arts and sciences group. For political science, 46% of the teachers and 38% of the arts and sciences graduates took no such course.

The remainder of the general education disciplines are lumped under "other liberal arts," and include foreign languages, applied fine arts, philosophy, art and music theory, history and appreciation; classic languages, religious studies and other letters. The teachers completed only 11.4 hours in all these disciplines combined, as compared to 17.8 hours for the arts and sciences group. * Three-quarters of the teachers (and 31% of the comparison group) had never taken a college course in a foreign language, while 78% of the teachers took no philosophy courses, as compared to half of the arts and sciences majors. The teachers took more applied fine arts courses, but fewer fine arts courses that relate to the history or appreciation of these fields.

Many elementary teachers took a fine arts course labeled "art for elementary teachers," that is offered by the

*Again, it must be empnasized, that general education credits in these disciplines do not include those earned by teachers who are specializing in these fields.

fine arts departments. Of the total 69.3 hours elementary teachers completed in general education, 7.5 hours were earned in courses labeled especially for teachers, including 3.7 hours in mathematics for teachers, 1.2 hours in science for teachers. and 2.6 hours in fine arts for teachers. In other words, many teachers are taking different coursework in general education, which is supposed to provide a common foundation regardless of a student's major, than other students take. This defeats the goal of providing a common core during the first two years of college for future teachers and all other students.

In summary, the general education of teachers generally includes somewhat less emphasis on general education than is true for majors in the various arts and sciences, there are indications that the coursework future teachers take is at a lower level of difficulty than the usual college-level curriculum, and the teachers tend to take less general education coursework at the upper division level than is the case for other students.

The Majors

Secondary teachers do complete majors in a specialty which they are planning to teach. The amount of coursework in various majors that teachers complete is shown in Table 2 .

Table 2

HOURS AND PERCENT OF TOTAL CREDIT IN MAJOR

	Average Hours	Percent of Total Credit	Percent at Upper level
Mathematics	33.5	24.1%	44.6%
English	38.2	27.8	56.8
Fine Arts	57.9	37.5	42.0
Languages	42.1	31.0	59.9
Sciences	49.4	34.2	31.3
Social Sciences	56.6	40.3	38.5

Source: Galambos, Analysis of Transcripts of Teachers and Arts and Sciences Graduates, Atlanta,Georgia: Southern Regional Education Board, 1985.

On the basis of three semester hour credits for an average course, the total credits earned in mathematics, as shown above, represent eleven courses in the discipline, of which five are at the junior and senior level. The total coursework in mathematics represents approximately one-quarter of the credits earned during the entire baccalaureate program. For sciences and social sciences, all disciplines in each of these divisions was included in calculating total credits. In other words, a science teacher's preparation would include courses in biology, chemistry, physics, and other sciences.

A much higher proportion of the coursework in science is in biology than in physics and chemistry. Biology accounted for over one-half of the total science hours taken, while chemistry and physics together accounted for only 31%. Of the total average hours teachers took in science courses, 35 hours were in

courses with laboratory components.

On the average for those teachers who majored in mathematics, only one course was completed in computer science. In view of the growing emphasis on computers in the high school curriculum, the experience of the teachers who graduated in 1982-83 may no longer be representative of the new emphasis on computers in the college preparation of future teachers.

As compared to arts and sciences majors not preparing to teach, the subject area preparation of the teachers is generally weaker in total number of credits earned, and in the proportion of those credits earned in upper division courses. There are several reasons for this. The secondary teachers must take professional education courses, while the arts and science majors do not have this requirement. Thus secondary teachers have less time during the baccalaureate program to concentrate on subject area preparation than is the case with the "pure" arts and sciences students. The depth in a subject area to be covered in high school teaching may not demand the same level of upper division coursework as might be necessary for an arts and sciences major who will possibly proceed to graduate work in a discipline. Also, since the high school curriculum is fairly broad, secondary teachers are likely to prepare themselves across a range of disciplines, without depth in any one of them, while an arts and sciences major is more likely to specialize within science or social science. Most high school teachers in the U.S., unless they teach in large secondary schools with many specialized course offerings, will teach more than one subject

each day. A science teacher may only have one or two sections per day in physics, for example, and be called upon to teach general science, chemistry or even biology during other periods of the day. This means that the subject area preparation for high school teachers in the U.S. tends to broad rather than specialized. A broad preparation is likely to entail courses at the introductory level in various sciences rather than great depth in any one science. Thus the arts and sciences major proceeds to upper level coursework in a narrower and more specialized area than the student preparing to teach in secondary schools.

Professional Education

A major part of the baccalaureate program for students in teacher education programs consists of education or pedagogy courses. This is the case for elementary and secondary teachers. In other words, despite the fact that a secondary teacher must generally complete a major in a subject area, the program also includes pedagogy courses. Most of these courses are offered in the colleges or departments of education, and not in the arts and sciences departments. Students generally begin the professional education courses late in their sophomore or early in their junior years.

The professional education component includes three types of courses: 1) "foundation" courses, 2)"methods" courses, and 3) clinical experience or practicums. The foundation courses deal with background in the philosophy, history and socio-cultural aspects of education, as well as educational psychology or child development. Elementary education majors take a different child

development course than the secondary education majors. Special education majors, who prepare to teach children with a variety of mental or physical handicaps, take a variety of development and psychology courses.

The "methods" courses deal with how to teach various subjects. They cover curriculum materials that are available in any one subject, as well as ways and appropriate sequence of offering such materials. Elementary education majors complete a number of such courses, ranging from methods and materials of teaching mathematics, to teaching physical education. In other words, most colleges of education do not stress generic knowledge about effective teaching methods as garnered from available research, but devote a great deal of time to these discrete methods courses for each subject area the teacher will cover in classrooms.

The practicums, which comprise the third major element of teacher education programs, generally consist of an internship or student teaching in the schools, which usually culminates the total program, together with additional prior exposure of prospective teachers to classroom observation, or to opportunities to try out their teaching techniques on each other, in small tutoring groups or other opportunities.

The proportion of the total baccalaureate program devoted to "how to teach" rather than the subjects to be taught has been a matter of controversy in the United States for many years. Proponents of more subject matter preparation suggest that teachers cannot teach what they do not know, and proponents of the education courses suggest that no matter how well a teacher

knows the subject, the teacher's effectiveness is determined by his or her ability to "put the subject over." In other words, no matter how well a teacher may know physics, one who walks into a room of noisy teenagers and knows little about how to deal with them, their individual differences, and the proper sequencing of the material, will probably not be effective. Similarly, in the primary grades, a teacher's ability will depend not only on knowledge of language arts and mathematics (the two basic subjects at the early grades), but also on the understanding of the children, their differences, and how they learn.

Various sources obtain different results about the relative importance of the professional education component in the total teacher education program. Feistritzer's survey of pgorams (1984) yields the following average number of semester hours required in .pa education courses:

1983			1973		
Elem.	Secondary	Spec.Ed	Elem.	Secondary	Spec. Ed
53	40	57	52	32	48

Of the 53 semester hours an elementary teacher is required to take in education courses, 17 are in "clinical" or practicum courses. The results of the Feistritzer survey indicates a slight increase in the number of required hours in education courses for each of the three education programs.

Smith and Street (1980) produced the following overview of professional studies (or education credits) required for

teachers at the University of Florida in quarter hours:

	1929		1939		1949		1979	
	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.	Elem.	Sec.
No. of Credit Hrs.	--	50	90	30	59	41	70	43
%of total program	--	25	48	16	32	22	36	23

The above data suggest that for both elementary and secondary teachers the required pedagogy credits diminished during the 1930s, but rose since that time.

The Transcript Analysis (Galambos and others,1985) measures the total education semester hour credits graduates earned, rather than those that were required. Thus the study includes the education courses students took as electives. On that basis,the total number of education credits earned by education program .pa specialties are shown below:

	Elem.	Sec.	Spec. Ed.	Drama,Art Music	Physical Ed. Health
Avg. Hours	49.4	28.3	69.3	26.3	23
% of Total hours	36.2	20.2	47.9	17.4	15.8

The above data do not include the courses these students took in arts and sciences departments that were labeled as courses designed for teachers. Nor do the numbers include education credits transferred from other institutions. (Approximately two-thirds of the graduates of major universities transferred some of their credits from other institutions, primarily community colleges which many students attend before enrolling in senior

universities.)

Over one-third of the elementary teachers' education credits were earned in "methods" courses. The proportion for secondary and special education teachers is one-fourth. The practicum or clinical courses generally comprise between ten and 15 percent of the professional education component, of which the student teaching course comprises the culmination and most extensive practical experience of the entire program.

Student teachers generally spend two semesters assigned to a classroom. Some programs endeavor to place student teachers in more than one school, to give them an exposure to different types of students. However, this is not always possible. The student teachers are supervised by the regular classroom teacher, and the university faculty assigned to the student teacher makes occasional visits and/or confers with the student teacher and the supervisory teacher. An effort is made to place student teachers with exemplary supervisory teachers, but this is not always the case. The student teacher begins by assisting the regular teacher, but by the end of the assignment is expected to be able to handle the class alone. Evaluations of teacher education program graduates inevitably rank the student teaching courses as the most valuable component of the teacher education program.

The supervisory teachers who assist in the student teaching program are sometimes given modest stipends for this service, but this is by no means the rule. There has been no formal selection system to identify teachers most suited to become supervisory teachers, and to some extent the choice of these individuals depends as much on the teacher's desire to

serve as on being selected for his or her effectiveness. However, most states are now considering plans for identifying effective teachers for the purpose of promoting them along a career ladder, or in recognition of special merit, and to provide additional remuneration for effective teachers to stay in the profession rather than leaving for administrative duties.

The assignment of highly effective, or "master teachers" to supervise student teachers is one aspect in the development of these new career ladder plans.

The Total Program

The total program in teacher education, as outlined above, is composed of subject matter or arts and sciences courses(which includes a major or two minors for secondary teachers), and the professional education sequence. The configuration of this program for elementary teachers according to the SREB Transcript Study is summarized in Table 3 . The elementary teachers' program includes 45 percent of total credits in regular general education courses, plus another 5 percent in academic courses designed for teachers. The remainder of the program includes the education and physical education courses (43 percent combined), and 7 percent credits that fall in none of the above categories. These might be courses in some other specialty, such as business, which students sample as they decide on their final major.

The average secondary teacher in the Transcript Study completed 28 hours in education courses, a major or two minors with varying number of credits depending on the specialties, and approximately 62 hours in general education courses.

The number of education credits teachers accumulate generally exceeds the minimum number required by certification regulations. This results because teachers tend to take electives in education courses, or because colleges include more education credits in their individual programs than are mandated by the state regulations for certification.

Elementary teachers and special education majors accumulated more credits in education (their major) than arts and sciences graduates earned in most areas of specialization.

Table 3

PROFILE OF ELEMENTARY TEACHER PREPARATION PROGRAM

		Avg. Hours	Avg. % Of Total Credits
General Education			
Regular Academic Courses		61.8	45%
Academic Courses for Teachers		7.5	5
Education Courses		49.4	36
Methods	18.8		
Practicums	16.4		
Other Education	14.2		
Physical Education and Transferred Educ. & Phys. Educ. Hours		9.0	7
Other Courses		9.2	7
Total		136.9	100%

Source: Galambos, and others, Analysis of Transcripts of Teachers and Arts and Sciences Graduates, Atlanta,Georgia:Southern Regional Education Board, 1985.

Alternative Certification

As was mentioned on page 15 , many states now permit an "alternative certification program." This has been developed in part to accommodate arts and sciences graduates who may wish to teach, but who do not have the required education courses. The shortage of mathematics and science teachers in the U.S. in the last five years was one element in the establishment of these alternate routes. Typically such certification provides that an individual may be employed to teach a given subject in which the person has a major, if a test is passed. When the provisional period of teaching is completed in a satisfactory manner, and a certain number of education courses is taken during a limited period after employment, a regular certificate may them be granted. Some states specify that nine semester hours in such education

courses be taken. The most widely recognized alternate certification program in the U.S. is the one passed by New Jersey in 1985.

New Jersey recognized that for a variety of reasons talented young people in recent years had not been investing their time and tuition dollars to study education. Yet many of these individuals decide after experience in another career to go into teaching. It is these people the new program is designed to attract.Some of those who applied in 1985 to participate in the new N.J. program had taught before in private schools or in higher education, where there are no certification regulations that call for completion of education courses.

New Jersey requires passage of the National Teacher Examination for employment of teachers. The scores on these tests for the applicants through the new program exceeded the scores for those who had completed the traditional teacher education programs for all specialties tested. The individuals who came in under the alternate program even surpassed the traditional program applicants on the elementary teacher test, which includes a good portion on pedagogy, in addition to subject matter. Of those alternative certification applicants who were actually hired by local school districts,over one-third were honor graduates. Since the vast majority graduated from selective colleges and universities, their high academic standing is even more impressive.

Once employed, the N.J.teachers who hold the alternative certification receive 80 hours of formal instruction in pedagogy,

and serve for one month under the direct supervision of an experienced teacher. During the first year of employment, these teachers receive an additional 120 hours of instruction by a team of teachers and college faculty.

Alternative certification does not currently account for a substantial proportion of entrants into teaching. However, the number has grown in the last few years.

Those who maintain that the only route into teaching should be via teacher education programs suggest that one cannot ascertain the effectiveness of teachers on the job in terms of their test scores, and that it is unlikely that teachers who have not completed pedagogy courses will be able to handle teaching assignments in a satisfactory manner. In order to test this assumption, Cornett(1982) analyzed whether any differences exist in the performance ratings of teachers depending on their type of preparation . A group of North Carolina teachers whose performance had been rated was divided into two groups: those who had regular certification, and those who entered teaching in non-traditional or alternate ways. No differences could be found in the performance outcomes of these teachers. However, since almost all the teachers were rated as doing a satisfactory or very satisfactory job, the results were not very enlightening as to the importance of the type of preparation .

A variety of new approaches are currently being tested in various institutions that prepare teachers. One major direction is to lengthen the teacher preparation program from the baccalaureate degree to a master's program. This "fifth-year" option is taking various routes. In some programs, the

undergraduate work centers entirely on the arts and sciences, and professional education courses are offered only at the graduate level. In others, professional education is extended beyond what is offered in the undergraduate program. Another option that is being tried resembles a long practicum, with teachers in the fifth year spending most of their time in classroom internships, supplemented by seminars and lectures. Indeed, one common thread that seems to be emerging from much of the turmoil of the 1980's on how to improve teacher education is to involve the schools to a greater extent than they have been in the past. By accentuating the application of principles of pedagogy in actual classroom practice, as contrasted to the former emphasis on lectures and readings, it is hoped that teacher preaparation will become more effective. It is too early, however, to reach conclusions about the final directions that teacher education will take as a result of the reassessment of the 1980s,and whether the much discussed school-higher education partnerships will truly affect the preparation of teachers.

The status of teachers can be viewed from two perspectives: the tangible financial rewards, and the intangible level of respect which society accords them. Although some critics might suggest that the two types of rewards are interdependent, and that therefore society will probably give little respect to a profession it does not reward highly from a financial perspective, there are definitely examples that suggest the rewards are not interdependent. Society provides a great deal of respect to the clergy, who has never beel paid well.

The tangible rewards that teachers receive consist of their salaries and fringe benefits. Two national data sources collect information on teacher salaries. The National Education Association (1985) estimate for the average salary of classroom teachers in the U.S. for 1984-85 is $23 546, with secondary teachers earning slightly more ($24,276) and elementary teachers somewhat less ($23,092.) These estimates are remarkably close to the ones produced by the Educational Research Service [ERS(1985)]for the same year--$23,587 mean for classroom teachers.

ERS also collects data on minimum and maximum salaries paid by school districts. The minimum salary would usually applies to teachers with no previous experience and starting with a baccalaureate degree. The maximum would apply to the teacher who has received all the possible longevity increases and earned an advanced degree. For 1984-85, the average minimum salary ERS reports is $15,482, and the average maximum is $30,402.

Teachers usually sign 10-months contracts. This means that

they will teach nine months, plus additional planning and end-of-the year days that approximate the 10 months total. Thus the salaries which are quoted above apply to this period, rather than a full year. For those teachers who teach summer sessions, supplements would be paid. However, a minor percentage of teachers in the U.S. is engaged in summer school teaching.

Teacher salary may not equal family income if teachers have a summer job, or if more than one member of the teacher's family is employed. According to the Louis Harris Metropolitan Life Survey of the American Teacher in 1984, the income distribution of teachers in the U.S. is shown in Table 4.

TABLE 4

PERCENTAGE DISTRIBUTION OF TEACHERS AND COLLEGE GRADUATES BY HOUSEHOLD INCOME,1983

Income Range	Teachers	Total College Graduates
$15,000 or less	4%	16%
15,000 -$20,000	15	11
20,001 -30,000	30	)
30,001 -40,000	23	)53
40,001 -50,000	13	)
50,001 and over	13	20
not sure	1	
Median income	$30,000	$30,600

Source: Louis Harris and Associates, Inc. The American Teacher, New York, N.Y., 1984.

According to the comparison in Table 4, the average family income of teachers is not substantially below that of all college graduates in the nation. However, a lower proportion of teachers is found in the higher salary ranges, while a higher proportion of all college graduates is found in the lowest range. The

information shown earlier about maximum teacher salaries(in the $30,000 range) shows that when teachers stay in their profession, they are limited in how they can progress financially.

Teachers do earn some supplementary pay during the regular school year if they are assigned extra duties. For example, teachers who coach athletic teams may earn supplements as high as $2,200, while teachers who assist with a high school magazine might receive $400 as a supplement. These duties occupy additional time beyond the regular school day. The average length of the school day for teachers is 7.3 hours, and the average number of hours they report in the Louis Harris survey spent on teaching duties including outside work is 49 hours.

The usual fringe benefits received by teachers are itemized below: (Educational Research Service, 1984)

1. Sick leave, generally 14 paid days

2. Personal leave, with 3 days the most usual amount

3. Hospital and medical insurance, with full premium payment by the employer for the teacher's coverage. Approximately one-third of the districts also pay premiums for family coverage.

4. Dental insurance coverage is provided by approximately 2/3 of the school districts.

5. Life insurance is provided by two-thirds of the districts, with an average face value of the policy of $20,760.

6. Long-term disability insurance coverage is provided by only one-fourth of the school districts.

7. Practically all teachers are covered by state or local pension palns.

8. Severance pay is provided by approximately 40% of the districts.

9. Tuition reimbursement is provided by one-third of the school districts to cover costs teachers incur as they pursue additional education. Many of these districts specify that the additional education must be at the graduate level.

10. Almost three-fourths of the school districts report that the teachers are covered by a collective bargaining or formal agreement.

How Do Teacher Salaries Compare to Other Professions?

Teachers in the U.S. have sought salary improvements over the years in an effort to reach what they propose are much higher salaries for other professions. One of the most frequent reforms during the educational improvement movement of the 1980s has been to increase teacher salaries more than the general salary increase prevalent for other employees.

Beginning salaries for teachers (reported by ERS as minimum salaries, and averaging only $ 15,482 for 1984-85) are lower than the beginning salaries usually quoted for other professions. For example, the College Placement Council (1985) reports the following average salary offers to college graduates for 1984-85:

Major Field of Study	Avg. Salary Offer
Accounting	$20,208
Business Administration (gnrl.)	19,452
Humanities	17,364
Economics	20,760
Other Social Sciences	18,072
Chemical Engineering	28,500
Electrical Engineering	27,336
Industrial Engineering	26,318
Biological Sciences	17,868
Chemistry	22,848

Each of the above fields of study yields a higher average beginning salary than teaching does. It should be noted that humanities majors also receive more modest beginning salaries than the other specialties, although even for these graduates this average exceeds the minimum average of $15,482 reported for teachers. However, two factors should be taken into account. Teaching salaries are for 10 months, and the other salary offers are for a full year, and some states have made substantial improvements in beginning teacher salaries that are not yet reflected in the ERS reports. For example, the statewide minimum salary in Georgia for 1985-86 is $16,000, which is supplemented by many local school districts, and the Georgia State Board of Education is seeking to raise this statewide minimum to $16,500 for the next year. The $16,000 current statewide minimum is an increase from $14,329 for 1984-85, demonstrating the substantial improvements that were made in the last year or so by many Southern states. These improvements may not yet be reflected in the 1984-85 average beginning salary of $15,482. Still, however, these beginning salaries are too low to permit teaching to compete with the more lucrative fields. For example, the severe shortage of science and mathematics teachers in the schools during the recent past is a reflection of the tremendous differential in salary that a mathematics major can command outside of the public schools, as compared to teacher salaries. The same situation is shown by the above comparisons for chemistry majors.

Another comparison of salaries developed by Feistritzer in

1985 is shown in Table 5. These comparisons,based on salary data developed by the U.S. agency with responsibility for occupational statistics, show starting, average and peak salaries for many occupations. These do not pertain exclusively to baccalaureates, but include positions filled by doctorate holders. The 1982 beginning salary reported for elementary teachers ($14,000) is lower than that reported for most occupations that require a baccalaureate. The occupations shown in Table 5 with lower beginning salaries generally apply to positions that do not require a college degree, such as typist . Social workers and psychologists, however, are shown at beginning salaries near those for teachers.

A recent analysis (O'Neill, 1985) compares teachers' salaries to those paid to all production, or nonsupervisory workers in the U.S. (See Figure 1).This relationship has remained fairly stable for many years, with instructional staff salaries (which include administrators and librarians) receiving approximately 10-20 percent higher salaries over the last twenty years than the production workers. According to this analysis, the financial status of teachers relative to production workers is better now than it was from 1930 to the mid-1950's. The same researchers have also shown that teacher salaries did not keep up with inflation in the early 1980's, when the cost of living was rising rapidly in the U.S. The average salary of instructional staff in constant 1981-82 dollars fell from $23,101 in 1971-72 to $20,954 in 1982-83. However, with containment of inflation in the recent past, the 1982-83 average salary in constant dollars

TABLE 5

SALARIES BY OCCUPATIONS, 1982

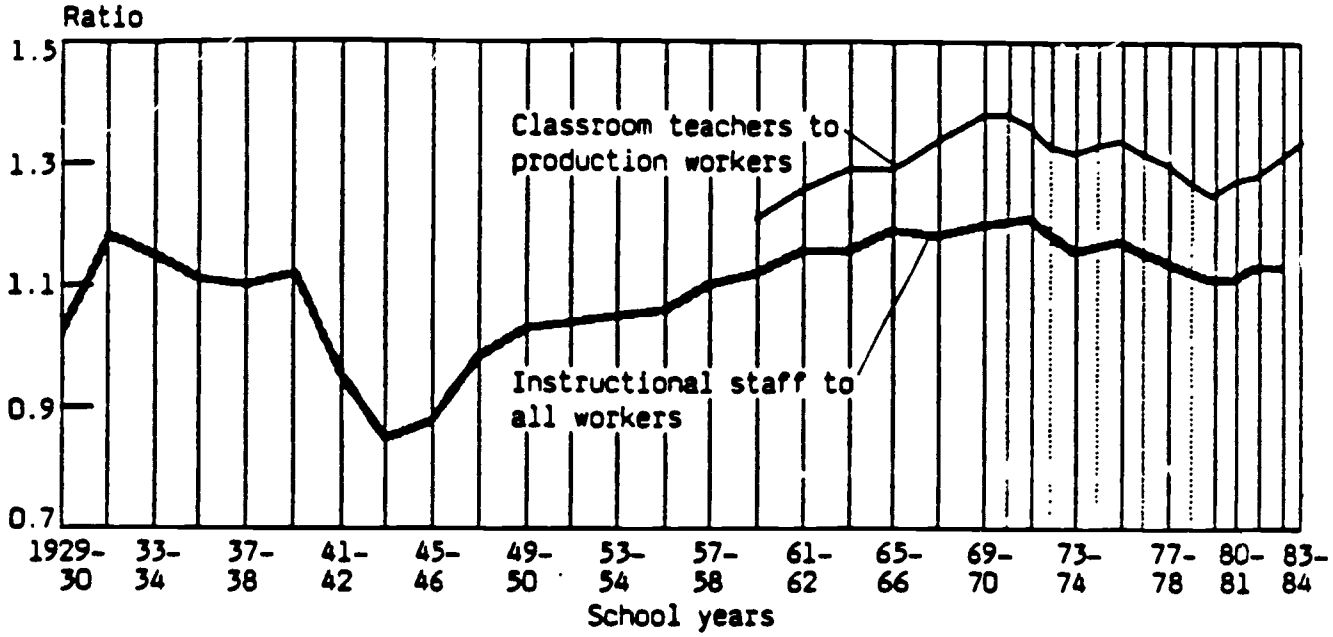
Occupation	Starting Salaries	Average Salaries	Peak Salaries
Accountant	$18,700	$24,850	NA
Architects	12,000	21,000	$40,000+
Bank Officers	17,400	24,500	46,800+
Bank Tellers	NA	10,300	16,800+
Biological Scientists	16,500	NA	NA
Chemical Engineer	27,072	36,726*	66,938*
Chemist	21,000	29,000	42,000
w/Ph.D.		17,900	40,000
Commercial Artist	NA	23,000	27,250
Computer Programer	16,700	25,750	42,500
Computer System Analyst	22,300		
Dental Hygienist	NA	15,750	NA
Dentists	NA	55,000	NA
Economist	18,500	30,200	46,800
Editor	28,000	33,000	60,000
Health Services Admin.	24,000 w/Masters	NA	NA
Lawyers (private ind.)	28,000	NA	85,000
Legal Assistant	NA	21,000*	30,000+*
Mail Carrier	20,130	21,591	22,792
Mathematician	21,300	28,600	33,400+*
Mechanical Engineer	25,176	36,726*	66,938*
Nuclear Engineer	24,468	36,726*	66,938*
Physician	NA	100,000	NA
Principal (elementary)	NA	27,419	NA
(secondary)	NA	37,602	NA
Protestant Ministers	NA	16,500	NA
Psychologist (federal)	14,550	NA	NA
PR Specialist	11,500	21,000	38,500
Rabbis	NA	35,000	NA
Receptionist	10,332	12,876	NA
Recreation Worker	13,000	17,200	NA
Registered Nurse	17,600	23,300	28,500
Reporter	18 750	24,650	38,350
Roman Catholic Priests	NA	3,350	NA
Secretary	NA	15,549	20,232
Social Worker	14,300	18,100	23,800
Sociologist (federal)	14,550	NA	NA
Teachers (elementary)	14,000 (BA)	20,042	28,000-35,000
(secondary)	16,000	21,000	28,000-35,000
Telephone Operators	13,500	20,760	32,840
Typist	11,428	15,085	18,000+
Veterinarian	NA	45,000	NA

* 1983 statistics

Source: C. Emily Feistritzer, The Condition of Teaching, Princeton, N.J.: The Carnegie Foundation for the Study of Teaching, 1985, pa. 40.

FIGURE 1

Relative Salaries of Teachers: 1929 - 30 to 1983 - 84
Ratio of Annual Salary of Classroom Teachers to Annualized Hourly Earnings of Production Workers*, and Ratio of Salary of Instructional Staff to Wage and Salary Earnings per Full - Time Equivalent Worker**



*Covers production or nonsupervisory workers in all nonagricultural industries.
**Part-time workers are converted to fulltime on the basis of hours worked
Covers all workers in the economy.

Source: Dave M. O'Neill and Peter Sepielli, Education in the United States: 1940-1983, U.S. Department of Commerce, Washington, D.C., 1985.

is the first real gain shown in the last eleven years.

In view of the shortage of mathematics and science teachers in the U.S., various proposals were raised to pay differential salaries to teachers in these scarcity fields. The organized teaching profession, however, has not supported these proposals, and the few instances in which they have been implemented are the exceptions.

There has been widespread recognition in the U.S.that the peak salary teachers reach after 15-20 years of service truncate their career remuneration at too low a level. Therefore teachers move into administration because they are blocked from reaching higher salaries in teaching.

Efforts are being made to develop career ladders or merit pay plans that will provide higher salaries in teaching for those who perform well and stay in the profession. Many states are either developing such career or merit plans, or actually implementing them on pilot or even statewide bases. The intention is to provide maximum salaries as high as $45,000 for exceptionally effective teachers who remain in teaching. To date the problem has been to define and identify the exceptionally effective teachers, and many different approaches are being initiated. Almost all of them are based on rating teacher performance in the classroom, after ascertaining via objective tests that the teachers know the subject matter they teach.

Social Status of Teachers

How do teachers rank in the U.S. in terms of professional prestige or public recognition? The 1984 Gallup Poll (Gallup, 1985) describes the status of teachers and other professionals

in the eyes of teachers, as well as the U.S. public. As shown in Table 6, the U.S. public is more likely to give teachers a high ranking regarding "the good " they do than it is to rank them high in terms of general prestige. The U.S. public holds only two professions higher than teachers in terms of "the good" each does: physicians and clergy. But the U.S. public ranks six groups higher than teachers in terms of how much prestige each group has in the community. Even bankers, who do not rank high in terms of how much good they do, rank higher than teachers on prestige in the community.

TABLE 6

RATINGS OF VARIOUS PROFESSIONS
(Percent giving the highest rating to each profession)

	General Good of Society		Prestige or Status	
	Teacners	U.S. Public	Teachers	U.S.Public
Teachers	59%	29%	1%	19%
Physicians	46	41	68	59
Clergy	43	46	20	42
Principals	19	28	3	25
Judges	13	12	45	31
Lawyers	6	12	32	31
Funeral Dir.	5	20	4	17
Bus.Executives	4		26	
Polit.Office Holders	4	8	15	16
Bankers	3	14	22	35
Realtors	2	7	3	6
Advertising Practitioners	2	4	4	8

Source: Alec Gallup, "The Gallup Poll of Teachers' Attitudes Toward the Public Schools,Part 2"Phi Delta Kappan, Jan. 1985.

The teachers rank themselves above any other profession in terms of how much good they do. Fifty-nine percent of the teachers give themselves the highest ranking in terms of how much good they do, as compared to only 29% of the general

public who does so. But they rank themselves very low in terms of prestige in the community. Only 1% of the teachers rank their own profession highest on prestige in the community, while 19% of the general public gives teachers the highest ranking. Generally it appears that the prestige of teachers in the community is not very high, relative to other professions.

Possibly the low prestige teachers have in their communities contributes to their general attitudes about the profession. In 1981, only one-fifth of the teachers responded that if they could go back to their college days and start over again, they would still definitely choose to become a teacher. One-fourth felt they probably would make that choice, while the remaining 54% were uncertain or negative on such a hypothetical choice. There has been a tremendous change among teachers in this respect. In a poll that asked similar questions in 1961, half of the teachers indicated they would certainly make the same choice if they had it "to do over again." (Feistritzer, 1983-a).

The same ambivalence among teachers about their own profession is shown in the 1984 Gallup Poll on whether individuals would favor having their children become teachers. Almost half of the teachers indicate they would not favor having a daughter become a teacher, and 59% would not favor this choice for a son. The general public is less negative about teaching careers than teachers, with 39% and 42% of the public having a negative reaction to a daughter or son, respectively, choosing to teach.

Some of the decline of prestige or attraction of the teaching profession is related to the women's movement of the 1960's which

has opened opportunities in professions once largely closed to women, and which has attracted talented women into the higher paid professions. The same trend has played a role among blacks, among whom there has been the sharpest relative decline of those who choose to enter teaching.

In the Louis Harris (1984) opinion poll teachers were asked to indicate how satisfied they were with their jobs. Forty percent indicated they were very satisfied, and an additional 41 percent said they were somewhat satisfied. The corresponding percentages for the total working public on their job satisfaction is 52 percent very satisfied, and 35 percent somewhat satisfied. The teachers overwhelmingly responded that they love to teach, but over half of them disagreed with the statement, "as a teacher I feel respected in today's society." Likewise half of the teachers disagreed that their preparation prepared them for classrooms.

"Inservice" education in this context refers to all continuing education programs in which teachers participate after their initial employment. It includes formal academic courses teachers complete as graduate students, as well as the less formal continuing education that is offered through seminars, workshops, or other programs in schools or other settings.

Certification regulations of the 50 states address the requirements teachers must meet for continued certification. In 1984, 29 states required teachers to complete some sort of inservice activity to renew their certificates. The states that did not have this requirement are moving rapidly to add it (NASDTEC,1984).

The most frequent requirement is completion of six semester hours of university credit every five years. Teachers usually obtain these credits at the graduate level, since it is to their advantage in gaining higher pay to move toward a graduate degree. (This explains the earlier observation that over half of all employed teachers hold a master's degree. They have gradually amassed enough credits through summer school courses, or evening courses, to have earned the degree.) Most of the coursework that teachers take is in the colleges of education, rather than in an academic specialty.

Until recently, state regulations were not specific as to what kind of graduate credits teachers could take to meet the continuing education requirements. With this great latitude, many teachers took graduate courses in administration and counseling, preparing themselves for promotion out of teaching.

Recently, however, states are specifying that teachers should complete courses that are "relevant" to their current assignments. There is still a great deal of freedom for local districts and state administrators to accept a great variety of courses as being "relevant" to teaching assignments.

Teachers usually finance their own costs of attending graduate programs, although some school districts reimburse teachers who have successfully completed graduate courses. Where teachers are covered by collective bargaining contracts, such reimbursement may be included as one of the fringe benefits.

The majority of graduate enrollments in education programs consists of part-time rather than full-time students, representing teachers who attend during the summer, or after school during the school year.

The quality of graduate education courses varies greatly. Colleges of education, which have lost undergraduate enrollments, have depended increasingly on graduate enrollments to offset undergraduate losses. The faculty used in the graduate courses is often the same as those who teach the undergraduate courses, and there have been complaints that many of the graduate courses are repetitious in what was covered in undergraduate programs. (Hawley, 1986). Teachers who take graduate courses at the same time that they carry full teaching loads cannot be blamed for gravitating toward courses that are not too demanding, and this too tends to weaken the programs.

Some states allow substitution for the graduate credits via completion of continuing education units (CEU's). A given number

of hours in seminars, workshops or other training programs may be substituted for graduate credits. Thus continuing education programs offered by schoo. districts or states may, in some cases, count as CEU's.

There is no one set pattern that describes inservice education provided by states and/or local school districts, as contrasted to the formal academic graduate programs in which teachers enroll. In some school districts inservice education may not represent more than "teacher planning days" or orientation sessions when school district and school policies are discussed, especially with new teachers. The usual 180 days of actual teaching are supplemented in most school districts with as many as 10 days of "teacher planning." Part of the time might be utilized to discuss educational problems or to bring in speakers or consultants.

Inservice educational programs, however, may be much more extensive. Some states have adopted "beginning teacher programs," wherein new teachers are observed and counseled during their early teaching experience to assist them in the transition from student teaching to full responsibility. Experienced teachers may be assigned to monitor and help beginning teachers.

Some states have instituted statewide programs that stress effective teaching and classroom management. Teachers attend week-long training sessions where they practice certain protocols. They then try the new concepts out in their own classrooms, and come back for later training sessions to evaluate their implementation of the effective teaching principles. Madeline Hunter (1981), an educational researcher and consultant, has

developed a highly stylized training format wherein teachers practice discrete elements involved in her definitions of effective teaching. Typically her program trains trainers in a state, and these trainers then train additional teachers, and so on, until the program has been widely dispersed .

A much less centralized type of inservice education is represented by the Teacher Center approach which was popular in the 1970's, and is still in place in many school districts. The Teacher Center approach relies heavily on teachers who define their own inservice needs, and working with administrators, develop seminars, workshops, self-help or any other type of training which will improve their teaching. The term "center" does not usually signify a new building, but rather an element of teacher control over inservice education programs. One criticism of this type of inservice education has been its lack of focus, and that it has no lasting impact on teaching (Galambos, 1985).

In recent years the shortage of mathematics and science teachers has led to the establishment of summer institutes that last several weeks and are used to upgrade mathematics and science teaching skills. In most cases the expenses incurred in such institutes are borne mostly by school districts and the states. The institutes are usually held on college campuses, and teachers live on theses campuses while enrolled in the special programs.

Higher education has had a great role in inservice programs for teachers, both through the graduate credit programs and the inservice offerings. In many instances when consultants or

speakers are used in school-based inservice programs, university personnel assist in conducting the programs. Recent emphasis on higher education-school partnerships to improve education in both sectors has resulted in some additional recognition of the contributions experienced and excellent teachers can make to inservice education of teachers. One of the differentiating roles that would distinguish master teachers from regular teachers in the evolving career ladder programs for teachers is the inservice training function by such master teachers. The formal implementation of this new role, however, is still evolving, and must be evaluated in the context of a countervailing concept that seeks to keep the most effective teachers in, rather than out of the classroom with children.

An unresolved issue regarding university faculty involvement in the inservice education of teachers centers on the faculty reward system in higher education. The emphasis in the faculty reward system for tenure and promotion decisions has been on research and teaching, and service in the community has not been given much attention. Since faculty involvement in the inservice education of teachers is part of this "service" function, the reward system for faculty has been blamed as an impediment to greater higher education-school cooperation. This phenomenon has been more marked insofar as arts and sciences faculty involvement is concerned than for education faculty participation in the schools.

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