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ABSTRACT
This reference document supports the leadership of locals and state federations in collective bargaining, in designing salary comparisons, and in developing policy. Data are drawn from several sources to more fully describe the American Federation of Teachers' (AFT) largest locals and to describe the nation's largest school districts. Section 1 describes 1988-89 salaries in the school districts serving the nation's 100 largest cities with tabular analyses of rankings, regional listings, comparisons to state averəges, adjustments for interarea cost-of-living differences, and comparisons to the average annual earnings of all workers in the metro area. Section 2 focuses on 1988-89 financial information in 50 of the nation's largest school districts, including expenditures per pupil, percent of funding from local sources, and general fund balances. Section 3 provides a summary of the salary schedule and some demographic data for a majority of the AFT's large locals 5 or the 1989-90 school year. Section 4 briefly describes more than 200 contract settlements or wage agreement, each involving at least 1,000 workers, and concludes with salary information from locals that have already negotiated salary schedules for fall 1990 and later years. Twelve figures and 21 tables supplement the text, and 3 appendixes supply population and enrollment figures and a list of data sources grouped by table. (MLF)

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## Research Report

# AFT Local Union TEACHER SALARY SURVEY 1990 

PRODUCED BY
THE RESEARCH DEPARTMENT OF
THE AMERICAN FEDERATION OF TEACHERS

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## Research Report

# aft Local Unov Teacher SaiAkY gukvey 1990 

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APRIL, 1990

## AFT LOCAL UNION TEACHER SALARY SURVEY 1989

## Foroword

This refersnce document supports the leadership of locals and state federations in collective bargaining, in designing salary comparisons, and in developing policy. Local and state federation leaders are encouraged to utilize the data in the most appropriate way as determined locally. Generally, the data refer only to salaries and not benefits. Except when specifically noted, the data exclude such salary-equivalent benefits as the employer's payment of a portion of employee contributions to social security or retirement plans. Most of the data in this report are available as Lotus 1-2-3 files for microcomputer customization at the local level.

Data are drawn from several sources to more fully describe the AFT's largest locals and to describe the nation's largest school districts. Locals and state federations may wish to consult Survey \& Analysis of Salary Trends 1989, which reports the results of the American Fedtration of Teachers' annual survey of state departments of education, for a comparison of teachers' salaries among states and for nationa! trends in teachers' saiaries over the past 30 years.

Section I of this report describes $1988-89$ salaries in the school districts serving the nation's 100 largest cities. This information comes primarily from salary schedules collected by the federal government as part of the process of establishing pay levels for U.S. teachers teaching abroad at defense installations. Most attention is given to the starting salary for a teacher with a BA degree and the maximum salary (without longevity increments) for a teacher with an MA degree. The average salary schedule in this data set not counting lengevity reaches the maximum on the 15 th step. Since the average teacher in the U.S. has a Masters degree and 16 years of experience, the MA-Maximum salary is an approximation of the average teacher salary. The tabular anaivees include rankings, regional listings, comparisons to state averages, adjustments for interarea cost-of-living differences, and comparisons to the average annual earnings of all workers in the metro area. Equivalent unedited data for 1989-90 salaries will be available from the AFT Research Department in May 1990.

Section II focuses on 1988-89 financial information in 50 of the nation's largest school districts including expenditures per pupil, percent of funding from local sources, and general fund balances. The underlying data for these tabulations come from an independent survey by the national business newspaper, City \& State (August 1989). The results of projected data irom the 1987-88 survey are compared to the actual figures obtained in the 1988-89 survey.

Section ill provides a summary of the salary schedule and some demographic ưata for a majority oi the AfT's large locals for 1989-90-the current school year. The AFT's 100 largest locals serving elementary and secondary teachers were asked to provide salary and staffing information. About 75 responded to the survey and information from a variety of sources provided detailed information on several others. Section III contains the results of this survey including an abbreviated salary matrix for each local.

Section IV of this report briefly describes more than 200 contract settlements or wage agreements, each invot, ing at least 1,000 workers, reported to the U.S. Department of Labor and published in Current Wage Developments between August 1988 and December 1989. Since many settlements involve two or three year contracts, wage increase estimates for 1989-90 and 1990-91 are included. Section IV concludes with salary information from locals that have already negotiated salary schedules for fall 1990 (and some for fall 1991 and fall 1992) such as Rochester, Pittsburgh, Philadelphia, New York, and others.

The data in this report are intended to be used to suit the purposes of the leadership in a particular local or state federation, such as comparing trends, or making meaningful and valid comparisons between school districis. While AFT locals in the nation's largest cities can be compared to the other large city school districts, this comparison alone does not provide information on how well AFT bargains relative to other bargaining agents or nonbargaining situations. Some of the AFT's large locals do not bargain contracts or they are in states prohibiting collective bargaining.

The Department of Research staff extends its appreciation to the various locals that responded to the 1989-90 survey and to those who reviewed drafts of this report. F. Howard Nelson, Associate Director of Research, had primary responsibility for preparing this year's report. Yvonne Bristol entered much of the data, prepared the manuscript, and assisted in other aspects of the report. Jewell Gould and Helen Nemorin assisted in various other aspects of the report.

## Exct mexive Summary

In the school districts servin: the ration's 100 largest cities, the 1988-89 average maximum salary for teast wrs pith a masters degree reached \$34,271. This figure ranged from a low of \$24,27 in Baton Rouge to a high of \$47,892 in Rochester (Figure 2). In these swila of stricts, the average beginning salary for a teacher with only a bachelors de Sifs $^{\text {cimbed to the }} \mathbf{\$ 2 0 , 1 0 5}$ mark, ranging from a low of $\$ 16,391$ in Little Rock to $\$ \ldots, 6,16 ;$ in Rochester (Figure 3).

The average maximum salary for a teacher with a masters degree in the nation's 100 largest cities of $\$ 34,271$ grew from $\$ 32,623$ the previous year and from $\$ 30,990$ two years before (Figure 4). This figure remains about $\$ 4,000$ above the national average teacher salary. On the other hand, the beginning salary in the 100 largest cities remained only about $\$ 500$ ahead of the national average (Figure 5). When adjusted for the higher cost of living in big cities, big city beginning salaries fell below the national average.

Class size in the 50 districts with the largest school budgets in the nation is about 17 students per classroom teacher compared to the national average of 17.4 (Figure 6). General fund spending averaged $\$ 4,365$ per pupil in 1988-89 in the 50 big districts, up from \$3,742 two years ago (Figure 7). The big city average is only about $\$ 100$ above the national average for current experditure per pupil. Nearly half of general fund revenues in the 50 largest districts-- 48.7 percent--came from local sources (Figure 8). In the previous two years, the comparable figure was 45 to 46 percent. Even in 1986-87 and 1987-88, the large district reliance on local revenue exceeded the national average for all school districts of 43.4 and 43.7 percent. The ending general fund balance in the 50 large districts rose from 55 percent in 1985-86 to 6.4 percent in 1986-87 and then fell to 5.9 percent in 1987-88 (Figure 9). For the two years with both projected and actual fund balance data, the actual fund balance exceeded the projections.

Projections based on more than 100 negotiated contracts or wage agreements covering 1,000 or more workers indicate salary gains of almost 6 percent for 1989-90-the current school year (Figure 11). Similar data for 1990-91 project an increase in excess of 5 percent. Projections in 1986-87, 1987-88 and 1988-89 corresponded very closely to the actual national average for all school districts.

Figure 12 contains selected salary information from multi-year contracts negotiated by large AFT locals for 1990-91 and subsequent years. Several locals will have maximum salaries exceeding $\$ 65,000$. A significant number of contracts cortain salaries in excess of $\$ 50,000$ fnr teachers with a masters degree and 15 years of experience. About one in three of these large AFT districts will have beginninfy salaries exceeding $\$ 26,000$ in place by next fall during the 1990-91 school year.

Figure 1
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Figure 2
Maximum Salary With Masters Degree, 1988-89


Figure 3
Minimum Salary With A Bachelors Degree, 1988-89


Figure 4
Maximum Salary For Tanchers With a Masters Degree In the 100 Largest Cities Exceeds The National Average Salary


Figure 5
Beginning Teacher Salasies Fall Below National Average Beginnifig Teachers Saiary After Cost-Of-Living Adkusiments*

*Adjuated to the coet of living in 290 citos, not the national average.

Figure 6
Class Size Is About the Same In Large Cities As The National Average



Figure 7
Per Pupil Spending In Large Cities Exceeds The National Average By A Small Amount

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Figure 8
Local Revenue Is More Important To Large City Disiricts Than To The Average District


Figure 9
Actual Fund Batarices Exceed Projections In 50 Large Cities


Figure 10

## General Or Specific Teacher Shortages Have Become Less of A Problem According to Union Leaders



Figure 11
Auerage Annual Salary fdjustments for Teachers --Projections for 1989-90and 1990-91


Note: Data applles to neqotiated aareements
coverina 1,000 or more as reported in
Current Wage Developments

- Reported in CWD, sopt 1894-Auguat 1806:
- Reporgod in GWD, 8opt 18e5-Auguat 100s
闹 Reported in CWD. Sopt 1006-July 1987
R Reported in CWD, Auguet 1988 July 1983
7 Reported by CWD, Auguet 1088Auguet 1980
圊 Ruported in CWD, Auguet 1080 January 1900
Mational Average Inereate in Teacher Salariet

Figure 12


|  | Year | BA Beginning | sal <br> 15 Years | Maximum | Steps to Meximum |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Baltimore, MD | 1990-91 | 22,162 | 40,339 | 43,002 | 15 |
| Bloomington, MN | 1990-91 | 23,649 | 42,993 | 48,049 | 13 |
| Bristol, CT | 1990-91 | 23,312 | 48,612 | 52,176 | 6 |
| Cincinnati, OH | 1990-91 | 21,679 | 42,672 | 44,847 | 13 |
| Dade Co.(Miami), FL | 1990-91 | 26,500 | 45,400 | 49,400 | 14 |
| Decioborn, MI | 1990-91 | 24,075 | 49,375 | 53,795 | 11 |
| Duluth, MN | 1990-91 | 20,815 | 39,675 | 42,324 | 9 |
| Half Hollow Hills, NY | 1990-91 | 25,623 | 50,362 | 69,537 | 23 |
|  | 1991-92 | 27,937 | 55,440 | 75,796 | 23 |
| Kingston, NY | 1990-91 | 27,675 | 39,585 | 45,025 | 20 |
|  | 1991-92 | 28,775 | 41,935 | 47,785 | 20 |
| Liverpool, NY | 1990-91 | 28,245 | 39,897 | 53,347 | 27 |
|  | 1991-92 | 28.416 | 42,626 | 58,006 | 27 |
| Meriden. CT | 1990-91 | 29,681 | 47,810 | 50,859 | 11 |
| Minneapolis, MN | 1990-91 | 22,192 | 41,869 | 47,273 | 11 |
| Nassau BOCES, NY | 1990-91 | 26,768 | 50,785 | 72,384 | 15 |
| Nashua, NH | 1990-91 | 23,066 | 42,291 | 44,549 | 12 |
|  | 1991-92 | 25,031 | 46,763 | 50,082 | 12 |
| New Haven, CT | 1990-91 | 27,409 | 52,658 | 58,275 | 13 |
|  | 1991-92 | 28,876 | 36,802 | 62,812 | 13 |
| Newark, NJ | 1990-91 | 23,867 | 46,232 | 50,757 | 13 |
| Newburgh | 1990-91 | 22,820 | 40,750 | 46,290 | 13 |
| Norwalk, CT | 1990-91 | 26,950 | 46,950 | 60,950 | 10 |
| Osseo, MN | 1990-91 | 22,200 | 41,630 | 45,160 | 12 |
| Philadelphia, PA | 1990-91 | 24,000 | 43,260 | 49,600 | 11 |
|  | 1991-92 | 26,000 | 45,850 | 54,000 | 11 |
| Pittsburgh, PA | 1990-91 | 26,000 | 48,000 | 50,100 | 10 |
|  | 1991-92 | 28,900 | 50,990 | 52,100 | 10 |
| Providence, RI | 1990-91 | 21,284 | 41,609 | 42,411 | 10 |
| Robbinsclale, MN | 1990-31 | 22,585 | 42,450 | 47,110 | 10 |
| St. Lucie County, FL | 1990-91 | 22,327 | 35,722 | 38,077 | 15 |
| St. Paul, MN | 1990-91 | 23,465 | 42,060 | 47,849 | 12 |
| Smithtown, NY | 1990-91 | 28,771 | 58,664 | 64,225 | 18 |
| Sufifolk-2 BOCES, NY | 1990-91 | 22,543 | 49,010 | 60,154 | 18 |
| Utica, NY | 1990-91 | 20,100 | 42,665 | 46,370 | 15 |
| Valley Stream, NY | 1990-91 | 28,686 | 55,291 | 63,571 | 15 |
| Virgin Isiands | 1990-91 | 20,225 | 38,002 | 47,435 | 21 |
| Wappingers, NY | 1990-91 | 26,55! | 53,342 | 56,975 | 20 |
|  | 1991-92 | 28,410 | 57,076 | 60,694 | 20 |
| Warwick, RI | 1990-91 | 21,559 | 41,262 | 42,012 | 10 |

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## Appendices

Appendix A. Population of the Nation's 100 Largest Cities and Enrollment of the School Districts Serving the Cities

Appendix E. Enrollment for 1987-88 in the Nation's Largest School Districts
Appendix C. Data Sources

## I. Teacher Salaries in Schools Serving the Nation's One Hundred Largest Cities

This section of the AFT Local Union Teacher Salary Survey focuses on teacher salaries in school districts serving the nation's 100 largest cities. Information is presented on tho entry level salary, the highest scheduled salary for a Masters degree reached in continuous steps, and the maximum salary regardless of degree. Generally, the MA-Maximum and the maximum figures do not include "longevity" increments-the small occasional salary increases added to the schörule in some districts for teachers who reached the maximum several years earrier.

The average teacher in the United States has a Masters degree and about 16 years of experience. On average the top of the typical salary schedule is reached in the 15th year in these 100 districts as shown in Table l-1. Thus, the MA-Maximum salary approximately describes the average teacher. In addition to listing the BA-Minimum, MA-Maximum and maximum salaries, these data are rankcd, listed by region, compared to state averages, adjusted for interarea cost-of-living differences, and compared to the earnings of other workers in the metropolitan area.

The teacher salary data in this section comes from the Department of Defense Wage Fixing Authority. Congress requires that the estimated 12,000 teachers in the Department of Defense Dependents (DOD) school system be paid at the same rate as teachers in U.S. cities of more than 100,000 in population. In the 1980 decennial census, 170 school districts served cities of more than 100,000 in population. These cities comprise the DOD data base used to calculate salaries for the overseas teachers. Sometimes two school districts serve a single city. Some very large county school districts, usually in the South, are excluded because they contain no large city. The DOD Wage Fixing Authority gets contracts or wage agreements from every one of these 170 school districts. This section uses data for the 100 largest city districts. Basic data for the other 70 districts are available from the AFT Research Department. Since contracts are collected in October and November, contract settlements and wage changes occurring in subsequent months are not recorded until the following year. Figures for Los Angeles and Detroit, however, have been updated to reflect subsequent settlements.

The DOD Wage Fixing Authority collects beginning and maximum salaries for the $B A, M A$, and maximum pay lanes. Every effort is made to equate one step with one year cf experience. The maximum salary in each lane represents the top salary reached in continuous annual increments rather than the maximum salary including all longevity increments. Maximum salaries apply only to the regular
school day and school year, so they exclude extended day and summer empioyment. The foilowing tabies iisi tine number of steps next to tine saiary figures to indicate that maximum salaries represent dififerent levels of experience depending on the district. Many districts have longevity increases on top of the "maximum" salary, which tend to award small salary increases to teachers on a periodic basis after the continuous-step maximum has been reached. For examples of longevity increments, see Section III of this report where these data were collecied for many of the AFT's largest locals.

The data in this study are presented as collected by the DOD WJage Fixing Authority except as noted in Table l-1. New York's salary schedule had semiannual increases for eight years and then sizable jumps in the 10th, 13th, and 15th year for an additional $\$ 5,691$ for each teacher by the 15th year. Similarly, Baltimore's schedule had 12 continuous increments although a teacher with an MA gets about $\$ 7,000$ more in their 15th year compared to the 12th year. In both cases, the 15 year figure is used. Chicago's figures have the 7 percent of the employee's share of the pension contribution pickod up by tire employer added to the printed salary schedule. In St. Louis, the salary schedule had 11 steps but it takes a teacher about 20 years to get to the top of the schedule. The DOD Wage Fixing Authority misinterpreted Hawaii's schedule, but the correct data is presented in this report.

District salary senedules that do not specify a specific pay level for a Masters degree or a maximum are absent in the DOD data thus necessitating most of the remainder of the estimates adjustments in the following tables. Estimates come from the AFT local union teacher salary survey and Educational Research Service data.

The complete DOD data base includes minimım and maximum salaries for the BA, MA, and maximum pay lanes. Hard copy of these data for the 170 largest cities in unedited form can be obtained by writing to the AFT Research Department. The DOD data for 1989-90 will be available tc the AFT in May and can also be obtained by writing to the AFT Department of Research.

## Highlights

## Salaries Listad by City Size-Table I-1

- Rochester, New York had the highest maximum salary in 1988-89 at $\$ 57,896$ foliowed by Anchorage ( $\$ 51,963$ ), Jersey City ( $\$ 51,585$ ), Yonkers $(\$ 46,993)$, and Long Beach $(\$ 46,227)$.
- At \$26,566, Baton Rouge had the !owest moximum ealany-liess then half the maximum salary in Rochester, New York.


## MA-Maximum Salaries-Table l-2

0 At the MA-Maximum level, the top 20 districts paid more than $\$ 38,000$ and more than half of them--Rochesier, Pittsburgh, New York, Yonkers, Newark, Detroit, Los, Angeles, Ptiladelphia, Miami, Minneapolis, and Washington, D.C.--are AFT affifiated bargaining units.

- Baton Rouge had the lowest MA-Miaximum salary at $\$ 24,721$ followed by Shreveport, Albuquerque, Mobile, and New Orteans.
- Orly two Southeastern or Southwestern cities ranked in the top 40. Miami's $\$ 38,500$ level was reacherd atter just 12 years and rarkad 18in nationally. Virginia Beach ranked 2 2nd and reached $\$ 38,030$ after 22 years.


## BA-Minimum Salaries-Table 1-3

0 In 1988-89, 47 of the 100 districts paid more than $\$ 20,000$ for beginning teachers at the Bachelors level, but only Los Angeles ( $\$ 25,316$ ), Rochester ( $\$ 26,067$ ), Riverside $(\$ 24,268)$, San Francisco $(\$ 24,280)$, and Boston $(\$ 24,031)$ paid more than $\$ 24,000$. Six of the top 10 are located in California.

- Eight Southeastern cities ranked in the top forty according to starting salaries, compared to finding just two of the top forty when ranked by MA-Maximum salaries.

0 Only six districts paid beginring teachers less than $\$ 17,000$ in 1988-89 with Little Rock at the bottom paying just $\$ 16,391$ foilowed by New Orleans, Tulsa, Louisville and Tacoma, Washington.

## Regional Rankings--Table 1-4

- AFT affiliates in Providence and Boston represent teachers in the two large city districts with the highest MA-Maximum salaries in New England.
- AFT affiliates represent 9 of the 11 districts in the Mideast serving one of the .00 largest cities. Five of them rank in the top ten in the ration according to MA-maximum salaries.
- In the Midwest rogion, five of the top seven districts as neacured by the M̀À-Maximum salary-Detroit, Minneapolis, St. Pault, Chicago, and Cleveland-are AFT affiliates.
- While all of the districts in New Englend, the Mideast, and the Mriwest paid more than $\$ 33,000$ at the MA-Maximum fovel, only 8 of 25 Southeastern states, 2 of the 7 Plaine cities, 6 of 14 Scudtwestivn cilies, and 9 of 17 for Western states paid more than $\$ 33,000$.


## How Fast and How Far to the Top-Tables 1-5 and 1-6

In Table l-5, the difference between the beginning salary at the BA level and the maximum salary at the MA level is divided by the number of skips on the salary schedule. This average annuak sadary increase represents what a now teacher with a BA could expect to grain by moving to the top of the schertite at the Masters level without the benefit of acroes-the-boend salary increases. hi Tabla I-6, the MA-Maximum salary is divided by the BA-Minimum satary to create a ratio that describes how well experienced teachers with a Masiers degree are rewarded relative to beginning teachers. Highlights include:

- The average district had 16 steps worth $\$ 981$ each in moving from the starting to the MA-Maximum.
o Pittsburgh with a $\$ 2,050$ annual change in reaching the MA-Maximum level was the only district with an annual change above the $\$ 2,000$ mark. Warren, Michigan, Boston and Providence advanced at a rate exceeding $\$ 1,800$ per year.
- Not surprisingly, districts with large annual increases between the BA-Minimum and MA-Maximum level have short salary sctrediles with eight of the top ten having eleven or fewer steps, one having fwelve steps, and the other, thirteen steps.
- Of the top ten districts according to the average annual doflar change between BA-Minimum and MA-Maximum salaries, seven are AFT affiliates--Pittsburgh, Boston, Providence, Philadelphia, Detroit, Minneapolis, and Newark.
o Five districts--Montgomery County (\$310), Lubbock (\$340), Mobite (\$370), Corpus Christi (\$461), and Jackson (\$494)--had average annual changes of $\$ 500$ or less in moving from the BA-Minimum to the MA-Maximam level.
- The MA-Maximum to the BA-Beginning salary ratio averaged 1.69 in the 100 districts.
o Oniy iour districis had MÃ-Maximum salaries at least double the size of starting salaries with Jersey City at 2.11, heving liad the highest ratio.
o Ranked by the MA-Maximum to BA-Mininum ratio, 9 of the top 15 districts are AFT affiliates.
- In 12 districts, MA teachers at the top of the salary schedule had salaries that were less than 50 percent higher than beginning teachers. Four were in California and five were in the Southeast.


## Salaries Adjusted by An Interarea Coet-of-Living Index-Table 1-7 and 1-8

School officials often argue that salary variations among districts, especially when making national compsrisons, are explained primarity by cost-ot-living differences. While intuitively correct, the magnitude of the effect of cost-of-living differences on salaries remains largely unstudied. One reason is that the federal government stopped calculating interarea cost-of-living differentials in Autumn 1981. At one time, the Bureau of Labor Statistics calculated indexes for as many as 45 metropolitan areas.

The interarea cost-of-living index in Table l-7 is based on the "Intercity Cost of Living Index" calculated ty the American Chamber of Commerce Researchers Association (ACCRA) for approximately 290 cities churing the first three quarters of 1989. The ACCRA index is composed of items and is weighted to reflect a mid-management executive family's pattern of expenditures. All items are priced at the local level by Chamber of Commerce research personnel at a specified time and by standard specifications. The index omits state and local taxes. The housing component of the index is vased partly on monthly rent for a two-bedrooni unfurnished apariment and partly on the cost of a new 1,800 square foot house on a lot of approximately 10,000 square feet in an urban area. Cities participating in the index are compared with the national average of 100 for all participating cities. Spreads of three or fewer index points do not represent statistically significant differences in the indexes according to ACCRA.

Participation in the ACCRA cost-of-living index is voluntary, and 13 of the nation's 100 largast cities are not in the index. As noted in Table l- $\bar{r}$, an index was estimated for these cities based on either the index of nearby cities or suburbs, or a regression procedure similar is the mathod used by the AFT to develop the interstate cost-of-living index (tectnical paper available from the Research Department).

The ACCRA index in Table 1-7 shows:

- The 100 largest cities had an umpeighted averane cost-oflying indox of 106.9 ( 100 is the average of approximately 289 cities participating in the ACCRA index).
- Now York, Boston, and San Francisco had the highest cost-od living indexes with indexes in the 140 to 150 ringe followed by the metro areas around New York City, Los Angeles and surrounding cities, Weastington, D.C., San Diego, Philadeiphia, Anctrorage and Honolutu which alt bunched in the 125 to 135 range.
- Chattanooga registered the fowest index of the nation's 100 largest cities at 90.2, and 10 other districts in the west, south and midwest had indexes below or at 94.0.

MA-Maximum salaries were adjusted with the ACCRA Index (by dividing the salary by the index) in Tabble 1-8, yiedding the foliowing resulis:

- After indexing MA-Maximum salaries with the cost-of-living index, low-paying districts still tended to rank low and high-paying districts still tended to rank high. Only 14 districts that ranked bolow average climbed into the top haff of the adjusted MA-Maxirnum ranking.
- Rochester and Pittsburgh, ranked first and second according to the adjusted MA-Maximum salary, ranked first and founth without adjustments.
- Among the more dramatic upward changes in rankings, Omaha's adjusted MA-Maximum ranked 4th instead of 30th, Colorade Springs ranked 5th instead of 40th, Akron, Ohio ranked 11th instead of 43rd, and Jacksonville ranked 17 th instead of 57 th.
- The mosi dramatic dowrward changes occurred in the high cost-of-living index areas with Boston falling to 100th from 31st; San Francisco falling to 99th from 34th; Washington, D.C. falling to 74th from 20th; Newark falling to 64th from 8th; New York City falling to 90 th from 5th; and Yonkers falling to 91 st from 6 th.


## Teacher Salaries Compariod to The Average Annual Pay of All Workers in Metropolitan Areas-Table 1-11.

Another way to adjust teacher's pay for differences among cities in prices and the standard of living is to compare teacher salaries to the earnings of other workers. Table I-11 compares the MA-Maximum teacher salary to the metropolitar, area average annual pay. These data are collected by the U.S. Department of Labor.

The annual pay daia apply to workors couored hy State and Fodera! Unemployment Insurance programs and are compiled from reports submitted by employers for more than 93 million workers. The "average" pay is computed by dividing total annual pay of both full- and part-time employees covered by unemployment insurance programs by the average monthly number of these employees. Generally excluded from unamployment insurance coverage are most agriculture workers on smail farms, railroad workers, most domestic employees, student workers and the self-employed.

Highlights of the teacher salary-annual pay ratio comparison include:
o The average teacher at the MA-Miaximum level in school districts serving the 100 largest cities eamed 50 percent more than the average metro-area annual pay with 42 districts having ratios between 1.40 and 1.60.
o Rochester, which ranked 1st according to MA-Maximum salaries, also had the highest ratio at 2.04 followed by Virginia Beach, which ranked 23rd according to MA-Maximum salaries. Other big gainers included 4th ranked Fresno, 6th ranked El Pasc, 15th ranked St. Petersburg, and 18th ranked Columbus, Georgia, districts which had been ranked 46th, 64th, 61st and 79th, respectively.
o Of the 10 lowest ranked districts according to the teacher salary-annual pay ratio, 7 had been ranked in the trottom 15 according to MA-Maximum salaries, and the other three--San Jose, Oakland, and San Francisco are located in Northern Califormia.
o San Jose had the lowest ratio at 1.10 followed by Seattle, and Oakland, both on the West Coast.

## MA-Maximum Salaries Compared to the State Average-Table I-12

Union locals frequently compare their salaries to other districts in the metro area and other districts in the state. Table I-12 contiains a comparison of MA-Maximum salaries to the state average salary for teachers of all degree and experience levels (from the AFT's Survey \& Analysis of Salary Trends, 1989). Highlights inctude:
o School districts serving the nation's 100 largest cities had MA-Maximum salaries 16 percent higher than the state average, with 57 districts paying more than 5 percent, but less than 25 percent above the state average.

- Omaha, where teachers at the MA-Maximum level are paid 54 percent more than the state average, had the most advantage over the state average followed by Miami, St. Louis, Jersey City and Pittsburgh.


##   <br>  Collormia.

|  PANKED BY CITY S |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ------BA------ |  | ------MA------ |  | $----\max ^{-1}$ <br> Maximum | Rank | Steps To Meximum |
|  | Minimum | Rank | Maximum | Rank |  |  |  |
| 1 NEW YORK, NY | \$23.000 | 12 | * 22.346 | 1 | \$45.504 | 7 | 151 |
| 2 Chicago.ll | 10,002 | 67 | 37,068 | 24 | 40,670 | 30 | 15 |
| 3 los angeles. Ca | 25.318 | 2 | 30,790 | 18 | 4,279 | 25 | 10 |
| 4 PHILNDELPHIA PA | 20.000 | 45 | 34,78 | 17 | 44,061 | 8 | 11 |
| 5 HOUSTON. TX | 20.000 | 46 | 33,500 | 60 | 36,500 | 2 | 20 |
| - DETROIT. MI | 22,324 | 16 | 40,503 | 9 | 41.565 | 23 | 11 |
| 7 Oallas. TX | 21.050 | 30 | 3,200 | ${ }^{5}$ | 3,200 | $\pi$ | 19 |
| - SAN DIEGO.CA | 21.031 | 29 | 35.100 | 4 | 43.252 | 18 | 12 |
| - PHoENIX,Az | 20.123 | 42 | 38.473 | ss | 41.252 b | 26 | 13 |
| 10 BALTIMORE, MD | 19.000 | $\omega$ | 34,001 | 62 | 30,001 | 57 | 12 ; |
| 11 SAN AMTOND. TX | 18,500 | 7 | 3,583 | 63 | 34.508 b | 72 | 16 |
| 12 INDIANAPOLS, IN | 17,904 | 87 | 3,807 | 4 | 37.332 | 53 | 20 |
| 13 SAN FRANCISCO, CA | 24,200 | 4 | 38.313 | 3 | 43,420 b | 14 | 14 |
| 14 MEMPHIS, TN | 19.100 | $\infty$ | 31,327 | $\infty$ | 30.663 | $\infty$ | 22 |
| 15 WASHINGTON, DC | 21,367 | 27 | 36,194 | 20 | 40,45e | 32 | 13 |
| 16 SAN JOSE, CA | 21,822 | 22 | 32,414 | $\infty$ | 38.921 | 41 | 10 |
| 17 MILWAUKEE, WI | 20,168 | 41 | 36.874 | 20 | 40,243 b | 33 | 16 |
| 18 cleveland. OH | 10,44 | $\infty$ | 37.221 | 28 | 30.040 a | 30 | 16 |
| 19 columbus, oh | 20,619 | 3 | 36,588 | 32 | 39,004 | 35 | 15 |
| 20 BOSTON. MA | 24.031 | 5 | 30,700 | 31 | 41,000 | 28 | 7 |
| 21 new orleans.la | 16,543 | $\infty$ | 28,800 | $\infty$ | 27.578 | $\otimes$ | 15 |
| 22 Jacksonville. FL | 13.810 | 74 | 33,720 | 57 | 36.128 | * | 18 |
| 23 SEATtLE, WA | 17.000 | 8 | 28,003 | 80 | 36,340 | ${ }^{3}$ | 12 |
| 24 DENVER.CO | 17.302 | 91 | 3,000 | 45 | 42,956 | 20 | 13 |
| 25 NASHVILE-DAVIOSON, TN | 18.200 | 82 | 31,304 | 70 | 37,128 | 54 | 16 |
| 28 ST. LOUIS. MO | 20.810 | 35 | 36,048 f | 3 | 38.488 1 | 42 | 201 |
| 27 KAnsas citr.mo | 18.000 | 45 | 30,510 | $\pi$ | 38.000 | $\infty$ | 15 |
| 28 El Paso, TX | 18,300 | 80 | 32,350 | 0 | 32.330 | 85 | 24 |
| 29 atlanta, an | 22,050 | 19 | 34,000 | 47 | 4,308 | 18 | 14 |
| 30 PITTSEURGH. PA | 22,000 | 21 | 42.500 | 4 | 44,100 | 10 | 10 |
| 31 OKLAHOMACITY. OK | 17,034 | 94 | 26,000 | 6 | 27.054 | 87 | 18 |
| 32 CINCINNATI, OH | 18,977 | 71 | 35,774 | 30 | 38.051 | 40 | 13 |
| 33 FORT WORTH. TX | 20,000 | 47 | 32.500 | 02 | 33.100 b | 82 | 25 |
| 34 minneapolis, mi | 20,324 | 37 | 38,345 | 19 | 43,204 | 17 | 11 |
| 35 poritand. or | 19.216 | Q2 | 31,983 | $\omega$ | 36,529 | 61 | 18 |
| 36 HONOLULU. HI | 23.035 | 11 | 37,400 | 24 | 43.979 | 11 | 14 |
| 37 Loidg Beach, Ca | 23,423 | 9 | 30,602 | 13 | 48.227 | 5 | 14 |
| $3{ }^{3}$ TULSA, OK | 16,503 | $\boldsymbol{*}$ | 20,003 | 4 | 34.589 | 73 | 15 |
| $3{ }^{3}$ buffalo, NY | 19,432 | 59 | 34,017 | 40 | 37.804 | 48 | 14 |
| 40 TOLEDO. OH | 20,250 | 39 | 36,400 1 | 38 | 35,875 | 67 | 15 |
| 41 MIMMI, FL | 23.000 | 13 | 38.500 | 18 | 42.500 | 21 | 14 |
| 42 AUSTIN, TX | 10,450 | 58 | 30,00c | 78 | 30,060 b | 82 | 15 |
| 43 Oakland. Ca | 23.220 | 10 | 30,070 a | 73 | 37.279 | 51 | 13 |
| $4{ }^{4}$ albuquencue, ma | 17.200 | 82 | 20.218 | $\boldsymbol{*}$ | 30,015 | 9 | 17 |
| 45 TUCSON, AZ | 19,440 | 64 | 30,2es | 35 | 39.280 | 37 | 13 |
| 48 NEWARK, NJ | 20,867 | 33 | 40,832 | 8 | 42.357 | 22 | 12 |
| 47 CHARLOTTE, NC | 19,028 | 56 | 34,808 | So | 37.336 | 40 | 24 |
| 48 Omaha, NE | 18,400 | 70 | 30.200 | 30 | 40,480 | 31 | 19 |
| 49 LOUISVILLE, KY | 18.644 | 97 | 30,456 | 78 | 34,034 | 78 | 16 |
| 50 birmingham, al | 19,818 | 51 | 27,020 | 91 | 31,048 | 01 | 11 |
|  |  |  |  |  |  | (continued) |  |




| TABLEH <br> 1988－89 BA－MINIUUM AND MA－MAXIMMI SAI APES RANKED BYBACMNIMUM SALAFY： |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{gathered} \text { BA } \\ \text { Aninumin } \\ \hline \end{gathered}$ |  |  |  |  | Mandimum | Rask | $\begin{aligned} & \text { Shepe } \\ & \text { Tomox } \end{aligned}$ |
| 1 LOS ANGELES，CA | \＄20．007 | G3，7\％ 16 | 10 | Et encmmienith，AL | （16838 | 127，009 | 81 | 12 |
| 2 POCHESTER，NY | 25.316 | $47,002 \quad 1$ | 26 | 82 Masiton，w | 18，00 | $38,44$ | 42 | $15$ |
| 3 RIVERFIOE，CA 4 SAN FRANCISCO，CA | 24，203 | 39，706 10 | 14 |  | 10，652 | 23，6e6 | 58 | 11 |
| 5 BOSTON，MA | 24,200 24,031 | $\begin{array}{r}30,313 \\ \mathbf{3 0 , 7 0 0} \\ \hline 1\end{array}$ | 14 | 84 TVCION，AZ | 19，040 | 38，203 | 35 | 14 |
| －ANCHORAQE，AK | 24，031 | 30，700 31 | 7 | 56 FORT WAYNE，in | 19，033 | 38，810 | 23 | 18 |
| 7 HUNTINGTON BEACH，CA |  | 4．03 14 | 11 | 8 CHMNOTTE，MC | 1，0es | 34．090 | 60 | 25 |
| －SYRACUSE，NY | 23.443 | 3，104 14 | 10 | 67 MONTCOMEPY，AL | 19，578 | 27.520 | 83 | 28 |
| －LONQ BEACH．CA | 23，423 |  |  | －Anstin．${ }^{\text {d }}$ | 18，490 | 30，80 | 75 | 15 |
| 10 OAKLAND，CA | \＄3，220 | 90，070 73 | 14 |  | 18，492 | 34，17 | 0 | 14 |
| 11 HONOLULU，HI | 23，086 | 37，400 24 | 14 |  | 13，244 | 97，221 | 20 | 10 |
| 12 NEW YORK，NY | 23，000 | 42．346｜ 8 |  |  | 18.306 | 37，500 | 25 | 10 |
| 13 MIANI，FL | 23，000 | 38，000 18 | 14 |  | 19，216 | 31.80 | 08 | 18 |
| 14 FAESNO．CA | 22．304 | 34，060 a 48 | － |  | 18 | 30，275 | 81 | 24 |
| 15 ANAHEM，CA | 22，300 | 30，76 11 | 12 |  | 19．84 | 31.108 | 72 | 16 |
| 16 DETPOIT，MI | 22，324 | 40，503 | 11 |  | 18，733 | 36，934 | 37 | 13 |
| 17 WARREN，MI | 22，133 | 43，060 3 | 12 | 7 cumpano 18 | 18，100 | 31，327 | 0 | 22 |
| 18 SANTA ANA，CA | 22.117 | 30，071 15 | 12 |  | 19,002 | 37，964 | － 23 | 15 |
| 19 ATLANTA，GA | 22，060 | 34，800 47 | 14 | －BALTMOPE，MD | 19,000 | 31，262 | 71 | 17 |
| 20 PITTSBURGH，PA | 22，000 | 42，800 4 | 10 | 70 CHATTANOOEA，TN | 18,000 19,000 | 34，081 | 1 52 | 12 f |
| 21 VIRGINIA BEACH．VA | 22，000 | 39，000 22 | 23 | 71 C⿴囗十MWMTI，OH | 19，000 | 30，507 | 70 | 17 |
| 22 SAN JOSE，CA | 21，922 | 32，414 63 | 10 | 72 MOPRE， 14 | 18,877 18,920 | 36.774 28.327 | 97 | 20 |
| 23 SACRAMENTO，CA | 21，807 | 30，802 74 | 12 | 75 MLPON，OH | 18，4，00 | 26.327 36.210 | 4 | 20 |
| 24 FLINT，MI | 21．022 | 30，061 12 | 12 | 74 MCKONVLLE，FL | 18，600 | 36,210 33,720 | 43 | 13 |
| 25 JERSEY CITY，NJ | 21，560 | 46，508 2 | 17 | 78 KMNTA CITY，KS | 18，600 | 33，720 | 87 |  |
| 26 NORFOLK．VA | 21，635 | 34，760 6！ | 18 | 76 L＇MCKON．Ms | 18，000 | 27,004 28,542 | 80 | 18 |
| 27 WASHINGTON，DC | 21，357 | 38.104 | 13 | 77 CW ANTONIO，TX | is，600 | 20，502 | 83 | 20 |
| 28 ST．PAUL，MN | ： 9.243 | 38.150 | 12 | 75 Las VEaAS，NV | 18，400 | 30，002 | 82 |  |
| 29 SAN DIEGO，CA | 21，031 | $35.100 \quad 44$ | 12 | 70 OMAHA，NE | 111，400 | 38.400 |  | 20 |
| 30 DALLAS．TX | 21.000 | 34，200 56 | 19 | 0 ELPA80，TX | ：1，300 |  |  | 24 |
| 31 GRAND RAPIDS，MI | 20.870 | 37，140 27 | 11 | 81 DEEMTAWES，1A | 18，250 | 31，400 | 68 | 24 |
| 32 YONKERS．NY | 20.879 | 43，246 6 | 16 | \％MANHMLLE，TN | 18，200 | 31，304 | 70 |  |
| 33 NEWARK，NJ | 20，067 | 40，232 E | 13 | 23 \％MNEVEPORT，LA | 18，200 | 31,304 25,028 | co |  |
| 34 COLUMBUS，OH | 20，610 | 38.69 3 | 16 | 3 MNOXMLE，TN | 18，003 | 26,028 24,316 | 8 | 15 |
| 35 ST．LOUIS，MO | 20，610 | 38.048 1 38 | 201 | ＊גuMaserv，mo | 18,00 18,000 | 29,316 30,610 | 88 | 18 |
| 36 GREENSBORO．NC | 20，360 | 34，000 68 | 21 | O LUMOCK，TX | 18，000 | 30，400 | 7 | 36 |
| 37 MINNEAPOLIS，MN | 20，324 | 34.34519 | 11 | 87 MOMNMOLSS，IN | 17，040 | $\begin{array}{r}30,400 \\ \hline 1.097\end{array}$ | 46 | 20 |
| 38 RICHMOND，VA | 20.301 | 32，212 6 | 18 | es egatme wa | 17，000 | 25，008 | 80 | 12 |
| 39 ST．PETERSEURG，FL | 20.260 | 35，200 61 | 17 | －BATON MOUGE，LA | 17．62\％ | 24，721 | 100 | 14 |
| 40 TOLEDO，OH | 20，250 | 36.800 ｜ 38 | 18 | （ UnCOLN，NE | 17．475 | 21，000 | 67 | 14 |
| 41 MILWAUKEE，WI | 20，184 | 30.874 | 16 | 91 Devus， 0 | 17，502 | 31，003 | 6 | 17 |
| 42 PHOENIX，AZ | 20，123 | 30，473 30 | 13 | 3．RLUQUENOUE，M． | 17，200 |  | 06 | 18 |
| 43 DAYTON．OH | 20.111 | 34，407 54 | 15 | 93 saLTLAKECTY，UT | 17．10 | 20.215 29.042 | 5 | 18 |
| 44 WICHITA，KS | 20.016 | 28，300 87 | 11 | \＆OXAMCMACTTY，OX | 17．034 | 28.042 28.000 | 85 | 12 |
| 45 FORT WORTH．TX | 20，000 | 32，500 62 | 25 | －PMOKANE，WA | 17,034 16,798 | 20，000 | 85 | 18 |
| 46 PHILADELPHIA，PA | 20.000 | 38，778 17 | 11 | © TACOMA，WA | 10，088 | 30，036 |  |  |
| 47 HOUSTON，TX | 20.000 | 33，500 80 | 20 | 07 LOUIEVHLE，KY | 18，044 | 30.436 30.458 | 78 | 13 17 |
| 46 ARLINGTOH，TX | 12.007 | 35，600 41 | 20 | ＊TULEA，OK | 16，64 | $3 \times, 450$ 29,093 | 78 84 | 17 15 |
| 49 COLUMBUS，GA | 18，038 | 30，42t 70 | 18 | $\infty$ NEW OFREAM8，LA | 16，643 | 28，800 | 0 |  |
| 50 COLORADO SPRINGS，CO | 19，820 | 35，654 40 | 17 | 100 LITTLE ROCK，AR | 16，391 | 27，488 | 02 | 14 |
| Soe Table 1－1 for notes |  |  |  | AVERMGE | \＄20．105 | \＄ 34.271 |  | 15 |

## TABLE！－4

##  

|  | －80 |  | ma |  | expe To |  |  |  |  | － |  | $\begin{aligned} & \text { Exape } \\ & \text { To } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 Mm. | Pmak | Max． | Pank | Mex． |  |  | $\mathrm{mm}_{\mathrm{n}}$. | Amin | Max． | Rank | Max． |
| 5imp |  |  |  |  |  |  |  |  |  |  |  |  |
| 1 PROVIDENCE，RI | \＄10，506 | 61 | （377，300 | 25 | 10 | 14 | Chattanoocal Tn | \＄18．000 | 70 | \＄30．607 | 76 | 17 |
| 2 BOSTIN，MA | 24，031 | 5 | 30，700 | 31 | 7 | 15 | LOUISVLLE．KY | 18，644 | 97 | 30，450 | 78 | 17 |
| 3 WOFCHESTER，MA | 19，042 | 53 | 33，595 | 88 | 11 | 10 | collmment an | 19，235 | 40 | 30，428 | 79 | 18 |
| Moenay |  |  |  |  |  | 17 | JACKEON．Me | 18.604 | 76 | 28，882 | 88 | 20 |
| 1 POCHESTER，NY | 20，087 | 1 | 47，002 | 1 | 2 | 18 | HOOXVILET TN | 18.040 | 4 | 28，315 | 88 | 18 |
| 2 JERSEY CITY．NJ | 31.850 | 25 | 48，608 | 2 | 17 | 10 | EmannahkM，AL | 19，818 | 81 | 27，620 | 01 | 12 |
| 3 PITTEBURGH．PA | 22.000 | 21 | 42，600 | 4 | 10 | 20 | UTTLE ROCK．AR | 16，301 | 100 | 27，446 | 02 | 14 |
| 4 NEW YORKK，NY | 23，000 | 12 | 42，346 | 5 | 18 | 21 | MONTEOMEP\％，AL | 19.678 | 57 | 27.320 | 03 | 25 |
| 5 YONKERR，NY | 20，879 | 32 | 42，246 | － | 15 | 22 | MEW OMEANE，LA | 16.543 | 9 | 28，000 | 88 | 16 |
| －NEWARK，HUJ | 20，407 | 53 | 40，238 | 8 | 13 | 23 | MOMREAL | 18．020 | 72 | 28，327 | 97 | 20 |
| 7 PHILADELPHIA，PA | 20，000 | 45 | 35，77 | 17 | 11 | 24 | WMEVEPORT．LA | 18，080 | 3 | 25，028 | $\infty$ | 15 |
| －WASHINGTON，DC | 21，357 | 27 | 38.194 | 20 | 13 | 28 | baton movee la | 17．083 | 0 | 24，721 | 100 | 14 |
| －BUFFALO．NY | 19，452 | 50 | 34，817 | 40 | 14 |  |  |  |  |  |  |  |
| 10 SALTMORE，MO | 10.000 | $\boldsymbol{*}$ | 34，001 | 62 | 12 | 1 |  | 20,123 | 42 | 30，473 | 33 | 13 |
| 11 SYRACUE：NY | 23.443 | 8 | 38，316 | 0 | 15 | 2 | TUCOON，AZ | 19，040 | 84 | 38.203 | 35 | 14 |
|  |  | \＃ |  |  |  | 3 | APLANGTON，TX | 10.007 | 4 | 36，680 | 41 | 20 |
| 1 WAPREN，MI | 22，133 | 17 | 43，000 | 3 | 12 | 4 | SAN ANTONIO，TX | 18，600 | 7 | 34.608 | 63 | 16 |
| 2 DETMOIT，MI | 22，324 | 16 | 40，603 | － | 11 | 5 | OAllas， $7 x$ | 21.000 | 30 | 34，200 | 55 | 19 |
| 3 FLINT，MI | 21，022 | 24 | 30，081 | 12 | 12 | － | Houmtow．TX | 20.000 | 46 | 33，600 | 60 | 20 |
| 4 MINNEAPOLIS，MN | 20，324 | 37 | 38，346 | 10 | 11 | 7 | POKT WOFTH．TX | 20，000 | 47 | 32，500 | 62 | 25 |
| 5 ST．PAUL，MN | 21，243 | 23 | 38.160 | 21 | 12 | 8 | El Paso．TX | 18，300 | 0 | 32，350 | 04 | 24 |
| －chicago．il | 19，002 | 67 | 37，963 | 23 | 15 | － | Austm，TX | 19，450 | 58 | 30，080 | 75 | 15 |
| 7 Cleveland．OH | 19，344 | $\infty$ | 37,221 | 28 | 16 | 10 | Luepock TX | 18，000 | 88 | 30.400 | 80 | 36 |
| －GRAND RAPIDS，MI | 20，870 | 31 | 37.140 | 27 | 11 | 11 | COspus Chpisti．TX | 18，200 | 63 | 30，275 | 81 | 24 |
| －FORT WAYNE，IN | 19，033 | 55 | 38，910 | 3 | 18 | 12 | Treat or | 18.603 | 98 | 20.003 | 84 | 15 |
| 10 MILWAUKEE，WI | 20，158 | 41 | 30，874 | 20 | 16 | 13 | ORLAHOMA CITY．OK | 17.034 | 9 | 20，000 | 95 | 18 |
| 11 COLUMABU8，OH | 20，619 | 34 | 30，64t | 32 | 15 | 14 | ALoUQUEMOUE，MM | 17，200 | 92 | 28,215 | 08 | 18 |
| 7 TOLEDO．OH | 20.250 | 39 | 35.800 | 38 | 15 | 䢒 |  |  |  |  |  | 产产复 |
| 13 CINCINNATI，OH | 18.977 | 71 | 35，774 | 30 | 13 | － | adrinath 0 | 19，133 | \％ | 25，034 | 37 | 13 |
| 14 MADISON．WI | 19，658 | 52 | 35，430 | 48 | 15 | 2 | COLORADO sepuncs | 19，820 | 60 | 35，054 | 40 | 17 |
| 15 AKPON，OH | 18．890 | 73 | 35，210 | 48 | 13 |  | DENVER， 00 | 17，302 | 91 | 34，008 | 45 | 13 |
| 16 INDIANAPOLIS，IN | 17．094 | 87 | 34，067 | 48 | 20 | 4 | SALT LAKE CITY．UT | 17，100 | 03 | 29.042 | 85 | 12 |
| 17 DAYTON．OH | 20，111 | 43 | 34，497 | 64 | 18 |  |  |  |  |  |  | 复冾 |
|  |  |  |  |  |  | 1 | PIVERMOM | 24，20\％ | 3 | 30.765 | 10 | 14 |
| 1 OMAMA，NE | 18，400 | 79 | 30，000 | 30 | 20 | 2 | arartem，Ca | 22，300 | 15 | 30，78t | 11 | 12 |
| 2 ST．LOUIS，MO | 20，01n | 35 | 30.048 | 38 | 20 | 3 | LONG EEACH，CA | 23，423 | 0 | 30，632 | 13 | 14 |
| 3 LINCOLN．NE | 17．475 | 90 | 31，000 | 67 | 17 | 4 | hUNTMNGTOW BEACH | 23，700 | 7 | 30，184 | 14 | 10 |
| －DESMOINES，IA | 18，250 | 81 | 31，408 | 0 | 16 | 5 | sarra aly ca | 22.117 | 18 | 30.071 | 15 | 12 |
| 5 KANSAS CITY，MO | 18，000 | 25 | 30，610 | 77 | 18 | － | LOE ANCELE8，CA | 25，316 | 2 | 35，704 | 16 | 10 |
| －WICHITA，K8 | 20，016 | 44 | 28，300 | 67 | 11 | 7 | san fanncieco．Ca | 24.260 | 4 | 30，313 | 34 | 14 |
| 7 KANSAS CITY．KS | 18，800 | 75 | 27.034 | 0 | 15 | 8 | SAN DNECO，CA | 21，031 | 20 | 35.100 | 44 | 12 |
|  | ，＜ | 新新 |  |  |  | － | freano．Ca | 22，044 | 14 | 34.030 | 46 | 6 |
| 1 MIAMI．FL | 23，000 | 13 | 30，000 | 18 | 14 | 10 | san sose Ca | 21.092 | 22 | 32.414 | 63 | 10 |
| 2 VIRGINIA BEACH，VA | 22，000 | 20 | 38，000 | 22 | 23 | 11 | PORTLAND，OR | 19.216 | 02 | 31，063 | © | 16 |
| 3 ATLANTA，GA | 22.050 | 19 | 34．003 | 47 | 14 | 12 | OAKLAND，CA | 23，220 | 10 | 30，974 | 73 | 13 |
| 4 EHARLOTTE，NC | 19，623 | 68 | 34．200 | 60 | 25 | 13 | sacpmalito，CA | 21，857 | 23 | 30，002 | 74 | 12 |
| 5 NORFOLK．VA | 21.535 | 28 | 34.750 | 61 | 18 | 14 | LAB VEaAS， NV | 18，400 | 78 | 30，002 | 82 | 11 |
| －GREENSBORO．NC | 20.360 | 30 | 34，080 | 60 | 21 | 16 | TACOMA，WA | 18，046 | 88 | 30.035 | 83 | 13 |
| 7 JACKSONVILLE．FL | 18，810 | 74 | 35，728 | 67 | 18 | 16 | 8EATLE，WA | 17，000 | 4 | 28，008 | 89 | 12 |
| 8 ST．PETEREQURG，FL | 20，250 | 40 | 33，200 | 61 | 17 | 17 | eporame，WA | 16.792 | 96 | 27.002 | 04 | 11 |
| －RICHMONO．VA | 20，301 | 38 | 32，212 | $\infty$ | 18 |  |  |  |  |  |  |  |
| 10 MEMPHIS．TN | 19.100 | 00 | 31，327 | $\infty$ | 22 |  | ANCHOPAGE AK | 23，263 | 6 | 41，336 | 7 | 11 |
| 11 NASHVILLE，TN | 18，200 | 32 | 31，304 | 70 | 16 |  | HONOLULU，HI | 23，035 | 11 | 37，400 | 24 | 14 |
| 12 TAMPA，FL | 10，051 | 68 | 31，262 | 71 | 17 |  |  |  |  |  |  |  |
| 13 LEXINGTON．KY | 19.148 | 04 | 31.108 | 72 | 16 |  | Averuate | \＄20．106 |  | \＄34．271 |  | 15 |



| $\overline{T A B L E I-6}$ <br> RATIO OF 1989－80 RANKED BY若 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { Bi- } \\ & \mathrm{Min} \end{aligned}$ | $\begin{aligned} & \text { MA- } \\ & \text { Max } \end{aligned}$ |  | MA－Mox <br> 6 <br>  <br> ape 18 |  |  | $\begin{aligned} & \text { BA- } \\ & \mathrm{Mn} \end{aligned}$ | $\begin{aligned} & \text { MA- } \\ & \text { Max } \end{aligned}$ | Pan | Stopt |  |
| 1 JERSEY CITY，NJ | \＄21，880 | 140，506 | 2 |  | 81 | WMPCHEETER，MA | \＄19，662 | \＄30，806 | 68 | 11 | 1．71 |
| 2 YONKERS，NY | 20，870 | 42，248 | 8 | 16．Eme | 82 | RANSASCTY，Mo | 18.000 | 30，819 | 77 | 15 | 1.70 |
| 3 DENVER，CO | 17，902 | 34，008 | 46 | $13 \quad 2.01$ | 63 | 8ALT LAKE CITY，UT | 17，103 | 20，042 | 85 | 12 | 1.00 |
| 4 OMAHA，NE | 18，400 | 30，800 | 30 | $20 \quad 200$ | 64 | LUBAOCX，TX | 18，000 | 30，400 | 80 | 36 | 1.00 |
| 8 CHICAGO．IL | 10，002 | 37．95 | 23 | 16，．${ }^{\text {\％}}$ | 65 | LONG BEACH，CA | 23，423 | 30．632 | 13 | 14 | 1.00 |
| －WARREN，MI | 22.133 | 43.958 | 3 | 12 ） | 86 | UTTLE ROCK，AR | 18，301 | 27.480 | 92 | 14 | 1．8ie |
| 7 NEWARK，NJ | 20，067 | 40，832 | 8 | 13 | 87 | HOUsTON，TX | 20，000 | 37，600 | 50 | 20 | 1．0＊： |
| 8 Philadelphiar Pa | 20.000 | 38.778 | 17 | 11 －xy | 13 | QR土MANOPO，NC | 20.360 | 34，000 | 88 | 21 | 1.67 |
| －INDIANAPOLIS．IN | 17，604 | 34.807 | 48 | 20 ＂ 20 | 50 | MLAM，Fi | 23.000 | 38.600 | 18 | 14 | 1．97． |
| 10 PROVIDENCE，R1 | 12，308 | 37，300 | 28 | 10 ＂： | $\infty$ | SAN DJECO，CA | 21.031 | 35，100 | 44 | 12 | 1．67： |
| 11 PITTSEUPAH，PA | 22，000 | 42，800 | 4 | 10 而 | 61 | POMTLLANO，OR | 19.218 | 31，903 | 68 | 16 | 1．08） |
| 12 CLEVELAND，OH | 19,344 | 37，221 | 28 |  | 02 | HUNTHAGTON BEACH | 28.700 | 30.184 | 14 | 10 | 4.08 |
| 13 MINNEAPOLSS，MN | 20，324 | 34，346 | 10 | 11 10 | 68 | TAMPA，FL | 19.081 | 31，252 | 71 | 17 | 1.64 |
| 14 CINCINNATI，OH | 18，077 | 35，774 | 30 | 13 －${ }^{\text {d }}$ | 64 | MEMPHIS，TN | 19.100 | 31,327 | $\infty$ | 22 | 1.84 |
| 15 FORT WAYNE，IN | 18.033 | 30.910 | 23 | 18.1 ite | 66 | 8T．PETERERURG，FL | 20，250 | 39，200 | 61 | 17 | 1.64 |
| 16 AURORA，CO | 10，133 | 36，034 | 37 | 13 ． | 83 | PIVERESE，CA | 24，200 | 30，786 | 10 | 14 | 1.84 |
| 17 SAN ANTONIO，TX | 18，600 | 34，608 | 63 |  | 87 | Las Veane，AV | 18.400 | 30，002 | 82 | 11 | 1.03 |
| 18 AKPON，OH | 18，880 | 35.210 | 43 | 13 \％ | 03 | OALLAS，TX | 21，000 | 34，200 | 85 | 19 | 1.03 |
| 19 TUCSON，AZ | 18.040 | 30，203 | 38 | 14 ste | 60 | FORT WOATH，TX | 20.000 | 32，400 | 62 | 25 | 1.03 |
| 20 NEW YORK，NY | 23，000 | 42，346 | 6 | 16 ） | 70 | LEMNETON，KY | 12.148 | 31.108 | 72 | 18 | 1.02 |
| 21 ROCHESTER．NY | 28.007 | 47，892 | 1 | 24. | 71 | HONOLULU，HI | 23，036 | 37.400 | 24 | 14 | 1.02 |
| 22 FLINT，MI | 21.022 | 30，661 | 12 | 12 ， | 72 | MEW OPLEANS，LA | 18．543 | 27，800 | 88 | 15 | 1.62 |
| 23 LOUISVILLE，KY | 18.044 | 30，458 | 78 | 17 ＂是紻＂ | 73 | NOPMOLK，VA | 21，636 | 34.750 | 51 | 18 | 1.81 |
| 24 MILWAUKEE，WI | 20.158 | 30，974 | 29 |  | 74 | CHATTANOOSA，TN | 19.000 | 30．587 | 78 | 17 | 1.61 |
| 25 BALTIMORE，MD | 18,000 | 34.001 | 52 |  | 76 | 8POKANE，WA | 18.792 | 27.002 | 04 | 11 | 1.61 |
| 28 DETROIT，M1 | 22，324 | 40.503 | 9 | 11 T11 | 75 | QEATTLE，WA | 17.000 | 28，004 | 89 | 12 | 1.60 |
| 27 PHOENIX，AZ | 20，123 | 30，473 | 33 | 13 1具 | 77 | AUsTIN．TX | 19.460 | 30，950 | 75 | 15 | 1.50 |
| 28 LINCOLN，NE | 17.475 | 31，050 | 67 | 17 1．81 | 78 | PICHMONO，VA | 20，301 | 32，212 | 65 | 18 | 1.50 |
| 29 TACOAA，WA | 18，306 | 30.036 | 43 | 13110 | 79 | ATLANTA，QA | 22，050 | 34，500 | 47 | 14 | 1．6t |
| 30 MADISON，WI | 19，68 | 35，438 | 42 | 16.540 | 60 | OKLAHOMA CITY，OK | 17，034 | 20．900 | 95 | 18 | 1.58 |
| 31 COLORADO SPRINGS | 18.320 | 35,064 | 40 | 17 ，缶 | 81 | CORPUS CMAISTI，TX | 19.200 | 30,275 | 81 | 24 | 1.58 |
| 32 JACKSONVILLE，FL | 18，810 | 33，728 | 57 | $18 \cdot 17$ | 12 | KNOXYILE，TN | 18，040 | 28，315 | 88 | 18 | 1.67 |
| 33 ST．PAUL，MN | 21.283 | 38.150 | 31 | $12<3$ 迷 | 13 | COLUMmes，GA | 19，836 | 30，42t | 79 | 18 | 1.63 |
| 34 BUFFALO．NY | 18.432 | 34.817 | 40 | $14 \times 1 \%$ | 4 | JACKEON，M8 | 18，004 | 28.502 | 36 | 20 | 1.53 |
| 36 WASHINGTON，DC | 21，367 | 38，104 | 20 | 13 －＂だ「 | 8 | BOETON，MA | 24.031 | 30，700 | 31 | 7 | 1.63 |
| 36 ARLINGTON，TX | 18.007 | 35，600 | 41 |  | 6 | LOE AMOELEE，CA | 25.318 | 38，783 | 16 | 10 | 1.63 |
| 37 GRAND RAPIDS， 81 | 20，870 | 37.140 | 27 | 11 早 | 87 | ALOUCUEROUE，NM | 17，200 | 20，216 | 98 | 18 | 1.52 |
| 35 ANAHEIM．CA | 22，304 | 30，783 | 11 | $12 \cdots \cdots$ | 8 | saw francisco，CA | 24．200 | 30，313 | 34 | 14 | 1.50 |
| 30 COLUMBUS，OH | 20，019 | 30，508 | 32 | 16 ． 1.77 | 0 | 8AN JOEE，CA | 21，922 | 32,414 | 63 | 10 | 1.40 |
| 40 CHARLOTTE，NC | 18，028 | 34，008 | 60 | $26 \cdot 1.7 \%$ | 0 | KANSAS CITY，KS | 18，800 | 27．084 | $\infty$ | 15 | 1.47 |
| 41 TOLEDO．OH | 20，280 | 35，000 | 34 | 16 － 17 | 91 | 8YRACUEE，NY | 23，443 | 37.316 | $\infty$ | 15 | 1.42 |
| 42 EL PASO， 1 X | 18，300 | 32.330 | 4 | 24 1．77 | 92 | OHREYEPORT，LA | 18，00 | 25，026 | 0 | 15 | 1.42 |
| 43 SANTA ANA CA | 22.117 | 30，071 | 16 | 12 8．77 | 0 | WICHITA，$K 8$ | 20.018 | 28，380 | 87 | 11 | 1.42 |
| 44 TULSA，OK | 18.863 | 20，003 | 4 | 18 8．3y | 94 | BACRAMENTO．CA | 21.897 | 30，002 | 74 | 12 | 1.42 |
| 45 ST．LOUIB，MO | 20.010 | 38，048 | 38 | 80 1 17 | 85 | EATON POVGE，LA | 17.623 | 24.721 | 100 | 14 | 1.41 |
| 46 ANCHORAGE，AK | 25.803 | 41，338 | 7 | 11 1．75 | 0 | MONTGOMERY．AL | 19，574 | 27.320 | 03 | 25 | 1.40 |
| 47 VIRGINIA BEACH，VA | 22.000 | 38，000 | 22 | 23.1 .75 | 97 | BIPMINGHAAS，AL | 19，818 | 27.020 | 01 | 12 | 1.39 |
| 48 DES MOINES．IA | 18.250 | 31，408 | 0 | 16 ＇．7\％ | 83 | MOBILE，AL | 18，020 | 24.327 | 07 | 20 | 1.30 |
| 40 NASHVILLE．TN | 18，200 | 31，304 | 70 | 16 1．77 | 90 | OARLAND．CA | 23.220 | 30.070 | 73 | 13 | 1.33 |
| 50 DAYTON．OH | 20.111 | 34，497 | 64 | 18 ． 1.72 | 100 | FREBANO．CA | 22，884 | 34，030 | 40 |  |  |
|  |  |  |  |  |  | AVERMGE | 920，046 | \＄34，271 | 51 | 16 | 1.71 |


| $\begin{aligned} & \text { TABLA } \\ & 19890 \end{aligned}$ | $\begin{aligned} & \text { LEI- } \\ & \text { cost-onkning } \\ & \text { (Derinationting } \end{aligned}$ |  |  |  | $\because$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LSTEED ALPHABEITCNLY |  |  |  | RAMMED BYMPEX |  |
| $\left\lvert\, \begin{gathered} \mathrm{COL} \\ \text { index } \end{gathered}\right.$ | City | $\begin{aligned} & \text { COL } \\ & \text { index } \end{aligned}$ | Ciny |  | cot |
| 93.6 | AKRON, OH | 0.9 | LOVFEMLIE, MY |  |  |
| 101.5 | ALPUQUEPCOUE, NM | 08.4 | Lunock, TX |  | Het EMPORA co |
| . 3 | ANAHEM. CA | 102.2 | - mancomim |  | yotit pawrer 00 |
| 125.7 | ANCHORAGE, AK | 04.2 | menpins, TM |  | . fosif Las VEans. NV |
| 103.2 108.5 | APLINATON, TX | 110.1 | M Hamin. PR | \%pormmarciry. nJ | 10\% \% DAYTON, OH |
| 100.5 101.5 | AUANORA, CO | 102.0 | Mutwaucien Mil | - Mmimam, M | \%ekt MOMNOLK, VA |
| 94.8 | AUSTIN. TX | 00.7 | MOMLS, AL |  | HOLt: VAOMMA DEACH, VA |
| 109.5 | BALTMORE, MO | 97.6 | MONTCOMERY. AL |  |  |
| 93.5 | BATON POUGE, LA | 00.0 | Namivile TM | tario ampreo. CA |  |
| 98.5 | BIPAINGHAM, AL | 97.8 | NEW OMLENHS, LA | tame maunuctow. DS | a. Lexneton $k$ |
| 152.3 | BOSTON, MA. | 157.2 | NEW YOAK, NY | 14x. PMLADEIPHIA PA | 9.t Manveapolis |
| 107.2 | BUFFALO, NY | 133.0 | NEWAOK, MJ | 1-9, LOMA REACH, CA | 9a.7 TUCAOM, AZ |
| 09.5 | CHARLOTTE NG | 101.1 | NOPPOLK, VA |  | ce Magmulie TK |
| 0.2 | CHATTANOOGA TN | 119.7 | - OARLANO.CA | TiL H A CHOMACE, AK | ci Cowniotre Ne |
| 120.3 | Chicago, il | 04.2 | OKLAHOHA CITY. OK |  | c.a CWALLOTEE, NC |
| 100.8 | CINCINNATI, CH | 92.6 | OMAHA, NE | pey | a.t moiminaolis, in |
| 109.5 | CLEVELAND, OH | 127.2 | PHILLOELPMA, PA |  | tie srracuex |
| 03.7 | COLORADO SPRINGS. CO | 102.8 | PHoEnix, az |  |  |
| 03.7 | COLIMMEUE, GA | 102.5 | PITTEMAMEH, PA |  | -7. ELPACO, TX |
| 102.4 | COLUMBUS. OH | 103.0 | POPTLINO. OR | Stak OMENO, CA | E7. - MEW ORLEANS: LA |
| 07.2 | CORPUS CHRISTI. TX | 123.2 | PROVIOENCE, 相 | , ItiM | D7. MONTCCOMER |
| 103.8 | Dallas, $7 \times$ | 107.2 | RICHMOMD, VA | tifit acmamento, CA | 97. ${ }^{\text {S }}$ OREENSEOR |
| 101.1 | DAYTON, OH | 108.7 | RIVERURE, CA | Eitit: marrue, Wa | \%is. 8 L LOUIS Mo |
| 101.5 | DENVER.CO | 114.4 b | - ROCHEETER, NY | tixamam, PL | 71.3. |
| 103.2 | DES MOINES, IA | 114.1 | 8ACRAWENTO. CA |  | 97. COAPUS CHRISTI, TX |
| 110.0 b | b DETROIT, MI | 94.8 | SALT LAKE GITY. UT |  | © is : SNH ANTOMO. TX |
| 87.8 | EL PASO, TX | 97.1 | SAN ANTONIO. TX | Hés enermone mo | TH: JACKSON, MS |
| 104.0 a | - FLINT, MI | 131.0 | SAN DHECO, CA | TYY ClEVELANO,OH |  |
| 98.3 | FORT WAYNE, IN | 144.6 | SAN FRANCISCO. CA | coren memoich | 6.7. LITTLE ROCK, AR |
| 103.2 | FORT WORTH. TX | 123.0 | SAN JOEECA | Wix ELPPALO.NY | Six Moste, AL AR |
| 108.7 | FRESNO, CA | 132.3 | SaNTA ANA, CA |  | cat FORT WAYNE, IN |
| 104.0 | GRAND RAPIDS, MI | 111.1 | SEATTLE WA | How Prversios, CA | ©. KANSAS CITY, KS |
| 97.5 | GREENSEORO. NC | 3. | GHREVEPORT, LA | toch ${ }^{\circ} \mathrm{L}$ ATLAMTA, GA | -6.1 K_Neas city, MO |
| 122.5 b | HONOLULU. HI | 92.1 | SPOKANE, WA |  | ges salt lake city ut |
| 101.9 | HOUSTON. TX | 97.5 | ST. LOHIS, MO | trine aravo maphos, mI | 24. Mustin, TX |
| 132.3 | HUNTINGTON BEACH, CA | 100.9 | ST. PAUL, MM | towie palase, TX | 3.3 LOUISVILE KY |
| 99.3 | INDIANAPOLIS, IN | 101.6 b | ST. PETEMREUAG, FL | Tame ARMmatom TX |  |
| 87.0 b | JACKSON, MS | 04.5 | SYRACUSE NY | cmis emmomes ia |  |
| 14.0 | JACKSONWLLE, FL | 00.9 | TACOMA. WA |  |  |
| 133.0 a | JERSEY CITY, NJ | 101.6 b | TAMPA FL | tis tormo. OH | et Columides, GA <br> de AKRON OH |
| -3.1 | KANSAS CITY, Ks | 103.1 | TOLEDO. OH | 14. MOMILMD, OR | *88. BATGN ROUGE, LA |
| 95.1 | KANSAS CITY. MO | 99.7 | TUCSON, AR | netie moanux iz | 4. LUwoock, TX |
| 91.7 | KNOXVLLE, TN | 88.1 | TULEA, OK | quere mrtmunat, PA | cese LINCOLN, NE |
| 101.4 | Las Veans, nV | 101.1 | VIPCMma eench. va | saxif Colummous, OH | 38.3 Lncoln. NE |
| 09.8 | LEXINGTON-FAYETTE, KY | 110.0 e | WAPMEN. MI | tote mallow. w | Eei spokane wa |
| 83.2 | LINCOLN. NE | 128.4 | WAEHMMOTON, DC |  | ga.1 TULSA, OK |
| 08.7 b | LITTLE ROCK, AR | 97.3 | WICHITA, Ks | 101: HOUSTON, TY |  |
| 126.5 | LONG BEACH, CA | 121.1 | WOFICHEETER. MA | 101.8 ST, PLTEREQURG, FL | 91.7 Colorano springs |
| 128.5 | LOS ANGELE8, CA | 157.2 | YONKERS. NY | 101.0 TAMPA. FL | 90.2 Chattancoga. Tn |
|  |  | 108.0 | average |  | 100. AVERAGE |





## II. Fiscal Information for Fifty Large School Districts

Fiscal information helps local unions succoed in a number of ways ranging from collective bargaining to pubiic relations. Such data support activities related to bargaining including hiring, layofis, salary negotiations, and identifying problems associated with a poor economic environment. Comparative fiscal data for school districts, particularly from financial statements budgets, are among the most difficult to cbtain. The data in this section cofine from a survey of the nation's largest school districts conducted by the national newspaper City \& State ("The Top 50 School Districts," August 28, 1989, pp. 12-21).

City \& State published the data as reported to them. The tabuiations of the data presented in this report adjusted the data slighty as noted in the tables. Some of the City \& State data may count nonsupervisory professional personnel as teachers. While City \& State merely noted that some districts include some or all federal revenue in the general fund, the figures in Tables II-1 and II-3 exclude federal revenue from the general fund to facilitate accurate comparisons.

Intercity comparisons of financial data should be carefully conducted. Alt of the 1988-89 figures are estimates, perhaps just budgeted amounts. Table II-4 shows the accuracy of the 1987-88 estimates compared to the actual figures known one year later. Personnel estimates may reflect either actual employees or budgeted positions. Districts with deficits or excessive fund balances can disguise their true fund balance situation by manipulating the budgeted revenue, expenditurs, and fund balance figures. In many cases, the estimated figures diverge considerably from the actual figures. On average, however, estimated revenues overstate actuals by 0.9 percent, estimated expenditures understate actuals by 1.9 percent, and fund balances tend to rise by one percentage point.

Regardless of the accuracy of the estimates, sorne fund balances may not be GAAP (Generally Accepted Accounting Principles) fund balances. Even if the fund balance is a GAAP balance, the balance reported by the district may or may not include reserved and designated fund balances. Another problem is that accounting systems vary from state to state and district to district within the limits of GAAP accounting standards so that the fund balance information may or may not include interfund transfers, interfund borrowing, or other accounting adjustments.

General fund expenditure data should also be carefully interpreted because the various accounting systems inctude different expenditure items in the general fund. In soma cites, transportation and most capital expenditures are in the general fund, while in others, they are treated as separate funds. Transportation, for example, is part of the general fund in Detroit but is a separate fund in

Minneapolis. Expenditure data are reported in a more uniform way in the U.S. Department of Education's Dipest of Education Statistics. 1889 for the 1986-87 school year. The U.S. Bureau of the Census also publishes spending and revenue data in Einances of Public School Systems in 1988-87 (GF87-10, 1989).

Despite these data corrections and caveats, the City \& State survey provides the most current data on spending and revenues and the only available information on fund balances. Union locals are encouraged to get the best financial information possible for their own local and not rely on the financial information in this report. Highlights incuude:

## Staffing and Personnel (Table II-1):

o The ratio of students to teachers averaged 16.9, compared to a national average reported by the U.S. Department of Education of 17.4 for the nation as a whole.
o Nswark had the lowest ratio of students to teachers at 11.5 followed by St . Louis (12.4), Boston (12.6), Baltimore County (13.5), and Pittsburgh (14.0). Los Angeles, Long Eeach, Memphis, and Polk County had a ratio over 20.0 students to a teacher.
o Teachers comprised only 54.1 percent of all employees, but 33 districts had ratios between 50.0 and 60.0. The U.S. Department of Education reports that teachers comprised 53.1 percent of all school employees for the nation as a whole.
o Montgomery County, Maryland had the highest percentage of empioyees as teachers at 68.7 percent followed by Baltimore County ( $63.9 \%$ ), Las Vegas (63.8\%), and Columbus, Onio (60.8\%).

## General Fund Expenditures (Table If-2):

0 The 50 districts in the survey averaged $\$ 4,365$ in general fund expenditures per pupil an 8.8 percent increase. The comparable figure in 1987-88 was $\$ 4,009$. (Note that expenditures included in the general fund vary somewhat between districts.)
o Pittsburgh spent $\$ 7,163$ per pupil followed ty Boston, New York, Portland, St. Louis, and Montgomery County, Maryland.

0 Memphis spent $\$ 1,700$ less than the fifty-city average at $\$ 2,521$ per pupil. Fort Worth, Albuquerque, New Orleans, and Houston also ranked at the bottom.

- After adjusting general fund expenditures per pupil by the interarea cost-of-living index described in Table 1-7, many rankings changed but Pittsburgh, Portland and St. Louis remained at the top of the list. Memphis, Forth Worth and Albuquerque remietived in the bottorim six, joined by three California districts.


## Local Share of Current Fund Revenue

- Among the 50 cities, the local portion of general fund revenue averaged 48.7 percent--a proportion higher than the national average and about the same as the 45.1 figure in 1987-88 and the 45.9 figure in 1986-87. In 1986-87, according to the most recent data from the U.S. Department of Education, 43.9 percent of school funding for current expenditures in all school districts came iicm tucal sources.
- Montgomery County depended the most on local sources (89.4\%), followed by Portland ( $83.7 \%$ ), Denver ( $83.3 \%$ ), Fairfax County $\mathbf{8 1 . 3 \%}$ ), and Baltimore County (79.1\%).
- San Diego provided the least local revenue at just 1.8 percent followed by Albuquerque at $2.2 \%$. Four other California school districts, all of which provided less than 19 percent of revenue from local sources, rounded out the bottom six.


## Fund Balances (Table II-3):

- Actual general fund balances reported by the 50 districts for 1987-88 was 5.9 percent of revenues, down from $6.4 \%$ in 1986-87, but higher than the 1985-86 average of 5.6 percent.
- Revenue was expected to fall short of expenditures by 1.0 percent leaving an average projected ending fund balance of 4.5 percent.

0 Milwaukee had the highest general fund balance in 1987-88 at 22.3 percent, followed by Houston ( $21.3 \%$ ) and several districts with 14 percent furd balances--Columbus, Ohio; Cobb County; St. Louis; and Attanta. San Diego, Los Angeles, and Broward County ( Ft . Lauderdale) expected a substantial diminishment of the fund balance.
o Only Detroit ( $-10.5 \%$ ) showed a negative fund balance. Detroit expected to stay in a deficit position, reaching 15 percent of revenues. (A successful deficit reduction referendum in September 1989 eliminated the deficit.)

- Several districts expected revenue shortialls in excess of 5 percent--San Diego ( $-10.7 \%$ ), Ine Angeles ( $-7.5 \%$ ), Font Lauderdele $(77.5 \%)$, and Atlanta $(-6.8 \%)$. No district expected a revenue excess of greater than 5 percent.


## The Variance of Estimated and Actual Revenues, Expenditures and Fund Balances (Table II-4):

- Actual ending fund balances, averaging 5.7 percent of revenues, were higher than the projected ending fund belance of 4.9 percent.
o No district had an unexpectedly large decrease in the fund balance from the estimated figure.
- San Diego's unexpectedly large increase in the ending fund balance, which changed from a projection of .2 percent to 11.3 percent, resulted from lower than expected expenditures that were not ofiset by lower revenues.
- A combination of higher than expected revenues and lower than expected expenditures resulted in the large increase in the actual fund balance compared to the projections in Austin and Newark.
- Actual expenditures decreased more relative to the projections than the decrease in revenue in Los Angeles (finishing at $8.7 \%$ insiead of the projected .6\%), San Francisco, and New Orleans, resulting in ending fund balances higher than the projections.

TABLE II-2
PROPECTED 1888-99 GENERAL FUND EXPENDITURE AND REVENUE DATA
General Fund Expenditure
Per Pupil (Fxctudee Federal
Expenditures)

1 PITTS日URGH, PA..................... \$7.103

| 2 | BOSTON, MA..................................... | $\mathbf{\$ 7 . 1 0 0}$ |
| :--- | :--- | ---: | ---: |
| 3 | 6,100 |  |
| 4 | PEW YORK, NY...... $1 . . . . . . . . . . . . . . . . . ~$ | 6,117 |

ST. LOUIS, MO.......................... 8,73t
MONTGOMERY COUNTY, MD.. $\quad 6,857$
FAIRFAX COUNTY, VA.............. 8,513
PHILADELPHIA, PA.................... 8,403
NEWARK, NN............................. $\mathbf{6 , 3 1 2}$
DISTRICT OF COLUMBLA......... 8,297
ANCHORAGE, ALASKA............. 6.184
DENVER, CO............................. 4.964
LOUISVILLE, KY....................... 4.916
CLEVELAND, OH....................... 4.904
SAN DIEGO, CA......................... 4,081
BAL TIMORE COUNTY, MD........ 4,074
CINCINNATI, OH........................ 4.858
MILWAUKEE, WI........................ 4.011
PALM BEACH COUNTY, EL...... 4,660
FT LAUDERDALE, FL................. 4,625
MINNEAPOLI8, MN.................... 4,800
DOKALB COUNTY, GA.............. 4,461
COLUMBUS, OH........................ 4,421
DADE COUNTY, FL.................... 4,416
ATLANTA, GA............................ 4,292
PINELLAS CO. (ST. PETERS.) 4,287
PRINCE GEORGE'8 COUNTY 4,238
ANNE ARUNDEL CO., MO......... 4.133
SAN FRANCI8CO. CA............... 4,003
JEFFERSON COUNTY, CO........ 4,036
DETROIT, MI.............................. 4,031
ORANGE CO. (ORLANDO), FL... 3,900
CHICAGO, IL.............................. 3,970
CHARLOTTE, AC....................... 3,060
AUSTIN, TX............................... 3,842
LO8 ANGELE8, CA................... 3,800
INDIANAPLOLIS, IN................... 3,008
BALTIMORE, MD....................... $3.6 e 3$
DALLAS, TX......................... .... 3,808
POLKCOUNTY, FL....... ....... 3,480
LONG BEACH, CA..................... 3,413
HILLSBOROUGH CO. (TAMPA), 3,379
VIRGINIA BEACH, VA................ 3,300
COBB COUNTY, GA................. 3,320
CLARKCO. (LAS VEGAS), NV.... 3.215
HOUSTON, TX................. ...... 3,140
NEW ORLEAKI8, LA............. .... 3,072
ALBUOUEROUE, NM................. 3,081
49 FORT WORTH, TX. .................. 3,058
O MEMPHIS, TN............................ 2,321
average
\$4,305

| General Fund Expenditures Per Pupa Iromexed to the intercily Cont-of- |  |  |  |
| :---: | :---: | :---: | :---: |
| Luving indees (Average of 290 Cwine-100) |  |  |  |
|  | PITTEBURGH, PA. | 100.8 | 0.000 |
| 2 | 8T. LOUR, MO | 5 | 5.898 |
| 3 | PORTLND, OR. | 103.0 | 6,603 |
| 4 | LOUREMRLE, KY. | 0.3 | 8,213 |
| 6 | DENVER.CO. | 191.6 | 4,881 |
| 6 | CIMCINMATI. OH | 100.3 | 4,644 |
| 7 | MILWAUKEE WI. | 102 | 4,620 |
| 8 | MINNEATOLIS, MN. | 19.8 | 4,800 |
| - | Clevelano. Oh | 100.8 | 4,470 |
| 10 | MONTCOMERY COUNTY. MD.. | 128.4 | 4,326 |
| 11 | COLUMEUS, OH. | . 4 | 4,318 |
| 12 | PHILADEPPHIA, PA. | 127.2 | 4,206 |
| 13 | FAPFAX COUNTY, VA. | 128.4 | 4.203 |
| 14 | EALTMOFE COUNTY, MD... | 100.5 | 4,203 |
| 15 | PMELAECO. (8T. PETERS.) | 101. ${ }^{\text {a }}$ | 4.292 |
| 16 | 80stow, MA. | 182.8 | 4,200 |
| 17 | DSKAL COUNTY, ©A. | 4046 | 4,188 |
| 18 | DALM EEACH COUNTY, FL. | 110.3 | 4.131 |
| 10 | DISTPICT OF COLlamia. | 128.4 | 4,128 |
| 20 | ANCHORMBE, ALASKA | 128.7 | 4.124 |
| 21 | FT LANDERDALE. FL. | 110.1 | 4,110 |
| 22 | AUSTW, 7X. | 0.0 | 4,081 |
| 23 | ATLANTA, ©A. | 108.6 | 4,030 |
| 24 | ORANGE CO. (ORLANDO), FL.. | 0.3 | 4,027 |
| 28 | DADE COUNTY. FL | 110.1 | 4,011 |
| 26 | NEWAPK, NJ. | 138.0 | 3,004 |
| 27 | CHAPLOTTE, NC. | 0.8 | 3,070 |
| 24 | JEFFEREON COUNTY, CO... | 101 | 3,078 |
| 20 | NEW YORK, NY. | 167.2 | 3.001 |
| 30 | ANHE APUNOEL CO., MD... | 100.5 | 3,774 |
| 31 | IMOMMAPLOLE, IN. | 0.3 | 3,002 |
| 32 | DETROT, M. | 110.0 | 3,084 |
| 35 | San Dreco, Ca | 131.0 | 3.674 |
| 31 | DALCAt, TX. | 103. | 3,377 |
| 36 | PAMHCE GEOPGE'S COUNTY | 128.4 | 3,35\% |
| 30 | POLKCOUNTY. FL. | 100.4 | 3,330 |
| 37 | MIL®EOROUQH СО. (TAMPA), | 101.3 | 5306 |
| 58 | GPARHA BEACH, VA. | 101.1 | 3,332 |
| 30 | СНіслеО, H | 120.3 | 3,304 |
| 40 | BALTMORE, MD. | 9, 6 | 3,254 |
| 41 | CLAFK CO. (LAE VEGAS), MY.... | 101.4 | 3.170 |
| 42 | NEW OMLEANB, LA | 97.C | 3,141 |
| 43 | COOH COUNTY, OA. | 108.6 | 3.117 |
| 44 | HOUSTON, TX. | 01. | 3,042 |
| 45 | ALPUQVEROUE, NM. | 101.8 | 3.018 |
| 40 | LOB AMGELES, CA. | 128.5 | 3.011 |
| 47 | FORT WOFTH. $7 \times$ | 103.2 | 2,083 |
| 48 | OAN FRANCIECO.CA. | 144.5 | 2,033 |
| 40 | LONO EEACH, CA. | 128.8 | 2,000 |
|  | MEMPHIS, T | 88.2 | 2.80 |

## Percent of General Fund Revenue <br> (Excudes Federal Rovenue) <br> From Local Sources

1 MONTGONEAY COUNTY, MD.. 89.4\%
PORTLAND, OR........................ *3.7\%
DENVER, DO........................... $33.3 \% ~_{\text {. }}$
FAMFAXCOUNTY, VA............. 81.34
BALTMOAECOUNTY, MO........ 79.14
DALLAS, TX............................ 78.04
AUSTM, TX......................... 77.046
BOSTON, MA.......................... 76.04
MINNEAPOLI8, MN................... 71.7\%
PITTSUURCH. PA..................... ©0.0\%
ANNE ARUNOEL CO., MO......... ©6.54
PALM BEACH COUNTY. FL....... 64.8\%
LOUEVLLE, KY....................... ©.1\%
PPRNCE GEORGE'S COUNTY 62.24
Dokule COUNTY, QA.............. 00.34
HOUSTON, TX......................... B9.84
ATLANTA GA.......................... $60.0 \%$
FORT WOPTH, TX.................... S6.24
CINCINNATI. OH....................... S5.044
NEW YOPA, NY......................... 85.3\%
1 COLUMBUB, OH...................... $56.2 \%$
CLAAM CO. (LAS VEGAS), NV.... E4.3\%
3 VIAOINIA BEACH, VA............... 84.04
JEFFERSON COUNTY, CO........ 50.94
COBB COUNTY, GA................. 40.14
PINELLAB CO. (ST. PETERS.) 40.0\%
FT LALOEERDALE, FL................ 45.5\%
NEW ORLEAN8, LA.................. 45.4\%
MEMPHIS. TN.......................... 45.3\%
CLEVELAND, OH......... ........... 45.39
CHICACO, IL............................ 42.7\%
ORANGECO. (ORLANDO), FL... 42.0\%
MILWAUKEE, WI...................... 41.14
BALTMORE, MD....... .............. 40.7\%
PHILADELPHIA, PA...... ... ........ $40.5 \%$
INDANAPLOLIS, IN......... ......... 30.7\%
DADE COUNTY, FL......... .......... 33.946
CHAPLOTTE NC............ .......... 32.4\%
ANCHORAGE, ALASKA............. 31.9\%
DETROT. MI............................ 31.5\%
1 HILLSOOPOUGH CO. (TAMPA). 28.74
2 POLK COUNTY, FL................... 27.046
NEWARK, NJ...................... .. . 25.9\%
SAN FRANCISCO, CA.............. 18.1\%
LONG BEACH, CA.. ....... ..... .. 15.0\%
LO8 ANGELEs, CA................... 13.84
7 albucueroue, Nm........ ..... $2.2 \%$
SAN DIEGO, CA........... .. ..... .. 1.846
DISTAICT OF COLUMBIA . $1.4 \%$
ST. LOUIS. MO.............. .. ... . na
average
40.7\%

[^1]| Theverup |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  |  |  |  | Prolycted Encing Eatance |
| 1 MHWAUKEE，WI |  | 3．70 | －0．0\％ | 22．8\％ |
| 2 HOUSTON． $7 \times$ | \％ | 274 | －2．04 | 18．30 |
| 3 COLUMEUS． OH | \％ | 2．10 | －0．4\％ | 14．1\％ |
| 4 COEB COUNTY．GA | ，\％\％ | 12．0\％ | 1.94 | 14．04 |
| 5 ET．LOUI8，mo |  | ams | 4．2\％ | 17．0\％ |
| －ATLanta，ga | － $2+1$ | －1．1\％ | －0．2\％ | 7．3\％ |
| 7 Austin． $7 \times$ | \％ 12 | 0．0\％ | －1．0\％ | 11．8\％ |
| －SANDHECO．CA |  | 20\％ | －10．7\％ | 0．9\％ |
| －MOLKCOUNTY．FL | ＋10 | 10．\％ | 1．3\％ | 11．2\％ |
| 10 MEMPHIS，TN | 5\％ | 20\％ | －2．54 | 2．2\％ |
| 11 LOSANGELES，CA | ， | 2．7\％ | －7．0\％ | 0．0\％ |
| 12 FT Lalloterdale，FL |  | 20x | －7．0W | 0．4\％ |
| 13 DALLAS．TX | ＊ | 20\％ | －0．00 | 7．24 |
| 14 ANCHORMGE，ALASKA | ＊ | 4．0\％ | 2．24 | 10．04 |
| 15 PYHLADELPHIA，PA | 人me | 27\％ | 3.04 | 4．74 |
| 16 Dekals county．${ }^{17}$ |  | a．\％ | －0．2\％ | 7．24 |
| 17 PORTLAND，OR | $\because$ Wim ${ }^{\text {\％}}$ | 84\％ | －8．80 | 1.04 |
| 18 NEWARK，MU | 相的 | 20\％ | －1．24 | 6．14\％ |
| 19 SAN FRANCIECO．CA | cent | 208 | －2．1\％ | 4．2\％ |
| 20 PJTTBaUAGH．PA | 6策 | 2．04 | 0．0\％ | 0．7\％ |
| 21 LOHG BEACH，CA | － 10 | 1．8\％ | 2．0\％ | 1．84 |
| 22 INOHNLAPLOLI8，IN | \％ | 2．7\％ | 2．1\％ | 3．04 |
| 23 PNELLASCO．（8T．PETERS．），FL | \％${ }^{\text {\％}}$ | 20\％ | －1．0\％ | 2．04 |
| 24 FORT WORTH，TX | 4\％ | 4．0\％ | 2．0\％ | 7．0\％ |
| 23 DADE COUNTY，FL | 4＊ | 15．7\％ | 2．5\％ | 0．2\％ |
| 26 CINCINMATI．OH | 14＊ | 1850\％ | －1．1\％ | 2．74 |
| 27 NEW OPREANS，LA | 4＊ | 20．2\％ | 1．14 | 4．846 |
| 28 CLABK CO．（LAS VEGAG），NV | 4，in | 80．4m | 0．8\％ | 4．6\％ |
| 29 HILLEOROUGH CO．（TAMPA，FL | 4．14 | an＊ | 0．54 | 4．14 |
| 30 ORANGE CO．（ORLANDO），FL | 4．04\％ | 7．2\％ | －0．54 | 0．24 |
| 31 DIETAKCT OF COLLMABIA | 4．0\％ | 8．0\％ | 0．2\％ | 3．0\％ |
| 33 CHAPLOTTE，NC | 3．46 | 10．0\％ | 1.44 | 8．0\％ |
| 33 CHICACO，IL | 324 | S．0．4 | －2．7\％ | 0．3\％ |
| 34 ANNE ARUNOEL CO．，MD | 344 | 7．40 | －2．1\％ | 0．8\％ |
| 36 DENVER．CO | 20＊ | 14．7\％ | 0．0\％ | 2．5\％ |
| 36 PALMPEACH COUNTY，FL | 2ix\％ | 12．40 | －1．04 | 1．04＊ |
| 37 JEFFEREON COUNTY．$C O$ |  | 0.008 | 0．14 | 1．04 |
| 33 ALBUQUERAUE．MM | $\cdots 1.76$ | adx | － 0.3 \％ | 0.048 |
| 30 PANNCE GEOAGE 8 COUNTY，MD |  | 8．14 | －0．84 | 0.44 |
| 40 EOSTOH，MA | $\therefore$ in ${ }^{\text {a }}$ | 8．20 | －1．246 | 0.04 |
| 41 CLEVELAND，OH | 5＊＊ | 1．7\％ | 2．8\％ | 4．4\％ |
| 42 FANRFAX COUNTY，VA | 1296 | 11．0\％ | 2．0\％ | 3．14 |
| 43 VIPGINIA BEACH，VA | 2，74 | 13．9\％ | －0．006 | 0．04 |
| 44 LOUIEMLLE，KY | 0.74 | 6．80 | 0．0\％ | 0．0\％ |
| 45 MONTGOKERY COUNTY．MD | 0.34 | 11．2\％ | －0．14 | 0．2\％ |
| 46 NEW YORK，NY | 0．0\％ | 6．24 | 0．04 | 0．0\％ |
| 47 MINAEAPOLIS，MN | 0．0．4 | 1．20\％ | 0.04 | 0．006 |
| 4 EALTMORE COUNTY．MD | 0．0\％ | 11.00 | 0.04 | 0．0\％ |
| 49 BALTMORE，MD | $0.0 \times 8$ | 12.00 | 0．04 | 0．046 |
| 50 DETPOTT，MI | －10．84 | 384 | －4．0\％ | －16．3\％ |
| average | 6．8＊ | 7．3\％ | －1．04 | 4．5＊ |


|  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Extinn |  |  |  |  | Ehen | $\begin{aligned} & - \\ & \text { Extime } \end{aligned}$ | mie |  |
| 1 ALBUQUEROUE NM | 8241 |  | 0.04 | 0 | mex | 0.96 | 83.5 | 40.5 | 点度 |
| 2 AILANTA ©A | 274 | 26 | $0.0 \%$ | 2 | 81 | -2.93 | 31.3 | 30.8 | 13-23ism |
| 3 AUstin, TX | 29 | 3 | 1.\% | $m$ | 24 | -2.7\% | 220 | 38.7 | O*xima |
| 4 BNLTMORE, MD | 444 | m | -14.04 | 44 | 3 | -14.04 | 0.0 | 0.0 | 50\% ${ }^{0} 80$ |
| ${ }^{5}$ B BLTMMOAE COUNTY. MO | 345 | 97 | 0 cm | 24 | 27 | 0.0\% | 14.2 | 0.0 | \% $4 \times 0$ |
| - Bortow,ma | 38 | 3 | 0 cm | 3 | 208 | 0.10 | 0.0 | 4.2 | $\cdots$ + |
| 7 CHAPLOTTE.NC | 270 | 28 | -0.1\% | 2 m | 271 | -0.30 | 2.8 | 10.5 | \% 4 dx |
| - Chicaco.l. | 1.720 | 1.188 | - | 1,7m | 1,183 | - | $\omega .1$ | 28.7 |  |
| - CIMCINHATI, OH | 84 | 83 | -188\% | 3 | 216 | -18.00 | 9.0 | 9.0 | \% $\%$ \% |
| 10 CLAPK CO. (Las VEQAE, NV | 310 | 980 | 0.\% | 3 | 30 | 0.24 | 13.2 | 12.0 |  |
| 11 Clevelano. OH | 354 | 57 | 0.80 | 915 | 38 | 1.0\% |  | 4.3 | $b$ b |
| 12 cclumaus, OH | 270 | 281 | 0.80 | 272 | 272 | -0.04 | 32.8 | 41.7 | +140\% |
| 13 DAOE COUNTY. FL | 1,101 | 1.048 | -1284 | 1.14 | 1.060 | -12.24 | 83.8 | 48.7 | 20x |
| 14 Dallas, TX | 46 | 40 | -0.04 | 448 | 40 | 1.34 | 42.8 | 37.0 | Wemstis |
| 15 Denculb COUNTY, an | 218 | 20 | -0.04 | 208 | 208 | 0.04 | 235 | 23.4 | 704. $70 \%$ |
| 16 DENVER, ${ }^{17}$ | 268 | 30 | -1.0\% | 255 | 34 | -0.24 | 10.5 | 0.6 | 4.19-2\% |
| 17 Detrort, MI | 740 | 740 | -0.0\% | 73 | 70 | -0.04 | -70.4 | - ${ }^{-0.0}$ |  |
| 18 Distauct of columen | 44 | $\cdots$ | 1204 | ${ }^{40}$ | 40 | 0.74 | 11.8 | 17.3 | Wex ${ }^{\text {and }}$ |
| 19 Fanfaxcoumiv.va | 4 | 01 | 0.04 | cos | 4 | 0.04 | 7.7 | 7.7 |  |
| 20 FORT WORTH, TX | 105 | 197 | 0.80 | ${ }^{100}$ | 150 | 0.34 | 13.7 | 0.6 | , \%ow |
| 21 FT LLUOERDNLE, FL | 005 | 503 | -asm | 018 | 84 | -13.4\% | 13.6 | 472 | \% |
| 22 HLL SEOROVGHCO. (TMAPA). FL | 411 | 411 | $0.0 \%$ | 308 | 00 | 0.9\% | 20.0 | 16.6 | Masmision |
| 23 HOUSTON, TX | 872 | 84 | 0.94 | 809 | 08 | 0.8\% | 115.8 | 114.8 | \%x\% 20.04 |
|  | 128 | 120 | 404 | 187 | 167 | 4.04 | 13.2 | 10.4 | 70\% 8. 8\% |
| 25 JEFFERSON COUNTY, $C O$ | 278 | 271 | -0.24 | 204 | 200 | -1.06 | 2.1 | 6.1 | $\therefore$ am" 2 \% |
| 20 LOHG BEACH.CA | 305 | 24 | -0.2\% | 281 | 283 | 9.04 | 10.9 | 14.1 | 80\% |
| 27 Losangeles, CA | 2.800 | 2,948 | -.74 | 2.000 | 2900 | -11.0\% | 18.5 | 207.1 | \$0.0.e.74 |
| 23 LOURVULEE, KY | 225 | 415 | - | 208 | 415 | a | 2.8 | 2.7 | 1.00\% 0.7\% |
| 29 MEMPHIS, TN | 304 | 34 | 2.14 | 312 | 208 | -20\% | 22.5 | 33.1 | 174* 10.5\% |
| 30 Mal WAUKEE, Wh | $4{ }^{40}$ | 44 | -ax | 48 | 44 | -6.04 | 102.6 | 98.1 | 24.24: $21.2 \%$ |
| 31 MONTGOMEPY COUNTY, MD | $\infty$ | 0 | -0.0\% | 808 | 005 | -0.25 | 4.7 | 1.3 | 0.04\% 0.3\% |
| ${ }^{32}$ NEW OPLEANS, $L$ L | 818 | 210 | 0.04 | 219 | 214 | -2.44 | 0.3 | 8.8 | 0.1\% 4.14 |
| ${ }^{3} 5$ MEW YOAK, NY | 6,101 | Sme | 2.74 | 8.101 | 628 | 2.74\% | 0.0 | 0.0 | 0.010 0.0\% |
| S5 MEWAAK, MJ | 380 | 872 | 2.14 | 278 | 207 | -2.0\% | 6.8 | 19.4 | 2.24. 7.14 |
| 36 ORANGECO. (OFLHEDO, FL | 979 | 30 | 2904 | 230 | 350 | 0.04 | 0.6 | 13.1 | 0.24\% 4.04 |
| 33 PALM BEACH COUNTY, FL | 573 | 50 | 2.14 | 370 | 572 | 0.74 | 11.8 | 8.8 | 22\% 2.36 |
| ${ }^{37}$ PHILLDEEPAMA, PA | 00 | 30 | -0.24 | 876 | 970 | -0.04 | 80.2 | 70.0 | 2.14. 8.045 |
| 38 PPNELAS CO. (ET. PETERS). FL | 328 | 351 | 7.74 | 82 | 200 | 7.24 | 17.8 | 18.5 | 6.5in 5.348 |
| 30 PITT8BURGH. PA | 278 | 278 | 0.004 | 276 | 278 | 0.04 | 18.9 | 18.0 | 8.36" 0.2\% |
| 45 POLKCOUNTY, FL | 190 | 208 | 1.84 | 100 | 201 | 1.04 | 21.3 | 21.0 | 10.7\% 10.0\% |
| 41 POPRTLAND, OR | 258 | 288 | 7.046 | 202 | 288 | 8.00 | 26.8 | 20.4 | 10.14 7.4\% |
| 42 PPINCE GEOAGE 8 COUNTY. MD | 434 | 430 | -1.04 | 48 | 428 | -0.24 | 6.4 | 8.4 | 1.5\% 1.3\% |
| 43 SANDIECO, CA | 401 | * | 0.04 | 597 | 48 | -0.4\% | 1.2 | 50.2 | 0.2411 .34 |
| 4 saN FRANCIOCO.CA | 201 | 200 | -1.04 | 208 | 245 | -7.24 | 6.1 | 16.4 | 2.30* 0.3\% |
| 45 8T. LOU18, MO | $\stackrel{*}{0}$ | 67 | -0.007 | ${ }^{4}$ | $\cdots$ | 0.80 | 18.1 | 13.7 | 25.5* 4.24 |
| 46 VIPGINIA BEACH, VA 47 COBB COUNT, | 220 | 14 | -1214 | 228 | 200 | $-11.5 \%$ | 0.0 | 1.4 | 0.004 0.74 |
| 47 COB8 COUNTY, ©A (e) |  |  |  |  |  |  |  |  |  |
| 48 ANCHORMCE, ALAOKA (c) |  |  |  |  |  |  |  |  |  |
| 40 ANHE APUNOEC CO., Mo (c) |  |  |  |  |  |  |  |  |  |
| SO MIMNEAPOLIS, MN (c) |  |  |  |  |  |  |  |  |  |
| avermae | 2083 | 208 | -0,84 | 2sen | \$31 | -1.26 | 5182 | \$20.4 | 4.84 6.7\% |
| (t) Data we not componelo |  |  |  |  |  |  |  |  |  |
|  <br> (c) Not anwoed in 1087-et |  |  |  |  |  |  |  |  |  |

## iil. Resulte of the 1989-90 Local Union Teacher Salary Survay

The AFT's 100 largest locals serving elementary and secondary teachers were asked to provide extensive salary and stafting information for the current school year beginning Fall 1989. About 75 responded to the survey, and information from a variety of sources provided comparable data for a few others.

The abbreviated salary matrix contains step 1, step 5, step 10, and maximum scheduled salaries for four preparation levels: Bachelors degree, Masters degree, Masters plus 30 additional graduate hours, and the scheduled maximum. In Florida, the "specialist" level is listed under MA plus 30. The matrix also shows the number of years needed to achieve the maximum selary. Some schedules conform well to this matrix while others do not. Generally, the matrix was compieted by the local. In some instances, the following changes were made: 1) Step 1 was made to correspond to where a beginning teacher would be hired (several districts have eliminated the lower steps and start teachers on a higher step and some districts start on step 0), and steps 5 and 10 were adjusted accordingly; 2) When possible, steps were equated to years of experience. The survey solicited longevity information from locals. Generally, the maximum salary corresponds to the scheduled salary reached in continuous (or near continuous) increments. Longevity increments usually designate the extra pay specifically identified in contracts as longevity pay added to the published salary schedule for teachers with substantial experience.

In addition to the basic salary matrix, other information appears to the right of the matrix to help interpret the salary data incuding the salary for a teacher with a Masters degree and 15 years of experience for 1988-89 and 1989-90, the estimated average experience level of teachers, the number of teachers, the number of new BA teachers, and the number of teachers retiring in the previous year. Some districts have very low beginning salaries but they also may have few beginning teachers.

The fooinotes to each matrix provide information on the teacher supply and demand situation as perceived by local union leaders. Among the 74 locals providing such information, 22 believed that there is either a general shortage or shortages in specific areas, and another three anticipated shortages in the near future. Last year, 21 of the 57 reperting locals believed that there was either a general shortage or shortages in specific areas.

| 棌 | $4$ |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contra | Begins: | 711/89 | Expires | N8099 |  |  |  |
|  |  |  |  |  |  |  | tring Agent: | AFt |
|  | Gteo | BA | MA \% | M m 30 | Mink | $\mathrm{ma}_{1} 1$ | yra 20-80 | \$30.967 |
|  | 1 | 20,353 | 27.024 | na | 21,650] | Averepe | 5ris 89-80: | \$41090 |
|  | 5 | 29,782 | 33,413 | na | 35,742 | Avwas | Unit Ske: | 1.000 |
|  | $\mathrm{mix}^{10}$ | 36,847 | 38,579 | ma | 41.683 |  | Toachers: | 9 |
|  | Ye max | 31,193 | 39,871 | ma | 4, 777 | Num. Te | chers Bat: | 22 |
|  | Yrs. to MAX. Longevily | na | 2,142 | 12 | 13 2.142 | Trach | ers Petired: | 5 |
|  | Yrs. Neeciod | 0 | 27 | 23 | $\begin{array}{r}2,142 \\ \hline\end{array}$ | Shortage: | Not a prob |  |
| Note: Selariee aftective 211 moo. |  |  |  |  |  |  |  |  |







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| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contract Begins: |  | 789 | Expires: 6192 |  | Affiliation of |  |
|  | 3 | 8A | MA | MA30 | MAX | Baro MA. | AFT $\$ 44,838$ |
|  | Step |  |  |  |  | MA, | \$48,749 |
|  | 1 | 25, 177 | 27,946 | 24,863 | 33,023 | Average | 12.0 |
|  | 5 | 31.744 | 33,324 | 35,431 | 38,591 |  | 1.300 |
|  | 10 | 40,399 | 41.974 | 44,086 | 47.246 |  | 50 |
|  | MAX | 47.165 | 48,749 | E0,8CT | 54.029 | Num.T | 100 |
|  | Yrs. to MAX | 13 | 13 | 13 | 13 | Teac | 25 |
|  | Longenity" | 0 | 0 | 0 | 0 |  |  |
|  | Yrs. Needed | 0 | 0 | 0 | 0 | Shortage: |  |



Note: ne






| Contract Bogins: |  | 8/89 | Expires: | $8 / 92$ | Affiliation of Bargaining Agent: AFT |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | BA | MA | MA30 | MAX | MA, | \$30,068 |
| Step |  |  |  |  | MA, | \$32,347 |
| 1 | 23,550 | 25,550 | 27,350 | 28,256 | Average | 12.0 |
| 5 | 25,272 | 27,272 | 28,072 | 29,978 |  | 9,100 |
| 10 | 26,601 | 28,601 | 30,401 | 31,307 |  | 500 |
| Max | 37,000 | 39,000 | 40,800 | 41,708 | Num. ${ }^{\text {a }}$ | 340 |
| Yrs. to MAX | 20 | 20 | 20 | 20 | Teac | 100 |
| Longevity | 3,050 | 3,050 | $3,050$ | $3,050$ |  |  |
| Yre. Needed | 25 | 25 | 25 | 25 | Shortage: |  |













| $\mathbf{S}$ |  |  |  |  | N |  |  | $\because$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contract Begins: |  | 4/19/89 | Expires: | 6/30180 |  | Afthatiop of |  |
|  | Ste9 | BA | MA | MASO | MAX |  | ining Aoent: | AFT |
|  |  |  |  |  |  |  | 5yme a-00: | \$25,296 |
|  | 1 | 16,857 | 17,417 | 77,952 | 18,07 | Averta | Experience: | +20,130 |
|  | 5 | 19,055 | 19,660 | 20,237 | 21.018 |  | Crm Slze: | 3,600 |
|  | 10 | 22,087 | 22,800 | 23,476 | 24,268 |  | w Tuachers: | na |
|  | Yre to Max | 27,215 | 28,287 | 26,000 | $2 \times 468$ | Num. ${ }^{\text {a }}$ | achers BA1: | 201 |
|  | Yre to Max Longivity | ${ }^{20}$ |  | 20 | 20 | Tesc | ners Retired: | 69 |
|  | Yra: Mencied | 13 | 13 | 13 | 13 | Shortage: | This year |  |



| mi/chorimete | HEMS | $10 \%$ |  | . |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contra | Begins: | 9/1/88 | Explres: | 6/30990 | Affilation of |  |
|  | BA | MA | Ma30 | MAX | Bargaining Agent: | AFY |
| Steo |  |  |  | NAX | MA, 15yr8. 88-89: | \$31,148 |
| 1 | 22,000 | 23,529 | 24,724 | 27,715 | MA, 15yrs. 09 | \$34,262 |
| 5 | 27,853 | 29,448 | 30,643 | 31,838 | Unit Size: | 958 |
| 10 | na | na | na | na | Naw Taxchers: | 18 |
| MAX | 32,667 | 37,206 | 35,457 | 36,652 | Num. Teachers BAl: | 34 |
| Yrs. to MAX Longevity | See note |  | 7 | 7 | Teachers Retired: | 6 |
| Yrs. Needed |  |  |  |  | Shortage: Thls year |  |










|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contract Begins: |  |  | 7/1/89 <br> MA | Explres: <br> MA30 | E/30991 <br> RIAX | Affiliation of <br> Bargaining Agent: AFT <br> MA, 15ym 80-89: $\$ 40,127$ |  |
|  |  | BA |  |  |  |  |  |
|  | Step |  |  |  |  |  |  |
|  | 1 | 21,821 | 25,513 | 27,138 | 29,182 | Averace | \$41,331 |
|  | 5 | 25,532 | 31,503 | 36,027 | 35,557 | Avora | 850 |
|  | 10 | 30,574 | 47,015 | 42,221 | 45,517 |  | 35 |
|  | Max | 30,574 | 41,015 | 42.221 | 45,517 | Num.T | 8 |
|  | Yre to Max | 9 | 10 | 10 | 10 | Teac | 15 |
|  | Longevty | 820 | 1.500 | 1,500 | 1,500 |  | 15 |
|  | Yrs. Needred | 21 | 21 | 21 | 21 | Shortage: |  |
| Note | na |  |  |  |  |  |  |






55




| $N Y$ | BOCsky |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contract Bogins: |  | 186 | Expires: $6 / 91$ |  | Affiliation of |  |  |
|  |  | BA | MA | MАЗО | AAXX | Barc | ining Agent: $5 y$ ys. 8 8-89: | AFT <br> \$39,763 |
|  | Step |  |  |  |  | MA, | 5yrs. 89-90: | \$44,244 |
|  | 1 | 23,032 | 26,026 | 28,329 | 31,784 | Average | Experience: | 12.0 |
|  | 5 | 27,638 | 31,231 | 33,995 | 38,141 |  | Unit Size: | 140 |
|  | 10 | 33,395 | 37,738 | 41,078 | 66,087 |  | w Teachers: | 10 |
|  | MAX | 41,806 | 47,046 | 51,076 | 57,122 | Num. T | achers BA1: | 2 |
|  | Yrs. to MAX | 24 | 24 | 24 | 24 | Teac | ers Retired: | 0 |
|  | Longevity | 0 | 0 | 0 | 0 |  |  |  |
|  | Yrs. Neoded | 0 | 0 | 0 | 0 | Shortage: | Not a prob |  |
| Noter na |  |  |  |  |  |  |  |  |





|  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contract Begins: |  | 7/1/88 | Explres: | 6/30/95 | Affiliation of <br> Bargaining Agent: AFT <br> MA, 15y7s. 88-89: $\$ 37,955$ |  |
|  |  |  |  |  |  |  |
|  | BA | MA | MA30 | MAX |  |  |
| Step |  |  |  |  | MA, | \$41,846 |
| 1 | 25,061 | 28,838 | 30,327 | 33,951 | Average | 20.0 |
| 5 | 28,954 | 31,967 | 33,449 | 35,648 |  | 550 |
| 10 | 31,341 | 35,676 | 37,658 | 40,832 |  | 36 |
| MAX | 42,184 | 45,732 | 47,740 | 50,285 | Num.T | 7 |
| Yrs. Io MAX | 25 | 25 | 25 | 25 | Teac | 25 |
| Longevity | 1,832 | 7,999 | 7,677 | 7,650 |  |  |
| Yrs. Noeded | 37 | 37 | 37 | 37 | Shortage: | em |



|  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contract Begins: |  | 7/1/88 | Explies: | 6/30191 | Affiliation of Bargaining Agent: AFT |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  | BA | MA | Ma30 | MAX |  |  |  |
|  | Step |  |  |  |  | MA, | 5yrs. 8c - ${ }^{\text {cos }}$ | \$41,044 |
|  | 1 | 24,322 | 25,944 | 25,94 | 28,106 | Average | Experi' .ce: | 4.0 |
|  | 5 | 0 | 0 | 0 | 0 |  | Unit Size: | 700 |
|  | 10 | 0 | 0 | 45,402 | 47,564 |  | Teachers: | 70 |
|  | MAX | 40,537 | 47,023 | 64,860 | 67,022 | Num.T | achers BA1: | 35 |
|  | Yrs. to MAX | 15 | 15 | 15 | 15 | Teac | ers Petired: | 15 |
|  | Longexity | 700 | 700 | 700 | 700 |  |  |  |
|  | Yrs. Needed | 25 | 25 | 25 | 25 | Shortage: | Not a prob | lom |
| Note: | na |  |  |  |  |  |  |  |


|  |  | Ebth |  | $5$ | ckeko | sequese |  | $\frac{2}{2}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contra | gins: | 7/1/88 | Explies: | 6/30191 |  | Affiliation of |  |
|  |  |  |  |  |  |  | Alining Asent: | AFT |
|  |  | BA | MA | Ma30 | MAX | MA, | 5yrs. 88-89: | \$46,392 |
|  | Step |  |  |  |  | MA, | 5yrs. 89-90: | \$49,407 |
|  | 1 | 24,338 | 27,997 | 29,500 | กa | Averag | Experience: | 20.0 |
|  | 5 | 28,768 | 33,156 | 34,822 | na |  | Unit Slze: | 985 |
|  | 10 | 34,213 | 40,188 | 41,855 | 45,002 |  | Toachers: | 53 |
|  | max | 40,178 | 29,407 | 52,950 | 56,881 | Num. | achers BA1: | 5 |
|  | Yrs. to max | 14 | 14 | 14 | 14 | Tea | hers Retired: | 17 |
|  | Longevity | 500 | 1,065 | 1,065 | 1,491 |  |  |  |
|  | Yrs. Needed | 0 | 0 | 0 | 0 | Shortage: | Not a prod |  |
| Note | na |  |  |  |  |  |  |  |







| Contract Begins: |  | 7/1/88 | Expires: | 6/30/92 |
| :---: | :---: | :---: | :---: | :---: |
|  | BA | MA | МАЗО | Max |
| Step |  |  |  |  |
| 5 | 25,442 | 26,807 | 28,414 | 30,016 |
| 10 | 28,973 | 30,757 | 32,457 | 34,140 |
| Max | 45.719 | 49,852 | 51,552 | 53,247 |
| Yrs. to MaX | 21 | 21 | 21 | 21 |
| Longevity | 0 | 0 | 0 | 0 |
| Yis. Needed | 0 | 0 | 0 | 0 |

Affiliation of
Bargaining Agont: AFTT
MA, 15yts. 88-69: $\$ 33,689$
MA, 18yra. $60-90: \$ 35,346$
Average Expertience: $\quad 16.0$
Unt Size: 800
Now Teachers: 21
Num.Toachers 8A1: 5
Teachers Retired: 5
Shortage: Not a problem

Noto: $\$ 39.80$ per credit hour ater MAOO: many teachers expected to retire.



|  | Whenk | 2ATLO | O縕会 | SKS |  |  | Kixike | 8860 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contra | Begins: | 7/1/87 | Expires: | 6/30/89 |  | Affllation of |  |
|  |  |  |  |  |  |  | Aning ${ }^{\text {Agont: }}$ | AFT |
|  | Step | BA | MA | MA30 | max | MA, | Syrs 88-83: | 341,535 |
|  | 1 | 20,879 | 22, \%3 | 23,570. | 34, ${ }^{2} \times 2 \times$ | Average | Experience: |  |
|  | 5 | 25,478 | 26,823 | 28,171 |  |  | Unit Size: | 1,500 |
|  | 10 | 30,529 | 32,212 | 33, 560 | na |  | w Teachers: | 47 |
|  | max | 36,434 | 41,535 | 43,432 | 46;283 | Num. T | achers BA1: | $\stackrel{47}{23}$ |
|  | Yrs. to MAX | 13 | 15 | 15 | 15 | 'reac | Hers fetifed: | 31 |
|  | Longevity Yrs. Noeded | 1,490 | 1,490 | 1,450 | 1,490 |  |  |  |
|  | Yrs. Noeded | 25 | 25 | 25 | 25 | Shortage: | In 1-2 yrs. |  |
| Noto | 1983-89 echedule: | daxiating for | 1989-00 at im | of publicatio |  |  |  |  |




| Ky, but \% |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contract Begins: |  | 7/1/8ع <br> MA | Explres: 6/30/91 |  | Affiliation of Bargaining Agent: AFT MA, 15yrs. 88-89: $\quad \$ 26,880$ |  |  |
|  |  | BA |  | MA30 | MAX |  |  |  |
|  | Step |  |  |  |  | MA, | yrrs. 89-90: | \$28,745 |
|  | 1 | 19,000 | 20,945 | 22,415 | 25,285 | Average | Experience: | 17.0 |
|  | 5 | 22,000 | 23,945 | 25,415 | 28,285 |  | Unit Size: | 650 |
|  | 10 | 27,600 | 29,545 | 31,015 | 33,885 |  | w Teachers: | 30 |
|  | Max | 36,300 | 38,245 | 38,715 | 42,585 | Num. ${ }^{\text {a }}$ | achors BA1: | 20 |
|  | Yrs. to MAX | 15 | 15 | 15 | 15 | Teac | ers Retired: | 5 |
|  | Longevity | 950 | 950 | 950 | 950 |  |  |  |
|  | Yrs. Needed | 25 | 25 | 25 | 25 | Shortage: | This year |  |
| Note: | na |  |  |  |  |  |  |  |









|  $\qquad$ |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contract Begins: |  | 11/7/88 MA | Expires: <br> MA30 | $0$ | Atfiliation of <br> Bargaining Agent: AFT <br> MA, 15yrs. 88-89: $\$ 24,441$ <br> MA, 15yrs. 89-w. $\quad 25,060$ |  |
|  |  |  |  |  |  |  |
|  | BA |  |  |  |  |  |
| Step |  |  |  |  |  |  |
| 1 | 17,931 | 19,002 | 19,222 | 19,800 | Average | na |
| 5 | 19,058 | 20,158 | 20,378 | 21,010 |  | 2,300 |
| 10 | 21,285 | 22,330 | 22,550 | 23,430 |  | 209 |
| MAX | 27,212 | 28,954 | 29,187 | 30,116 | Num. ${ }^{\text {T }}$ | na |
| Yrs. 10 MaX | 17 | 17 | 17 | 17 | Teac | 30 |
| Longevity | 0 | 0 | 0 | 0 |  |  |
| Yrs. Noodat | 0 | 0 | 0 | 0 | Shortage: |  |




|  | chunston | CHE\%* | kinse |  | . $\times 2 \times$ | m, 䜌\% |  | $4$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Contra | gins: | 9/1/88\% | Expires: | 8/31/90 |  | Athiliation of |  |
|  |  |  |  |  |  | Barg | Ining Agent: | AFt |
|  |  | BA | MA | Ma3n | MAX | MA, | 5yre. 88-89. | \$36,545 |
|  | Step |  |  |  |  | MAA, | 5yrs. 89-90: | \$38,583 |
|  | 1 | 20,210 | 21,510 | 21,880 | 22, ${ }^{2} 30$ | Average | Experience: | 19.0 |
|  | 5 | 27,156 | 28,456 | 29,826 | 30,826 |  | Unit Size: | 740 |
|  | 10 | 37,183 | 38,583 | 39,953 | 41,000 |  | Teachers: | 27 |
|  | max | 37,183 | 38,583 | 39,953 | 41,000 | Num. T |  | 6 |
|  | Yrs. to MAX | 10 | 10 | 10 | 10 | Teac | ers Petired: | 10 |
|  | Longevily | 928 | 923 | 928 | 928 |  |  |  |
|  | Yrs. Needed | 30 | 30 | 30 | 30 | Shortage: | Not a prob |  |
| Note |  |  |  |  |  |  |  |  |



|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contra <br> Step 1 <br> 5 <br> 10 <br> MAX <br> Yrs. to MAX Longovity Yrs. Needed |  |  | 9/1/88 <br> MA | Eroires: <br> MA30 | 233/91 <br> MAAK | Atflliation of Bargalning Agent: AFT MАА, 15yrs. 88-89: $\$ 37,030$ MA, 15yts. 89-90: $\$ 39.161$ |  |
|  |  |  |  |  |  |  |  |
|  |  | BA |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
|  |  | 20,339 | 21,989 | 22,489 | 23,1897 | Average | 7.0 |
|  |  | 27,586 | 29,235 | 29,756 | 30,105 |  | 950 |
|  |  | 37,517 | 39,161 | 39,667 | 40,017 |  | 47 |
|  |  | 37,511 | 39,161 | 39,661 | 40,017 | Num. | 35 |
|  |  | 10 | 30 | 10 | 10 | Tesc | 25 |
|  |  | 900 | 900 | 900 | 900 |  |  |
|  |  | 30 | 30 | 30 | 30 | Shortage: |  |




|  |  |  |  |  |  | Now |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Contra |  |  | Explires: | No contract | Afillation of |  |
|  |  |  |  |  | Bargaining Agent: | No bargaining |
|  | BA | MA | MA3O | MAX | MA, 15yrs. 88-89: | \$41,071 |
| Step |  |  |  |  | MA, 15yrs. 89-90. | \$43,125 |
| 1 | 24,255 | 27,332 | 28,488 | 29,768 | Average Experience: | 13.0 |
| 5 | 27,580 | 30,657 | 31,813 | 33,C93 | Unit Size: | 10,000 |
| 10 | 33,235 | 36,312 | 37.468 | 38,748 | New Teachers: | 790 |
| MAX | 46,497 | 49,568 | 50,724 | 52,004 | Num. Teachers BA1: | 256 |
| Yra. ta Max | 19 | 19 | 19 | 19 | Teachers Retired: | na |
| Longethy | 0 | 0 | 0 | 0 |  |  |
| Yrs. Neoded | 0 | 0 | 0 | 0 | Shorlage: In 2 years |  |



## IV. Salary Projections Through 1990

Since most locals begin bargaining for the 1990-91 school year around the beginning of calendar year 1990, the detailed 1988-89 school year data in Sections I and II provide useful comparative information but not the most recent information on which to bargain. The data in this section show little abatement in the pace of teacher salary growth through 1991-92. The following tables describe current wage and salary agreements for the nation's largest school systems for both teachers and other school employees. Tables IV-1 and IV-2 summarize the detailed results presented in Tables IV-3 through IV-6. In most instances, the data comes from Current Wage Developments, a monthly publication of the U.S. Labor Department. Highlights include:
o Teacher salaries should continue to rise at least as fast in 1989-90 and 1990-91 as they did during the previous four years.

- The average increase reported for 44 contracts during the first four months of the 1989-90 school year was 5.9 percent. A similar analysis for all contracts relating to the 1989-90 school year showed a 6.2 percent average increase over 90 agreements.
- Wage agreements reported in CWD were less than the national average increase in teachers salaries for 1985-86, but agreements reported in CWD were $.5, .2$ and .2 percent above the national average in 1986-87, 1987-88 and 1988-89.
- Average annual increases for paraprofessionals and school-related personnel have increased at about the same rate as teachers in 1988-89 and 1989-90, but at a slower rate in the few settlememts for 1990-91.

Coverage in CWD is generally limited to actions affecting 1,000 workers or more. The information is drawn mainly from secondary sources such as newspapers, union publications, and trade journals. These secondary sources often do not report contract settlements or wage agreements in complete accuracy. Management may characterize the settlement differently than the union. Furthermore, it is difficult to condense an agreement into a single, annual percentage increase. Overall, however, the information provides an estimate of trends in salaries for 1989-90 and 1990-91 long before actual salary data are available. Furthermore, for the past three years, the CW'D average has been very close to the national average.


| TABLEIV-2 PAPAPFORESSIONALS AND SCH IN AGREEMENTS COVERMNG 1, | OOL-RELATE 000 OR MOR | PERSONN PERSONS, | 1: AVEMCE 205-88 T0 18 | sALAFY OR 90-01 | VAGE ADJUST | MENTS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | orted in CWD | (a): |  |  |
|  | $\begin{aligned} & \text { Aug. 1985- } \\ & \text { Aug. } 1906 \end{aligned}$ | $\begin{aligned} & \text { Aug. 1986- } \\ & \text { Aug. } 1987 \end{aligned}$ | $\begin{aligned} & \text { Aug. 1987- } \\ & \text { Aug. } 1988 \end{aligned}$ | $\begin{aligned} & \text { Aug. 1988- } \\ & \text { Aug. } 1989 \end{aligned}$ | $\begin{array}{r} \text { Aug. } 1989 \\ \text { Dec. } 1989 \end{array}$ | Weighted Average (a) |
| Total number of personnel | 104,300 | 88,803 | 92,650 | 59,098 | 47,957 |  |
| Number of agreements (b) | 47 | 46 | 59 | 38 | 18 |  |
| Percent adjustments in: (c) |  |  |  |  |  |  |
| 1906-86 <br> (number of agreements) | 6.6 <br> (29) | na | na | กа | na | $\begin{aligned} & 6.3 \\ & (36) \end{aligned}$ |
| 1906-87 <br> (number of agreements) | $\begin{aligned} & 6.0 \\ & (14) \end{aligned}$ | $\begin{aligned} & 6.2 \\ & (3 \pi) \end{aligned}$ | na | na | na | 6.0 <br> (55) |
| 1987-88 <br> (number of abreements) | 6.5 <br> (4) | $4.1$ (8) | $\begin{aligned} & 4.7 \\ & \text { (38) } \end{aligned}$ | na | na | $\begin{aligned} & 5.7 \\ & (42) \end{aligned}$ |
| 1988-89 <br> (humber of agreements) | na | $4.0$ (1) | 5.1 <br> (13) | $\begin{aligned} & 6.0 \\ & \text { (26) } \end{aligned}$ | na | $\begin{aligned} & 5.7 \\ & (40) \end{aligned}$ |
| 1909-90 <br> (number of agreements) | na | na | $4.8$ (8) | $\begin{gathered} 5.6 \\ (7) \end{gathered}$ | $\begin{aligned} & 6.3 \\ & (17) \end{aligned}$ | $\begin{aligned} & 5.8 \\ & \text { (32) } \end{aligned}$ |
| 1990-91 <br> (number of agreements) | na | na | na | $5.7$ (5) | 5.0 <br> (1) | $5.6$ <br> (6) |
| Average annual percent adjustment over life of agreement (c) | 6.7 | 6.0 | 4.7 | 6.0 | 6.3 | na |

(a) includes salary adjustments reported in these issues of, "Current Wage Developments," not necessarily agreements reached during these time periods.
(b) Agreements include all contract settements reported by CWD and all agreements completed under scheduled or unscheduled wage reopenings. Deferred wage increases negotiated under settlements reported in earller issues of CWD are not included.
(c) Unwelghted average.
(d) Average welghted by number of contracts.

| FABEEFSE: |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| CWD lsaue |  | Per- | Dato | 1888 | 1989 | 1990 | 1991 |  |
| School District | State | sonnel | Seltlod | -89 | -0 | 81 | -2 | Commenis |
|  |  |  |  |  |  |  |  |  |
| September |  |  |  |  |  |  |  |  |
| Springfield | MA | 1,800 | Jun-88 | 8.8 | 0.0 | 5.5 |  | + 3 lump surne of \$600, \$400 \& \$400 |
| Waterbury | CT | 1,200 | Apr-87 | 8.8 |  |  |  | Asbitation award |
| Staio Voc. Teach. | CT | 1,400 | Jun 88 | 9.0 |  |  |  | Unecheduled wage reopener ticontr. extanaion |
| Bridgeport | CT | 1,100 |  | 7.0 | 10.0 |  |  | Unschedulod wage reopener a contr. oxtansion |
| Philadelphia | PA | 1,500 | Apr-88 | 4.0 | 4.0 | 5.0 | 8.0 | +900 fump sum on 8/1/88 |
| Bathimore County | MD | 6,400 | Jun-68 | 4.0 |  |  |  |  |
| Bel Air | MD | 1,800 | Feb-88 | 7.0 |  |  |  | Scheduled wage reopener |
| CarrolCounty | MD | 1,500 | F-b-88 | 9.0 | 8.0 |  |  |  |
| Tolado | OH | 2,600 | Jun-88 | 5.9 | 5.9 | * |  |  |
| Evaneville | IN | 1,300 | May-88 | 7.0 | 4.5 |  |  | 2nd yr.maybe higher deporiding on revenue |
| Milwaukee | W1 | 5,700 | Apr-88 | 4.5 |  |  |  |  |
| Wichita | KS | 2,900 | Jun-88 | 8.9 |  |  |  | One day added to year |
| Topeka | KS | 1,200 | Jun-88 | 4.0 | * | * |  |  |
| Kaneas City | KS | 1,650 | Jun-88 | 5.8 |  |  |  |  |
| Tucson | AZ | 3,000 | Jun-88 | 3 |  |  |  | Schedulad wage reopener |
| Beaverton | OR | 1,250 | Jul-88 | 5.4 | 5.4 | 6 |  |  |
| Chula Vista Octobar | CA | 2,150 | Jun-88 | 4.3 |  |  |  |  |
| Washington Co. | MD | 1,100 | Aug.88 | 6.2 |  |  |  |  |
| Nashvilito | TN | 4,300 | Jut-88 | 6.8 |  |  |  |  |
| Dade County | FL | 15,000 | Aug. 88 | 9.0 | 9.0 | 10 |  |  |
| Marion County | FL | 1,750 | Aug-88 | 8.0 |  |  |  | Reopener in 2nd yr.of 2 yr.contract |
| Powl County | FL | 3,600 | Sep-83 | 7.4 | * |  |  |  |
| ClayCounty | FL | 1,200 | Sep.88 | 6.3 | * | * |  |  |
| Bay County | FL | 1,300 | Aug. 88 | 5.0 | * |  |  |  |
| Tulea | OK | 2,300 | Aug.88 | - |  |  |  | \$1,400 lump sum |
| Fint | MI |  | Oct-87 | 0.0 |  |  |  |  |
| Utica | M1 | 1,200 | 2ep-88 | 1.0 | 5.5 | 5.6 |  |  |
| Jordan | UT | 2,800 | Sep-88 | 0.0 |  |  |  |  |
| Phoenix | $A Z$ | 1,100 | Apr-88 | 7.8 |  |  |  |  |
| Tucson | AZ | 1,500 | Sap-88 | 2.5 |  |  |  |  |
| Edmono | WA | 1,000 |  | 2.7 |  |  |  | Schadulad wage reopener; 2 daye added to yr. |
| Salem | Or | 1,400 | Jul-88 | 2.5 |  |  |  | Reopener in 2nd yr. of 3 yr. contract |
| Hayward, Novamber | CA | 1,000 |  | 5.0 |  |  |  | Reopener in 2nd yr.of 3 yr.contract |
| Warwick | RI | 1,050 | Sep-88 | 5.7 | 5.7 | 8.0 |  |  |
| Now Rochelle | NY | 1,000 | Sep-88 | 6.0 | 6.0 | * |  |  |
| Nowark | NJ | 4,200 | Aug.88 | 5.8 | 5.8 |  |  |  |
| Orange | FL | 5,200 | Sep-88 | 8.0 |  |  |  | Reopener in 2 nd yr. of 3 jr.contract |
| Okaloosa Co. | FL | 1,550 | Aug. 88 | 10.0 | * | * |  |  |
| Serninole | FL | 2,500 | Aug.88 | 7.5 |  |  |  | Reopener in and yr. of 3 yr.contract |
| Duval | FL. | 6,400 | Sep-88 | 3.5 | 7.0 |  |  |  |
| Cloveland | OH | 4,470 | Sep-88 | 6.0 | 5.0 |  |  |  |
| Souk Falle | SD | 1,000 | Jun-88 | 8.0 |  |  |  |  |
| ClarkCo. | NV | 5,300 | Jun-88 | 4.6 |  |  |  | Schaduled wage reopener |
| Spoicane | WA | 1,300 | Aug-88 | 2.1 |  |  |  | Reopener in 2nd yr. of 2 yr.contract |


| TABLEIV-3 (Continued) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CWD lesue | Stato | Porsonnel | Date Seltlad | $\begin{array}{r} 1988 \\ -89 \end{array}$ | $\begin{array}{r} 1989 \\ \propto 0 \end{array}$ | $\begin{array}{r} 1990 \\ 01 \end{array}$ | $\begin{array}{r} 1991 \\ -92 \end{array}$ | Comments |
| Decrmber |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Providence | RI | 1,200 | Jun-88 | 6.0 | 5.0 | 5.0 |  |  |
| Patterson | NJ | 2,100 | Sap-88 | 8.5 | 10.5 | 11.5 |  |  |
| Trenton | NJ | 1,200 | Sep-88 | 8.0 | 10.0 | 10.0 |  |  |
| Manatoo | FL | 1,400 | Aug-88 | 7.0 | * |  |  |  |
| Orange County | FL | 5,200 | Sep-88 | 8.0 |  |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Lee County | FL | 2,400 | Oct-88 | 8.5 |  |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Rockford | IL | 1,800 | Aug. 88 | 5.6 |  |  |  |  |
| Peoria | 11 | 1,000 | Aug. 88 | 4.6 | * | * |  |  |
| Des Moines | 14 | 2,000 | Aug-88 | 4.6 |  |  |  | Reopener in 2 nd yr. of 4 yr . contract |
| Satt Lake City | UT | 1,200 | Oct-88 | 2.0 |  |  |  |  |
| Davie County | UT | 1,900 | Aug-88 |  |  |  |  | \$240 lump sum |
| Washoo County January, 1989 | NV | 1.850 | Oct-88 | 3.0 | * | * |  |  |
| Pasco Cointy | FL | 1,950 | Oct-88 | 6.0 |  |  |  | Reopener in 3rdyr. of 3 yr . contract |
| Hillsborough | FL | 7.000 | Aug-88 | 6.0 | * | * |  |  |
| New Orleans | LA | 4.700 | Oct-88 | 7.0 |  |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Boise | 10 | 1,200 |  |  |  |  |  | Automatic cost-or-living adjustment |
| Long Beach | CA | 2,800 | Nov-88 | 7.0 | 3.0 | 3.0 |  |  |
| Garden Grove | EA | 1,800 | Jan-04 | 5.5 |  |  |  |  |
| San Diago Fobruary | CA | 1,200 | Aug-88 | 2.5 |  |  |  |  |
| Jersay City | NJ | 2,600 | Jun-88 | 3.0 | 4.0 | 3.0 |  |  |
| Hamilton County | TN | 2,300 | Nov-88 | 9.5 |  |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Escambia County | FL | 2.500 | Sop-66 | 7.7 |  |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Loon County | FL | 1.700 | Oct-89 | 8.0 |  |  |  | Reopener in 2nd yr. of 2 yr.contract |
| Oklahoma City | OK | 2,300 | Nov-88 | 4.8 | * |  |  |  |
| Jefferson Co. | $\infty$ | 4,05u | Dec-66 | 3.0 | 3.0 | 3.0 |  |  |
| Oakland <br> March | Ca | 4,000 | Aug-88 | 8.0 | * | * |  |  |
| Mamphis | TN | 2,500 | Oct-88 | 8.3 | * | * |  |  |
| Alachua | FL | 1,500 | Nov-88 | 5.5 | 8.0 |  |  | Reopener in 2 yr. Contr. \& extension |
| Aurora | $\infty$ | 1,500 | Jan-89 | 3.0 |  |  |  | Reopener in 2nd yr. of 3 yr . contract |
| Cherry Creek | $\infty$ | 1,600 | Dec-88 | 1.5 |  |  |  |  |
| Albuquerque | NM | 5,000 | Oct-88 | 2.0 | 5.0 |  |  |  |
| Freano | CA | 1,700 | Dec-88 | 5.0 |  |  |  | Reopener in 2nd yr. of 3 yr .contract |
| San Diego June | CA | 6,700 | Nov-88 | 6.0 | * | * | * | Reopeners pegged to state funding |
| Stamford | CT | 1,300 | Feb-89 | 9.6 | 9.5 | * |  | Arbitration award |
| Hartford July | CT | 2,100 | Apr-89 | 8.0 | 7.5 | 7.0 |  | Asbitration award |
| Bridgeport | CT | 1.500 | Fab-89 |  | 5.5 | 85 |  | Arbitation award |
| Knoxvill | TN | 3,200 | Oct-88 | 0.0 |  |  |  | Reopener in 2nd yr. of 2 yr.contract |
| Sarasota County | FL | 1,800 | Feb-89 | 7.5 | * | * |  |  |
| Akron | OH | 1,800 | Jan-89 | 2.8 | 3.3 | 4.0 |  |  |
| Milwaukee | WI | 5,700 | Jan-89 |  | 4.0 |  |  |  |
| Fremont | CA | 1,200 | Mar-89 | 4.3 |  |  |  | Reopener in 3rdyr. of 3 yr.contract |
| Mt. Diablo | CA | 1,700 | Apr-89 | 6.0 | * | * |  |  |

TABLEIV-3 (Continued)

| cwivisoun School District | Slate | Paisonnel | Saía Sellled | 1388 898 | 1880 -80 | 1850 -81 | issi | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Augus 1 |  |  |  |  |  |  |  |  |
| Chattanooga | TN | 1,500 | Mar-89 | 8.6 |  |  |  | Reopener in 3rdyr. of 4 yr.contract |
| Bay County | FL | 1,000 | Dec-88 | 4.8 | * | * |  |  |
| St. Louie | MO | 3900 | Oct-88 | 5.0 |  |  |  |  |
| Los Angeles | CA | 30,300 | Jun-89 | 8.0 | 8.0 | 8.0 |  |  |
| Average |  | 2,849 |  | 5.6 | 6.0 | 6.3 | 6.0 |  |
| Number of Contracts |  |  |  | 85 | 28 | 16 | 1 |  |

(Average annual adjustment over life of agreement reported August 1988-August 1989 is 5.7 percent)
*Scheduled wage reopening
Source: Bureau of Labor Statistics, Current Wage Developments, August 1988 through August 1989. Months in table refer to issues reporting the wage settlement, not the month of settlement. Salaryincreases effective after the beginning of the school year are generally listed under the appropriate school year. Deferred wage increases negotiated under settlements reported in earlier issues of CWD are not included.

|  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  <br>  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| CWD lage |  | Per- | Date | 1989 | 1980 | 1991 |  |
| School District | State | sonnel | Sellied | 00 | -1 | -2 | Comments |
| August |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |
| Watebury | CT | 1,100 | May-89 | 9.0 | 8.5 | 8.5 | Arbitration award |
| Now Haven | OT | 1,200 | Jun-E9 | 9.3 |  |  | Reopener in 2 nd yr . of 3 yr . contract |
| Baltimore County | MD | 6,800 | Jun-89 | 4.0 |  |  |  |
| Washington Co. | ND | 1.100 | Jun 89 | 7.0 | 7.0 |  |  |
| Fraderick | MD | 1.750 | Jun-89 | 8.0 | * |  |  |
| Carrollcounty | MD | 1,500 | Jun-89 | 9.0 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| HartiordCounty | MD | 1,800 | Jan-89 | 7.6 | * | * |  |
| Memphie | TN | 6,500 | Jul-89 | 4.5 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Flint | MI | 1.600 | Jun-89 | 3.5 | * |  |  |
| Jefferson | LA | 3,400 | Apr-89 | 3.0 |  |  |  |
| Kansas City | KS | 1,600 | Mar-89 | 5.3 |  |  |  |
| October |  |  |  |  |  |  |  |
| Nashvillo | TN | 4,800 | Aug-89 | 3.6 |  |  |  |
| Bay County | FL | 1,300 | Aug. 89 | 6.0 |  |  | Reopener in 2nd yr. of 2 yr . contract |
| Marion | FL | 1,850 | Aug. 89 | 8.4 | * | * |  |
| BayCo. | FL | 1,000 | Aug-89 | 6.0 |  |  | Reopener in 2nd yr. of 3 yr . contract |
| Tucson November | AZ | 1,700 | Jul-89 | 0.0 |  |  |  |
| Baltimore City | MD | 5,700 | Aug-89 | 8.0 | 8.0 | * |  |
| Hamiton Co. | TN | 1,300 | Jul-89 | 7.0 |  |  | Reopener in 2 nd yr . of 3 yr . contract |
| Hilleborough Co. | FL | 7,000 | Aug-89 | 7.0 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| ClayCo. | FL | 1,200 | Sep-89 | 8.0 |  |  | Reopener in 2nd yr. of 3 yr . contract |
| Orange Co. | FL | 5,200 | Sep-89 | 7.5 |  |  | Reopener in 3rd yr. of 3 yr.contract |
| Sominole Co. | FL | 2,800 | Sep-89 | 6.0 |  |  | Reopener in 2 nd yr . of 3 yr . contract |
| Brevard Co. | FL | 3,800 | Sep-89 | 7.9 |  |  |  |
| SarasotaCo. | FL | 2,000 | Sep-89 | 7.0 |  |  | Reopener in 2 nd yr . of 3 yr . contract |
| Okalose Co. | FL | 1,550 | Aug-89 | 10.8 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Manatoe Co. | FL | 1,400 | Sep-89 | 8.0 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Polk Co. | FL | 3,800 | Aug-89 | 7.3 |  |  | Reopener in 2nd yr. of 3 yr.contract |
| Oklahoma City | OK | 2,000 | Sep-89 | 4.7 |  |  | Reopener in 3rd yr. of 3 yr.contract |
| Tuba | OK | 2,300 | Sop-E9 | 3.0 |  |  |  |
| Cohumbue | OH | 4,500 | Jun-89 | 4.0 | 5.0 | 5.0 |  |
| South Bend | IN | 1,400 | Aug-89 | 5.0 | 5.0 |  |  |
| Chicago | 11. | 25,000 | Sop-89 | 5.4 |  |  |  |
| Warren | M1 | 1,000 | Jul-89 | 7.4 | 6.8 | 6.8 |  |
| Livonia | MI | 1,000 | Aug-89 | 7.0 | 7.0 | 7.0 |  |
| Shawnee Miesion | KS | 2,000 | Aug-89 | 6.0 | $2+$ |  | $2 \%$,imi,u, im 2nd yr. $\cdots$ depende on state aid |
| Omaha | NE | 2.759 | Jun-89 | 5.0 |  |  |  |
| Pincoh | NE |  | Aug-89 | 5.2 | 5.5 |  |  |
| Souix Falla | SD | 1,000 | May-89 | 5.9 |  |  |  |

TABLEIV-4 (Continued)

| CWD lasua |  | Per- | Date | 1989 | 1990 | 1991 |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Sưioul tifitiou | Stata | sunitai | Setition | ثิ0 | $\rightarrow 1$ | -20 | Commenis |
| Salt Lake City | UT | 1,280 | Oct-89 | 40 |  |  |  |
| Tucson | az | 3,200 | Sep-89 | 0.0 | 4.5 |  |  |
| Spokane | WA | 1,450 | Aug-89 | 3.0 | * | * |  |
| Garden Grove | CA | 1,800 | Oct-89 | 7.3 |  |  |  |
| Hayward | CA | 1,000 |  | 7.0 |  |  | Reopener in 3rdyr. of 3 yr.contract |
| A verage |  | 2,966 |  | 5.9 | 6.4 | 6.8 |  |
| Number of Cont | racts |  |  | 44 | 9 | 4 |  |

(Average annual adjusiment over life of agreement reported Augus1 1988-December 1989 is 6.1 percont)
*Scheduled wage reopening
Source: Bureau of Labor Statistics, Current Wage Developments, August 1989 through December 1989. Months in table refer to issues reporting the wage settlement, not the month of settlement. Salaryincreases effective after the beginning of the school year are generally listed under the appropriate school year. Deferred wage increases negotiated under settiements reported in earlier issues of CWD are not included.




| School District | State | Personne! | Date Sottled | 1988 -89 | 1989 -00 | 1990 01 | $\begin{array}{r} 1991 \\ -92 \end{array}$ | Comments |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Philadelphia | PA | 1,500 | Apr-88 | 4.0 | 5.0 | 5.0 | 6.0 | Paraprofessionale. clerical |
| Anne Arundel Co. | MD | 1,400 | Jun-88 | 4.0 | 4.0 | 4.0 |  | Noninstructional; bue drivera |
| Towson | MD | 1,500 | Jul-88 | 4.0 | * |  |  |  |
| Palm Beach Co. | FL | 2,700 | Jun-88 | 10.0 |  |  |  | Reopener in 3 yr. contr.; blue collar |
| Salom | OR | 1,000 | Oct-87 | 2.0 | *2 | * |  | **2nd and 3rdyr.contingent on CPI |
| Anne Arundel Co | MD | 1,100 | Jul-88 | 4.0 | 4.0 | 4.0 |  | Aides, clerical, technical |
| Louieville | KY | 1,650 | Jul-88 | 3.0 |  |  |  | Clerical, paraprofessional; reopener |
| Jordan | UT | 1,400 | Sep-88 | 0.0 |  |  |  | Classified employees |
| New Rochelle | NY |  | Sep-88 | 6.0 | 6.0 | * |  | Wall-to-wallunit with teachere |
| Batimore | MD | 1,600 | Aug-88 | 8.0 | 8.0 | 8.0 |  | Aides and most blue collar |
| Pinellas Co. | FL | 2,000 | Sep-88 | 7.7 | * | * |  |  |
| Orange Co. | FL | 5,200 | Ssp-88 | 8.0 |  |  |  | Reopener in 2 yr . coritr.; noninstructional |
| Okaloosa Co. | FL | 1.100 | Aug-88 | 10.0 |  |  |  | Reopener in 2 yr . contr.; noninstructional |
| Palm Beach Co. | FL | 1,800 | Aug-88 | 10.0 | * | * |  | Clerical |
| Compton | CA | 1,400 | Jul-88 | 4.1 |  |  |  | Unschedulad reopener; seninetructional |
| Lee County | FL | 1,000 | Oct-88 | 7.5 |  |  |  | Reopener in 3 yr. contr.; noninetructional |
| Davis County | UT | 1,700 | Aug-88 |  |  |  |  | \$240 lump sum |
| Pasco Cointy | FL | 1,450 | Oct-88 | 6.0 |  |  |  | Aides, bus drivers cafeteria, custodians |
| New Orleans | LA | 1,000 | Oct-88 | 7.0 |  |  |  | Reopener in 3 yr. contr.; teacher aides |
| Hilleborough Co. | FL | 2,800 | Aug-88 | 6.0 | * |  |  | Aides, bus drivers' cafeteria, custodians |
| Washington | UC | 2,500 |  | 5.0 | 5.0 |  |  | Custodians |
| Okiahoma City | OK | 2,300 | Nov-88 | 4.1 | * |  |  | Noninstructional |
| Broward Co. | Fl . | 1,000 | Nov-82 | 7.5 | * | * |  | Clarical |
| San Diego | CA | 1,900 | Jan-89 | 6.0 |  |  |  | Operations anci support |
| Sarasota County | FL | 1,200 | Feb-89 | 7.6 | * | * |  | Noninstructional |
| Mount Holly | NJ | 1,000 | Jul-89 | 7.5 | 7.5 | 7.5 |  |  |
| Los Angeles | CA | 15,900 | Jun-89 | 7.5 |  |  |  | Reopener in 3 yr . contr.; noninstructional |
| Avarage |  | 2,273 |  | 5.0 | 5.6 | 5.7 | 6.0 |  |
| Number of Contr | racte |  |  | 26 | 7 | 5 | 1 |  |

(Average annual adjustment over life of agreement reported Augus 1 1988-August 1989 is 6.0 percont)
*Schaduted wage reopening
Source: Bureau of Labor Statistics, Current Wage Developments, August 1988 through August1980. Months in table refer to iesues reporting the wage settlement, not the month of settlement. Salaryincreases effective after the beginning of the school year are generally listed under the appropriate school year. Deferred wage increases negotiated under settements reported in earlier issues of CWD are not included.


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| APDEANIXA |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POPULATION AND EVAOLIMENT IN CTIESINTHE DOD DATABASE |  |  |  |  |  |  |  |  |  |
|  | 1980 <br> Pop. <br> Rank | 1986 <br> Popu- <br> tation | 1980-86 Change (\%) | Pupils |  | 1980 <br> Pop. <br> Rank | 1396 <br> Popu- <br> tation | 1980-86 Change (\%) | Pupils |
| AKRON, OH | 68 | 222.000 | -6.4 | 36,330 | LOUISVILE, KY | 49 | 280,000 | -4.0 | 93,198 |
| ALBUQUEPQUE, Nm | 44 | 307,010 | 10.4 | 82.416 | LUBBOCK TX | 7 | 186,000 | 5.0 | 30,834 |
| ANAHEIM, Ca | 0 | 241,000 | 9.7 | 22,000 | MADISON: WI | 83 | 178.000 | 3.1 | 21,500 |
| anchorage, ax | 78 | 235.000 | 34.7 | 40.542 | MEMPHIS, TN | 14 | 063.000 | 1.0 | 107.819 |
| arlinaton. tx | 8 | 250,000 | 54.3 | 41.500 | MINAI, FL | 41 | 374.000 | 7.9 | 253.323 |
| ATLANTA, at | 29 | 422.000 | $\rightarrow .7$ | 68.400 | MILWAUKEE, WI | 17 | 005,000 | -4.9 | 91,648 |
| aupora, co | ${ }^{08}$ | 218.000 | 37.5 | 25.969 | MINNEAPOLIS. MN | 34 | 357.000 | -3.8 | 37,484 |
| AUSTIN. TX | 42 | 407.000 | 25.2 | 61.402 | MOBLLE, AL | 71 | 203.000 | 1.4 | ${ }_{68,557}$ |
| BALTIMORE, MD | 10 | 753,000 | -4.3 | 110.189 | MONTSOMEERY, AL | 78 | 19,000 | 9.2 | 34,032 |
| baton houge la | ${ }^{*}$ | 241,000 | 9.4 | 57.097 | NASHVLLE-DAVIDSO | 25 | 474,000 | 4.0 | 66.903 |
| BIRMINGHNM, AL | 50 | 278,000 | -3.2 | 43.167 | NEW OPLEANS, LA | 21 | 564.000 | -0.6 | 81,503 |
| BOSTON, mA | 20 | 574.000 | 1.9 | 50.223 | NEW YORK, NY | 1 | 7.203.000 | 2.7 | 030,033 |
| BUFFALO, NY | 30 | 325,000 | -0. 2 | 44.778 | NEWARK, NJ | 48 | 316,000 | -3.9 | 50,701 |
| charlotte.nc | 47 | 352.000 | 7.9 | 73.965 | norfolk, va | 55 | 275,000 | 2.9 | 35.883 |
| chattanooga. th | 80 | 102.000 | -4.3 | 22,033 | OAKLAND.CA | 43 | 357.000 | 5.2 | 51.000 |
| сhicago. ll | 2 | 3.010.000 | 0.1 | 419.537 | OKLAHOMA CTTV. OK | 31 | 446,000 | 10.4 | 40.000 |
| Cincinnatio oh | 32 | 370.000 | - 0.1 | 52.077 | omata, NE | 48 | 340,000 | 1.9 | 30,386 |
| CLEVELAND, OH | 18 | 530,000 | -0.0 | 71.743 | PHILADELPHIA, PA | 4 | 1,643,000 | -2.7 | 189.031 |
| COLORADO SPPINGS. | 65 | 273,000 | 28.8 | 30,800 | PHOENIX, AZ | 9 | 894,000 | 13.1 | 38.648 |
| columbus. GA | 87 | 180.000 | 6.3 | 30,034 | Pittsburah. PA | 30 | 387,000 | -8.6 | 39.629 |
| COLUMBUS. OH | 19 | 506.000 | 0.2 | 65,484 | PORTLAND, OR | 35 | 388,000 | -2.3 | 52,906 |
| CORPUS CHRISTI. TX | $\infty$ | 284.000 | 12.6 | 30.819 | Pfovidence. ri | 8 | 157.000 | 0.3 | 19,348 |
| DALLAS, TX | 7 | 1.004.000 | 10.9 | 130.885 | RICHMOND, VA | 0 | 218,000 | -0.7 | 28,025 |
| dayton, OH | $\infty$ | 179.000 | -7.6 | 20.005 | RIVERSIDE, CA | 32 | 197.000 | 15.3 | 25.725 |
| denver, Co | 24 | 505,000 | 2.8 | 50,439 | hochester, nY | 57 | 238.000 | -2.4 | 32.000 |
| DES MOINES, IA | 73 | 192.000 | 06 | 30,341 | SACRAMENTO.CA | 52 | 324.000 | 17.3 | 48.370 |
| DETROIT. MI | 6 | 1.086,000 | -0.7 | 184.077 | Salt lake citr. ut | 89 | 158.000 | -2.8 | 24,317 |
| EL Paso. TX | 28 | 492.000 | 15.6 | 61.800 | SAN ANTONF. TX | 11 | 014.009 | 12.8 | 01.501 |
| FLINT, MI | 94 | 146.000 | -8.8 | 33.717 | san diego. ca | 8 | 1,015.000 | 18.0 | 116.557 |
| Fort lauderonle. F | 100 | 149.000 | -3.0 | 137.360 | SAN FRANCISCO. CA | 13 | 749,000 | 10.3 | 63,881 |
| FORT WAYNE, IN | $\pi$ | 173,000 | -2.6 | 32,405 | SAN JOSE, CA | 18 | 712.000 | 13.1 | 29,242 |
| FORT WORTH. TX | ${ }^{33}$ | 430,000 | 11.5 | 07.191 | SANTA ANA, CA | ${ }^{88}$ | 237.000 | 16.1 | 38.031 |
| GRAND RAPIDS. M1 | 75 | 187.000 | 2.6 | 24.418 | seattle. wa | 23 | 486,000 | -1.5 | 43.765 |
| GREENSBOAO. NC | $\infty$ | 177.000 | 3.7 | 21.202 | SHPEVEPORT.LA | ${ }_{6} 6$ | 220,000 | 0.5 | 51.815 |
| HONOLULU, HI | ${ }^{30}$ | 372.000 | 1.2 | 106,139 | Spokane, wa | 81 | 173.000 | 0.8 | 27.000 |
| HOUSTON, TX | 5 | 1.729,000 | 7.3 | 191.708 | ST. LOUIS, MO | 28 | 426.000 | -5.9 | 43,915 |
| HUNTINGTON BEACH. | 84 | 184,000 | 7.7 | 15,055 | ST. PAUL, MN | 54 | 224.000 | -2.4 | 32.447 |
| INDIANAPOLIS. In | 12 | 720.000 | 2.7 | 56,375 | St. petersburg. fl | 59 | 239.000 | 0.3 | 88.868 |
| JACKEON, MS | 70 | 208.000 | 2.7 | 33.000 | SYRACUSE. $\mathrm{N}^{\text {- }}$ | 85 | 161.000 | -5.5 | 22.000 |
| JACKSONVILLE. FL | 22 | 810.000 | 12.7 | 104.124 | tacoma, wa | 96 | 159.000 | 0.3 | 27.687 |
| JERSEY CITY. NJ | 01 | 219.000 | -1.8 | 31,380 | TAMPA, FL | 53 | 278,000 | 2.2 | 118,051 |
| KANSAS CTTY, K8 | 92 | 162.000 | 0.6 | 23,239 | TOLEDO, OH | 40 | 341.000 | -3.9 | 43.882 |
| KANSAS CTTY, MO | 27 | 411.000 | -1.6 | 35,428 | TUCSON, AZ | 45 | 350.000 | 0.0 | 56.238 |
| KNOXVILLE, TN | 74 | 173,000 | -1.0 | 23,002 | tulsa, ok | 28 | 374.050 | 3.6 | 42.714 |
| Las vegas. nv | 88 | 192.000 | 18.3 | 100.039 | VIRGINIABEACH. VA | 58 | 333,000 | 27.2 | 6, 515 |
| Lexington-fayette | 07 | 213.000 | 4.3 | 31.155 | WARREN, MI | 91 | 150,000 | -7.0 | 15.798 |
| LINCOLN, NE | 80 | 183,000 | 0.5 | 25.925 | WASHINGTON, DC | 15 | 028.000 | -1.9 | \$6,206 |
| LITTLE ROCK, AR | 97 | 181,000 | 1.6 | ${ }^{22,198}$ | WICHITA, K8 | 51 | 289,090 | 2.9 | 43.500 |
| LONG BEACH, CA | 37 | 396.000 | 0.8 | co,253 | WORCHESTER, MA | $\infty$ | 158,000 | -2.5 | 20.113 |
| LOS ANGELES, CA | 3 | 3.250,000 | 0.8 | 580.311 | YONKERS.NY | 72 | 180,000 | -4 | 18,684 |


|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| DISTPICT | ENPROLL-STATE MENT |  | DISTPICT | ENPOUL- |  |
| * Now York City. | NY | 030,933 | - Bostan . ...... | MiA | 59228 |
| - Los Angelee. | CA | $589,311$ | Mesa. | MZ | $88,208$ |
| - Dado Co Miemi | LL | 419,537 | Gwinott Co.............................. | QA | 88.047 |
| - Houston ..................... .......... ..... | FL | 263,323 191,708 | Baton fouge...... | LA | 87.007 |
| - Philladelphia ................... .......... ..... | PA | 189,031 | Jutherson... | La | 5780 |
| - Detroit | M1 | 184,927 | - Portiand .................................................. | OR | 83.200 82.096 |
| Hawall .................... ..... .. | HI | 106.139 | Caddo Pariat............................ | La | 52,470 |
| - Broward Co. (Fi. Lauderdale).... .... | FL | 137,300 | - Cincinati .. | OH | 62,007 |
| - Faltax co. | TX | 130,685 | Greenvile Co.. | $\boldsymbol{C}$ | 81,002 |
| - Hillsborough Co........... (Tampa Bay)......... | FL | 12 | Oakland. | CA | 81,000 a |
| - San Ulego................................... | CA | 118,031 110,557 | - Now | N | 50.791 |
| - Battimore ..................... . ........ . | MO | 110.189 | Brovard co...... | IN | 00,437 |
| - Momphis................ ........ | TN | 107.819 | Yrovard co. (Melbourne)...................... | FL | 49.502 |
| Drval Co.(Jackronvilla) ... | FL | 105,040 | - Butfalo. | TX NY | 49.237 |
| - Prince George's Co.......... .. ... ..... | MD | 104,412 | San Juan. | CA | 40,403 48,387 |
| - Clark Co. (Las Vegas). ...... ........ | NV | 100,027 | Sacramento.. | CA | 46,370 |
| - Montgomery Co............. . ... ...... | MD | 06,271 | Nortiudo. | TX | 45,845 |
| Jefferson Co. (Loulsville) . .. | KY | 23,198 | Davie Co. | UT | 44,804 a |
| Mitwaukee | CO | 93.108 | - St. Louls ... | MO | 43,916 |
| Palm Beach.......................... | WI | 91.648 | Toledo ... | OH | 43,082 |
| Orange Co. (Ortando)............. | FL | 89,044 | Wichita .................................. | Ks | 43,500 |
| Pinnellaz Co.(SX. Petersburg) .. ... | FL | 88,800 | Safiereon Co........................... | AL | 43,187 |
| Wachingion .................... .. ..... | DC | 88,298 | Chartoston Co....................... | AL. | 43,167 |
| Nibuquerque ................... | NM | 82,416 | - Semtio....... | SC | 42,501 |
| Now Orleane. | LA | 81.503 | Voluria Co................................................. | WA | 41.123 40.829 |
| Battimore Co.................. | MD | 81.152 | - Arichorago........................................................ | FL | 40.829 40.542 |
| Chartoto-htecklinberg..... ..... .. .... | NC | 74,680 | Excambia Co......................................... | AK | 40,542 40.229 |
| Granite Co.(Salt Lake City).. ..... .... | UT | 73,419 | Foreyth co..... | NC | 40,200 |
| Dokaib Co....................... | OH | 71,743 | Oktahoma City ............. ............ | OK | 40,000 |
| Mablio | GA | 71.032 67.050 | Corpus Chriet.......................... | TX | 30.819 |
| Fort Worth. | ${ }_{\text {TX }}$ | 67,550 | - Pithbergh...... | PA | 30.572 |
| Naehvilt.... | TX | 07,101 | Fution Co... | GA | 30.400 |
| Long Beach. | CA | 60,253 | Orince wratem Co | NE | 30,380 |
| Columbus..... | CH | 05,404 | Prince Whilam Co. | WA | 30,325 |
| Virginia Eeach. | va | 04.610 | Minneapolis. | FL | 37,634 37.404 |
| Anne Arundet Co............... | MD | 04.432 | Aldin ${ }^{\text {a......... }}$ | TX | 37,404 37,000 |
| Atanta | GA | 64,409 | Akron...... | OH | 36,380 a |
| San Francisco. | CA | 63,881 | Kanewta | w | 30,272 |
| Cobb Co.. | GA | 03,604 | Gerden Grove..................................... | CA | 30,272 |
| E Pato........................ | TX | 81,800 | Nortotk | VA | 80,809 |
| Frotno......... | CA | 81.639 | Kaneas City .... | mo | 36,420 |
| San Antonio............. | TX | 61.501 | Paundena... | TX | 36.004 |
| Jordan... | UT | 61,488 | Cumberland Co......................... | NC | 34,763 |
| Pak Co............................... ... .... | FL | 01,244 | St. Paul ................................ | MN | 32,447 |
| Wake Co................... ............... | NC | 50,087 | Ficherdeon. | TX | 32,184 |
| Denver. | CO | 59,439 | Fochever .. | NY | 32,000 |
| - aschool Districte in the City 8 Frate Data Beae <br> anenrollment data for a year other that 1907-8a |  |  |  |  |  |

## APPENDIX C

## Data Sources

## Table $1-1$

AFT Local Union Teachers Salary Survey, 1988 and 1989 surveys.
Educational Research Service, Salaries Paid Professional Personnel in Public Schools, ERS: Reston, VA, 1988-89 edition.

Department of Defense Wage Fixing Authority, "List of Schoal District Minimums, Maximums and Steps", DOD: Alexandria, VA, May 1989.

## Tables I-2 to I-6

Sources are same as in Table I-1.

## Tables 1-7 and 1-8

Salary Data sources are same as in Table l-1.
American Charnber of Commerce Researchers Association,"Intercity Cost of Living Index", ACCRA.. Louisville, KY.

## Table 1-9

U.S. Department of Labor, "Annual Pay Levels in Metropolitan Areas, 1988", news release, September; 1989.

Other sources are the same as in Table l-1.

## Table l-10

Nelson, F. Howard, Survey and Analysis of Salary Trends 1989, American Federation of Teachers: Washington, DC, August 1989.

Other sources are the same as in Table l-1.

## Tables II-1 to II-4

U.S. Department of Education, Unpublished Data Tabulations (teacher and student data).

Educational Research Service, Salaries Paid Professional Personnel in Public SGheitis, EnS: Resion, VA, i988-89 edition. "The Top 50 School Districts", City \& State, October 1987, October 1988, and August 1989.

## Tables IV-1 through IV-6

U.S. Department of Labor, Current Wage Developments, various issues between August 1986 and December 1988.

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## END

U.S. Dept. of Education<br>Office of Education<br>Research and<br>Improvement (OERI)

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*American Federation of Teachers
ABSTRACT
While serving as the prımary vehicle for reporting the results of the American Federation of Teachers (AFT) annual survey of state departments of education, this report also relies on several other data sources. Data include national average salaries or earnings for teachers, other school employees, government workers, and professional employees over the past 25 years. Beginning salaries for teachers and other college graduates over the past 15 years are reported. The AFT's survey of state departments of education also asked states to provide information on actual beginning salaries, experienced teachers reentering the classroom, and retirement rates. Comparisons with the various tables can be developed tc suit the purposes of a particular local or state federation. The report is organized in four sections. The first section focuses on state comparisons; the second highlights trends in national averages; the third focuses on beginning teachers, with supplemental information on experienced teachers reentering the profession and teacher retirement; and the fourth presents an international comparison concerning public spending on education and some international teacher salary data. The text is accompanied by 21 figures, 22 tables, and 5 maps, and 2 appendixes proride education data by state for 1988-1989 and 1989-1990 and a list of data sources referenced by table. (MLF)

Research Report 1990

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## Research Report

## Survey \& Anarysis OF SALARY TRENDS 1990

## F. Howard Nelson

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JULY, 1990

## Survey and Analysis of Salary Trends, 1990

## Foreword

This reference document supports state federations and locals in developing salary comparisons and formulating policy. While serving as the primary vehicle for reporting the results of the American Federation of Teachers annual survey of state departments of education, several other data sources are utilized, as noted in Appendix B. Data from the AFT's annual survey of local unions is available in a separate publication titled AFT Local Union Teacher Salary Survey 1990.

Data include national average salaries or earnings for teachers, other school employees, government workers and professional employees over the past 25 years. In many instances, these data are reported by state for recent years. Reginning salaries for teachers and other college graduates over the past 15 years are reported. The AFT's survey of state departments of education also asked states to provide information on actual beginning salaries, experienced teachers reentering the classroom, and retirement rates. For the most part, data from the survey of state departments of education $2 ; e$ reported as rereived from the states. In some instances, data were confirmed by telephone. Qualifications to the data, if any, are noted in Appendix A and in the notes to some tables. Many states are still refining data, and any changes reported to the AFT Research Department will be incorporated into next year's report. Updated data relating to last year's report has been incorporated into this document.

Comparisons with the various tables can be developed to suit the purposes of a particular local or state federation, whether it is to consider trends, establish the position of members relative to similar professionals, or make meaningful and valid comparisons among states. The first section of this report focuses on state comparisons. The second section highlights trends in national averages. The third section focuses on beginning teachers, with supplemental information on experienced teachers reentering the profession and teacher retirement. The fourth section presents an international comparison to public spending on education and some international teacher salary data.

The Department of Research staff is grateful to the various locals, state agencies and state agency employees who provided the information and suggestions for this report. Yvonne Bristol of the Mesearch Department staft helped prepare the manuscript and assisted in other aspects of this report. Helen Nemorin helped to collect data, edit the report and lay out the final manuscript. Hakimah Campbell and Karen Bridges entered data or helped with other aspects of the report.

Data used in this report and copies of the tables are available on microcomputer diskette and can be obtained by writing to the AFT Department ol Research.

## Highlights

## State Comparisons

- The average teacher salary for 1989-90 of approximately $\$ 31,315$ represents a 5.7 percent increase over the previous year's average salary of $\$ 29,636$.
- Alaska had the highest average salary at $\$ 43,097$, or 138 percent of the national average. South Dakota had the lowest average salary at $\$ 21,300$, or just 68 percent of the national average.
- New Hampshire and North Carolina reforted the highest average salary increase--8.5 percent-for 1989-90. Connecticut posted an 8.3 percant gain. Salaries rose 8.1 percent in Louisiana and 8.0 percent in New Jersey. No state reported an average salary decline, but in Alabama and Oklahoma salaries increased by less than two percent.
- New Hampshire and Connecticut reported average teacher salary increases of more than 20 percent over the past two years.
- Since the 1980-81 school year, the average teacher salary in Connecticut has improved by about 135 percent, and in Vermont and New Hampshire, average salaries improved by 115 percent. No other state had more than a 100 percent increase. The U.S. average increased only 78 percent.
- An adjustment for interstate differences in the cost of living shows that Michigan, California, Wisconsin, Minnesota, and Illinois pay teachers the most. A similar adjustment places North Dakota, West Virginia, Arkansas, Hawaii and South Dakota on the bottom. Adjusting for the cost of living, Michigan paid the average teacher $\$ 38,877$ and South Dakota paid $\$ 23,902$.
- Estimated expenditures per pupil in membership (from current funds) averaged $\$ 4,577$ per pupil in 1989-90, ranging from a low of $\$ 2,454$ in Utah to $\$ 7,586$ in Now Jersey, with New York, Connecticut and Alaska also spending more than $\$ 7,000$ per pupil.


## Trends Compared to Other Workers and Professions

o The 1989-90 average teacher salary of $\$ 31,315$ is the highest ever average salary, but just $\$ 1,025$ more than the $\$ 30,091$ (in 1990 dollars) average teacher
salary recorded in 1972.

- In both 1956 and 1981, teacher salaries matched the mean annual earnings of the full-time worker in the U.S. economy, but teachers gained an 18 percent advantage by 1989 --slightly above the 14 percent advantage they enjoyed in 1971.
- Teachers earned 12 percent more than the average government worker in both 1988 and 1989, about the same as the 11 percent advantage they enjoyed in 1962, 1968 and 1969.
- Teachers earned 89 percent as much as the full-time, year-round male worker in 1987-the smallest gap in 23 years.
o Teachers experienced decreased earnings compared to femaie full-time, year-round workers every year over the 1970's, but working women have gained less than teachers during the recent period of rising teacher salaries. The average teacher salary exceeds the average earnings figure of women in 1989 by 35 percent, the highest level since 1972.
o While salaries in other white-collar occupations remain high compared to teachers (ranging from 93 percent more for attorneys to 15 percent more for accountants), the earnings advantage of these while-collar occupations tends to be at the lowest level since the early 1980s and is lower than in 1952.
- In 1990, the salary growth of both full professors and assistant professors at public institutions outpaced the average salary increase of teachers. Both full and assistant professors made modest gains over teachers the past two or three years.

0 Teacher salaries rose about the same as administrator salaries during the 1989-90 school year, and slightly faster than salaries for secretaries and teacher aides

## Beginning Teachers

- The average beginning teacher salary of $\$ 20,476$ in 1989-90 rose 5.8 percent from the previous year compared to the average teacher salary increase of 5.7 percent.

0 Eight states have starting salaries exce9ding \$22,000, and another six pay at least $\$ 21,000$.

- Alaska, New York, Connecticut, and Hawaii have starting salaries in excess of $\$ 23,000$, while only North Dakota, South Dakota and West Virginia report: averağ starting satariés deliow $\$ 16,000$.
- Beginning offers in business for new college graduates remained high compared to beginning teachers in spring 1990 (ranging from 48 percent more for engineers to 21 percent more for liberal arts graduates).
- For the second straight year, the earnings advantage of college graduates in sales/marketing, liberal arts or business administration increased over beginning teachers. Earnings increased at a slower rate in engineering, economics/finance, accounting, chemistry and computer science than they did for beginning teachers.
- Beginning teachers comprised approximately 3.6 percent of the classroom teacher work force in 1988-89 (39 states reporting data), and about 3.2 percent in 1989-90 ( 31 states reporting data).
- Based on data trom 26 states, the number of experienced teachers reentering the classroom almost matched the number of beginning teachers in 1988-89 (3.3 percent) and 1989-90 (2.9 percent).
- The retirement rate (which includes non-teaching professional personnel in some states) averaged 2.2 percent for 28 states reporting data in 1987-88 and 2.3 percent in 1988-89.

Figure 1


Figure 2
AVERAGE BEGINNING TEACHER SALARY 1989-90


Figure 3
TEACHER SALARIES CONTINUE TO OUTPACE INFLATION BY SMALL AMOUNT


Figure 4
AVERAGE TEACHER SALARY EXCEEDS 1972 LEVELS BY ABOUT 1,0u0


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TEACHER SALARIES GREW AT A FASTER RATE THAN SALARIES IN MANY OTHER PROFESSIONS IN 1989


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Figure 8
NEW TEACHER SALARIES LAG BEHIND BEGINNING SALARIES IN OTHER PROFESSIONS


Note: Expected zalary of spring 1990 graduates. Beginning teacher zalary is based on an eatimase 5.5 percent increase for the 1990-91 achool year.

## Figure 9

## Auerage Annual Salary Adjustments for Teachers

--Projections for 1989-90and 1990-91


Note: Data applies to negotiated agreements covering 1.000 or more as reported in Current Wage Developments
(aeported in CWD, Sept 1984-Auguat 1985

- Reportad in CWD, Sept 1986-Auguat 1980
[臯 Reporind in CWD, Sopt 1988-July 1987
R Reportind in CWD, Auguet 1988 -July 1988
$\square$ Reported by CWD, Auguet 1888Auguet 1988
- Reported in CWD, Auguet 1989 May 1990
National Average
Increase in Teacher
Salaries


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## I. STATE COMPARISONS

Developments in Teacher Salaries, 1989-90. In 1989-90, the average public elementary and secondary school teacher in the United States earned a salary of approximately $\$ 31,315$, an increase of 5.7 percent over the previous year. Not unexpectedly, Alaska had the highest average salary at $\$ 43,097$ followed by Connecticur with $\$ 40,768$. As shown in Table 1-1, the District of Columbia, New York, and California all had average salaries over $\$ 37,000-$-about 20 to 30 percent above the national average. South Dakota ranked last with an average salary of $\$ 21,300$. West Virginia and Arikansas also had average salaries below $\$ 23,000$. Beginning teachers in eight states averaged more than $\$ 22,000$ (See Tabie III-1).

No state experienced double-digit salary growth. New Hampshire and North Carolina reported the highest salary increase--8.5 percent for 1989-90 (see Table 1-2). Connecticut, Louisiana and New Jersey posted gains above 8 percent. New Hampshire moved from the 36th to the 26th ranking over the three-year period. Mississippi rose from the 50th ranking to 43rd over the three-year period. No state experienced growth of less than $29 \%$. Over the past two years, Connecticut, New Hampshire, Maryland, New Jersey, Vermont and Mississippi reported the greatest gains, ranging from 15 percent to nearly 21 percent. Over the past two years, average salaries increased less than 5 percent in Alaska and Utah.

Gains During the 1980's. Eight-year trends appear in Table I-3. The average salary grew by more than 115 percent in Connecticut, Vermont and New Hampshire compared to the national average of 78 percent. Average salaries improved less than 50 percent over the nine-year span in Washington ( 43 percent), Alaska ( 48 percent), L.cuisiana (46 percent) and Utah (40 percent).

Teacher Salaries Compared to the Average Annual Earnings of Private Sector Workers. States vary considerably among each other according to their economic condition and the cost of living. Table l-4 compares the average teacher salary to the average annual earnings of all workers, including part-ime workers, in the private sector. The annual pay data apply to workers covered by State and Federal Unemployment Insurance programs and are compiled from reports submitted by employers for more than 93 million workers. Generally excluded from unemployment insurance are most agriculture workers on small farms, railroad workers, most domestic employees, sludent workers and the self-employed. This comparison serves only as an index to adjust for unique conditions within each state and to facilitate interstate comparisons. It is not presented as a standard by which to judge how much teachers should get paid relative to the average worker.

As measured by the ratio of the average teacher salary in 1989-90 to the estimated average annual earnings in the privata sector in 1989, Rhode Island ranks first, with a ratio of 1.79 compared to the national auerage of 1.41 . Several high-paying states, including New York, New Jersey, Michigan and the District of Coluinbia, fall to the middle. Thirty states have a ratio of between 1.35 and 1.50. While some states argue that they cannot pay teachers well because the taxpayers in the state do not get paid well, states with the lowest average teacher salaries tend to rank lowest when teacher salaries are compared to the average worker. North Dakota, Arkansas, Utah, Idaho, Oklanoma, Louisiana and West Virginia rank in the bottom ten on both measures. However, the state paying teachers the least, South Dakota, ranks 32nd according to the ratio. Mississippi improves from the 43rd ranking to 22nd.

The rankirig according to the ratio of the average teacher salary to private sector employee earnings for 1981 is shown as the last column of Table I-4. The rankings of several states changed dramatically over the intervening six years. Massachusetts, New York, and Utah fell about 20 positions. Alaska, Connecticut, Vermont and Mississippi gained the most in the rankings.

Teacher Saiaries Compared to Per Capita Personal Income. Table I-5 is constructed similarly to Table $1-4$, except that teacher salaries are compared to per capita personal income in the state. Personal income is a combination of earnings in the workplace, minus contributions for social insurance, plus dividends, interest, rent and transfer payments. Per capita income varies among states because of cost-oi-living differences, differing concentrations of poor people and demographic factors (e.g., families are large in Utah, thus driving down per capita income). Again, the comparison to personal income is only an index designated to enhance interstate comparison, not a standard by which to judige how much teachers should be paid. Because 1989-90 average teacher salaries are compared to 1989 per capita persorial income, the ratio of the two measures slightly overstates how much teachers earn relative to the per capita income.

The national average of the teacher salary to the per capita personal income ratio is 1.78, down from 1.80 in 198£-89, 1.83 in 1987-88 and 1.85 in 1986-87, but still above the ratio of 1.77 in 1981 . A total of 25 states had a ratio of between 1.70 and 1.90. Mississippi, Michigan, Alaska, Rhode Island and Wyoming have ratios of 2.00 or better. These states cover every region of the country. Eight of the top ten states have above average teacher salaries. However, several high paying states-Connecticut, New Jersey, Massachusetts and Virginia--rank in the bottom ten.

Teacher Salaries Adjusted by the AFT Cost-of-Living Index. While the greatest variation in cost-of-living occurs within a state betveen rural and urban locations, a cost-of-living adjustment among states makes sense when states serve as the basis of comparing earnings. Cost-of-living variations arrong states are
considered in adjusting and re-ranking the average teacher salary displayed in Table i-6.

The interstate cost-of-living index was developed by the AFT Research Department using existing data on the cost of living in a majority of the nation's SMSA's to develop cost-of-living indices for each state. Using regressior techniques, models for each of four regions were developed to explain differences in the cost-of-fiving between SMSA's. The regrassions coefficients were then used as weights and combined with comparable state level data to establish the state cost-of-living index. The state cost of living index was normalized so that 1.00 represents the national average for all states weighted by their population. Details of the index and the methodology are available from the AFT Research Depart The index is also described in, "An Inteistate Cost-of-Living Index," Educati:: al Evaluation and Policy Analysis (winter, 1990). The AFT index is a revision $\omega$, the index presented in the 1989 and 1988 versions of this report. The 1987 version of this report contained a similar cost-of-living index developed by Waiter W. McMahon and Carrol Melton ("Measuring Cost of Living Variation," Industrial Relations, Vol. 17, No. 3, 1978 p. 331).

Michigan, California, Minnesota, Wisconsin, Illinois, Indiana and New York rank as the highest-paying states after adjusting ror the cost of living. New York, Alaska, Maryland, Michigan and California, despite relatively high indices, still list in the top 10. High-paying Connecticut, Massachusetts, the District of Columbia and New Jersey drop substantially in the rankings. South Dakota, West Virginia, Arkansas, North Dakota, Idaho, Utah, Louisiana and Oklahoma remain at the bottom despite low cost-of-living. The rankings of most southern states improve modestly when the cost-of-living variation is accounted for.

Expenditures Per Pupil in 1989-90. During 1989-90, approximately $\$ 4,577$ in current funds (a figure excluding capial outlay debt service and bond and construction expenses) were spent on each enrolled pupil (measured by October 1 membership or comparable figure) in the typical state. Expenditures per pupil rose by 6.7 percent over the 1988-89 estimate of $\$ 4,228$, and 16.6 percent over the 1987-88 expenditure figure of $\$ 3,930$, the final revised figure reported by the National Center for Educational Statistics. In contrast, the average teacher salary had a one-year gain of 5.7 percent and a two-year gain of 11.6 percent (Table I-2).

Most of the estimates in Table 1-7 and Table 1-8 are based on actual data reported by states but are adjusted to reflect the definition of expenditure per pupil in membership reported by the U.S. Department of Education. Frequently, early estimates of the National Center for Educational Statistics are used. In the prior version of this AFT report, the 1987-88 U.S. average expenditure per pupil was estimated to be $\$ 3,984$ while the final revised expenditure reported by the U.S. Department of Education was $\$ 3,930$. During the 1989-90 school year, New Jersey
overtook Alaska as the highost spending state. As shown in Table 1-7, New Jersey spent an estimated 66 percent more than the national average, followed by Alaska, Connecticut, New York and the District of CNumbia, each spending at least 40 percent more than the national average. Utah, Mississippi, Idaho, Alabama, and Kentucky spent under $\$ 3,000$ per pupil. State rankings for per pupil expenditures and average teacher salary did not always match closely. California, for example, ranked 25th on expenditures per pupil, but the state has the 5th highest average teacher salary.

Fiegional Rankings. Perhaps the most common way to improve interstate comparisons is to make comparisons within the same region, as in Table 1-9. Figured this way, Connecticut paid the most in New England; Washington D.C. topped the Mideast; Michigan paid the most in the Great Lakes area; and Missouri and Kansas were $\$ 5$ apart among the six Plains states. Virginia topped the Southeast by $\$ 2,000$; Arizona ranked highest in the Southwest; Colorado outpaced Wyoming by $\$ 2,000$ in the Rocky Mountain region; and, excluding Alaska, California ranked highest in the Far West with a \$7,000 advantage.

asiestimate or preiminary; b=AFT estimate; c=median; d=excluces state-paid health Insurance; emincludes extra duty and extracurricular pay; feestimated to exclude fringes; g-inciudes 6\% pension plck-up; h=based on total gross salary.

TABLE I-2
TRENDS IN THE AVERAGE SALARY, 1987-88 TO 1989-90

| State | $\begin{gathered} \text { Average } \\ \text { Salary } \\ 1987-88 \end{gathered}$ | Rank | Average Salary 1988-89 | Rank | $\begin{gathered} \text { Average } \\ \text { Salary } \\ 1989-90 \\ \hline \end{gathered}$ |  | $\begin{gathered} \hline \text { 1987-88 } \\ \text { to } \\ \text { 1988-89 } \\ \hline \end{gathered}$ | $\begin{gathered} \hline \text { reent Chan } \\ \text { 1988-89 } \\ \text { to } \\ 1989-90 \end{gathered}$ | $\begin{aligned} & \text { nge- } \\ & 1987-88 \\ & \text { to } \\ & 1989-90 \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Alaska | \$41,190 | 1 | \$41,752 | 1 | \$43,097 | 1 | 1.4\% | 3.2\% | 4.6\% |
| Connecticut | 33,776 | 5 | 37,659 | 2 | 40,768 | 2 | 11.5\% | 8.3\% | 20.7\% |
| D.C. | 34,705 | 2 | 37,232 | 3 | 39,850 | 3 | 7.3\% | 7.0\% | 14.8\% |
| New York | 34,500 | 3 | 36,654 | 4 | 38,925 | 4 | 6.2\% | 6.2\% | 12.8\% |
| Callfornla | 33,159 | 6 | 35,495 | 5 | 37,625 | 5 | 7.0\% | 6.0\% | 13.5\% |
| Maryland | 30,933 | 8 | 34,159 | 7 | 36,481 | 6 | 10.4\% | 6.8\% | 17.9\% |
| Michigan | 34,080 | 4 | 34,128 | 8 | 36,427 | 7 | 0.1\% | 6.7\% | 6.9\% |
| Rhode Istand | 32,858 | 7 | 34,233 | 6 | 36,057 | 8 | 4.2\% | 5.3\% | 9.7\% |
| New Jersey | 30,778 | 9 | 33,037 | 9 | 35,676 | 9 | 7.3\% | 8.0\% | 15.9\% |
| Massachusetts | 30,378 | 10 | 32,221 | 10 | 34,175 | 10 | 6.1\% | 6.1\% | 12.5\% |
| Pennsytvania | 29,177 | 15 | 31,248 | 12 | 33,435 | 11 | 7.1\% | 7.0\% | 14.6\% |
| Delaware | 29,573 | 13 | 31,585 | 11 | 33,377 | 12 | 6.8\% | 5.7\% | 12.9\% |
| Illinois | 29,667 | 12 | 21,148 | 13 | 32,917 | 13 | 5.0\% | 5.7\% | 11.0\% |
| Wisconsin | 29,206 | 14 | 31,046 | 14 | 32,600 | 14 | 6.3\% | 5.0\% | 11.6\% |
| Hawall | 28,445 | 17 | 29,835 | 16 | 32,25? | 15 | 4.9\% | 8.1\% | 13.4\% |
| Minnesota | 29,900 | 11 | 30,661 | 15 | 32,190 | 16 | 2.5\% | 5.0\% | 7.7\% |
| Indiana | 27,028 | 25 | 29,330 | 19 | 30,978 | 17 | 8.5\% | 5.6\% | 14.6\% |
| Virginia | 27,193 | 23 | 28,976 | 22 | 30,926 | 18 | 6.6\% | 6.7\% | 13.7\% |
| Oregon | 28,060 | 19 | 29,387 | 18 | 30,842 | 19 | 4.7\% | 5.0\% | 9.9\% |
| Colorado | 28,651 | 16 | 29,557 | 17 | 30,758 | 20 | 3.2\% | 4.1\% | 7.4\% |
| Nevada | 27,599 | 21 | 28,836 | 23 | 30,587 | 21 | 4.5\% | 6.1\% | 10.8\% |
| Ohio | 27,606 | 20 | 29,171 | 21 | 30,567 | 22 | 5.7\% | 4.8\% | 10.7\% |
| Washington | 28,217 | 18 | 29,200 | 20 | 30,475 | 23 | 3.5\% | 4.4\% | 8.09\% |
| Arizona | 27,388 | 22 | 28,499 | 24 | 29,402 | 24 | 4.1\% | 3.2\% | 7.4\% |
| Wyoming | 27,141 | 24 | 28,400 | 25 | 28,991 | 25 | 4.6\% | 2.1\% | 6.8\% |
| Now Hampshire | 24,019 | 36 | 26,703 | 29 | 28,986 | 26 | 11.2\% | 8.5\% | 20.7\% |
| Vermont | 24,507 | 33 | 27,106 | 26 | 28,849 | 27 | 10.6\% | 6.4\% | 17.7\% |
| Florida | 25,198 | 28 | 26,974 | 27 | 28,787 | 28 | 7.0\% | 6.7\% | 14.2\% |
| Georgia | 25,736 | 26 | 26,920 | 28 | 28,013 | 29 | 4.6\% | 4.1\% | 8.8\% |
| North Carolina | 24,900 | 29 | 25,646 | 34 | 27,814 | 30 | 3.0\% | 8.5\% | 11.7\% |
| Texas | 25,558 | 27 | 26,513 | 30 | 27,400 | 31 | 3.7\% | 3.3\% | 7.2\% |
| Missourl | 24,709 | 31 | 26,006 | 31 | 27,229 | 32 | 5.2\% | 4.7\% | 10.2\% |
| Kansas | 24,647 | 32 | 25,926 | 32 | 27,220 | 33 | 5.2\% | 5.0\% | 10.4\% |
| Tennessee | 23,785 | 38 | 25,619 | 35 | 27,052 | 34 | 7.7\% | 5.6\% | 13.7\% |
| Malne | 23,425 | 40 | 24,938 | 38 | 26,881 | 35 | 6.5\% | 7.8\% | 14.8\% |
| lowa | 24,858 | 30 | 25,778 | 33 | 26,747 | 36 | 3.7\% | 3.8\% | 7.6\% |
| South Carolina | 24,403 | 34 | 25,185 | 37 | 26,638 | 37 | 3.2\% | 5.8\% | 9.2\% |
| Kentucky | 24,253 | 35 | 24,933 | 39 | 26,275 | 38 | 2.8\% | 5.4\% | 8.3\% |
| Nebraska | 22,683 | 43 | 23,841 | 42 | 25,522 | 39 | 5.1\% | 7.1\% | 12.5\% |
| Alabama | 23,320 | 41 | 25,190 | 36 | 25,500 | 40 | 8.0\% | 1.2\% | 9.3\% |
| New Mexico | 23,958 | 37 | 24,092 | 41 | 25,302 | 41 | 0.6\% | 5.0\% | 5.6\% |
| Montana | 23,774 | 39 | 24,421 | 40 | 25,081 | 42 | 2.7\% | 2.7\% | 5.5\% |
| Mississippl | 20,562 | 50 | 22,579 | 46 | 24,365 | 43 | 9.8\% | 7.9\% | 18.5\% |
| Louisiana | 21,209 | 48 | 22,469 | 47 | 24,300 | 44 | 5.9\% | 8.1\% | 14.6\% |
| Oklahoma | 22,773 | 42 | 23,521 | 43 | 23,944 | 45 | 3.3\% | 1.8\% | 5.1\% |
| Idaho | 22,242 | 45 | 22,732 | 45 | 23,861 | 46 | 2.2\% | 5.0\% | 7.3\% |
| Utah | 22,572 | 44 | 22,852 | 44 | 23,652 | 47 | 1.2\% | 3.5\% | 4.8\% |
| North Dakota | 21,660 | 47 | 22,249 | 48 | 23,016 | 48 | 2.7\% | 3.4\% | 6.3\% |
| West Virginia | 21,736 | 46 | 21,904 | 50 | 22,842 | 4 S | 0.8\% | 4.3\% | 5.1\% |
| Arkansas | 21,133 | 49 | 21,955 | 49 | 22,471 | 50 | 3.9\% | 2.4\% | 6.3\% |
| South Dakota | 19,758 | 51 | 20,525 | 51 | 21,300 | 51 | 3.9\% | 3.8\% | 7.8\% |
| U.S. average | \$28,071 |  | \$29,636 |  | \$31,325 |  | 5.6\% | 5.7\% | 11.6\% |
| Guam |  |  | 25,842 |  | 25,842 |  |  | 0.0\% |  |
| Virgin islands | 22,686 |  | 26,572 |  | 28,000 |  | 17.1\% | 5.4\% | 23.4\% |



| State | $\begin{gathered} \text {-Average } \\ \text { 1980-81 } \end{gathered}$ | $\begin{aligned} & \text { Salary-- } \\ & \text { 1989-90 } \end{aligned}$ | 1980-81 | nk-_1989-90 | $\begin{gathered} \text { Perce } \\ \text {-U.S. A } \\ \hline 1980-81 \end{gathered}$ | ent of verage- 1989-90 | $\begin{gathered} \text { Change } \\ 1980-81 \\ \text { to } \\ 1989-90 \end{gathered}$ | Rank |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Connecticut | \$17,404 | \$40,768 | 21 | 2 | 99\% | 130\% | 134.2\% | 1 |
| Vermont | 13,006 | 28,849 | 51 | 27 | 74\% | 92\% | 121.8\% | 2 |
| New Hrmpshire | 13,412 | 28,986 | 48 | 26 | 76\% | 93\% | 116.1\% | 3 |
| Virginla | 15,535 | 30,926 | 33 | 18 | 89\% | 99\% | 99.1\% | 4 |
| Now Jarsey | 18,245 | 35,676 | 13 | 9 | 104\% | 114\% | 95.5\% | 5 |
| Maine | 13,994 | 26,881 | 45 | 35 | 80\% | 86\% | 92.1\% | 6 |
| Maryland | 18,998 | 36,481 | 10 | 6 | 108\% | 116\% | 92.0\% | 7 |
| Mississippi | 13,017 | 24,365 | 50 | 43 | 74\% | 78\% | 87.2\% | 8 |
| Pennsytvania | 17,890 | 33,435 | 17 | 11 | 102\% | 107\% | 86.9\% | 9 |
| Florida | 15,406 | 28,787 | 36 | 28 | 88\% | 92\% | 86.9\% | 10 |
| South Carolina | 14,353 | 26,638 | 44 | 37 | 82\% | 85\% | 85.6\% | 11 |
| Wisconsin | 17,607 | 32,600 | 20 | 14 | 100\% | 104\% | 85.2\% | 12 |
| Delaware | 18,205 | 33,377 | 14 | 12 | 104\% | 107\% | 83.3\% | 13 |
| Massachusetts | 18,703 | 34,175 | 12 | 10 | 107\% | 109\% | 82.7\% | 14 |
| Now York | 21,326 | 38,925 | 3 | 4 | 122\% | 124\% | 82.5\% | 15 |
| Rhode island | 19,803 | 36,057 | 8 | - | 113\% | 115\% | 82.1\% | 16 |
| Calliornia | 20,729 | 37,625 | 7 | 5 | 118\% | 120\% | 81.5\% | 17 |
| Georgla | 15,445 | 28,013 | 34 | 29 | 88\% | 89\% | 81.4\% | 18 |
| Minnesota | 17,777 | 32,190 | 18 | 16 | 101\% | 103\% | 81.1\% | 19 |
| Ohic | 16,904 | 30,567 | 24 | 22 | 96\% | 98\% | 80.8\% | 20 |
| indiana | 17,255 | 30,978 | 22 | 17 | 98\% | 99\% | 79.5\% | 21 |
| Tennessee | 15,118 | 27,052 | 39 | 34 | 86\% | 86\% | 78.9\% | 22 |
| Kansas | 15,250 | 27,220 | 37 | 33 | 87\% | 87\% | 78.5\% | 23 |
| Missouri | 15,421 | 27,229 | 35 | 32 | 88\% | 87\% | 76.6\% | 24 |
| North Carolina | 15,858 | 27,814 | 30 | 30 | 90\% | 89\% | 75.4\% | 25 |
| Texas | 15,728 | 27,400 | 32 | 31 | 90\% | 87\% | 74.2\% | 26 |
| D.C. | 22,882 | 39,850 | 2 | 3 | 130\% | 127\% | 74.2\% | 27 |
| Nevada | 17,700 | 30,587 | 19 | 21 | 101\% | 98\% | 72.8\% | 28 |
| Michigan | 21,213 | 36,427 | 5 | 7 | 121\% | 116\% | 71.7\% | 29 |
| Colorado | 17,917 | 30,758 | 16 | 20 | 102\% | 98\% | 71.7\% | 30 |
| Nobraska | 14,882 | 25,522 | 42 | 39 | 85\% | 82\% | 71.5\% | 31 |
| Arizona | 17,201 | 29,402 | 23 | 24 | 98\% | 94\% | 70.9\% | 32 |
| Oregon | 18,047 | 30,842 | 15 | 19 | 103\% | 98\% | 70.9\% | 33 |
| Illinois | 19,425 | 32,917 | 9 | 13 | 111\% | 105\% | 69.5\% | 34 |
| Arkansas | 13,273 | 22,471 | 49 | 50 | 76\% | 72\% | 69.3\% | 35 |
| Nabama | -5,205 | 25,500 | 38 | 40 | 87\% | 81\% | 67.7\% | 36 |
| Kontucky | 15,750 | 26,275 | 31 | 38 | 90\% | 84\% | 66.8\% | 37 |
| North Dakota | 13,864 | 23,016 | 46 | 48 | 79\% | 73\% | 66.0\% | 38 |
| lowa | 16,131 | 26,747 | 28 | 36 | 92\% | 85\% | 65.8\% | 39 |
| Oklahoma | 14,492 | 23,944 | 43 | 45 | 83\% | 76\% | 65.2\% | 40 |
| Idaho | 15,109 | 23,861 | 40 | 46 | 86\% | 76\% | 57.9\% | 41 |
| Montana | 15,954 | 25,081 | 29 | 42 | 91\% | 80\% | 57.2\% | 42 |
| South Dakota | 13,674 | 21,300 | 47 | 51 | 78\% | 68\% | 55.8\% | 43 |
| Wyoming | 18,718 | 28,991 | 11 | 25 | 107\% | 93\% | 54.9\% | 44 |
| West Virginia | 14,948 | 22,842 | 41 | 49 | 85\% | 73\% | 52.8\% | 45 |
| Hawall | 21,147 | 32,252 | 6 | 15 | 121\% | 103\% | 52.5\% | 46 |
| New Mexkco | 16,812 | 25,302 | 26 | 41 | 96\% | 81\% | 50.5\% | 47 |
| Alaska | 29,048 | 43,097 | 1 | 1 | 166\% | 138\% | 48.4\% | 48 |
| Loulsiana | 16,557 | 24,300 | 27 | 44 | 94\% | 78\% | 46.8\% | 49 |
| Washington | 21,268 | 30,475 | 4 | 23 | 121\% | 97\% | 43.3\% | 50 |
| Utah | 16,864 | 23,652 | 25 | 47 | 96\% | 76\% | 40.3\% | 51 |
| U.S. AVERAGE | \$17,544 | \$31,315 |  |  | 100\% | 100\% | 78.5\% |  |



Map 2
Average Teacher Salary Increase


- More than $90.0 x$
880.0 to $89.8 \times$

L 70.0 to 79.9 \%
[ 00.0 to $89.9 \times$
$\square$ Lees than $60.0 x$

| TABLEY-4 <br> AVERAGE SALARY OF TEACHERSNN $1989-90$ COMPARED TOANNUAL EARNINGS IN THE PRIVATESECTOR, IT 988 |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
| State | Average Teachers Salary | Private Sector Annual Egrnings | Ratio of Teachers To Private Sector | 1990 | $\begin{aligned} & \text {-Rank- } \\ & 1989 \end{aligned}$ | $1981$ |
| Rhode Istand | \$36,057 | \$20,199 | 1.79 | 1 | 1 | 2 |
| Wisconsin | 32,600 | 19,493 | 1.57 | 2 | 2 | 10 |
| Marylano | 36,481 | 22,417 | 1.63 | 3 | 4 | 4 |
| Oregon | 30,842 | 19,578 | 1.58 | 4 |  | 12 |
| Hawali | 32,252 | 20,484 | 1.57 | 5 |  | 1 |
| Alaska | 43,097 | 27,646 | 1.56 | 6 | 3 | 23 |
| Calliornia | 37,625 | 24,529 | 1.53 | 7 | 9 | 6 |
| Pennsyivania | 33,435 | 21,812 | 1.53 | 8 | 11 | 18 |
| lowa | 26,747 | 17,755 | 1.51 | 9 | 12 | 24 |
| Washington | 30,475 | 20,270 | 1.50 | 10 | 15 | 5 |
| Nebraska | 25,522 | 17,06) | 1.50 | 11 | 23 | 25 |
| Connecticut | 40,768 | 27,301 | 1.49 | 12 | 20 | 39 |
| Michigan | 36,427 | 24,504 | 1.49 | 13 | 24 | 17 |
| New Mexico | 25,302 | 17,047 | 1.48 | 14 | 45 | 11 |
| Minnosola | 32,190 | 21,720 | 1.48 | 15 | 13 | 13 |
| South Carolina | 26,638 | 18,078 | 1.47 | 16 | 18 | 29 |
| Indiana | 30,978 | 21,030 | 1.47 | 17 | 16 | 35 |
| Vermont | 28,849 | 19,597 | 1.47 | 18 | 10 | 45 |
| Montana | 25,081 | 17,061 | 1.47 | 19 | 8 | 14 |
| North Carolina | 27,814 | 18,970 | 1.47 | 20 | 27 | 9 |
| Arizona | 29,402 | 20,068 | 1.47 | 21 | 19 | 19 |
| Mississippi | 24,365 | 16,637 | 1.46 | 22 | 30 | 42 |
| Wyoming | 28,991 | 19,803 | 1.46 | 23 | 7 | 38 |
| Virginia | 30,926 | 21,162 | 1.46 | 24 | 21 | 27 |
| Colorado | 30,758 | 21,153 | 1.45 | 25 | 25 | 28 |
| Nevada | 30,587 | 21,057 | 1.45 | 26 | 14 | 16 |
| Florida | 28,787 | 19,819 | 1.45 | 27 | 22 | 22 |
| New York | 38,925 | 26,989 | 1.44 | 28 | 26 | 8 |
| Maine | 26,881 | 18,806 | 1.43 | 29 | 28 | 26 |
| Kentucky | 26,275 | 18,468 | 1.42 | 30 | 35 | 37 |
| Tennessee | 27,052 | 19,056 | 1.42 | 31 | 36 | 30 |
| South Dakota | 21,300 | 15,014 | 1.42 | 32 | 31 | 15 |
| Ohio | 30,567 | 21,687 | 1.41 | 33 | 33 | 44 |
| Kanses | 27,220 | 19,589 | 1.39 | 34 | 34 | 40 |
| Massachusetts | 34,175 | 24,597 | 1.39 | 35 | 38 | 7 |
| Illinois | 32,917 | 23,901 | 1.38 | 36 | 40 | 20 |
| Delaware | 33,377 | 24,499 | 1.36 | 37 | 17 | 33 |
| New Jersey | 35,676 | 26,369 | 1.35 | 38 | 32 | 31 |
| Alabama | 25,500 | 18,872 | 1.35 | 39 | 37 | 32 |
| D.C. | 39,850 | 29,571 | 1.35 | 40 | 39 | 3 |
| Georgia | 28,013 | 20,796 | 1.35 | 41 | 41 | 34 |
| New Hampshire | 28,986 | 21,859 | 1.33 | 42 | 44 | 47 |
| North Dakota | 23,016 | 17,414 | 1.32 | 43 | 29 | 46 |
| Missouri | 27,229 | 20,607 | 1.32 | 44 | 46 | 43 |
| Arkansas | 22,471 | 17,100 | 1.31 | 45 | 42 | 41 |
| tdaho | 23,861 | 18,243 | 1.31 | 46 | 43 | 36 |
| Utah | 23,652 | 18,420 | 1.28 | 47 | 48 | 21 |
| Texas | 27,400 | 21,842 | 1.25 | 48 | 47 | 49 |
| Oklahoma | 23,944 | 19,503 | 1.23 | 49 | 49 | 51 |
| Louisiana | 24,300 | 20,067 | 1.21 | 50 | 50 | 48 |
| West Virginia | 22,842 | 20,231 | 1.13 | 51 | 51 | 50 |
| U.S. AVERAGE | \$31,315 | \$22,287 | 1.41 |  |  |  |


| TABLEI-S |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AVERAGE SALA PER CAPITA PE | Y OF TEAC SONAL II | $\begin{aligned} & \text { CHERS IN } \\ & \text { NCOME } \end{aligned}$ | $1989-90$ | COMPARE | $\text { ED TO. } 198$ |  |  |  |
|  | Average | Per Capita |  | io of Salary Capita Inco | ry to come |  |  |  |
| State | $\begin{aligned} & \text { Teacher } \\ & \text { Salary } \\ & \hline \end{aligned}$ | Personal Income | 1989-90 | 1988-89 | 1980-81 | 89-90 | $\begin{aligned} & -R a n k- \\ & 88-89 \end{aligned}$ | 80-81 |
| Miscsssippl | \$24,365 | \$11,835 | 2.06 | 2.05 | 1.88 | 1 | 3 | 16 |
| Michigan | 36,427 | 17,745 | 2.05 | 2.17 | 2.09 | 2 | 1 | 3 |
| Wyoming | 28,991 | 14,135 | 2.05 | 2.02 | 1.65 | 3 | 5 | 39 |
| Alaska | 43,097 | 21,173 | 2.04 | 2.14 | 2.10 | 4 | 2 | 2 |
| Rhode Island | 36,057 | 18,061 | 2.00 | 2.04 | 2.08 | 5 | 4 | 4 |
| South Carolina | 26,638 | 13,615 | 1.96 | 1.96 | 1.89 | 6 | 10 | 13 |
| Oregon | 30,842 | 15,785 | 1.95 | 1.96 | 1.83 | 7 | 11 | 21 |
| Wisconsin | 32,600 | 16,759 | 1.95 | 2.01 | 1.79 | 8 | 6 | 24 |
| Indiana | 30,978 | 16,005 | 1.94 | 1.98 | 1.87 | 9 | 8 | 18 |
| Pennsyivania | 33,435 | 17,422 | 1.92 | 1.93 | 1.81 | 10 | 13 | 22 |
| Now Mexico | 25,302 | 13,191 | 1.92 | 1.97 | 2.06 | 11 |  | 5 |
| Kentucky | 26,275 | 13,777 | 1.91 | 1.95 | 1.96 | 12 | 12 | 11 |
| Calitornia | 37,625 | 19.740 | 1.91 | 1.87 | 1.79 | 13 | 21 | 26 |
| Now York | 38,925 | 20,540 | 1.90 | 1.90 | 1.99 | 14 | 17 | 7 |
| Alabama | 25,500 | 13,679 | 1.86 | 2.00 | 1.97 | 15 | 7 | 10 |
| Loulisana | 24,300 | 13,041 | 1.86 | 1.84 | 1.91 | 16 | 23 | 12 |
| Onio | 30,567 | 16,499 | 1.85 | 1.88 | 1.74 | 17 | 18 | 33 |
| Arizona | 29,402 | 15,881 | 1.85 | 1.91 | 1.88 | 18 | 16 | 17 |
| Tennossee | 27,052 | 14,765 | 1.83 | 1.88 | 1.88 | 19 | 20 | 15 |
| North Carolina | 27,814 | 15,221 | 1.83 | 1.82 | 1.98 | 20 | 25 | 9 |
| West Virginia Utah | 22,842 | 12,529 | 1.82 | 1.88 | 1.89 | 21 | 19 | 14 |
| Utah | 23,652 | 13,027 | 1.82 | 1.92 | 2.12 | 22 | 15 | , |
| Minnesota | 32,190 | 17,746 | 1.81 | 1.83 | 1.77 | 23 | 24 | 29 |
| Montana | 25.081 | 13,852 | 1.81 | 1.93 | 1.79 | 2 a | 14 | 25 |
| Texas | 27,400 | 15,483 | 1.77 | 1.81 | 1.61 | 25 | 26 | 41 |
| Hawall | 32,252 | 18,306 | 1.76 | 1.85 | 1.99 | 26 | 22 |  |
| Vermont Colorado | 28,849 | 16,399 | 1.76 | 1.74 | 1.52 | 27 | 38 | 49 |
| Colorado Delaware | 30,758 | 17,494 | 1.76 | 1.80 | 1.69 | 28 | 27 | 36 |
| Delaware | 33,377 | 19,116 | 1.75 | 1.78 | 1.78 | 29 | 31 | 28 |
| Nillinols | 32,917 | 18,858 | 1.75 | 1.77 | 1.79 | 30 | 32 | 23 |
| North Dakota Maryland | 23,016 | 13,261 | 1.74 | 1.75 | 1.62 | 31 | 37 | 40 |
| Maryland Idaho | 36,481 $\mathbf{2 3 , 8 6 1}$ | 21,020 13,762 | 1.74 1.73 | 1.76 1.80 | 1.76 1.76 | 32 | 35 | 32 |
| Arkansas | 22,471 | 12,984 | 1.73 | 1.80 1.79 | 1.76 1.78 | ${ }_{34}$ | ${ }_{30}$ | 30 27 |
| Georgia | 28,013 | 16,188 | 1.73 | 1.80 | 1.6 | 35 | 28 | 20 |
| Washington | 30,475 | 17,640 | 1.73 | 1.76 | 1.98 | 36 | 34 | 8 |
| lowa | 26,747 | 15,524 | 1.72 | 1.75 | 1.69 | 37 | 36 | 35 |
| D.C. | 39,850 | 23,436 | 1.70 | 1.70 | 1.86 | 38 | 39 | 19 |
| OKlahoma | 23,944 | 14,151 | 1.69 | 1.76 | 1.54 | 39 | 33 | 47 |
| Kansas Nebraska | 27,220 | 16,182 | 1.68 | 1.63 | 1.53 | 40 | 46 | 48 |
| Nebraska Missouri | 25,522 | 15,360 | 1.66 | 1.57 | 1.60 | 41 | 48 | 42 |
| Missouri Connecticut | 27,229 | 16,431 | 1.66 | 1.68 | 1.66 | 42 | 40 | 38 |
| Connecticut Maine | 40,768 | 24,604 | 1.66 | 1.65 | 1.44 | 43 | 42 | 50 |
| Maine | 26,881 | 16,310 | 1.65 | 1.67 1.65 | 1.70 | 44 | 41 | 34 |
| Florida | 30,926 28,787 | 18,970 17,694 | 1.63 1.63 | 1.65 1.63 | 1.58 1.58 | 15 46 | 44 47 | 43 |
| Nevada | 30,587 | 18,8:7 | 1.62 | 1.65 | 1.55 | 47 | 43 | 46 |
| South Dakota | 21,300 | 13,431 | 1.58 | 1.65 | 1.66 | 48 | 45 | 37 |
| Massachusetts | 34,175 | 22,196 | 1.54 | 1.56 | 1.76 | 49 | 49 | 31 |
| Now Jersey New Hampshire | 35,676 | 23,764 | 1.50 | 1.50 | 1.58 | 50 | 50 | 45 |
| New Hampshire | 28,986 | 20,251 | 1.43 | 1.40 | 1.37 | 51 | 51 | 51 |
| U.S. AVERAGE | \$31,315 | \$17,567 | 1.78 | 1.80 | 1.77 |  |  |  |


|  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| State | Average Salary | Cost of Living Indax | Adjusted Average Salary | Adjusted Rank | Oiginal Mank |
| Michigan | \$36,427 | 93.7 | \$38,877 | 1 | 7 |
| California | 37,635 | 107.4 | 35,033 | 2 | 5 |
| Wisconsin | 32,600 | 93.1 | 35,015 | 3 | 14 |
| Minnesota | 32,130 | 93.2 | 34,530 | 4 | 16 |
| ulinols | 32,917 | 95.8 | 34,363 | 5 | 13 |
| Indiana | 30,978 | 92.1 | 33,622 | 6 | 17 |
| Now York | 38,985 | 116.0 | 33,547 | 7 | 4 |
| Alaska | 43,097 | 130.0 | 33,152 | 8 | 1 |
| Maryland | 36,481 | 111.5 | 32,729 | 9 | 6 |
| Oregon | 30,852 | 94.4 | 32,669 | 10 | 19 |
| Rhode island | 36,057 | 110.5 | 32,638 | 11 | 8 |
| Virginia | 30,926 | 95.7 | 32,327 | 12 | 18 |
| Ohio | 30,567 | 94.7 | 32,278 | 13 | 22 |
| Pennsytuania | 33,435 | 103.9 | 32,173 | 14 | 11 |
| Nevada | 30,587 | 95.4 | 32,076 | 15 | 21 |
| Connecticut | 40,768 | 127.3 | 32,022 | 16 | 2 |
| Wyoming | 28,991 | 91.7 | 31,624 | 17 | 25 |
| Delaware | 33,377 | 106.2 | 31,415 | 18 | 12 |
| Colorado | 30,758 | 98.0 | 31,374 | 19 | 20 |
| Washington | 30,475 | 97.6 | 31,233 | 20 | 23 |
| D.C. | 39,850 | 128.4 | 31,036 | 21 | 3 |
| Georgla | 28,013 | 91.8 | 30,528 | 22 | 29 |
| North Carolina | 27,814 | 91.2 | 30,486 | 23 | 30 |
| Vermont | 28,849 | 96.0 | 30,051 | 24 | 27 |
| Texas | 27,400 | 91.2 | 30,035 | 25 | 31 |
| Tennesseo | 27,052 | 90.3 | 29,342 | 26 | 34 |
| Florida | 28,787 | 96.2 | 29,920 | 27 | 28 |
| Kansas | 27,220 | 91.1 | 29.880 | 28 | 33 |
| Missouri | 27,229 | 91.6 | 29,737 | 29 | 32 |
| South Carolina | 26,638 | 30.1 | 29,552 | 30 | 37 |
| Kantucky | 26,275 | 89.1 | 29,479 | 31 | 38 |
| lowa | 26,747 | 91.5 | 29,226 | 32 | 36 |
| Arizona | 29,402 | 100.6 | 29,223 | 33 | 24 |
| Alabama | 25,500 | 89.8 | 28,395 | 34 | 40 |
| Maine | 26,881 | 95.0 | 28,306 | 35 | 35 |
| Nebraska | 25,522 | 90.8 | 28,094 | 36 | 39 |
| Misetssippl | 24,325 | 88.1 | 27,646 | 37 | 43 |
| Now Sersey | 35,676 | 129.3 | 27,584 | 38 | 9 |
| Mcriana | 25,081 | 91.3 | 27,464 | 39 | 42 |
| Now Hampshire | 28,996 | 105.9 | 27,374 | 40 | 26 |
| New Mexico | 25,302 | 92.8 | 27,253 | 41 | 41 |
| Massachusetts | 34,175 | 126.6 | 27,003 | 42 | 10 |
| Oklahoma | 23,944 | 89.6 | 26,720 | 43 | 45 |
| Loulsiana | 24,300 | 91.3 | 26,623 | 44 | 44 |
| Utah | 23,652 | 90.2 | 26,220 | 45 | 47 |
| Idaho | 23,8¢1 | 91.6 | 26,041 | 46 | 46 |
| Nerth Dakota | 23,016 | 89.5 | 25,718 | 47 | 48 |
| Weer Virginia | 22,842 | 89.6 | 25,507 | 48 | 49 |
| Arkansas | 22,471 | 88.4 | 25,429 | 49 | 50 |
| Hawall | 32,252 | 127.0 | 25,395 | 50 | 15 |
| South Dakota | 21,300 | 89.1 | 23,902 | 51 | 51 |
| U.S. AVERAGE | \$31,3:5 | 100.0 | \$31,315 |  |  |


|  | $1-7$ <br> NDITURES PE <br> ERAGE TEAC | PUPILM ER SAEAR |  | $\begin{aligned} & \text { MERSHIP) } \\ & \text { MIS89 } \end{aligned}$ | N1989-9 | AND TH |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | State | $\begin{aligned} & \text { Expendi- } \\ & \text { tures } \\ & \text { Per Pupil } \end{aligned}$ |  | Percent of U.S. Average | $\begin{gathered} \text { Average } \\ \text { Salary } \\ 1988-80 \end{gathered}$ | Percent of U.S. Average | Rank |
| 1 | New Jersey | \$7,586 | b | 166\% | \$35,676 | 114\% | 9 |
| 2 | Alaska | 7,467 | b | 163\% | 43,097 | 138\% | 1 |
| 3 | Connecticut | 7,415 |  | 162\% | 40,768 | 130\% | 2 |
| 4 | Now York | 7,300 |  | 159\% | 38,925 | 124\% | 4 |
| 5 | D.C. | 6,424 |  | 140\% | 39,850 | 127\% | 3 |
| 6 | Massachusetts | 5,766 | b | 126\% | 34,175 | 109\% | 10 |
| 7 | Rhode island | 5,711 | c | :25\% | 36,057 | 115\% |  |
| 8 | Vermont | 5,524 | c | 121\% | 28,849 | 92\% | 27 |
| 9 | New Hampshire | 5,356 | c | 117\% | 28,986 | 93\% | 26 |
| 10 | Pennsylvania | 5,307 | b | 116\% | 33,435 | 107\% | 11 |
| 11 | Wyoming | 5,237 | b | 114\% | 28,991 | 93\% | 25 |
| 12 | Maryland | 5,211 | b | 114\% | 36,481 | 116\% | 6 |
| 13 | Delaware | 5,206 | b | 114\% | 33,377 | 107\% | 12 |
| 14 | Michigan | 5,081 | b | 111\% | 36,427 | 116\% | 7 |
| 15 | Wisconsin | 4,868 | c | 100\% | 32,600 | 104\% | 14 |
| 16 | Maine | 4,832 | b | 106\% | 26,881 | 86\% | 35 |
| 17 | Oregon | 4,731 |  | 103\% | 30,842 | 98\% | 19 |
| 18 | Washington | 4,590 | b | 100\% | 30,475 | 97\% | 23 |
| 19 | Virginia | 4,471 | c | 98\% | 30,926 | 99\% | 18 |
| 20 | Minnssota | 4,463 | b | 98\% | 32,190 | 103\% | 16 |
| 21 | lowa | 4,380 | b | 96\% | 26,747 | 85\% | 36 |
| 22 | Fiorida | 4,378 | c | 96\% | 28,787 | 92\% | 28 |
| 23 | Hawali | 4,362 | b | 95\% | 32,252 | 103\% | 15 |
| 24 | Illinois | 4,331 | c | 95\% | 32,917 | 105\% | 13 |
| 25 | California | 4,309 | c | 94\% | 37,625 | 120\% | 5 |
| 26 | Colorado | 4,300 | b | 94\% | 30,758 | 98\% | 20 |
| 27 | Nebraska | 4,206 | c | 92\% | 25,522 | 82\% | 39 |
| 28 | Ohio | 4.109 | c | 90\% | 30,567 | 98\% | 22 |
| 29 | Kansas | 4,071 | b | 89\% | 27,220 | 87\% | 33 |
| 30 | Montana | 3,996 | b | 87\% | 25,081 | 80\% | 42 |
| 31 | Indiana | 3,995 | c | 87\% | 30,978 | 99\% | 17 |
| 32 | Nevada | 3,905 | b | 85\% | 30,587 | 98\% | 21 |
| 33 | Arizona | 3,902 | b | 85\% | 29,402 | 94\% | 24 |
| 34 | West Virginia | 3,854 | b | 84\% | 22,842 | 73\% | 49 |
| 35 | Missouri | 3,784 | b | 83\% | 27,229 | 87\% | 32 |
| 36 | Texas | 3,772 | b | 82\% | 27,400 | 87\% | 31 |
| ${ }^{37}$ | Georgla | 3,722 | b | 81\% | 28,013 | 89\% | 29 |
| 38 | North Carolina | 3,581 | c | 78\% | 27,814 | 89\% | 30 |
| 39 | South Carolina | 3,522 | b | 77\% | 26,638 | 85\% | 37 |
| 40 | North Dakota | 3,383 | b | 74\% | 23,016 | 73\% | 48 |
| 41 | South Dakota | 3,264 |  | 71\% | 21,300 | 68\% | 51 |
| 42 | Tennessee | 3,235 | c | 71\% | 27,052 | 86\% | 34 |
| 43 | New Mexico | 3,214 |  | 70\% | 25,302 | 81\% | 41 |
| 44 | Louisiana | 3,194 | b | 70\% | 24,300 | 78\% | 44 |
| 45 | Oklahoma | 3.055 | b | 67\% | 23,944 | 76\% | 45 |
| 46 | Arkansas | 2,989 | b | 65\% | 22,471 | 72\% | 50 |
| 47 | Kontucky | 2,983 | c | 65\% | 26,275 | 84\% | 38 |
| 48 | Alabama | 2,825 | b | 62\% | 25,500 | 81\% | 40 |
| 49 | kdaho | 2,741 | b | 60\% | 23,861 | 76\% | 46 |
| 50 | Mississippl | 2,728 | b | 60\% | 24,365 | 78\% | 43 |
| 51 | Ulah | 2,454 |  | 54\% | 23,652 | 76\% | 47 |
|  | U.S. AVERAGE | \$4,577 |  | 100\% | \$31,315 | 100\% |  |
|  | Virgin islands | 4,662 | b | 102\% | 28,000 | 89\% |  |

- Expenditure figures correspond to the federal definition of current expenditures per me , evr. a $=$ preliminary or estimate; buAFT estimate (based on data supplied by states when available). c=based primarily on December 1989 estimates reporied by NCES

| TADLE:-0 |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRENDS IN EXPENDITURES PER PUPIL (MEMBERSHIP), 1987-88 TO 1989-90 |  |  |  |  |  |  |  |  |  |
| State | Expenditures Per Pupil $1987-88$ |  | Expenditures Pei Fupil <br> 1988-89 |  | Expenditures Per Pupil 1989-90 |  | $\begin{gathered} \hline \text { 1987-88 } \\ \text { to } \\ 1988-89 \\ \hline \end{gathered}$ | $\begin{gathered} \text { cent Chand } \\ \text { 1988-89 } \\ \text { to } \\ 1989-90 \\ \hline \end{gathered}$ | $\begin{gathered} \text { nge-_- } \\ 1987-88 \\ \text { to } \\ 1989-90 \\ \hline \end{gathered}$ |
| New Jersey | \$6,059 | 3 | \$6,878 | 2 | \$7,586 | 1 | 13.5\% | 10.3\% | 25.2\% |
| Alaska | 7,159 | 1 | 7,231 | 1 | 7,467 | 2 | 1.0\% | 3.3\% | 4.3\% |
| Connecticut | 5,905 | 4 | 6,832 | 3 | 7,415 | 3 | 15.7\% | 8.5\% | 25.6\% |
| Now York | 6,196 | 2 | 6,803 | 4 | 7,300 | 4 | 9.8\% | 7.3\% | 17.8\% |
| D.C. | 5,662 | 5 | 6,159 | 5 | 6,424 | 5 | 8.8\% | 4.3\% | 13.5\% |
| Massachusetts | 4,965 | 6 | 5,440 |  | 5,766 | 6 | 9.6\% | 6.0\% | 16.1\% |
| Rhode Island | 4,951 | 7 | 5,348 | 7 | 5,711 | 7 | 8.0\% | 6.8\% | 15.3\% |
| Vermont | 4,927 | 8 | 5,197 | 8 | 5,524 | 8 | 5.5\% | 6.3\% | 12.1\% |
| New Hampshire | - 4,080 | 18 | 4,715 | 13 | 5,356 | 9 | 15.6\% | 13.6\% | 31.3\% |
| Pennsylvania | 4,603 | 11 | 4,951 | 10 | 5,307 | 10 | 7.6\% | 7.2\% | 15.3\% |
| Wyoming | 4,742 | 9 | 5,075 | 9 | 5,237 | 11 | 7.0\% | 3.2\% | 10.4\% |
| Maryland | 4,575 | 12 | 4,884 | 11 | 5,211 | 12 | 6.8\% | 6.7\% | 13.9\% |
| Delaware | 4,606 | 10 | 4,865 | 12 | 5,206 | 13 | 5.6\% | 7.0\% | 13.0\% |
| Michigan | 4,350 | 13 | 4,537 | 15 | 5,08: | 14 | 4.3\% | 12.0\% | 16.8\% |
| Wisconsin | 4,296 | 14 | 4.563 | 14 | 4,868 | 15 | 6.2\% | 6.7\% | 13.3\% |
| Maine | 3,965 | 19 | 4,291 | 17 | 4,832 | 16 | 8.2\% | 12.6\% | 21.9\% |
| Oragon | 4,266 | 15 | 4,506 | 16 | 4,731 | 17 | 5.6\% | 5.0\% | 10.9\% |
| Washington | 3,875 | 22 | 4,234 | 19 | 4,590 | 18 | 9.3\% | 8.4\% | 18.4\% |
| Virginia | 3,873 | 23 | 4,155 | 21 | 4,471 | 19 | 7.3\% | 7.6\% | 15.4\% |
| minnesota | 4,132 | 16 | 4,222 | 20 | 4,463 | 20 | 2.2\% | 5.7\% | 8.0\% |
| lowa | 3,867 | 24 | 4,277 | 18 | 4,380 | 21 | 10.6\% | 2.4\% | 13.3\% |
| Florida | 3,778 | 26 | 4,054 | 25 | 4,378 | 22 | 7.3\% | 8.0\% | 15.9\% |
| Hawall | 3,661 | 29 | 3,965 | 26 | 4,362 | 23 | 8.3\% | 10.0\% | 19.1\% |
| Illinois | 3,822 | 25 | 4,059 | 24 | 4,331 | 24 | 6.2\% | 6.7\% | 13.3\% |
| California | 3,876 | 21 | 4,100 | 23 | 4,309 | 25 | 5.8\% | 5.1\% | 11.2\% |
| Colorado | 4,100 | 17 | 4,143 | 22 | 4,300 | 26 | 1.0\% | 3.8\% | 4.9\% |
| Nebraska | 3,712 | 28 | 3,942 | 28 | 4,206 | 27 | 6.2\% | 6.7\% | 13.3\% |
| Ohio | 3,595 | 30 | 3,880 | 30 | 4,109 | 28 | 7.9\% | 5.9\% | 14.3\% |
| Kansas | 3,724 | 27 | 3,896 | 29 | 4,071 | 29 | 4.6\% | 4.5\% | 9.3\% |
| Montana | 3,878 | 20 | 3,949 | 27 | 3,996 | 30 | 1.8\% | 1.2\% | 3.1\% |
| Indiana | 3,454 | 33 | 3,716 | 31 | 3,995 | 31 | 7.6\% | 7.5\% | 15.6\% |
| Novada | 3,298 | 36 | 3,583 | 34 | 3,905 | 32 | 8.6\%\% | 9.0\% | 18.4\% |
| Arizona | 3,498 | 32 | 3,716 | 32 | 3,902 | 33 | 6.2\% | 5.0\% | 11.5\% |
| West Virginia | 3,579 | 31 | 3,705 | 33 | 3.854 | 34 | 3.5\% | 4.0\% | 7.7\% |
| Missouri | 3,425 | 34 | 3,570 | 35 | 3,784 | 35 | 4.2\% | 6.0\% | 10.5\% |
| Texas | 3,334 | 35 | 3,542 | 36 | 3,772 | 36 | 6.2\% | 6.5\% | 13.1\% |
| Georgia | 3,195 | 38 | 3.511 | 37 | 3,722 | 37 | 9.9\% | 6.0\% | 16.5\% |
| North Caroina | 3,153 | 40 | 3,310 | 39 | 3,581 | 38 | 5.0\% | 8.2\% | 13.6\% |
| South Carolina | 3,143 | 41 | 3,342 | 38 | 3,522 | 39 | 6.3\% | 5.4\% | 12.1\% |
| North Dakota | 3,239 | 37 | 3,201 | 40 | 3,383 | 40 | -1.2\% | 5.7\% | 4.5\% |
| South Dakota | 3,071 | 42 | 3,167 | 41 | 3,264 | 41 | 3.1\% | 3.1\% | 6.3\% |
| Tennessee | 2,855 | 45 | 3,032 | 43 | 3,235 | 42 | 6.2\% | 6.7\% | 13.3\% |
| New Mexico | 3,190 | 39 | 3,134 | 42 | 3,214 | 43 | -1.8\% | 2.6\% | 0.7\% |
| Loulsiana | 2,886 | 44 | 2,957 | 45 | 3,194 | 44 | 2.5\% | 8.0\% | 10.7\% |
| Oklahoma | 2,897 | 43 | 2,998 | 44 | 3,055 | 45 | 3.5\% | 1.9\% | 5.5\% |
| Arkansas | 2,771 | 46 | 2,869 | 46 | 2,989 | 46 | 3.5\% | 4.2\% | 7.9\% |
| Kentucky | 2,710 | 47 | 2,825 | 47 | 2,983 | 47 | 4.2\% | 5.6\% | 10.1\% |
| Alabama | 2,567 | 48 | - 2,717 | 48 | 2,825 | 48 | 5.9\% | 4.0\% | 10.1\% |
| Idaho | 2,505 | 49 | - 2,610 | 49 | 2,741 | 49 | 4.2\% | 5.0\% | 9.4\% |
| Mississippl | 2.416 | 50 | - 2,585 | 50 | 2,728 | 50 | 7.0\% | 5.5\% | 12.9\% |
| Utah | 2,302 | 51 | 1 2,324 | 51 | 2,454 | 51 | 1.0\% | 5.6\% | 6.6\% |
| U.S. average | E $\quad \$ 3,930$ |  | 4,288 |  | \$4,577 |  | 9.1\% | 6.796 | 16.5\% |
| Virgin Isiands | 3,984 |  | 4,661 |  | 4,662 |  |  |  |  |

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| 7BESE K <br>  <br>  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| State | $\begin{aligned} & \text { Expendi- } \\ & \text { tures } \\ & \text { Per Pupil } \end{aligned}$ | Average Salary | State | Expenditures Per Pupil | Average Salary |
| NEW EAKLLAND |  |  | SOUTHEAST |  |  |
| Connecticut | 7,415 | 40,768 | Virginla | 4,771 | 30,926 |
| Rhode feland | 5,711 | 36,057 | Florida | 4,378 | 28,787 |
| Massechusetts | 5,766 | 34,175 | Georgla | 3,722 | 28,013 |
| Now Hampshire | 5,356 | 28,996 | North Carolina | 3,581 | 27,814 |
| Vermont | 5,524 | 23,849 | Tennessee | 3,235 | 27,052 |
| Malne | 4,832 | 26,881 | South Carolina | 3,522 | 26,638 |
|  |  |  | Kentucky | 2,983 | 26,275 |
| MIDEAST |  |  | Alabama | 2,825 | 25,500 |
| D.C. | 6,424 | 39,850 | Mississippl | 2,728 | 24,365 |
| Now York | 7,300 | 38,925 | Louidiana | 3,194 | 24,300 |
| Maryland | 5,211 | 36,481 | West Virginia | 3,854 | 22,842 |
| Now Jorsey | 7,586 | 35,676 | Arkansas | 2,989 | 22,471 |
| Pennsylvania | 5,307 | 33,435 |  |  |  |
| Delaware | 5,206 | 33,377 | ROCKY MOUNTAINS | 4,300 | 30,758 |
| great lakes |  |  | Wyoming | 5,237 | 28,991 |
| Michigan | 5,081 | 36,427 | Montana | 3,996 | 25,081 |
| lilinois | 4,331 | 32,917 | Idaho | 2,741 | 23,861 |
| Wisconsin | 4,868 | 32,600 | Utần | 2,454 | 23,652 |
| Minnesota | 4,463 | 32,190 |  |  |  |
| Indiana | 3,995 | 30,978 | FAR WEST |  |  |
| Ohlo | 4,109 | 30,567 | California Oregon | $\begin{aligned} & 4,309 \\ & 4,731 \end{aligned}$ | $\begin{aligned} & 37,625 \\ & 30,842 \end{aligned}$ |
| PLAINS |  |  | Nerada | 3,905 | 30,587 |
| Missouri | 3,784 | 27,229 | Washington | 4,590 | 30,475 |
| Kansas | 4,071 | 27,220 |  |  |  |
| lowa | 4,380 | 26,747 | Alaska | 7,467 | 43,097 |
| Nebraska | 4,206 | 25,522 | Hawall | 4,362 | 32,252 |
| North Dakota South Dakota | 3,383 | 23,016 |  |  |  |
| South Dakota | 3,264 | 21,300 | U.S. AVERAGE | \$4,577 | \$31,315 |
| SOUTHWEST |  |  |  |  |  |
| Arizona | 3,902 | 29,402 |  |  |  |
| Texas | 3,772 | 27,400 |  |  |  |
| Now Mexico | 3,214 | 25,302 |  |  |  |
| Okiahoma | 3,055 | 23,944 |  |  |  |

Map 5
1988-89 Average Teacher Salary, Ranked Within Region


## II. Trends in Teacher Salaries Compared to Other Workers and Professions

Trends in Teacher Salaries Compared to Inflation. The purchasing power of teachers, measuied in 1990 dollars according to the Consumer Price Index for All Urban Consumers, has risen approximately $\$ 7,000$ since 1981. Teachers however, gained just $\$ 350$ during 1989. As shown in Table II-1 and Figure 2, purchasing power for teachers has been restored to the peak purchasing power period of 1971-73 with $\$ 1200$ to spare. In 1956, the average teacher salary was \$19,360 (in 1990 dollars)--abou: two-thirds of the current salary level and less than the national average beginninig teacher's salary. During the periods of rapid inflation in the mid-1970's and eariy 1980's, as shown in Figure II-1, the average teacher salary increase fell below the inflation rate at the onset of inflation but increased as inflation waned. The real wage gains experienced by teachers in the early 1980's and mid-1980's may be a product of this adjustment lag. In Table II-1 and the following tables, the 1990 inflation rate is estimated at 4.5 percent. The rate stands at 4.4 percent for the 12 months ending May 1990. The gap between the increase in the average teacher salary iricrease $(5.7 \%)$ and the estimated inflation rate (4.5\%) is almost identical to the gap experienced during the prior three years.

Trends in Teacher Salaries Compared to the Average Annual Earnings of All Workers. The ratio of teacher salaries to the mean average annual earnings of the full-time, nonagricultural worker was 1.18 in 1989 as shown in Table Il-1. This ratio is at its highest level ever during the past 34 years. The ratio has been as low as 1.00 in 1957 and as high as 1.14 in 1971 but fell to 1.01 as recently as 1981 . Figure II-2 illustrates these trends.

The teacher to average worker salary ratio is an index, and the average worker's salary should not be interpreted as a target for teacher salaries. Some economic forces--such as inflation and economic growth or stagnation--affect all workers in the economy. Consequently, merely adjusting for inflation does not adequately describe the financial well-being of teachers. Had teacher purchasing power remained the same since 1956, teachers would be earning approximately $\$ 7,000$ less than the average worker in 1989. Furthermore, as the productivity of the economy increases and the value of all labor rises, teachers should share equally in economy-wide gains in productivity, roughly measured by the real (i.e. inflation adjusted) increase in the annual earnings of the average full-time worker.

Trends in Teacher Salaries Compared to the Average Annual Salaries of All Government Workers. Trends in government worker salaries have closely matched
trends in teachers salaries. Teachers outpaced government workers over the 1960's, with the ratio of teacher salaries to government worker salaries rising to 1.11 in 1968, During the 1970's, however, government workers fared much better than teachers and the ratio fell to 1.00 by 1982. In 1989, teachers had a 12 percent advantage over all government workers, about the same as the previous two years.

Trends in Teacher Salaries Adjusted for Wr \& Experience. Though teacher salaries are at the highest levels ever, the average teacher in 1989-90 had an estimated 15.4 years of experience, more experience than at any time over the past three decades. Clearly, the rapid rise in teacher salaries over the early 1980s was due primarily to layoffs of low-paid teachers and minimal hiring of beginning teachers. This effect has abated over the past 3 or 4 years as the growth in teacher experience has leveled off due to the reduction in layoffs and an increase in hiring. The educational attainment of teachers has increased at a rate commensurate with their experience. In 1975, less than 40 percent of teachers held a masters degree. In 1985, the comparable figure was over 50 percent.

With an estimated 15.4 years of experience, the average teacher earned $\$ 31,315$ in 1989. During 1972, the average teacher earned $\$ 30,091$ (in 1990 dollars), but had only 10.7 years of experience. If a year of experience yields about 3.0 percent more on the salary schedule, a teacher with 15.4 years of experience in 1972 earned approximately $\$ 34,334$ (in 1990 dollars)- $\$ 3,000$ more than teachers with 15.4 years of experience in 1990. Adjustments for other years are graphed in Figure II-4. Clearly, continued teacher dissatisfaction with their salaries seems legitimate from this perspective. The 3.0 percent adjustment for a year of experience is approximate. In the school districts serving the nation's 100 largest cities in 1989, the average salary increase in moving from the BA beginning salary to the MA maximum salary (reached in an average of 14 increments on a 15 -step schedule) was $\$ 994$ or $3.0 \%$ of the average MA maximum salary of $\$ 34,271$.

Trends in Teacher Salaries Compared to the Annual Earnings of Male and Female Workers. The work force has changed substantially over the past 30 years. Since 1961, both the average worker and average teacher have gained about one year of education, but the typical teacher still has four more years of education than the average worker. The influx of female workers in the labor force mignt make comparisons to the average worker problematic. The entry of many low-paid female workers could invalidate the use of the t6acher/average worker salary ratio as an index by which to evaluate trends in teacher salaries. On the other hand, the comparison to female workers over time helps index the relative attractiveness of the female-dominated teaching occupation. Women comprise approximately 85 percent of elementary teachers and about two-thirds of all teachers. Table II-2 centains separate comparisons of the average teacher salary to full-time male and full-time female workers.

Teachers earned approximately 20 to 25 percent less than male workers in the U.S. economy during the 1960's, as shown in Table III-2 and graphed in Figure II-5. The deficit grew to 30 percent by 1979 as the salaries of teachers deteriorated over the decade. Over the past decade, however, the gap fell to just an 11 percent advantage in 1989--the best teachers have done in any period during the past 30 years. The earnings of the average full-time, year-round female worker grew faster relative to teacher salaries until 1982. During the early 1960's, teachers expected to make almost 50 percent more than the typical female worker, but by 1982 the advantage dipped to only 18 percent. By 1989, however, teachers earned 35 percent more than the average full-time female worker. Female workers as a whole failed to make much progress against male workers between 1960 and 1975, but over the next 15 years femais earnings grew from 55 percent to 65 percent of male earnings.

Average Teacher Salaries Compared to Selected White-Collar Occupations. The relationship of salaries in other white-collar occupations to each other changed little over the past 25 years, as shown in Table II-3 and illustrated in Figure II-6. For the sixth consecutive year, the average teacher salary grew faster or at the same rate as salaries in all other white-collar occupations (4th panel of Table II-3) except for lawyers in 1988. The lawyers' average salary grew at a 6.2 percent rate in 1988. The jcb categories described in the tables and figure, such as Accountant "III" or Chemist "IV", contain the accountant or chemist who had earnings in the middie of the income distribution for all accountants or chemists. The figures in Table II-3 are the average of all people in that job category, such as Accountant III or Chemist IV. Lawyers earned about double the average teacher salary, chernists and engineers about 60 percent more and auditors and accountants about 15 to 20 percent more. Salaries in other white-collar occupations deteriorated relative to teacher salaries through the mid-1970's. Other white-collar occupations gained sharply on teachers from the mid-1970's until 1982, but in just the past five years, most of this gain has been erased. In 1962, teachers earned less relative to all of the occupations listed in the tables compared to 1990.

Teacher Salaries Compared to Academic Salaries. Academic salaries have not maintained the same consistent relationship with teacher salaries that private sector white-collar occupations have kept. The salary advantage of assistant professors over teachers had declined continuously since 1963, and in 1988, the advantage slipped to one percent (third panel of Table II-3). Salaries of assistant professors reported to the AUUP in the subsequent two years, however, rebounded sharply and increased by nearly 15 percent over the past two years. Assistant professors now average a 5 percent higher salary than elementary and secondary teachers. While full professors still have an 84 percent advantage, this figure fell continuously from a 120 percent advantage in 1967 to an $81 \%$ advantage in 1984. During the 1960's, full professors enjoyed higher real earnings than did Attorney Ill's. For 1985, 1986 and 1987 academics experienced salary gains on par with teachers. In 1988 academic salaries improved at a slower rate than teacher salaries, but in

1989, they rose at a 6.2 percent rate, slightly above teacher salary growth, and they rose in 1990 by $6.0 \%$, again ahead of teacher salary increases.

Projected Wage Increases For 1990-91. An analysis of about 40 teacher salary adjustments or wage agreements covering 1,000 or more workers for 1990-91 indicates that teacher salaries will rise at least as much next year as in 1989-90. The average increase reported in multi-year contracts prior to September 1989 for 17 agreements covering 1990-91 is 6.3 percent, while the average increase in 23 settlements reported between August 1989 and April 1990 for 1990-91 is 6.4 percent. Based on the same projections methodology applied to 77 wage agreements, a 5.8 percent wage increase was predicted for 1989-90. The actual national average increase was 5.7 percent. Figure 9 at the beginning of this report graphs these data against past projections using this data source and the national average salary based on data collected from state departments of education.

Salaries of Nonteaching Personnel. The average teacher salary increase of $171.8 \%$ since $1975-7 \overline{7}$ nas been more than the increase in any category of nonteaching personnel shown in Table II-4, except central office secretaries. Superintendents (up 148 percent) and high school principals (up 143 percent) have lost ground to teachers. Though no data un age exist for occupations other than teaching, the closing of the teacher-administrator salary gap probably reflects the rapid increase in teacher experience over the decade illustrated in Figures II-3 and II-4. Beginning teacher salaries, for example, rose only 156 percent. Adjusted for inflation, school personnel paid hourly have not experienced wage growth over the past five years. In 1985-86, teacher aides made $\$ 7.40$ per hour; now they make $\$ 7.43$. Over the same period, custodian wages declined 14 cents per hour and cafeteria workers got 10 cents an hour less. Bus drivers received $\$ 9.21$ per hour in both years.

During the 1989-90 school year, superintendents' salaries grew 5.9 percent, slightly in excess of the teacher salary growth rate. Teacher aide pay improved at a $5.4 \%$ rate, but all sther hourly workers got less than 5 percent.

| TABLE II-1 |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRENDS IN TEACHER SALARIES COMPARED TO THZ AVERAGE ANNUAL EARNINGS OF ALL WÖRKERS AND OF ALL GOVERNMMENT WÓRKERAS' |  |  |  |  |  |  |  |  |
| Mean <br> Teacher Salary |  | Mean Annual Earnings (1990 Dollars) |  |  |  |  | Ratio of Teacher Salary to Salary of: |  |
|  |  | CPI | CPI Change | Teachers | All Workers | Government Workers | All Workers | Government Workers |
| 1990 | \$31,315 | 131.8 | 4.5\% | \$31,315 |  |  |  |  |
| 1989 | 29,636 | 126.1 | 4.6\%* | 30,970 | \$26,239 | \$27,624 | 1.18 | 1.12 |
| 1988 | 28,071 | 120.5 | 4.4\% | 30,697 | 26,301 | 27,505 | 1.17 | 1.12 |
| 1987 | 26,615 | 115.4 | 4.4\% | 30,391 | 26,164 | 27,397 | 1.16 | 1.11 |
| 1986 | 25,260 | 110.5 | 1.1\% | 30,123 | 26,159 | 27,708 | 1.15 | 1.09 |
| 1985 | 23,572 | 109.3 | 3.8\% | 28,419 | 25,279 | 26,696 | 1.12 | 1.06 |
| 1984 | 21,974 | 105.3 | 4.1\% | 27,499 | 25,180 | 2¢,226 | 1.09 | 1.05 |
| 1983 | 20,547 | 101.2 | 3.7\% | 26,755 | 25,135 | 25,884 | 1.06 | 1.03 |
| 1982 | 18,945 | 97.6 | 3.8\% | 25,579 | 24,933 | 25,500 | 1.03 | 1.00 |
| 1981 | 17,364 | 94.0 | 8.9\% | 24,342 | 24,117 | 24,454 | 1.01 | 1.00 |
| 1980 | 16,100 | 86.3 | 12.5\% | 24,584 | 24,075 | 24,310 | 1.02 | 1.01 |
| 1979 | 14,970 | 76.7 | 13.3\% | 25,719 | 24,607 | 25,170 | 1.05 | 1.02 |
| 1978 | 14,207 | 67.7 | 9.0\% | 27,653 | 25,804 | 26,749 | 1.07 | 1.03 |
| 1977 | 13,352 | 62.1 | 6.7\% | 28,333 | 26,238 | 27,395 | 1.08 | 1.03 |
| 1976 | 12,591 | 58.2 | 4.9\% | 28,50u | 26,280 | 27,519 | 1.08 | 1.04 |
| 1975 | 11,690 | 55.5 | 6.9\% | 27,756 | 25,699 | 27,158 | 1.08 | 1. .2 |
| 1974 | 10,778 | 51.9 | 12.3\% | 27,365 | 25,333 | 26,979 | 1.08 | 1.01 |
| 1973 | 10,176 | 46.2 | 8.7\% | 29,025 | 25,943 | 28,393 | 1.12 | 1.02 |
| 1972 | 9,705 | 42.5 | 3.4\% | 30,091 | 26,666 | 29,199 | 1.13 | 1.03 |
| 1971 | 9,269 | 41.1 | 3.3\% | 29,718 | 25,966 | 27,504 | 1.14 | 1.08 |
| 1970 | 8,635 | 39.8 | 5.6\% | 28,590 | 25,015 | 26,494 | 1.14 | 1.08 |
| 1969 | 7,952 | 37.7 | 6.2\% | 27,795 | 24,771 | 25,100 | 1.12 | 1.11 |
| 1968 | 7,423 | 35.5 | 4.7\% | 27,554 | 24,683 | 24,905 | 1.12 | 1.11 |
| 1967 | 6,830 | 33.9 | 3.0\% | 26,549 | 24,190 | 24,158 | 1.10 | 1.10 |
| 1966 | 6,485 | 32.9 | 3.5\% | 25,974 | 23,873 | 23,757 | 1.09 | 1.09 |
| 1965 | 6,195 | 31.8 | 1.9\% | 25,671 | 25,635 | 23,664 | 1.09 | 1.08 |
| 1964 | 5,995 | 31.2 | 1.0\% | 25,320 | 23,216 | 23,153 | 1.09 | 1.09 |
| 1963 | 5,732 | 30.9 | 1.6\% | 24,444 | 22,334 | 22,172 | 1.09 | 1.10 |
| 1962 | 5,515 | 30.4 | 1.3\% | 23,906 | 21,930 | 21,619 | 1.09 | 1.11 |
| 1961 | 5,275 | 30.0 | 0.7\% | 23,170 | 21,429 | 21,319 | 1.08 | 1.09 |
| 1960 | 4,995 | 29.8 | 1.4\% | 22,088 | 20,950 | 20,654 | 1.05 | 1.07 |
| 1959 | 4,797 | 29.4 | 1.7\% | 21,501 | 20,568 | 20,142 | 1.05 | 1.07 |
| 1958 | 4,571 | 28.9 | 1.8\% | 20,842 | 19,926 | 19,712 | 1.05 | 1.06 |
| 1957 | 4,239 | 28.4 | 2.9\% | 19,669 | 19,605 | 18,747 | 1.00 | 1.05 |
| 1956 | 4,055 | 27.6 |  | 19,360 | 19,338 | 18,261 | 1.00 | 1.06 |
| ${ }^{*}$ Estimated |  |  |  |  |  |  |  |  |

Figure II-1
Annual Rate of Increase in Teacher Salaries Compared to the Consumer Price Index


Figure II-2
Trends in Annual Earnings of Teachers, Government Workers, and All Workers
(Mean Annual Earnings in 1990 Dollars)


## Figure II-3

The Average Teacher Salary Compared to the Average Experience Level of Teachers


Figure II-4
Trends in Annual Earnings of Teachers, Controlling For Work Experionce
(Mean Annual Earninge in 1990 Dollars)


| TABLE II-2 |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRENDS IN TEACHER SALARIES COMPARED TO THE AYEERAGE ANNUAL MONEY INCOME OF MALE AND FEMALE INDIVIDUALS WORKING FULLL-TIME |  |  |  |  |  |  |  |  |  |  |
| Mean Teacher Salary |  | Mean Annual Money Income (1990 Doilars) |  |  | Female <br> Percent <br> Of Male <br> Earnings | Teacher Salary As Percent Of Earnings For: |  | Annual Percent Increase in Nominal Dollars |  |  |
|  |  | Teachers | Men | Women |  | Men | Women | Teacher | Men | Women |
| 1990 | 31,315 | 31,315 |  |  |  |  |  | 5.7\% |  |  |
| 1989 | 29,636 | 30,970 | 34,825 | 22,896 | 66\% | 89\% | 135\% | 5.6\% | 4.2\% | 4.1\% |
| 1988 | 28,071 | 30,697 | 34,964 | 23,010 | 66\% | 88\% | 133\% | 5.5\% | 2.5\% | 5.6\% |
| 1987 | 26,615 | 30,391 | 35,626 | 22,756 | 64\% | 85\% | 134\% | 5.4\% | 2.9\% | 2.9\% |
| 1986 | 25,260 | 30,123 | 36,158 | 23,096 | 64\% | 83\% | 130\% | 7.2\% | 3.2\% | 5.9\% |
| 1985 | 23,572 | 28,419 | 35,421 | 22,473 | 63\% | 80\% | 126\% | 7.3\% | 3.6\% | 3.6\% |
| 1984 | 21,974 | 27.499 | 35,497 | 22,508 | 63\% | 77\% | 122\% | 6.9\% | 4.1\% | 5.4\% |
| 1983 | 20,547 | 26,755 | 35,467 | 22,225 | 63\% | 75\% | 120\% | 8.5\% | 5.5\% | 6.3\% |
| 1982 | 18,945 | 25,579 | 34,843 | 21,678 | 62\% | 73\% | 118\% | 9.1\% | 4.0\% | 6.0\% |
| 1981 | 17,364 | 24,342 | 34,779 | 21,227 | 61\% | 70\% | 115\% | 7.9\% | 6.8\% | 9.2\% |
| 1980 | 16,100 | 24,584 | 35,454 | 21,179 | 60\% | 69\% | 116\% | 7.5\% | 8.3\% | 8.9\% |
| 1979 | 14,970 | 25,719 | 36,828 | 21,873 | 59\% | 70\% | 118\% | 5.4\% | 7.4\% | 11.2\% |
| 1978 | 14,207 | 27,653 | 38,837 | 22,283 | 57\% | 71\% | 124\% | 6.4\% | 9.0\% | 10.0\% |
| 1977 | 13,352 | 28,333 | 38,843 | 22,075 | 57\% | 73\% | 128\% | 6.0\% | 8.1\% | 9.1\% |
| 1976 | 12,591 | 28,508 | 38,330 | 21,589 | 56\% | 74\% | 132\% | 7.7\% | 7.8\% | 6.5\% |
| 1975 | 11,690 | 27,756 | 37,279 | 21,264 | 57\% | 74\% | 131\% | 8.5\% | 6.7\% | 8.4\% |
| 1974 | 10,778 | 27,365 | 37,359 | 20,977 | 56\% | 73\% | 130\% | 5.9\% | 7.0\% | 7.5\% |
| 1973 | 10,176 | 29,025 | 39,239 | 21,917 | 56\% | 74\% | 132\% | 4.9\% | 9.0\% | 11.2\% |
| 1972 | 9,705 | 30,091 | 39,123 | 21,428 | 55\% | 77\% | 140\% | 4.7\% | 7.0\% | 5.9\% |
| 1971 | 9,269 | 29,718 | 37,823 | 20,924 | 55\% | 79\% | 142\% | 7.3\% | 8.9\% | 6.8\% |
| 1970 | 8,635 | 28,590 | 35,870 | 20,226 | 56\% | 80\% | 141\% | 8.6\% | 5.1\% | 4.3\% |
| 1969 | 7,952 | 27,795 | 36,044 | 20,469 | 57\% | 77\% | 136\% | 7.1\% | 5.9\% | 8.3\% |
| 1968 | 7,423 | 27,554 | 36,143 | 20,063 | 56\% | 76\% | 137\% | 8.7\% | 10.9\% | 13.5\% |
| 1967 | 6,830 | 26,549 | 34,141 | 18,518 | 54\% | 78\% | 143\% | 5.3\% | 9.5\% | 7.9\% |
| 1966 | 6,485 | 25,974 | 32,135 | 17,679 | 55\% | 81\% | 147\% | 4.7\% | 1.0\% | 3.3\% |
| 1965 | 6,195 | 25,671 | 32,927 | 17,707 | 54\% | 78\% | 145\% | 3.3\% | 5.8\% | 5.2\% |
| 1964 | 5,995 | 25,320 | 31,727 | 17,148 | 54\% | 80\% | 148\% | 4.6\% | 6.5\% | 2.9\% |
| 1963 | 5,73? | 24,444 | 30,091 | 16,832 | 56\% | 81\% | 145\% | 3.9\% | 3.6\% | 4.4\% |
| 1962 | 5,515 | 23,906 | 29,524 | 16,389 | 56\% | 81\% | 146\% | 4.5\% | 3.6\% | 4.9\% |
| 1961 | 5,275 | 23,170 | 28,889 | 15,826 | 55\% | 80\% | 146\% | 5.6\% | 1.4\% | 1.7\% |
| 1960 | 4,995 | 22,088 | 28,68! | 15,671 | 55\% | 77\% | 141\% | 4.1\% | 5.7\% | 4.3\% |
| 1959 | 4,797 | 21,501 | 27,502 | 15,226 | 55\% | 78\% | 141\% | 4.9\% | 5.4\% | 2.1\% |
| 1958 | 4,571 | 20,842 | 26,556 | 15,165 | 57\% | 78\% | 137\% | 7.8\% | 5.8\% | 4.2\% |
| 1957 | 4,239 | 19,669 | 25,548 | 14,811 | 58\% | 77\% | 133\% | 4.5\% | 5.0\% | 5.5\% |
| 1956 | 4,055 | 19,360 | 25,042 | 14,447 | 58\% | 77\% | 134\% |  |  |  |
| -Estimated |  |  |  |  |  |  |  |  |  |  |

Figure II-5

## Ratio of Teachers Salary To Annual Money Income Male and Femaie Full-Time Workers


TABLE II-3
TRENDS IN TEACHER SALARIES COMPARED TO THE AVERAGE ANNUAL
SALARIES OF SELECTED WHITE-COLLAR OCCUPATIONS

|  | Mean Teacher Salary | Accountant III | Auditor III | Attorney III | Chemist IV | Engineer IV | Full Prof. Public Doctoral | Assistant Prof. <br> Public Comprehensive |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1990 | \$31,315 |  |  |  |  |  | \$57,520 | \$32,730 |
| 1989 | 29,636 | \$34,134 | \$36,007 | \$57,172 | \$47,001 | \$47,291 | 54,240 | 30,900 |
| 1988 | 28,071 | 33,028 | 34,765 | 55,407 | 45,760 | 45,680 | 51,080 | 28,380 |
| 1987 | 26,615 | 32,074 | 33,302 | 52,158 | 43,480 | 44,360 | 48,740 | 27,520 |
| 1985 | 25,260 | 31,143 | 32,121 | 50,119 | 41,548 | 42,667 | 45,600 | 26,000 |
| 1985 | 23,572 | 30,037 | 31,246 | 47,742 | 39,418 | 40,991 | 42,600 | 24,400 |
| 1984 | 21,974 | 28,721 | 30,209 | 44,743 | 37,643 | 39,005 | 39,800 | 23,000 |
| 1983 | 20,547 | 27,346 | 28,245 | 42,271 | 35,439 | 36,726 | 38,200 | 22,000 |
| 1982 | 18,945 | 25,673 | 26,502 | 39,649 | 34,047 | 34,443 | 35,700 | 20,800 |
| 1981 | 17,364 | 23,545 | 24,401 | 36,373 | 30,801 | 31,352 | 32,900 | 19,300 |
| 1980 | 16,100 | 21,299 | 22,026 | 33,034 | 27,681 | 28,486 | 30,100 | 17,800 |
| 1979 | 14,970 | 19,468 | 20,303 | 29.644 | 25,459 | 25,989 | 28,200 | 16,600 |
| 1978 | 14,207 | 18,115 | 18,756 | 27,738 | 23,532 | 23,972 | 26,400 | 15,900 |
| 1977 | 13,352 | 16,545 | 17,108 | 25,460 | 21,674 | 22,072 | 25,200 | 15,700 |
| 1976 | 12,591 | 15,428 | 16,059 | 24,205 | 20,429 | 20,749 | 24,200 | 14,600 |
| 1975 | 11,690 | 14,458 | 15,334 | 22,558 | 19,204 | 19,443 | 22,700 | 13,900 |
| 1974 | 10,778 | 13,285 | 14,341 | 21,082 | 17,283 | 17,929 | 21,600 | 13,100 |
| 1973 | 10,176 | 12,472 | 13,568 | 19,565 | 16,140 | 17,030 | 20,500 | 12,500 |
| 1972 | 9,705 | 11,879 | 12,881 | 18,392 | 15,670 | 16,159 | 19,800 | 11,800 |
| 1971 | 9,269 | 11,383 | 12,227 | 17,509 | 15,036 | 15,535 | 19,200 | 11,400 |
| 1970 | 8,635 | 10,686 | 11,475 | 16,884 | 14,018 | 14,695 | 18,100 | 10,800 |
| 1968 | 7,423 | 9,367 | 9,977 | 15,283 | 12,751 | 13,095 | 16,100 | 9,500 |
| 1966 | 6,485 | 8,328 | 8,904 | 14,052 | 11,448 | 11,784 | 14,100 | 8,300 |
| 1964 | 5,995 | 7,908 | 8,520 | 12,816 | 10,632 | 11,016 | 12,500 | 7,700 |
| 1962 | 5,515 | 7.416 | 7,932 | 11,844 | 9,936 | 10,248 | na | na |
| (1990 DOLLARS) |  |  |  |  |  |  |  |  |
| 1990 | \$31,315 |  |  |  |  |  | \$55,043 | \$31,321 |
| 1989 | 30,970 | \$35,670 | \$37,627 | \$59,745 | \$49,200. | \$49,419 | 54,240 | 30,900 |
| 1988 | 30,697 | 36,118 | 38,018 | 60,591 | 50,042 | 49,954 | 55,859 | 31,035 |
| 1987 | 30,391 | 36,625 | 38,027 | 59,559 | 49,650 | 50,654 | 55,656 | 31,425 |
| 1986 | 30,123 | 37,139 | 38,305 | 59,768 | 49,547 | 50,882 | 54,379 | 31,006 |
| 1985 | 28,419 | 36,213 | 37,671 | 57,559 | 47,523 | 49,420 | 51,360 | 29,417 |
| 1984 | 27,499 | 35,942 | 37,804 | 55,392 | 47,107 | 48,812 | 49,807 | 28,783 |
| 1983 | 26,755 | 35,608 | 36,778 | 55,042 | 46,146 | 47,822 | 49,741 | 28,647 |
| 1982 | 25,5is | 34,662 | 35,782 | 53,532 | 45,969 | 46,503 | 48,200 | 28,083 |
| 1981 | 24,342 | 33,007 | 34,207 | 50,990 | 43,179 | 43,951 | 46,121 | 27,056 |
| 1980 | 24,584 | 32,522 | 33,632 | 50,441 | 42,267 | 43,496 | 45,961 | 27,179 |
| 1979 | 25,719 | 33,447 | 34,882 | 50,930 | 43,740 | 44,650 | 48,449 | 28,520 |
| 1978 | 27,653 | 35,260 | 36,508 | 53,991 | 45,804 | 46,660 | 51,386 | 30,949 |
| 1977 | 28,333 | 35,108 | 36,303 | 54,025 | 45,992 | 46,836 | 53,474 | 33,315 |
| 1976 | 28,508 | 34,932 | 36,360 | 54,804 | 46,255 | 46,979 | 54,793 | 33,057 |
| 1975 | 27,756 | 34,328 | 36,408 | 53,560 | 45,596 | 46,164 | 53,897 | 33,003 |
| 1974 | 27,365 | 33,731 | 36,412 | 53,527 | 43,882 | 45,522 | 54,843 | 33,261 |
| 1973 | 29,025 | 35,573 | 38,699 | 55,805 | 46,036 | 48,574 | 58,471 | 35,653 |
| 1972 | 30,091 | 36,832 | 39,939 | 57,025 | 48,586 | 50,102 | 61,391 | 36,587 |
| 1971 | 29,718 | 36,496 | 39,202 | 56,137 | 48,208 | 49,808 | 61,559 | 36,551 |
| 1970 | 28,590 | 35,380 | 37,993 | 55,902 | 47,075 | 48,654 | 59,928 | 35,758 |
| 1968 | 27,554 | 34,770 | 37,034 | 56,730 | 47,331 | 48,608 | 59,763 | 35,264 |
| 1966 | 25,974 | 33,356 | 35,663 | 56,283 | 45,853 | 47,199 | 56,475 | 33,244 |
| 1964 | 25,320 | 33,400 | 35,985 | 54,129 | 44,905 | 46,527 | 52,794 | 32,521 |
| 1962 | 23,906 | 32,146 | 34,383 | 51,340 | 43,069 | 44,422 | na | na |

(TABLE II-3 Continued)
RATIO OF SALARIES IN OTHER OCCUPATIONS TO TEACHER SALARIES

|  | Teachers | $\begin{gathered} \text { Account- } \\ \text { ant } \\ \text { III } \\ \hline \end{gathered}$ | Acritor III | Attorriey | Chemist IV | $\begin{aligned} & \text { Engineer } \\ & \text { IV } \end{aligned}$ | Full Prof. Public Doctoral | Assistant Prof. Public Comprehensive |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1990 | 1.00 |  |  |  |  |  | 1.84 | 1.05 |
| 1989 | 1.00 | 1.15 | 1.21 | 1.93 | 1.59 | 1.60 | 1.83 | 1.04 |
| 1988 | 1.00 | 1.18 | 1.24 | 1.97 | 1.63 | 1.63 | 1.82 | 1.01 |
| 1987 | 1.00 | 1.21 | 1.25 | 1.96 | 1.63 | 1.67 | 1.83 | 1.03 |
| 1986 | 1.00 | 1.23 | 1.27 | 1.98 | 1.64 | 1.69 | 1.81 | 1.03 |
| 1985 | 1.00 | 1.27 | 1.33 | 2.03 | 1.67 | 1.74 | 1.81 | 1.04 |
| 1984 | 1.00 | 1.31 | 1.37 | 2.04 | 1.71 | 1.78 | 1.81 | 1.05 |
| 1983 | 1.00 | 1.33 | 1.37 | 2.06 | 1.72 | 1.79 | 1.86 | 1.07 |
| 1982 | 1.00 | 1.36 | 1.40 | 2.09 | 1.80 | 1.82 | 1.88 | 1.10 |
| 1981 | 1.00 | 1.36 | 1.41 | 2.09 | 1.77 | 1.81 | 1.89 | 1.11 |
| 1980 | 1.00 | 1.32 | 1.37 | 2.05 | 1.72 | 1.77 | 1.87 | 1.11 |
| 1979 | 1.00 | 1.30 | 1.36 | 1.98 | 1.70 | 1.74 | 1.88 | 1.11 |
| 1978 | 1.00 | 1.28 | 1.32 | 1.95 | 1.66 | 1.69 | 1.86 | 1.12 |
| 1977 | 1.00 | 1.24 | 1.28 | 1.91 | 1.62 | 1.65 | 1.89 | 1.18 |
| 1976 | 1.00 | 1.23 | 1.28 | 1.92 | 1.62 | 1.65 | 1.92 | 1.16 |
| 1975 | 1.00 | 1.24 | 1.31 | 1.93 | 1.64 | 1.66 | 1.94 | 1.19 |
| 1974 | 1.00 | 1.23 | 1.33 | 1.96 | 1.60 | 1.66 | 2.00 | 1.22 |
| 1973 | 1.00 | 1.23 | 1.33 | 1.92 | 1.59 | 1.67 | 2.01 | 1.23 |
| 1972 | 1.00 | 1.22 | 1.33 | 1.90 | 1.61 | 1.67 | 2.04 | 1.22 |
| 1971 | 1.00 | 1.23 | 1.32 | 1.89 | 1.62 | 1.68 | 2.07 | 1.23 |
| 1970 | 1.00 | 1.24 | 1.33 | 1.96 | 1.65 | 1.70 | 2.10 | 1.25 |
| 1968 | 1.00 | 1.26 | 1.34 | 2.06 | 1.72 | 1.76 | 2.17 | 1.28 |
| 1966 | 1.00 | 1.93 | 1.37 | 2.17 | 1.77 | 1.82 | 2.17 | 1.28 |
| 1964 | 1.00 | 1.32 | 1.42 | 2.14 | 1.77 | 1.84 | 2.09 | 1.28 |
| 1962 | 1.00 | 1.34 | 1.44 | 2.15 | 1.80 | 1.86 | na | na |
| ANNUAL PERCENT INCREASE |  |  |  |  |  |  |  |  |
| 1990 | 5.7\% |  |  |  |  |  | 6.0\% | 5.9\% |
| 1989 | 5.6\% | 3.3\% | 3.6\% | 3.2\% | 2.9\% | 3.5\% | 5.2\% | 8.9\% |
| 1988 | 5.5\% | 3.0\% | 4.4\% | 6.2\% | 5.2\% | 3.0\% | 4.8\% | 3.1\% |
| 1987 | 5.4\% | 3.0\% | 3.7\% | 4.1\% | 4.7\% | 4.0\% | 6.9\% | 5.8\% |
| 1986 | 7.2\% | 3.7\% | 2.8\% | 5.0\% | 5.4\% | 4.1\% | 7.0\% | 6.6\% |
| 1985 | 7.3\% | 4.6\% | 3.4\% | 6.7\% | 4.7\% | 5.1\% | 7.0\% | 6.1\% |
| 1984 | 6.9\% | 5.0\% | 7.0\% | 5.8\% | 6.2\% | 6.2\% | 4.2\% | 4.5\% |
| 1983 | 8.5\% | 6.5\% | 6.6\% | 6.6\% | 4.1\% | 6.6\% | 7.0\% | 5.8\% |
| 1982 | 9.1\% | 9.0\% | 8.6\% | 9.0\% | 10.5\% | 9.9\% | 8.5\% | 7.8\% |
| 1981 | 7.9\% | 10.5\% | 10.8\% | 10.1\% | 11.3\% | 10.1\% | 9.3\% | 8.4\% |
| 1980 | 7.5\% | 9.4\% | 8.5\% | 11.4\% | 8.7\% | 9.6\% | 6.7\% | 7.2\% |
| 1979 | 5.4\% | 7.5\% | 8.2\% | 6.9\% | 8.2\% | 8.4\% | 6.8\% | 4.4\% |
| 1978 | 6.4\% | 9.5\% | 9.6\% | 8.9\% | 8.6\% | 8.6\% | 4.8\% | 1.3\% |
| 1977 | 6.0\% | 7.2\% | 6.5\% | 5.2\% | 6.1\% | 6.4\% | 4.1\% | 7.5\% |
| 1976 | 7.7\% | 6.7\% | 4.7\% | 7.3\% | 6.4\% | 6.7\% | 6.6\% | 5.0\% |
| 1975 | 8.5\% | 8.8\% | 6.9\% | 7.0\% | 11.1\% | 8.4\% | 5.1\% | 6.1\% |
| 1974 | 5.9\% | 6.5\% | 5.7\% | 7.8\% | 7.1\% | 5.3\% | 5.4\% | 4.8\% |
| 1973 | 4.9\% | 5.0\% | 5.3\% | 6.4\% | 3.0\% | 5.4\% | 3.5\% | 5.9\% |
| 1972 | 4.7\% | 4.4\% | 5.3\% | 5.0\% | 4.2\% | 4.0\% | 3.1\% | 3.5\% |
| 1971 | 7.3\% | 6.5\% | 6.6\% | 3.7\% | 5.8\% | 5.7\% | 6.1\% | 5.6\% |
| 1970 | 8.6\% | 6.6\% | 7.0\% | 6.3\% | 6.4\% | 5.8\% | 5 8\% | 6.9\% |
| 1968 | 8.7\% | 5.5\% | 5.6\% | 6.0\% | 5.9\% | 5.4\% | 7.3\% | 10.5\% |
| 1966 | 4.7\% | 2.5\% | 1.8\% | 3.0\% | 4.3\% | 3.6\% | 6.8\% | 5.1\% |
| 1964 | 4.6\% | 3.1\% | 3.3\% | 4.2\% | 3.7\% | 2.7\% | 5.9\% | 2.7\% |
| 1962 | 4.5\% | 3.0\% | 2.6\% | 2.1\% | 0.8\% | 4.5\% | na | na |

[^3]Figure II-6
Trends in the Average Salary in Teaching and in Selected White-Collar Occupations (1990 Dollars:



Figure II-7

## Annual Rate of Increase in Teacher Salaries and Earnings for Selected Nonteaching Positions



## III. Beginning Teacher Salaries, the Hiring of Beginning and Reentering Teachers and Teacher Retirement

Great attention has been focused on beginning teacher salaries during the 1980's. The average beginning teacher salary reported in this survey is $\$ 20,476$ for 1989-90, up 5.8 percent from the previous year. The Educational Research Service, in its annual survey of school districts across the nation, reports a $\$ 20,635$ figure for the average of the "lowest paid teacher," up 5.4 percent from the previous year. A wage survey by the Department of Defense of the 170 school districts serving cities with populations of more than 100,000 yielded an average beginning teacher salary of $\$ 21,395$, up 5.6 percent from the previous year.

Beginning Teacher Salary by State. Nineteen states have average beginning salaries greater than 20,000. Alaska, New York, Connecticut, Hawaii, California, Washington, D.C., New Jersey, and Maryland have actual 'starting salaries in excess of $\$ 22,000$ while only North Dakota, South Dakota, and West Virginia report average starting salaries below $\$ 16,000$. As shown in Table III-1, beginning teachers in Alaska, New York, Virginia, and Vermont experienced at least 8 percent salary jumps over beginning teachers in 1988-89. The actual average beginning salary stands at 74.4 percent of the U.S. average. This ratio varied from a low of 54 percent in Rhode Island to 77 percent in Mississippi. Southern states typically have higher starting salaries relative to the average salary.

Trends in Beginning Teacher Salaries Relative to Expected Salaries of College Graduates in the Private Sector. Beginning offers in business for new college graduates in other white-collar occupations remain high compared to beginning teachers, ranging from 48 percent more for engineers to 21 percent more for liberal arts graduates in spring 1990. The earnings advantage of these white-collar occupations however, is at about the same level as in 1978. Combining the past two years, however, every occupation except engineering and computer science showed greater salary growth than beginning teachers. During 1989, accountants, sales/marketing, business administration, chemistry, economics/tinance and liberal arts graduates had higher beginning salary growth than teachers. If beginning teacher salaries grow at an estimated rate of $5.5 \%$, four occupations will make gains on teachers for 1990: sales and marketing majors (up 6.8 percent) and liberal arts graduates (up 7.8 percent), business administration (up 8.7 percent), and math or statistics (up 9.0 percent). Table III-3 contains these data, and Figure III-1 graphs the relationship between starting salaries.

Starting salaries in other white-collar occupations show less stability among each other over time than do the average salaries. Private employers tend to make labor matkot adjustiments through the niring of, and salaries given to, beginning employees. As in the average salary comparison, beginning salaries in other occupations gained on teacher salaries from the mid-1970's until about 1982 (except for accounting, which has shown a slow but continuous decline relative to beginning teacher salaries through 1985). Beginning teachers finally reached their highest-ever salary in exceeding 1972 levels by $\$ 170$ (in 1990 dollars). During 1990, sales/marketing, liberal arts, and economics/finance join computer science and math/statistics in regaining previous purchasing power experienced in the 1970's.

New Hires Entering Teaching for the First Time. For 39 states reporting data for 1988-89, beginning teachers comprised as much as 3.5 percent of classroom teachers, as shown in Table III-3. Arkansas, Florida, Georgia, Hawaii, and Utah reported that more than 5 percent of their teachers wore beginning teachers in 1988-89. For 31 states reporting data for 1989-90, beginning teachers comprised only 3.2 percent of classroom teachers. Utah again reported new teacher hiring rates exceeding 5 percent. Idaho, Kansas, Louisiana, and Washington reported increases exceeding 5 percent. Among the 33 states reporting data for both years, 14 states indicated that they hired fewer new teachers, and 18 reported hiring more new teachers. Conclusions based on these data should be strictly speculative, given that many states do not collect these data, the inconsistencies in definitions among states, and the utilization of an unweighted average.

Reentering Teachers. The definition of "reentering teacher" varies from state to state, but the figure ideally represents experienced teachers who did not teach in a public school or an out-of-state school the prior year. Reentering teachers could include reappointments after layoffs, maternity reinstatements and illness reinstatements. The data frequently include out-of-state experienced teachers and teachers from private school backgrounds, even if there is no break in service. Specific exceptions to these generalizations noted by State Departments of Education are footnoted in Table III-4.

Based on data from 26 states in 1988-89 and 21 states in 1989-90 listed in hle III-4, the number of experienced teachers reentering the classroom fell below the number of beginning teachers in both 1988-89 and 1989-90. Returning experienced teachers comprised as much as 3.3 peicent (unweighted average) of classroom teachers in 1988-89 and 2.9 percent in 1989-90. Beginning teachers comprised 3.5 percent and 3.2 percent of teachers during the same two-year period. Again, conclusions based on this data should be considered very speculative.

Teacher Retirement. Approximately 32 states reported retirement iigures for either 1987-88 or 1988-89, as shown in Table III-5. The average retirement rate (unweighted) was 2.2 percent and 2.3 pe:cent for the two years, ranging from a low of
1.0 percent in South Dakota and Massachusetts to 3.9 percent in Louisiana. The number of retirements grew by more than 20 percent in a single year in Kentucky, Minnesota, South Dakota, Washington, and West Virginia. Fewer than half of the states reported a decline in the number of retirements.

Interstate comparisons should be considered strictly speculative, because most state retirement systems cannot distinguish between retirees who hai been classroom teachers the previous year and all other new retirees. Ctrer entrants could include former teachers newly eligible to draw retirement benefits and nonteaching professional personnel including administrators. Some teacher` are eligibie to draw retirement benefits in two or more states.
TABLE III-1

| Beginning To |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | State | $\begin{gathered} \text { Beginning } \\ \text { Salary } \\ 1989-90 \\ \hline \end{gathered}$ |  | Average Salary 1989-90 |  | Average Salary Ratio | $\begin{gathered} \text { Beginning } \\ \text { Salary } \\ 1988-89 \\ \hline \end{gathered}$ |  | Increa <br> Beginning Salary | e in: Average Salary |
| 1 | Alaska | \$29,763 |  | \$43,097 |  | 69.1\% | \$27,310 |  | 9.0\% | 3.2\% |
| 2 | New York | 25,000 | c | 38,925 | c | 64.2\% | 23,000 |  | 8.7\% | 6.2\% |
| 3 | Connecticut | 23,783 |  | 40,768 |  | 58.3\% | 22,276 |  | 6.8\% | 8.3\% |
| 4 | Hawail | 23,381 |  | 32,252 |  | 72.5\% | 21,561 |  | 8.4\% | 8.1\% |
| 5 | D.C. | 22,983 |  | 39,850 | b | 57.7\% | 21,479 |  | 7.0\% | 7.0\% |
| 6 | California | 22,780 | b | 37,625 | b | 60.5\% | 21,491 |  | 6.0\% | 6.0\% |
| 7 | New Jersey | 22,500 |  | 35,676 |  | 63.1\% | 21,500 |  | 4.7\% | 8.0\% |
| 8 | Maryland | 22,172 |  | 36,481 | a | 60.8\% | 20,756 |  | 6.8\% | 6.8\% |
| 9 | Florida | 21.586 | b | 28,787 |  | 75.0\% | 20,314 |  | 6.2\% | 6.7\% |
| 10 | Michigan | 21,575 | b | 36,427 |  | 59.2\% | 20,150 | b | 7.1\% | 6.7\% |
| 11 | Pennsylvania | 21,350 | b | 33,435 |  | 63.9\% | 19,750 | b | 8.1\% | 7.0\% |
| 12 | Virginia | 21,217 |  | 30,926 |  | 68.6\% | 19,500 |  | 8.8\% | 6.7\% |
| 13 | Minnesota | 21,157 |  | 32,190 | a | 65.7\% | 20,152 |  | 5.0\% | 5.0\% |
| 14 | Arizona | 21,100 | b | 29,402 |  | 71.8\% | 20,300 | b | 3.9\% | 3.2\% |
| 15 | Massachusetts | 20,295 |  | 34,175 |  | 59.4\% | 19,783 |  | 2.6\% | 6.1\% |
| 16 | Delaware | 20,1?3 |  | 33,377 |  | 60.3\% | 19,008 |  | 5.9\% | 5.7\% |
| 17 | Texas | 2u,000 | b | 27,400 | b | 73.0\% | 19,100 | b | 4.7\% | 3.3\% |
| 18 | Nevada | 20,000 | b | 30,587 |  | 65.4\% | 18,800 | b | 6.4\% | 6.1\% |
| 19 | Wisconsin | 20,000 |  | 32,600 | b | 61.3\% | 19,235 |  | 4.0\% | 5.0\% |
| 20 | Missouri | 19,851 |  | 27,229 |  | 72.9\% | 18,541 |  | 7.1\% | 4.7\% |
| 21 | Indiana | 19,847 | a | 30,978 | a | 64.1\% | 18,437 |  | 7.6\% | 5.6\% |
| 22 | Tennessee | 19,800 | b | 27,052 |  | 73.2\% | 18,600 | b | 6.5\% | 5.6\% |
| 23 | Illinois | 19,667 |  | 32,917 | ae | 59.7\% | 18,621 |  | 5.6\% | 5.7\% |
| 24 | Rhoule Island | 19,635 |  | 36,057 | H | 54.5\% | 18,417 |  | 6.6\% | 5.3\% |
| 25 | Oregon | 19,418 | g | 30,842 | g | 63.0\% | 18,915 |  | 2.7\% | 5.0\% |
| 26 | Alabama | 19,364 |  | 25,500 |  | 75.9\% | 18,930 |  | 2.3\% | 1.2\% |
| 27 | Kansas | 19,348 | bf | 27,220 | bf | 71.1\% | 18,362 |  | 5.4\% | 5.0\% |
| 28 | Colorado | 19,234 |  | 30,758 |  | 62.5\% | 18,650 |  | 3.1\% | 4.1\% |
| 29 | Wyoming | 19,200 | b | 28,991 |  | 66.2\% | 19,000 |  | 1.1\% | 2.1\% |
| 30 | lowa | 19,145 |  | 26,747 |  | 71.6\% | 18,999 |  | 0.8\% | 3.8\% |
| 31 | North Carolina | 19,140 |  | 27,814 |  | 68.8\% | 18,330 |  | 4.4\% | 8.5\% |
| 32 | New Hampshire | 19,126 |  | 28,986 |  | 66.0\% | 17,416 |  | 9.8\% | 8.5\% |
| 33 | South Carolina | 19,039 |  | 26,638 |  | 71.5\% | 18,025 |  | 5.6\% | 5.8\% |
| 34 | Washington | 18,965 | a | 30,475 | a | 62.2\% | 18,148 |  | 4.5\% | 4.4\% |
| 35 | Georgia | 18,892 | b | 28,013 |  | 67.4\% | 17,823 |  | 6.0\% | 4.1\% |
| 36 | New Mexico | 18,795 |  | 25,302 |  | 74.3\% | 18,027 |  | 4.3\% | 5.0\% |
| 37 | Mississippi | 18,750 | b | 24,365 |  | 77.0\% | 17,500 | b | 7.1\% | 7.9\% |
| 38 | Vermont | 17,970 |  | 28,849 | a | 62.3\% | 16,576 |  | 8.4\% | 6.4\% |
| 39 | Montana | 17,750 | b | 25,081 |  | 70.8\% | 17,200 | b | 3.2\% | 2.7\% |
| 40 | Ohio | 17,721 |  | 30,567 |  | 58.0\% | 17,041 |  | 4.0\% | 4.8\% |
| 41 | Nebraska | 17,690 |  | 25,522 |  | 69.3\% | 16,519 |  | 7.1\% | 7.1\% |
| 42 | Kentucky | 17,530 |  | 26,275 |  | 66.7\% | 16,672 |  | 5.1\% | 5.4\% |
| 43 | Oklahoma | 16,900 | b | 23,944 |  | 70.6\% | 16,500 | b | 2.4\% | 1.8\% |
| 44 | Arkansas | 16,673 | a | 22,471 | a | 74.2\% | 16,444 |  | 1.4\% | 2.4\% |
| 45 | Maine | 16,599 |  | 26,881 | - | 61.7\% | 15,814 |  | 5.0\% | 7.8\% |
| 46 | Louisiana | 16,544 |  | 24,300 |  | 68.1\% | 15,648 |  | 5.7\% | 8.1\% |
| 47 | Idaho | 16,214 |  | 23,861 |  | 68.0\% | 15,252 |  | 6.3\% | 5.0\% |
| 48 | Utah | 16,040 |  | 23,652 | a | 67.8\% | 15,409 |  | 4.1\% | 3.5\% |
| 49 | North Dakota | 15,882 |  | 23,016 |  | 69.0\% | 15,318 |  | 3.7\% | 3.4\% |
| 150 | South Lakota | 15,820 |  | 21,300 |  | 74.3\% | 15,354 |  | 3.0\% | 3.8\% |
| 51 | West virginia | 15,778 |  | 22,842 |  | 69.1\% | 15,055 |  | 4.8\% | 4.3\% |
|  | U.S. Average | \$20,476 |  | \$31,315 |  | 65.4\% | \$19,350 |  | 5.8\% | 5.7\% |
|  | Guam | 19,217 |  | 25,842 |  | 74.4\% | 19,217 |  | 0.0\% | 0.0\% |
|  | Virgin Islands | 19,081 |  | 28,000 |  | 68.1\% | 18,000 |  | 6.0\% | 5.4\% |


health insurance; emincludes extra duty and extracurricular pay; $l=e s t ı m a t e d$
to exclude fringes; $g$-includes $6 \%$ pension pick-up; habased on total gross salary.

| TABLE III-2 |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| BEGINNING TEACHER SALARIES AND EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED |  |  |  |  |  |  |  |  |  |  |  |
|  | 1972 | 1974 | 1976 | 1978 | 1980 | 1982 | 1398, | 1986 | 1988 | 1989 | 1990 |
| Teaching | \$6,970 | \$8,058 | \$9,085 | \$10,062 | \$11,676 | \$13,539 | \$15,482 | \$17.667 | \$19,571 | \$20,635 | \$21,770 |
| Engineering | 10,608 | 11,556 | 13,980 | 16,680 | 20,136 | 25,128 | 26,844 | 28,512 | 29,820 | 30,600 | 32,304 |
| Accounting | 10,356 | 11,040 | 12,396 | 13,464 | 15,720 | 18,876 | 20,172 | 21,216 | 24,324 | 26,568 | 27,408 |
| Sales/Marketing | 8,904 | 9,864 | 11,316 | 12,636 | 15,936 | 18,072 | 19,620 | 20,688 | 22,848 | 25,572 | 27,828 |
| Business Admin. | 8,568 | 9,000 | 10,224 | 12,048 | 14,100 | 17,940 | 19,416 | 21,324 | 22,920 | 24,372 | 26,496 |
| Liberal Aits | 8,328 | 8,892 | 10,020 | 11,400 | 13,296 | 16,956 | 19,344 | 21,060 | 22,596 | 24,348 | 26,244 |
| Chemistry | 9,840 | 10,200 | 11,928 | 14,700 | 17,124 | 21,552 | 24,192 | 24,264 | 25,692 | 28,488 | 29,088 |
| Math or Statistics | 9,276 | 10,680 | 12,384 | 13,632 | 17,604 | 20,892 | 22,416 | 23,976 | 26,112 | 26,340 | 28,944 |
| Economics/Finance | 9,240 | 10,176 | 10,644 | 12,072 | 14,472 | 18,564 | 20,48s | 22,284 | 23,136 | 25,332 | 26,712 |
| Computer Science |  | 9,672 |  | 14,160 | 17,712 | 22,068 | 24,864 | 26,172 | 27,372 | 27,756 | 29,100 |
| Others | 9,264 | 10,344 | 11,820 | 13,848 | 17,544 | 20,460 | 23,136 | 26,724 | 26,316 | 25,272 | 28,728 |
| (1990 Dollars) |  |  |  |  |  |  |  |  |  |  |  |
|  | 1972 | 1974 | 1976 | 1978 | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1990 |
| Teaching | 21,611 | 20,459 | 17,554 | 19,585 | 17,828 | 18,280 | 19,374 | 21,068 | 21,402 | 21,529 | 21,770 |
| Engineering | 32,891 | 29,341 | 27,012 | 32,467 | 30,746 | 33,927 | 33,593 | 34,001 | 32,610 | 31,926 | 32,304 |
| Accounting | 32,110 | 28,031 | 23,951 | 26,207 | 24,003 | 25,485 | 25,244 | 25,301 | 26,600 | 27,720 | 27,408 |
| Sales/Marketing | 27,608 | 25,045 | 21,865 | 24,595 | 24,333 | 24,400 | 24,553 | 24,671 | 24,986 | 26,680 | 27,828 |
| Business Admin. | 26,566 | 22,851 | 19,755 | 23,451 | 21,530 | 24,222 | 24,298 | 25,429 | 25,064 | 25,428 | 26,496 |
| Liberal Arts | 25,822 | 22,577 | 19,360 | 22,190 | 20,302 | 22,893 | 24,207 | 25,115 | 24,710 | 25,403 | 26,244 |
| Chemistry | 30,510 | 25,898 | 23,047 | 28,613 | 26,147 | 29,098 | 30,274 | 28,936 | 28,096 | 29,723 | 29,088 |
| Math or Statistics | 28,761 | 27,117 | 23,92¢ | 26,534 | 26,880 | 28,207 | 28,052 | 28.592 | 28,555 | 27,482 | 28,944 |
| Economics/Finance | 28,649 | 25,837 | 20,566 | 23,498 | 22,098 | 25,064 | 25,634 | 26,574 | 25,301 | 26,430 | 26,712 |
| Computer Science | 0 | 24,557 | 0 | 27,562 | 27,045 | 29,795 | 31,115 | 31,211 | 29,533 | 28,959 | 29,100 |
| Others | 28,724 | 26,263 | 22,838 | 26,954 | 26,789 | 27,624 | 28,953 | 31,869 | 28,778 | 26,367 | 28,728 |


| (Table III-2 Continued) |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| RATIO OF EXPECTED SALARIES OF COLLEGE GRADUATES TO BE HIRED TO BEGINNING TEACHERS SALARIES |  |  |  |  |  |  |  |  |  |  |  |
|  | 1972 | 1974 | 1976 | 1978 | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1990 |
| Teaching | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 | 1.00 |
| Engineering | 1.52 | 1.43 | 1.54 | 1.66 | 1.72 | 1.86 | 1.73 | 1.61 | 1.52 | 1.48 | 1.48 |
| Accounting | 1.49 | 1.37 | 1.36 | 1.34 | 1.35 | 1.39 | 1.30 | 1.20 | 1.24 | 1.48 | 1.48 1.26 |
| Sales/Marketing | 1.28 | 1.22 | 1.25 | 1.26 | 1.36 | 1.33 | 1.27 | 1.17 | 1.17 | 1.24 | 1.28 |
| Business Admin. | 1.23 | 1.12 | 1.13 | 1.20 | 1.21 | 1.33 | 1.25 | 1.21 | 1.17 | 1.18 | 1.22 |
| Liberal Arts | 1.19 1.41 | 1.10 | 1.10 1.31 | 1.13 | 1.14 | 1.25 | 1.25 | 1.19 | 1.15 | 1.18 | 1.21 |
| Math or Statistics | 1.41 1.33 | 1.27 1.33 | 1.31 1.36 | 1.46 | 1.47 1.51 | 1.59 | 1.56 | 1.37 | 1.31 | 1.38 | 1.34 |
| Economics/Finance | 1.33 | 1.26 | 1.17 | 1.35 1.20 | 1.51 1.24 | 1.54 | 1.45 | 1.36 | 1.33 | 1.28 | 1.33 |
| Computer Science |  | 1.20 |  | 1.20 | 1.24 <br> 1.52 <br> 1 | 1.37 1.63 | 1.32 1.61 | 1.26 | 1.18 | 1.23 | 1.23 |
| Others | 1.33 | 1.28 | 1.30 | 1.38 | 1.50 | 1.63 1.51 | 1.61 1.49 | 1.48 1.51 | 1.40 1.34 | 1.35 1.22 | 1.34 1.32 |
| ANNUAL PERCENT INCREASE IN BEGINNING TEACHER SALARI AND EXPECTED SALARIES OF COLLEGE GRADUATES |  |  |  |  |  |  |  |  |  |  |  |
|  |  | 1974 | 1976 | 1978 | 1980 | 1982 | 1984 | 1986 | 1988 | 1989 | 1990 |
| Teaching |  | 7.0\% | 5.5\% | 5.7\% | 9.6\% | 7.5\% | 8.4\% | 5.8\% | 4.9\% | 5.4\% | 5.5\% |
| Engineering |  | 6.49 | 9.7\% | 11.9\% | 10.1\% | 12.3\% | 4.0\% | 6.1\% | 3.1\% | 2.6\% | 5.6\% |
| Accounting |  | 2.0\% | 4.3\% | 5.2\% | 6.6\% | 11.2\% | 3.6\% | 2.9\% | 8.0\% | 9.2\% | 3.2\% |
| Sales/Marketing Business Admin. |  | 2.2\% 3.9\% | 9.4\% | 7.7\% | 21.7\% | 4.9\% | 5.2\% | 0.3\% | 12.9\% | 11.9\% | 8.8\% |
| Liberal Arts |  | 3.9\% 2.3\% | 4.7\% $7.6 \%$ | $13.2 \%$ $9.7 \%$ | 4.7\% | 10.7\% | 4.6\% | 7.2\% | 4.3\% | 6.3\% | 8.7\% |
| Chemistry |  | 0.8\% | 7.6\% | 10.6\% | 4.3\% 8.3\% | 10.3\% | 5.9\% | 11.9\% | 10.2\% | 7.8\% | 7.8\% |
| Math or Statistics |  | 11.8\% | 4.0\% | 8.7\% | +8.3\% | 10.3\% | 8.3\% | 0.2\% | -5.0\% | 10.9\% | 2.1\% |
| Economics/Finance |  | 7.3\% | -3.1\% | 6.7\% | 10.7\% | 12.0\% | $3.3 \%$ $3.8 \%$ | 5.6\% $6.3 \%$ | 2.2\% | 0.9\% | 9.9\% |
| Computer Science |  |  |  |  | 14.8\% | 8.4\% | 3.8\% | 6.3\% 8.3\% | 5.2\% | 9.5\% $1.4 \%$ | 5.4\% |
| Others |  | 6.7\% | 13.0\% | 11.8\% | 20.5\% | 2.2\% | 9.4\% | 21.6\% | 19.9\% | -4.0\% | 13.7\% |

Figure III-1
Trends in Beginning Salaries for College Graduates in Selected Occupations (1990 Dollars)


| TABLE III-3 |
| :--- |
| NEW HIRES ENTERING TEACHING FOR THE FIRST TIME |
| FOR STATES REPORTING DATA |

TABLE III-4
EXPERIENCED TEACHERE PEENTEANG TEACHING HON STATES PEPORTING DATA

| State | Reontering Teachers |  |  |  | Percent Increase | Percent of Classroom Teachers |  | Percent of New Hires* |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1988-89 |  | 1989-90 |  |  | 1988-89 | 1989-90 | 1988-89 | 1989-90 |
| Alabama | 280 | b | 267 | b | -4.6\% | 0.7\% | 0.796 | 13.9\% | 12.6\% |
| Arkansas | 1,085 | c | 547 | c | -49.6\% | 4.0\% | 2.0\% |  |  |
| Connecticut | 1,344 | d | 1,168 | d | -13.1\% | 3.5\% | 3.0\% | 94.0\% | 100.0\% |
| Delaware | 69 |  |  |  |  | 1.2\% |  |  |  |
| D.C. | 232 |  | 165 |  | -28.9\% | 3.6\% | 2.7\% | 3.9\% | 100.0\% |
| Florida | 3,485 |  |  |  |  | 3.5\% |  | 51.9\% |  |
| Georgia | 3,183 | d |  |  |  | 4.2\% |  | 62.5\% |  |
| Hawall | 60 |  | 39 | - | -35.0\% | 0.7\% | 0.4\% | 10.5\% | 5.2\% |
| Illinois | 4,714 | 1 | 3,999 | 1 | -15.2\% | 4.5\% | 3.8\% | 83.5\% | 82.2\% |
| Indiana | 1,188 |  | 1,034 | a | -13.0\% | 2.2\% | 1.9\% | 62.4\% | 100.0\% |
| Kansas | 530 |  | 433 |  | -18.3\% | 1.9\% | 1.5\% | 26.6\% | 25.0\% |
| Kentucky | 1,927 |  | 1,863 |  | -3.3\% | 5.4\% | 5.2\% | 42.9\% | 42.7\% |
| Maryland | 563 |  | 600 |  | 6.6\% | 1.4\% | 1.4\% | 100.0\% | 100.0\% |
| Minnesota | 794 | g | 794 | 9 | 0.0\% | 1.9\% | 1.8\% | 100.0\% | 100.0\% |
| Missouri | 1,609 |  | 1,600 |  | -0.6\% | 3.2\% | 3.1\% | 100.0\% | 100.0\% |
| New Jersey | 3,122 |  | 2,786 |  | -10.8\% | 3.9\% | 3.5\% | 84.5\% | 77.4\% |
| Now Mexico | 306 | d | 398 | d | 30.1\% | 1.9\% | 2.5\% | 5.1\% | 7.4\% |
| New York | 13,527 | h | 13,748 | h | 1.6\% | 7.8\% | 7.8\% | 90.5\% |  |
| North Carolina | 4,176 | 1 |  |  |  | 6.8\% |  | 95.6\% |  |
| North Dakota | 564 | 1 | 546 | 1 | -3.2\% | 7.3\% | 7.036 | 19.5\% | 18.6\% |
| Onio | 3,374 | J | 2,615 | J | -22.5\% | 3.3\% | 2.6\% |  | 100.0\% |
| South Carolina | 2,600 | ak | 2,400 | ak | -7.7\% | 7.2\% | 6.7\% |  |  |
| South Dakota | 171 |  | 179 |  | 4.7\% | 2.1\% | 2.2\% | 10.0\% | 100.0\% |
| Tennersee | 1,592 |  |  |  |  | 3.7\% |  | 13.7\% |  |
| Wastington | 706 |  | 1,184 | m | 67.7\% | 1.8\% | 2.9\% | 47.0\% | 48.9\% |
| West Virginia | 195 |  | 306 |  | 56.6\% | 0.9\% | 1.4\% | 18.1\% | 23.4\% |
| Wisconsin | 333 |  | 328 |  | -1.5\% | 0.7\% | 0.7\% |  |  |
| Unwaighted Ave | 1,916 |  | ERR |  | -2.79 | 3.3\% | 2.9\% | 51.6\% | 63.5\% |
| Guam | 129 |  | 153 |  | 18.6\% | 8.5\% | 9.2\% |  |  |

amestimate or preliminary.
$b=$ All now teachers minus first year teachers with a B.S. degree.
$\mathrm{c}=$ Did not teach last year, but has taught in public schools.
$d=$ Returning with in-state public school experience.
$\theta=$ Count through Septe,ber 1989.
i= includes out-of-state and private school transiers.
$g=$ Does not include transfers from other states.
$h=$ May include out-ot-state and private school transfers.
i=Does not include transfers from other states or private schools.
$j=$ Now to district and not employed the previous year.
$k=$ Newly hired teachers over age 26 or with any kind of previous teaching experience.
$\mathrm{m}=$ Reporting method change in 1989-90 (no details given).

| Table III-5 |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TEACHER RETIREMENT RATE FOR STATES REPORTING DATA |  |  |  |  |  |
| State | Retiring Teachers |  | Percent Increase | Percent of Classroom Teachers* |  |
|  | 1987-88 | 1988-89 |  | 1987-88 | 1988-89 |
| Alabama | 1.030 b |  |  | 2.6\% |  |
| Arkansas | 1.003 c | 584 | -41.8\% | 3.7\% | 2.1\% |
| Connecticut | 687 | 711 | 3.5\% | 1.8\% | 1.8\% |
| Delaware D.C. | 151 132 |  |  | 2.6\% |  |
| F.Corida | 132 1,274 | 70 1,318 | -47.0\% | 2.1\% 1.3\% | 1.2\% $1.3 \%$ |
| Georgla | 1,908 | 2,261 | 18.5\% | 3.2\% | 3.6\% |
| Hawail | 482 | 570 | 18.3\% | 5.3\% | 5.7\% |
| Idaho | 194 | 226 | 16.5\% | 1.9\% | 2.1\% |
| Illinois | 1,373 | 1,299 | -5.4\% | 1.3\% | 1.2\% |
| Kansas | 414 | 388 | $-6.3 \%$ | 1.5\% | 1.4\% |
| Kentucky | 661 | 976 | 47.7\% | 1.8\% | 2.7\% |
| Louisiana | 1,700 a | 1,800 a | 5.9\% | 3.9\% | 4.1\% |
| Maine ${ }_{\text {Maryland }}$ | 190 494 | 200 a | 5.3\% | 1.3\% | 1.3\% |
| Massachusetts | 614 | 735 | 19.7\% | 1.0\% | 2\% |
| Minnesota | 549 | 864 | 57.4\% | 1.3\% | 2.0\% |
| Nebraska | 488 d | 442 d | -9.4\% | 2.8\% | 2.5\% |
| Now Jersey | 1,069 | 1,231 | 15.2\% | 1.3\% | 1.5\% |
| Now Mexico | 263 | 282 | 7.2\% | 1.7\% | 1.7\% |
| Now York | 5,698 | 5,376 | -5.7\% | 3.3\% | 3.1\% |
| North Carolina | 1,017 |  |  | 1.6\% |  |
| North Dakota | 202 | 88 | -56.4\% | 2.6\% | 1.1\% |
| Onio | 3,183 | 2,428 | -23.7\% | 3.2\% | 2.4\% |
| Oregon Pennsylvania | 605 1,529 | 582 1,719 | -3.8\% | 2.4\% 1.5\% | 2.3\% 1.6\% |
| South Dakota | 82 | 152 | 85.4\% | 1.0\% | 1.9\% |
| Tennessee | 532 |  |  | 1.2\% |  |
| Vermont | 124 | 122 | -1.6\% | 2.0\% | 2.4\% |
| Washington | 1,037 d | 1,268 d | 22.3\% | 2.700 | 3.1\% |
| West Virginia | 752 | 1,375 c | 83.0\% | 3.4\% | 6.4\% |
| Wisconsin | 735 | 825 | 12.2\% | 1.5\% | 1.7\% |
| Unweighted Average | 943 | 1,033 | 8.6\% | 2.2\% | 2.3\% |

taPreliminary or estimate.
$\mathrm{b}=\mathrm{r} \mathrm{r}$ rom previous survey.
$\mathrm{C}=$ Eearly retirement provisions stimulated retirement.
deincludes all persones, active and inactive, who paid into the teacher retirement system.

Figure III-2
Trends In Hiring New Teachers, The Reentry of Experienced Teachers and Retirement


1985-86 $1986-87 \quad 1987-88 \quad 1988-89 \quad 1989-90$
New Hires:
N - Experience
4.3\%
3.4\%
3.6\%
3.5\%
3.2\%

Reentering With Experience
4.2\%
3.5\%
4.1\%
3.3\%
2.9\%

Retirement Rate
2.3\%
2.4\%
$2.2 \%$
2.2\%
2.3\%

## IV. International Comparisons

Public funding of Education. Public funding of education in 1986 in the United States, excluding capital outlay and debt service, comprised 5.2 percent of its Gross Domestic Product, ranking 9th among 15 industrialized countries (Table IV-1). Denmark, Canada and Sweden spent more than 7 percent of their GDP on education; and Germany ranked the lowest, spending just 4.1 percent of its GDP on education. Approximately 65 percent of public education spending is devoted to pre-K, elementary and secondary school in the United States, about the same as the 15country average of 66.4 percent. At 3.7 percent of the GDP, U.S. public spending on elementary and secondary education ranks 10th among the 15 countries. Germany, the lowest effort country, contributes 3.1 percent of its GDP. Sweden and Denmark contribute at least 5.0 percent of their GDP to public spending on eleme:tary and secondary education. At 1.5 percent of GDP, public spending on higher education in the Untied States ranks 5th among the 15 countries. Canada contributes 2.2 percent towards public spending on education followed by the Netherlands, Australia, and Denmark. Germany, France and Italy rank at the bottom.

In 1986, public spending on education in the United States was $\$ 3,328$ per pupil (both public and private pupils) for all levels of education except higher education when comparisons are made on the basis of Purchasing Power Parittes. As shown in Table IV- $\uparrow$, this figure ranks the U.S. 7th among the 15 countries behind Switzerland, Canada, Norway, Sweden, Austria, and Denmark. Compared by the ratio of per pupil spending to per capita GDP, the U.S. ranks 13th, ahead of only Japan and Germany. Compared to the U.S. ratio of .19, Austria, Switzerland and Sweden had ratios in excess of .25 .

Demographic and School Struciure Factors Influencing Educational Spending. Relative to its total population, the U.S. tends to have more students than most of the other industrialized countries as shown in Table IV-2. At the elementary and secondary level, the U.S. gross enrollment ratio (total enrollment divided by the high-school-age population) of 100 is well above the average of 96 , but less than in Denmark, Australia, and Canada. In contrast, the gross enrollment ratio is less than 90 in Italy, Austria and Germany. With a gross enrollment ratio of 57 in higher education, the U.S. is about the same as Canada but well ahead of 3rd place Sweden at 37 and the 15 -nation average of 32 . Public spending on higher education as a percent of GDP, however, ranked only 5th among the 15 countries. The surprisingly low ranking reflects the huge private expenditure levels on higher education in the U.S. including tuition paid by students.

With a total fertility rate of 1.85 compared to the 15 -country average of 1.65 , the U.S. ranks second behind Australia. While the U.S. ranks 5th according to the percentage of the population enrolled aged 6 to 11, Canada. France, the U.S. Italy, and Norway have 8.3 to 8.4 percent of their population in this age group. Australia and Japan have about 9 percent, while Germany has less than 6 percent. The small school-aged cohort and a low enrollment ratio in secondary education explain the low public spending levels on education in Germany.

At the elementary or primary level, U.S. schools averaged 373 pupils per school, well above the 15-nation average of 181 and second only to the Japanese average size of 444 pupils. The U.S. number may be slightly inflated since grades 1 through 8 are classified as elementary schools, while in the other countries primary grades generally include only the first four to six grades. Because of the small school size in European countries, school principals usually teach, thus keeping administration costs down. With about 11 percent of its elementary and secondary students in private schools, the U.S. has the fifth highest private school enrollment rate. While Belgium and the Netherlands have more than half of their students iri private schools, these schools are heavily subsidized by public funds.

Teacher Salaries. Among nine countries with comparable teacher salary data, only the United Kingdom, Sweden and Japan pay less than the U.S. when Purchasing Power Parities are used as the basis of currency conversion. These data are shown in Table IV-3. Ranked by the ratio of teachers' salary to per capita GDP, the U.S. ranks second to last. Compared to the average manufacturing worker, teachers are paid less in the U.S. than in any other country except Sweden.

Budget Allocations For Teacher Salaries. A little more than half of the U.S. education dollar goes toward classroom teachers, compared to an average of about 70 percent for the 10 countries listed in Table IV-4. Non-teaching personnel get less than 20 percent of all compensation costs in the ten countries shown, while non-teaching personnel get about 30 percent of the U.S. compensation dollar. Even though the data are inexact, Table IV-4 shows that none of the countries that appear to have believable and comparable data--Austria, Canada, Finland, New Zealand, Switzerland, the United Kingdom, and Turkey--come close to U.S. expenditures on non-teaching personnel.

The UNESCO data show that only about 5 percent of compensation goes towards administrators (professional teaching personnel without teaching responsibilities) compared to the 15 percent for non-teaching professionals in the U.S. Data on non-professional employee compensation exist only for Austria, Canada and New Zealand. Again, the U.S. appears to be on the high side, but not too much different than Canada and Finland.

Technical Considerations. When making international comparisons, small
differences should be ignored due to data comparability problems. Generally, all international spending comparisons are of public spending on both public and private education, not "total spending on education," "spending on public education," or "public spending on public education." The international comparisons in OECD and UNESCO data as well as those in the Statistical Abstraut of the United States and the Digest of Education Statistics are made on the same basis although the UNESCO data and the U.S. statistical abstract incorrectly use the total spending figure for the the U.S., which has been in the range of 6.7 to 6.8 percent of GDP. No comparative data on private expenditures yet exist. In some countries, private schools are heavily subsidized. In U.S. higher education, public institutions receive substantial private funding, especially from tuition charges.

Japanese spending data should be considered carefully. Total public spending on education is 16.1 trillion Yen. Current educational spending for both public and private spending is 15.3 trillion Yen. Public current education expenditure is not published separately. Private and public capital outlay spending is listed as 5.1 trillion Yen--about 25 percent of all private and public spending. This level of capital spending is surely incorrect (no other country exceeds 10 percent) and clearly some kind of data comparability problem exits.

The fiscal year is the same as the calender year in most countries. In Canada and the United Kingdom, the fiscal year starts in April. In the Untied States, almost all state and local government fiscal years begin in July and the Federal fiscal years starts in October. International comparisons generally match fiscal year and school year data to the calender year in which the fiscal or school year began. This practice is not appropriate for the United States, where the overlap between the fiscal and calendar year is six months at the state and local level. Almost all of the U.S. data in this section represent the average of the two fiscal or school years.

For some comparisons it was necessary to estimate a 1986 spending level for countries where data were available only for prior years. In these cases, education spending was assumed to grow in proportion to the growth of the Gross Domestic Product. This procedure maintains education spending as a constant share of the GDP.

For comparisons necessitating the conversion of national currencies to the U.S. data the conversions were generally done with both PPP's and Exchange rates. Conversion with PPP's is preferred. The use of PPP's was pioneered by the OECD, and they are used in making inter-country comparisons. Essentially, they function as an international price index. Identical salaries based on PPP's describe an identical standard of living, even though the countries wealth and currency may vary substantially. Exchange rates are influenced by trade imbalances, restrictive trade practices, unbalanced budgets, and a variety of other "market" factors unrelated to international spending and salary comparisons.
fi6

TABLE $N-1$
International Comparison Of Public Expenditures For Education

|  | Percent of Gross Domestic Product |  |  |  |  |  | Current Expenditures Per Pupil |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Current Expenditures |  | Elementary and Secondary (e) |  | Higher Education (e) |  | Market <br> Exchange Rates |  | Purchasing <br> Power Paritios |  | Ratio of Per Pupll Expenditure To Per Capita GDP |  |
|  | Percent | Rank | Percent | Rank | Percent | Rank | Dollars | Prank | Dollars | Rank | Ratio | Rank |
| Sweden | 6.7\% | 3 | 5.4\% | 1 | 1.3\% | 6 | 4,583 | 2 | 3,840 |  |  |  |
| Denmark | 6.8\% | 1 | 5.0\% | 2 | 1.8\% | 3 | 4,354 | 3 | 3,544 | 2 5 | 0.25 0.22 | 4 |
| Norway | 6.0\% | 5 | 4.9\% | 3 | 1.1\% | 11 | 4,157 | 4 | 3,704 | 4 | 0.22 | 8 |
| France (a) | 5.6\% | 6 | 4.6\% | 4 | 1.0\% | 13 | 2,825 | 10 | 2,627 | 9 | 0.22 0.20 | 6 11 |
| Canada | 6.7\% | 2 | 4.5\% | 5 | 2.2\% | 1 | 3,303 | 6 | 3,765 | 3 | 0.20 0.26 | 11 2 |
| Boigium (b) | 5.5\% | 7 | 4.4\% | 6 | 1.1\% | 10 | 2,545 | 11 | 2,528 | 10 | 0.26 0.22 | 5 |
| Austria | 5.5\% | 8 | 4.2\% | 7 | 1.2\% | 8 | 3,984 | 5 | 3,535 | 6 | 0.29 | 1 |
| Netherlands | 6.0\% | 4 | 4.0\% | 8 | 2.0\% | 2 | 2,408 | 12 | 2,359 | 12 | 0.20 | 12 |
| United States (d) | 4.7\% | 12 | 3.8\% | 9 | 0.9\% | 14 | 5,626 | 1 | 4,166 | 1 | 0.20 | 9 |
| Italy (b) | 4.4\% | 14 | $3.7 \%$ $3.6 \%$ | 10 | 1.5\% | 5 | 3,238 | 7 | 3.238 | 7 | 0.19 | 13 |
| Japar: (c) | 4.8\% | 11 | 3.5\% | 12 | 0.8\% | 15 | 1,956 | 15 | 2,143 | 15 | 0.20 | 10 |
| United Kingdom | 4.5\% | 13 | 3.4\% | 13 | 1.2\% | 9 | 2,867 | 9 | 2,171 | 14 | 0.13 | 15 |
| Australia | 5.0\% | 10 | 3.3\% | 14 | 1.7\% | 9 | 2,112 | 13 | 2,506 | 11 | 0.26 | 3 |
| West Germany | 4.1\% | 15 | 3.1\% | 15 | 1.0\% | 12 | 1,961 | 14 | 2, ${ }^{2} 64$ | 13 | 0.22 | 7 |
| rage |  |  |  |  |  |  | 3,049 | 8 | 2,670 | 8 | 0.18 | 14 |
| (Unweigr: $3 d)$ | 5.4\% |  | 4.1\% |  | 1.3\% |  | 3,264 |  | 3,004 |  | 0.22 |  |

Source: UNESCO Statistical Yearhook, 1988; OECD, National Accounting Systems, Main Aggregates, 1987; U.S. Bureau of the Census Government Finance Series, GF-86 and GF-87, No.5.

Note: Generally data refer only to public expenditures on public and private education including public subsides to private education. The year refers to the calender year in which the fiscal year begins except in the United States, where the year is an average of the 1985-86 and 1986-87 school year or an average of the 1986 and 1987 fiscal years. For countries without 1986 expenditure data, education spending data were inflated by the growth rate of the Gross Domestic Product. Generally, pupil data include pre-K, Kindergarten and private school students, but exclude special education students.
a Metropolitan France.
b Ministry of Education oxpenditures only.
c Current expenditure data include private spending.
d Average of 1985-86 and 1986-87 data.
e "Other education" and "unallocated" expenditures, averaging $6.8 \%$ and $6.9 \%$ of expednitures respectively, were proortionately allocated to the elementary /secondary and higher education categories

Figure IV-1

## Public Expenditures on Elementary and Secondary Education As a Percentage Of GDP



Percent of Gross Domestic Product

Figure IV-2
Ratio of Per Student Public Expenditures For Elementary and Secondary Education To The Per Capita Gross Domestic Product In 1987


Per Student Expenditure to Per Capita GDP Ratio

Table IV-2
Demograhic and School Structure Factors Influencing Public Spending on Education

|  | Demography |  |  |  |  |  | School Structure |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Enroilment Ratio(a) |  | 1988 Tctal <br> Fertility Rate (b) |  | 6-11 Percent <br> Of Population |  | Puplls Per Elementary School |  | $\begin{aligned} & \text { Percent of Elementary } \\ & \text { Students In Private } \\ & \text { Schools (1985) } \\ & \hline \end{aligned}$ |  |
|  | 8 Sec. | Educ. | Rate | Rank | Percent | Pank | Pupils | Pank | Peicent | Rank |
| Canada | 104 | 55 | 1.69 | 7 | 8.4\% | 3 | 145 | 9 | 3.2\% | 10 |
| Denmark | 102 | 29 | 1.51 | 12 | 7.8\% | 8 | 155 | 8 | 9.0\% | 6 |
| Australia | 101 | 28 | 1.92 | 1 | 9.1\% | 1 | 200 | 3 | 23.4\% | 3 |
| United States | 100 | 57 | 1.85 | 2 | 8.3\% | 5 | 373 | 2 | 11.4\% | 5 |
| Japan | 99 | 29 | 1.79 | 4 | 9.0\% | 2 | 444 | 1 | 0.5\% | 15 |
| Netherlands | 98 | 31 | 1.55 | 10 | 7.7\% | 9 | 175 | 4 | 68.596 | 1 |
| France | 98 | 29 | 1.80 | 3 | 8.3\% | 4 | 86 | 14 | 15.1\% | 4 |
| Norway | 97 | 28 |  |  | 8.3\% | 7 | 96 | 12 | 0.8\% | 13 |
| Betgium | 95 | 31 | 1.58 | 8 | 7.6\% | 10 | 166 | 6 | 54.6\% | 2 |
| United Kingdom | 92 | 22 | 1.77 | 5 | 7.4\% | 11 | 173 | 5 | 4.5\% | 8 |
| Sweden | 90 | 37 | 1.73 | 6 | 7.3\% | 12 | 131 | 11 | 0.7\% | 14 |
| Austria | 85 | 28 | 151 | 11 | 7.1\% | 13 | 90 | 13 | 3.9\% | 9 |
| West Germany | 85 | 31 | 1.37 | 14 | 5.9\% | 15 | 166 | 7 | 1.6\% | 12 |
| Italy | 83 | 25 | 1.46 | 13 | 8.3\% | 6 | 134 | 10 | 7.7\% | 7 |
| Switzerland |  | 23 | 1.55 | 9 | 6.8\% | 14 |  |  | 2.2\% | 11 |
| Average (Unweighted) | 95 | 32 | 1.65 |  | 7.8\% |  | 181 |  | 13.8\% |  |

Source: Enrollment ratios from UNESCO Statistical Abstract 1989; fertility rates from U.S. Bureau of the
Census, Statistical Abstract, 1989; and the remainder of the data are from World Bank, Improving Primary Education in Developing Countries: A review of Policy Options, Statistical Annex, 1989.
a Net enrollment ratio uses ony the part of the enrollient corresponding to the age group of the particular level of education. The ratios take into account the the differing systems of national education and the different duration of schooling. Higher education enrollment ratios are based on the 20-24 year old age group.
b Average number of children that would be born per women if all women lived to the end of their childbearing years, and at each year of age, they experienced the birth raies occuring in the specified year.

| Table IV-3 <br> Teacher Salaries in | elacte | Nations |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Average Te | acher Salary |  | Per | Teacher Salary to | Average <br> Manufacturing | Teacher Salary to Average |
| Elementary | Year | National Currency | U.S. Dollar (PPP Rate) | $\begin{aligned} & \text { Ratio } \\ & \text { To U.S. } \end{aligned}$ | Capita GDP | Per Capita GDP Patio | Workers Wage (c) | Worker Ratio |
| United States | 1984 | 21,452 | 21.452 | 1.00 | 15,707 | 1.37 | 22,018 | 0.97 |
| United States | 1982 | 18,801 | 18,801 | 1.00 | 13,424 | 1.40 | 20,486 | 0.92 |
| Canada | 1984 | 33,583 | 28,364 | 1.32 | 17,641 | 1.90 | 25,045 | 1.34 |
| Unitad Kingdom | 1984 | 9,158 | 16,959 | 0.79 | 5,668 | 1.62 | 7,832 | 1.17 |
| Germany | 1982 | 44,540 | 19,026 | 1.01 | 25,923 | 1.72 | 43,930 | 1.01 |
| Netherlands | 1982 | 39,718 | 16,858 | 0.90 | 15,776 | 2.52 | 46,006 | 0.86 |
| Sweden (a) | 1984 | 108,504 | 15,759 | 0.73 | 94,674 | 1.15 | 133.549 | 0.81 |
| Denmark (b) | 1982 | 151,200 | 17.709 | 0.94 | 90,717 | 1.67 | 146,186 | 1.03 |
| Japan (b) | 1984 | 4.577 | 20,359 | 0.95 | 2,482 | 1.84 | 2,647 | 1.73 |
| Secondary |  |  |  |  |  |  |  |  |
| United States | 1984 | 22,667 | 22,667 | 1.00 | 15,707 | 1.44 | 22,018 | 1.03 |
| United States | 1982 | 19,851 | 19,851 | 1.00 | 13,424 | 1.48 | 20,486 | 0.97 |
| Canada | 1984 | 37,816 | 31,956 | 1.41 | 17,641 | 2.14 | 25,045 | 1.51 |
| United Kingdom | 1984 | 9,575 | 17,731 | 0.78 | 5,668 | 1.69 | 7,832 | 1.22 |
| Germany | 1982 | 50.756 | 21,681 | 1.09 | 25,923 | 1.96 | 43,930 | 1.16 |
| Netherlands | 1982 | 60.061 | 25.493 | 1.28 | 15,776 | 3.81 | 46,006 | 1.31 |
| Sweden | 1984 | 129,456 | 18,803 | 0.83 | 94,674 | 1.37 | 133,549 | 0.97 |
| Denmark | 1982 | 217.700 | 25,498 | 1.28 | 90,717 | 2.40 | 146,186 | 1.49 |
| Japan (1,000 Yen) | 1984 | 5,037 | 22,406 | 0.99 | 2,482 | 2.03 | 2,647 | 1.90 |
| Combined Elementary | and Se | condary |  |  |  |  |  |  |
| United States | 1984 | 22,019 | 22,019 | 1.00 | 15,707 | 1.40 | 22,018 | 1.00 |
| United States | 1982 | 19,270 | 19,270 | 1.00 | 13,424 | 1.44 | 20.486 | 0.94 |
| Canada | 1984 | 35.126 | 29,667 | 1.35 | 17,641 | 1.99 | 25,045 | 1.40 |
| United Kingdom | 1984 | 9,401 | 17,409 | 0.79 | 5,668 | 1.66 | 7,832 | 1.20 |
| Germany | 1982 | 49,235 | 21,03i | 1.09 | 25,923 | 1.90 | 43,930 | 1.12 |
| Netherlands | 1982 | 53,139 | 22,555 | 1.17 | 15,776 | 3.37 | 46,006 | 1.16 |
| Sweden | 1984 | 120,231 | 17,463 | 0.79 | 94,674 | 1.27 | 133,549 | 0.90 |
| Denmark | 1982 | 186,422 | 21,834 | 1.13 | 90,717 | 2.05 | 146,186 | 1.28 |
| Japan | 1984 | 4,695 | 20,884 | 0.95 | 2,482 | 1.89 | 2,647 | 1.77 |

Source: Steven M. Barro and Larry S. ${ }^{〔}$ :ei, "International Comparıson of Teachers' Salarıes: An Explorä. , , S. ajy National Center for Education Statistics, CS 88-415, July 1988
a Junior.
b Primary and Lower Secondary.
c Hourly wage rate multiplied by 220 eight-hour days.

Figure IV-3
Ratio of Elementary and Secondary Teachers
Salary To the Per Capita Gross Domestic Product


Teacher Salary to Per Capita GDP Ratio

Table IV-A

Public Spending On Administration and Non-teaching Personnel In 1986

|  | OECD Data |  |  | UNESCO Data |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Compemsation As A Percent of Current Expenditure |  | Teachers Percent Of Compensation | All LevelsPercent of Compensation |  |  | Elementary and Secondary <br> Percent of Compensation |  |  |
|  | Total | Teachers |  | Admin. | Teachers | Others | Admin. | Teachers | Others |
| Austria | 77.0 | 59.8 | 77.7\% |  |  |  |  |  |  |
| Canada (a) | 78.4 | 58.3 | 74.4\% | 8.9\% | 74.2\% | 17.0\% | 7.5\% | 78.9\% | 13.6\% |
| Finland (a) | 74.7 | 55.7 | 74.6\% | 4.0\% | 78.3\% | 17.7\% | 5.8\% | 77.0\% | 17.2\% |
| Netherlands (b) | 84.4 | 82.6 | 97.9\% |  |  |  |  |  |  |
| New Zealand | 71.2 | 61.3 | 86.1\% | 7.5\% | 86.2\% | 6.3\% | 3.6\% | 89.6\% | 6.9\% |
| Switzerland | 93.5 | 76.9 | 82.2\% |  |  |  |  |  |  |
| United Kingdom | 82.8 | 61.5 | 74.3\% |  |  |  |  |  |  |
| Greece | 98.4 | 90.4 | 91.9\% | 7.2\% | 92.8\% | na | 3.8\% | 96.2\% | na |
| Turkey | 86.9 | 79.8 | 91.8\% |  |  |  |  |  |  |
| Ireland | 91.3 | 87.6 | 95.9\% | 1.9\% | 96.3\% | 1.8\% |  |  |  |
| Norway |  |  |  | 4.5\% | 95.5\% | ria | 5.2\% | 94.8\% | na |
| Average | 83.86 | 71.39 | 84.7\% | 5.9\% | 85.6\% | 8.6\% | 5.2\% | 85.4\% | 9.4\% |

United States (Elementary and secondary education only) (c)
$\begin{array}{lll}79.8 & 56.9 & 71.3 \%\end{array}$
$14.5 \% \quad 66.9 \% \quad 18.6 \%$
Source: OECD, Education in OECD Countries 1986-87, 1989; and UNESCO, Statistical Yearbook, 1988.
(a) Public and private spending
(b) Public expenditures on public and private education
(c) Teacher compensation is the product of the number of teachers and average salary plus benefits at 25 perce, it of salary

Data from the last three columns are from the Educational Research Service


| APPENDIX A |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| STATE EDUCATION DATA. 1988-89 AND 1989-90 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  | State | $\begin{aligned} & \text { Avg.Sal } \\ & 1888-89 \end{aligned}$ | Avg.Sal <br> 1080-00 |  | $\begin{aligned} & \text { Teachars } \\ & \text { 1987-88 } \end{aligned}$ | Teachers 1088-80 | $\begin{aligned} & \text { \$pupil } \\ & 1987-88 \end{aligned}$ | $\begin{aligned} & \text { WPupil } \\ & 1008-80 \end{aligned}$ |  | \$Pupil 1980-00 | $\begin{aligned} & \text { Min.Sal. } \\ & 108 b-89 \end{aligned}$ | $\begin{aligned} & \text { Min.Sal. } \\ & 1989-00 \end{aligned}$ |  | Now <br> Toacher $1986-000$ | Now <br> Teachers <br> 1080-00(i) | Re- entering Teacher: 10es-80\% | Peo- entering Toachers $1009-000$ | $\begin{gathered} \text { Toechors } \\ \text { Retiring } \\ \text { 1937-88(k) } \end{gathered}$ | $\begin{aligned} & \text { Teactiors } \\ & \text { Retiring } \\ & \text { 1988-80(k) } \end{aligned}$ |
| 28 | Missouri | 28,006 | 27,228 |  | 50,806 | 51.227 | 3,425 | 3,570 |  | 2,-7.: b | 18,541 | , 9851 |  | 1,876 | 1,839 | 1609 | 1,000 | HA | NA |
| 27 | Montana | 24.421 | 25,081 |  | 0,585 | 9.570 | 3,878 | 3,949 | b | 3,996 ' | 17,200 b | 17,7.50 | b | NA | NA | NA | NA | na | na |
| 28 | Nebracka | 23,841 | 25,522 |  | 17.481 | 17,849 | 3,712 | 3,942 | c | 4,20r. c | 111.519 | 17,690 |  | 820 | 858 | NA | NA | 488 | na |
| 28 | Nevada | 28.838 | 30.587 |  | 8,899 | 9,175 | 3.298 | 3.583 | c | j,40s b | 1 3.820 b | - 20.000 | h | NA | NA | NA | NA | NA | NA |
| 30 | Now Hampshire | 28.703 | 28,888 |  | 10.585 | 10.572 | 4.080 | 4.715 |  | $5,358 \mathrm{c}$ | 17,416 | 19.128 |  | NA | NA | NA | NA | NA | NA |
| 31 | New Jersey | 33.037 | 35,678 |  | 79,698 | 79.597 | 6,059 | 0,878 | c | 7.580 ' | 21,500 | 22,500 |  | 1,118 | 1,076 | 3122 | 2.788 | 1,069 | 1.231 |
| 32 | New Mexico | 24,092 | 25.302 |  | 15,820 | 18.158 | 3.180 | 3,134 |  | 32:4 | 18,027 | 18,785 |  | 1,174 | 812 | 306 | 2.788 398 | 1,008 | 1.231 282 |
| 33 | New York | 38,654 | 38,825 | c | 174.216 | 176.171 | 0.198 | 6.803 |  | 7.300 | 23,000 | 25,000 |  | 5.652 | 5,008 | 13527 | 13,748 | 5,098 | 5.376 |
| 34 | North Carolina | 25,648 | 27.814 |  | 61,790 | 62.974 | 3,153 | 3,310 | c | 3.581 c | 18,330 | 19.140 |  | 1,415 | NA | 4170 | NA | 1,017 | NA |
| 35 | North Dakota | 22,249 | 23.016 |  | 7.700 | 7.751 | 3.239 | 3.201 | c | 3,383 b | 15,318 | 15,882 |  | 192 | 182 | 664 | 546 | 202 | 88 |
| 36 | Ohio | 29.171 | 30.567 |  | 100.829 | 101.626 | 3.585 | 3,880 | c | 4.109 c | 17,041 | 17.721 |  | 2,322 | 2,384 | 3374 | 2,615 | 3,183 | 2,428 |
| 37 | Oklahoma | 23,521 | 23,844 |  | 34,515 | 34.707 b | 2,897 | 2,898 | c | 3,055 b | 10.500 b | 16,900 | b | NA | NA | NA | NA | NA | NA |
| 38 | Oregon | 29,387 | 30,842 8 | 0 | 25.147 | 25.631 | 4.268 | 4.506 |  | 4.731 | 18,915 | 18,418 |  | 8.40 | 931 | NA | NA | 005 | 582 |
| 39 | Penngylvania | 31.248 | 33,435 |  | 104,379 | 105,415 | 4.603 | 4,051 | c | 5,307 b | 19.750 b | 21,350 | b | 2,680 | 2,798 | NA | NA | 1,529 | 1.719 |
| 40 | Rhode Island | 34.233 | $38,057 \mathrm{~h}$ | , | 8,931 | 9,381 | 4.851 | 5,348 | b | 5.711 c | 18,417 | 19,635 |  | NA | NA | NA | NA | NA | NA |
| 41 | South Carolina | 25,185 | 26,638 |  | 35,877 | 36,337 | 3.143 | 3,342 | c | 3,522 b | 18,025 | 19.039 |  | 800 | 900 | NA | NA | NA | A |
| 42 | South Dakota | 20.525 | 21,300 |  | 8,235 | 8,191 | 3.071 | 3,167 |  | 3.264 | 15,354 | 15.820 |  | 409 | 384 | 171 | 179 | 82 | 152 |
| 43 | Tennesseo | 25,819 | 27.052 |  | 43,455 | 43,590 | 2,855 | 3,032 | c | $3,235 \mathrm{c}$ | 18,600 b | 19,800 | b | 1,541 | NA | 1592 | NA | 532 | na |
| 44 | Texas | 28,513 a | 27.400 b |  | 198.616 | 190.291 | 3,334 | 3.542 | c | 3.772 b | $19,100 \mathrm{~b}$ | 20.000 | b | 10.000 | NA | NA | NA | NA | NA |
| 45 | Utah | 22,852 | 23,652 a |  | 17,896 | 18,588 | 2,302 | 2,324 | c | 2.454 b | 15.409 | 16,040 |  | 1.015 | 949 | 13000 | NA | NA | NA |
| 46 | Vermont | 27,106 | 28,849 a |  | 6,852 d | 8,950 d | 4.927 | 5.187 | c | 5,524 c | 16,576 | 17,970 |  | 1.028 | 633 | NA | NA | 124 | 122 |
| 47 | Virginia | 28,976 | 30,826 |  | 60.883 d | 60.849 d | 3.873 | 4.155 | c | 4.471 c | 19,500 | 21.217 |  | 2.109 | 1.777 | NA | NA | NA | NA |
| 48 | Washington | 29,200 | 30,475 a |  | 38,810 | 40,358 | 3,875 | 4,234 | c | 4,500 b | 18,148 | 18,885 |  | 809 | 1,131 | 708 | 1.184 | 1.037 | 1,268 |
| 49 | Wost Virginıa | 21,904 | 22,842 |  | 22,177 | 21.653 | 3.579 | 3,705 | c | 3,854 b | 15,055 | 15,778 |  | 797 | 1,240 | 185 | 306 | 752 | 1,375 |
| 50 | Wieconsin | 31,046 | 32,600 b |  | 48,541 | 49,329 | 4.293 | 4.583 | c | 4,888 c | 19.235 | 20.000 |  | 880 | 1,000 | 333 | 328 | 735 | 825 |
| 51 | Wyoming | 28.400 | 28,891 |  | 6,693 d | 6.734 d | 4,742 | 5,075 |  | $5,237 \mathrm{~b}$ | 19,000 | 19,200 |  | NA | NA | NA | NA | NA | NA |
|  | Avarage/Total | 28,638 | 31,315 |  | 2,319,928 | 2,360,494 | 3,984 | 4,288 |  | 4,557 | 19,350 | 20,476 |  | $35 \%$ | 3.24 | 3.396 | 2.09 | $22 \%$ | 2.3 |
|  | Guam | 25,842 | 25,842 |  | 1,514 | 1,655 | NA | NA |  | NA | 19,217 | 19,217 |  | 119 | 148 | 129 | 153 | 129 | 153 |
|  | Virgin Islands | 26,572 | 28,000 |  | 1.599 | 1,600 | 3984 | 4861 |  | 4.814 a | 18,000 | 19,081 |  | 59 | NA | NA | NA | 18 | NA |


|  | $\theta=$ includes extra duty and extracurricular pay |
| :---: | :---: |
| $b=A F T$ estimate | $f=08 t / m a t e d$ to exclude tringes |
| c=median | gaincludes 696 pensron pick-up |
| d=U.S. Department of Education data | $h=$ based on total gross salary |

## APPENDIX B

## Data Sources

All data comes from the annual AFT Survey of State Departments of Education, except as noted below.

## Table 1-4

U.S. Department of Labor, Employment and Wages, Annual Averages 1988, November, 1989.
U.S. Department of Labor, Employment and Earnings, May 1990. (Used to estimate private sector annual earnings for 1989.)
U.S. Department of Labor, Employment and Wages, Annual Averages 1981, November 1982.

Table 1-5
U.S. Bureau of Economic Analysis, Survey of Current Business, April, 1990.

## Table 1-6

Technical documentation for the AFT cost-of-living index is available from the AFT Research Department. The methodology supporting the AFT index is in: Walter W. Mckiahon and Carroll Melton, "Measuring Cost of Living Variation," Industrial Relations, Vol. 17, No. 3, p. 331.

## Table 1-7

U.S. Department of Education, "Public School Revenues and Current Expenditures For Fiscal Year 1988 Final Tabulations," E.D. TABS, March 1990.
U.S. Department of Education, "Key Statistics for Public Elementary and Secondary Eaucation: School Year 1989-90," Survey Report, Decernber 1989.

Table li-1
U.S. Bureau of Economic Analysis, The National Income and Product Accounts of the United States 1929-82 and July issues of Survey of Current Business.
U.S. Bureau of the Census, Historical Statistics, Colonial Times to 1970, series

D739-764 and D893-904.
National Center of Educational Statistics, Digest of Education Statistics, various issues (used to estimate teacher salaries prior to the 1977-78 school year).
U.S. Department of Labor, "CPI Detailed Report," April 1990.
U.S. Department of Labor, recent issues of Current Wage Developments, (used to estimate average annual earnings for 1988).

Blue Chip Economic Indicators, May 10, 1990.
Table II-2
National Center for Educational Statistics, Digest of Education Statistics, various issues (used to estimate teacher salaries prior to the 1977-78 school year).
U.S. Bureau of the Census, Current Population Reports, series P-60.

Table II-3
U.S. Department of Labor, Handbook of Labor Statistics, June, 1985.
U.S. Department of Labor, National Survey of Professional, Administrative, Technical and Clerical Pay, March 1989, October 1989.

American Association of University Professors, data derived from the Annual Reports on the "Economic Status of the Profession," published in Academe. (Various years, usually the March-April issues).

Table II-4
Educational Research Service, Salaries Paid Professional Personnel in Public Schools, and Wages and Salaries Paid Support Personnel in Public Schools, ERS: Reston, VA, editions since 1973-74.

## Table III-2

Victor Lindquist, The Northwestern Endicott Report, Norihwestern University: Evanston, IL, editions since 1973.

Table IV-1
UNESCO Statistical Yearbook, 1988, 1989.

OECD, National Accounting Systems, Main Aggregates, 1987, 1989.
U.S. Bureau of tine Census, Govemment Finance Series, GF-8̂o and GF-o7, ivo. 5.
U.S. Department of Education, Digest of Education Statistics, 1988.

Table IV-2
Enrollment ratios from UNESCO Statistical Yearbook, 1988; ferility rates from U.S. Bureau of the Census, Statistical Abstract. 1989; and the remainder of the data are from World Bank, Improving Primary Education in Developing Countries: A Review of Policy Options, Statistical Annex, 1989.

## Table IV-3

Steven M. Barro and Larry Suter, "International Comparisons of Teachers' Salaries: An Exploratory Study", National Center for Education Statistics, CS 88-415, July, 1988.

OECD, National Accounting Systems, Main Aggregates, 1987.
Table IV-4
UNESCO, Statistical Yearbook, 1988.
OECD, Education in OECD Countries, 1986-87, 1989.

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[^1]:    (a) AFT extimatos

[^2]:    * Final tabulations of the U.S. Department oi rducation.

[^3]:    - The Professional, Technical, Administrative and Clerical survey is not exactly comparable in 1986,1987 and 1988. Prior to 1986 the survey included firms with at least 100 employees. In 1986 the minimum fell to 50 , in 1987 the minlmum was 20, and in 1988 and subsequent years, the minimum sized established was restored to 5 ) employe Small firms tend to pay less.

