

HOUSE RESEARCH

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Information Brief

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Teacher Salary Trends In Minnesota: 1974-1988

This information brief summarizes the House Research report of the same title. The study analyzes the base-salary trends of Minnesota's public school teachers over the past two decades.

Statewide, teacher salaries have risen by 154.3 % during the fourteen-year study period beginning in 1974. However, after adjusting for price inflation the real increase was 17.7%. After also adjusting for increasing levels of teacher training and experience it was 3.4%. And after also controlling for changing urbanization of the teacher workforce, the net increase in real teacher salaries during this period was 2.7%.

Regional average teacher salaries have ranged from 85% to 110% of the statewide average teacher salary. The salary differences among regions of the state have been fairly stable throughout the study period.

Minnesota teacher salaries have generally been above the national average and have consistently been above the average salaries of most other midwestern states.

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National Teacher Salary Trends: 1970-1990

In constant dollar terms, the salaries of American teachers initially peaked in 1972 and then declined throughout the rest of the decade. This downward trend experienced a dramatic turnaround in the 1980's, however. After bottoming out in real-dollar terms in 1981, real teacher salaries nationally have increased in every year to the present, thereby gradually returning to approximately their 1972 peak for purchasing power.

Relative to teacher salaries nationally, Minnesota's teachers' salaries in real-dollar terms peaked two years earlier (i.e., in 1970), declined somewhat more sharply, and recovered a bit more rapidly. Minnesota teacher salaries peaked relative to the nation in 1985, and they have been falling back in ranking since then, sliding from a high of seventh place in 1985 to 15 place in 1989-90, when the Minnesota average teacher salary was 2.8% higher than the national average.

Minnesota Teacher Salary Trends: 1974-75 to 1988-89

For purposes of this study, *teacher* includes both classroom teachers and other non-administrative instructional support staff who are paid on the same salary schedule. Administrative personnel and part-time, temporary and post-secondary teaching staff were excluded from the study.

Teacher salaries in Minnesota have been increasing at a notable pace, rising from a statewide average of \$12,214 in 1974-75 to \$31,421 in 1988-89, for an overall increase of 157.3% for the fourteen-year period. This increase, when adjusted for inflation, teacher training and experience increases, and changes in urbanization amounts to 2.7%.

Price inflation was the single largest force behind this near tripling of salaries. After adjusting the teacher salaries for changes in price inflation, the average teacher salary increased by 17.7% during this period.

Training and experience levels of Minnesota teachers have also increased during this period. When statistically controlling for the effects of both price inflation and increased levels of teacher training and experience, the average salary of Minnesota teachers was about 3.4% greater in 1988-89 than it was fourteen years earlier.

A further statistical control for the effects of increasing urbanization in the state surprisingly showed virtually no impact to date of this factor on the statewide average teacher salary, though it is expected to exert a measurable upward influence in coming years.

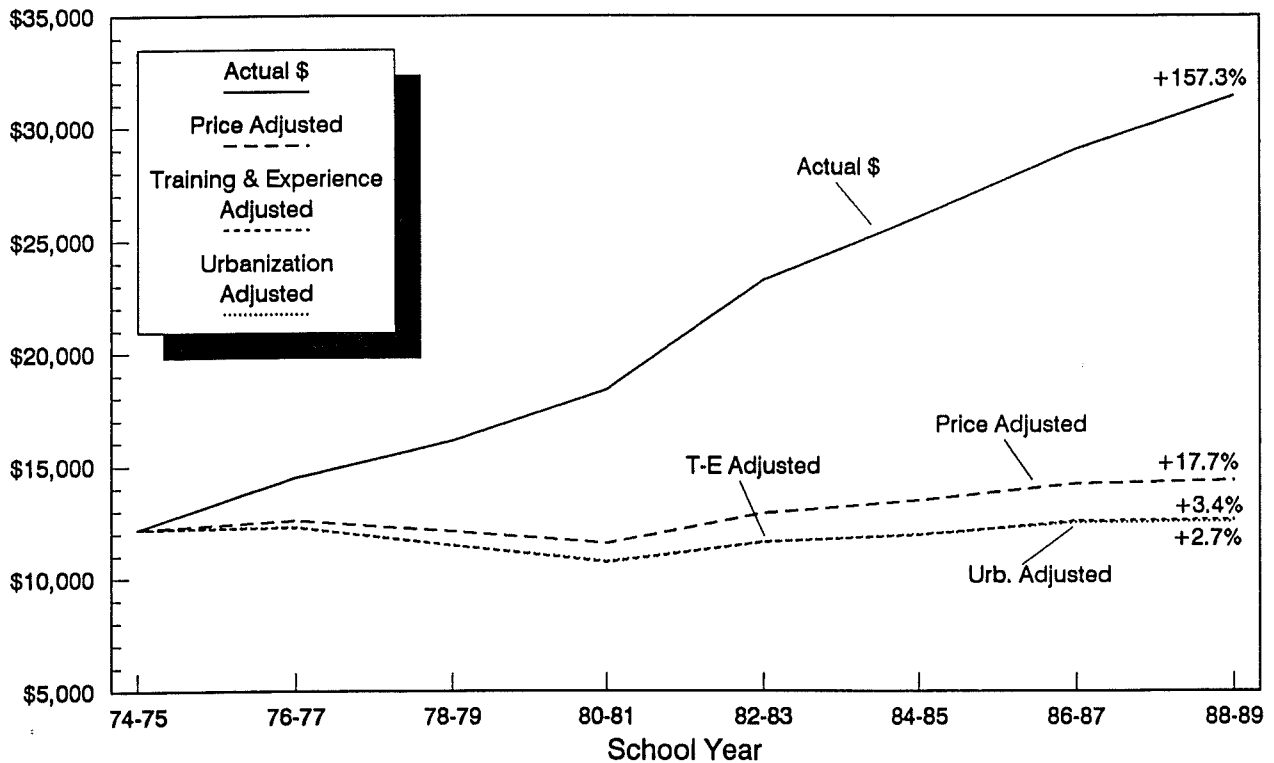
In summary, when statistically controlling for the effects of price inflation, increased teacher training and experience, and changes in the urbanization of the teacher workforce, the average salary of Minnesota teachers was about 3% higher in 1988-89 than in 1974-75, but about 5% less than its 1970-71 peak. Table 1 and Figure 1 display the salary trends dating to 1974-75, the base year of teacher-level data.

Table 1
Minnesota Teacher Salary Trends: 1974-1988

	<u>1974-75</u>	<u>1976-77</u>	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1984-85</u>	<u>1986-87</u>	<u>1988-89</u>
Average Salary	\$12,214	\$14,511	\$16,117	\$18,374	\$23,251	\$26,058	\$29,065	\$31,421
Price-Adjusted Average Salary	\$12,214	\$12,608	\$12,109	\$11,585	\$12,920	\$13,506	\$14,219	\$14,378
Also Adjusted for Training & Experience	\$12,214	\$12,277	\$11,490	\$10,718	\$11,640	\$11,953	\$12,576	\$12,632
Also Adjusted for Urbanization	\$12,214	\$12,302	\$11,506	\$10,764	\$11,647	\$11,964	\$12,509	\$12,545

Figure 1
Teacher Salary Trends Before and After Adjustments: 1974-1988

Average Salary



Relevant School Staffing Trends

Teacher salary changes in the fourteen-year study period have been accompanied by substantial changes in student enrollment, the pupil/staff ratio, the number of teachers in the workforce and the average length of teaching experience. Table 2 and Figure 2 show the changes in these factors over the past fourteen years.

School enrollments have declined significantly in Minnesota. Elementary enrollment declined by 19.6% between 1974-75 and 1984-85, but has been increasing since. Secondary enrollment continues to decline. Overall enrollment bottomed out in 1984-85 and has been increasing since.

The pupil/staff ratio in Minnesota has been decreasing over the time period studied except for the 1982-83 school year, when the state's severe budget problems resulted in substantial layoffs.

The number of teachers has fluctuated with both enrollment and the general fiscal situation. After dropping sharply between 1980-81 and 1982-83, the number of teachers has been gradually increasing.

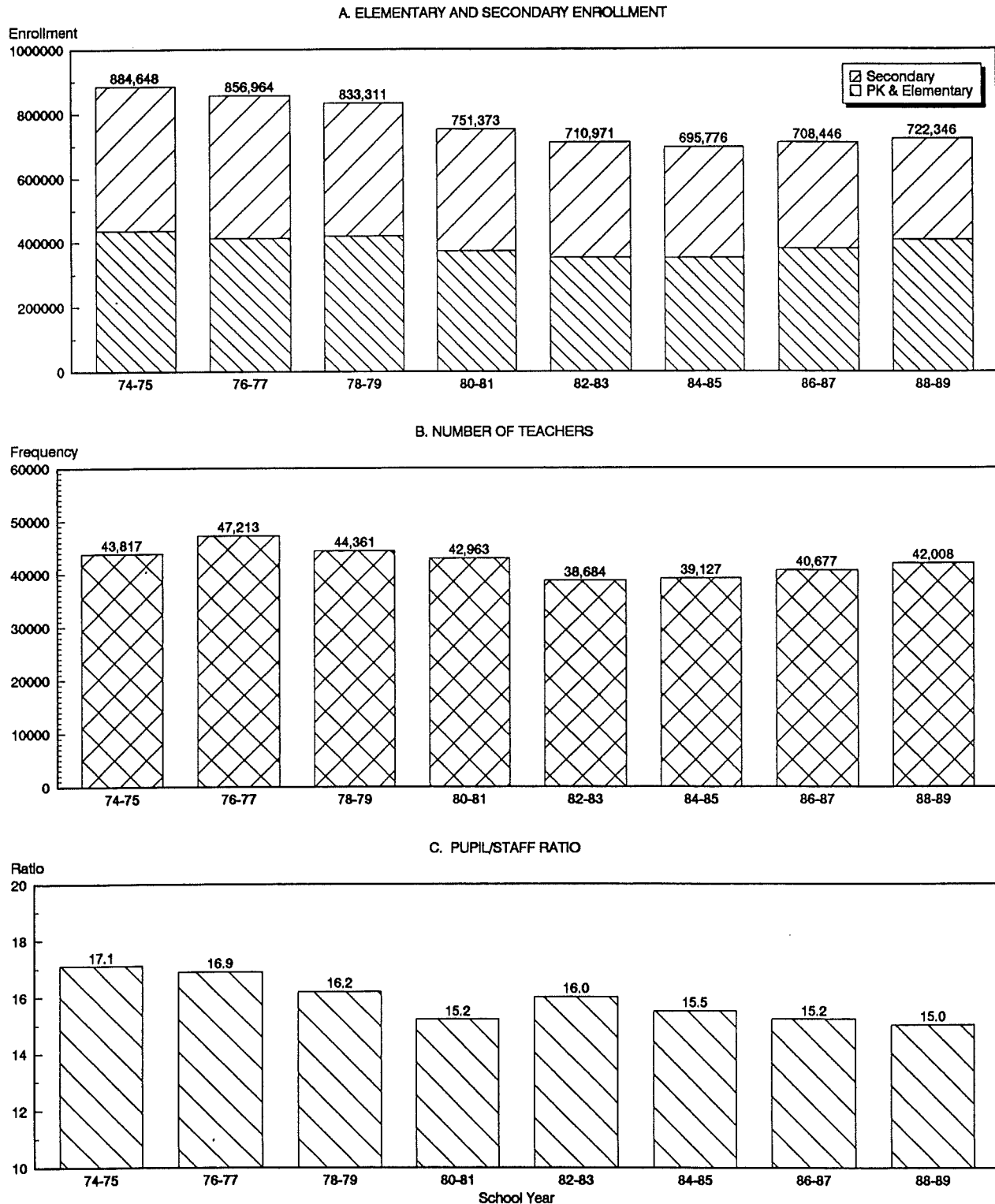
The percentage of teachers who are rehired has been fairly constant over time, ranging from 92% to 94%, except for the 1981-82 and 1982-83 school years when state and local budget problems resulted in substantial teacher layoffs and very few new hirings.

Average years of teacher experience has been increasing continuously over the time period studied. In fact, the current 16.9 years of experience is more than three years greater than the average years of experience in 1976-77.

Table 2
School Enrollment and Staffing Data: 1974-1988

	<u>1974-75</u>	<u>1976-77</u>	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1984-85</u>	<u>1986-87</u>	<u>1988-89</u>
School Enrollments								
PK & Elementary	436,338	413,112	419,956	371,828	351,386	350,989	378,853	407,425
Secondary	448,310	443,852	413,355	379,545	359,585	344,787	329,593	314,921
Total	884,648	856,964	803,311	751,373	710,971	695,776	708,466	722,346
Pupil/Staff Ratio (taken from <u>Profiles</u>)	17.1	16.9	16.2	15.2	16.0	15.5	15.2	15.0
Number of Teachers And Instructional Support Staff Studied	43,817	47,213	44,361	42,963	38,684	39,127	40,677	42,008
Percent Rehired From Previous Year	93.0%	92.5%	93.0%	91.9%	97.5%	93.2%	93.2%	94.0%
Average Years of Experience	—	13.8	14.4	14.5	15.9	16.5	16.6	16.9

Figure 2
Selected School Staffing Trends



Regional Variations In Teacher Salary Trends

Regional salary comparisons were made by grouping school districts into the Educational Cooperative Service Unit regions (ECSU's; see Figure 3). This analysis produced the following findings, which are illustrated in Table 3.

The unadjusted average salary figures vary considerably among the regions. In 1988-89 for example, the regional averages range from a low of \$26,922 for region 6 (Southwestern Minnesota) to a high of \$34,389 for region 11 (Twin Cities metro area), a ratio of 1.28 to 1. Region 3 (Northeastern Minnesota), with an average salary of \$31,679 is the only other region with an above-average salary level. Of the remaining regions, region 10 (Southeastern), with an average salary level of \$30,361, comes closest to the statewide average.

Regions with the lower average salaries also tend to have lower levels of teacher training and experience. About half of the regional salary differences are accounted for when statistically controlling for training and experience differences.

There is considerable stability in the pattern of regional salary differences over the study period. Only relatively minor shifts have occurred, with region 3 (Northeastern) experiencing a slight moderation of its lead over the other nonmetro regions, and regions 1 (Northwestern) and 7 (Northern metro fringe) experiencing a slight increase in their average salary standings.

Figure 3
The ECSU Regions

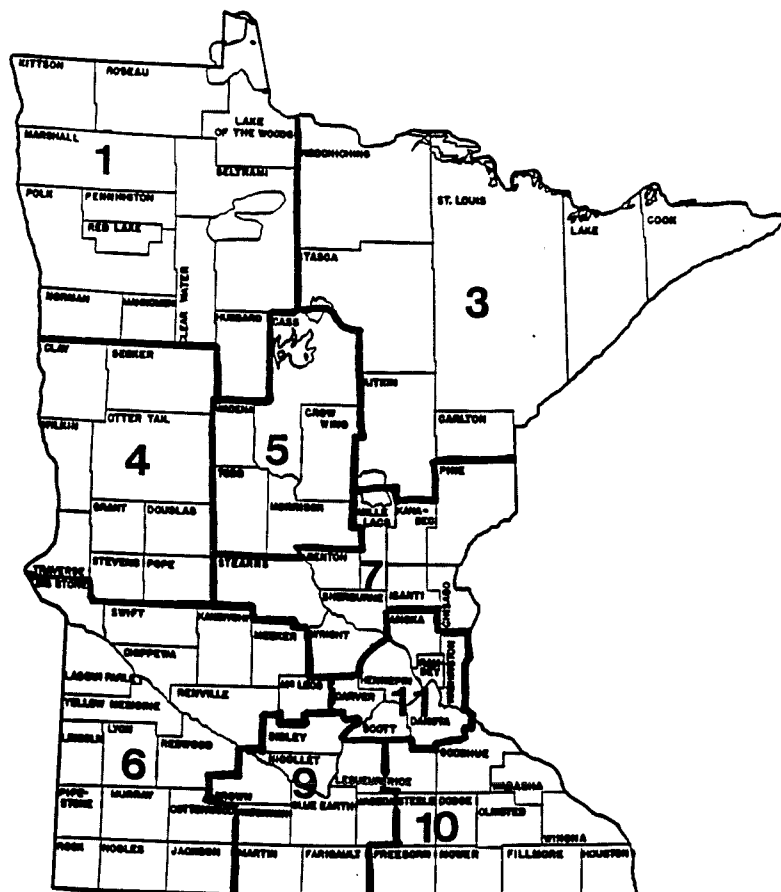


Table 3
Salary Trends by Geographic Regions

Average Teacher Salary (Not Adjusted)

<u>Region</u>	<u>Number of Districts</u>	<u>1976-77</u>	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1984-85</u>	<u>1986-87</u>	<u>1988-89</u>
1	53	\$12,290	\$13,761	\$15,800	\$20,385	\$22,388	\$25,422	\$27,494
3	35	15,029	16,860	19,297	24,221	26,569	29,239	31,679
4	41	13,202	14,460	16,593	20,918	23,298	26,002	28,245
5	26	12,839	14,193	16,082	20,421	22,768	25,547	28,136
6	88	12,625	13,827	15,759	20,038	22,323	24,706	26,922
7	42	12,910	14,236	16,276	21,265	24,031	27,001	29,388
9	45	13,142	14,440	16,491	20,894	23,349	25,943	28,080
10	54	13,917	15,516	17,875	22,614	24,871	27,767	30,361
11	48	15,925	17,776	20,257	25,468	28,815	32,057	34,389
Statewide	432	14,511	16,117	18,374	23,251	26,058	29,065	31,421

Average Salary as a Percent of the Statewide Mean Salary

<u>Region</u>	<u>Number of Districts</u>	<u>1976-77</u>	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1984-85</u>	<u>1986-87</u>	<u>1988-89</u>
1	53	84.7 %	85.4 %	86.0 %	87.7 %	85.9 %	87.5 %	87.5 %
3	35	103.6	104.6	105.0	104.2	102.0	100.6	100.8
4	41	91.0	89.7	90.3	90.0	89.4	89.5	89.9
5	26	88.5	88.1	87.5	87.8	87.4	87.9	89.5
6	88	87.0	85.8	85.8	86.2	85.7	85.0	85.7
7	42	89.0	88.3	88.6	91.5	92.2	92.9	93.5
9	45	90.6	89.6	89.8	89.9	89.6	89.3	89.4
10	54	95.9	96.3	97.3	97.3	95.4	95.5	96.6
11	48	109.7	110.3	110.2	109.5	110.6	110.3	109.4

**Average Teacher Salary
as a Percent of Statewide Mean Salary
Controlling for Teacher Training and Experience**

<u>Region</u>	<u>Number of Districts</u>	<u>1976-77</u>	<u>1978-79</u>	<u>1980-81</u>	<u>1982-83</u>	<u>1984-85</u>	<u>1986-87</u>	<u>1988-89</u>
				n/a				
1	53	90.3 %	91.9 %		94.8 %	92.2 %	93.6 %	93.3 %
3	35	102.1	103.0		101.9	100.6	99.6	99.4
4	41	93.0	92.9		94.5	94.2	93.8	93.6
5	26	93.5	94.4		94.8	93.5	93.0	94.2
6	88	91.9	91.7		94.0	93.6	92.9	92.8
7	42	95.5	95.6		98.8	98.8	98.7	98.5
9	45	92.8	92.3		94.3	94.1	93.4	93.3
10	54	97.4	97.6		97.9	95.2	95.5	96.7
11	48	104.8	105.0		103.8	105.1	105.2	105.1

Minnesota's Place Among the States

Minnesota's average teacher salary has consistently been at or somewhat above the national average for at least the past twenty years, ranging from 99.4% of the national average in 1977-78 to 111.0% in 1983-84. This finding is based on annual reports of the National Education Association (NEA) and the American Federation of Teachers (AFT).

During this twenty-year period, Minnesota's average teacher salary has ranked between tenth and twentieth in every year except two: in 1979-80 it slipped to twenty-first place, and in 1985-86 it rose to seventh rank. In 1989-90, the average teacher salary in Minnesota stood at 102.8% of the national average, which ranked fifteenth among the states.

Figure 4
National Rankings of Average Teacher Salaries
for Selected Midwestern States: 1970-1989
(Not Adjusted for Cost-of-Living)

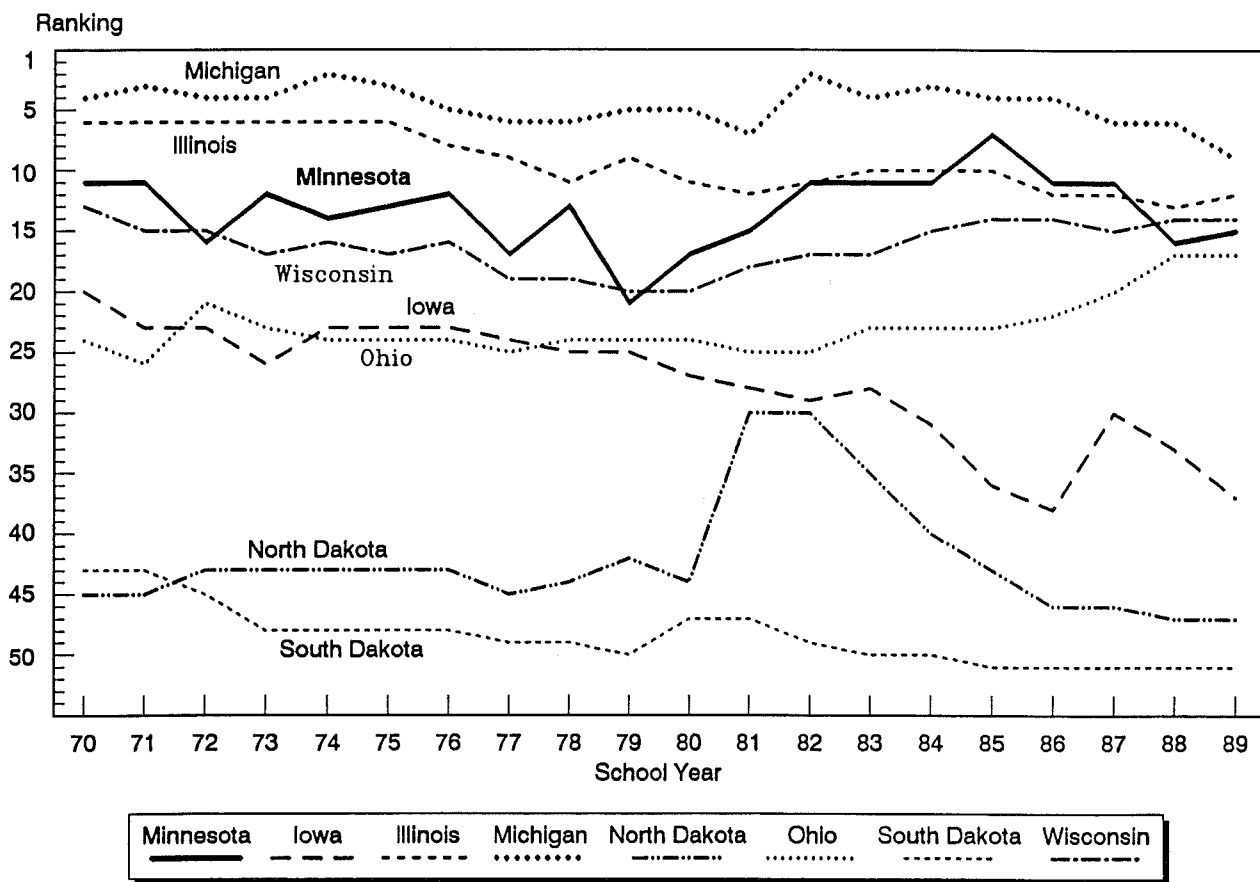


Table 4
Statewide Average Teacher Salary Rankings: 1989-90¹

State	Unadjusted	Adjusted for Cost- of-Living	State	Unadjusted	Adjusted For Cost- Of-Living
Alabama	39	34	Missouri	33	29
Alaska	1	8	Montana	41	39
Arizona	24	33	Nebraska	42	36
Arkansas	50	49	Nevada	20	15
California	3	2	New Hampshire	25	40
Colorado	19	19	New Jersey	8	38
Connecticut	2	16	New Mexico	40	41
Delaware	11	18	New York	4	7
D.C.	5	21	North Carolina	31	23
Florida	28	27	North Dakota	47	47
Georgia	30	22	Ohio	17	13
Hawaii	16	50	Oklahoma	46	43
Idaho	45	46	Oregon	21	10
Illinois	12	5	Pennsylvania	13	14
Indiana	22	6	Rhode Island	7	11
Iowa	37	32	South Carolina	34	30
Kansas	27	28	South Dakota	51	51
Kentucky	38	31	Tennessee	35	26
Louisiana	48	44	Texas	32	25
Maine	36	35	Utah	44	45
Maryland	6	9	Vermont	26	24
Massachusetts	10	42	Virginia	18	12
Michigan	9	1	Washington	23	20
MINNESOTA	15	4	West Virginia	49	48
Mississippi	43	37	Wisconsin	14	3
			Wyoming	29	17

¹ Sources: National Education Association figures published in Education Week, 5/9/90 (unadjusted); and F. Howard Nelson, Survey and Analysis of Salary Trends, American Federation of Teachers, Washington D.C., July 1990 (adjusted).

Conclusions and Policy Implications

This analysis of the base-salary trends of Minnesota teachers reveals that, after peaking in 1970-71, the purchasing power of teacher salaries seriously eroded throughout the decade of the 1970's until bottoming out in the 1980-81 school year. The 1980's brought steady recovery of teacher salaries; currently they are about 3% ahead of their 1974-75 level and about 5% short of their peak level of 1970-71, after controlling for significant price inflation, increases in teacher training and experience levels, and changes in urbanization of the teacher workforce.

State by state comparisons of average teacher salaries show Minnesota ranking relatively high throughout the two-decade time frame of this study. In 1989-90, Minnesota ranked fifteenth among the states using unadjusted data, and fourth when controlling for cost-of-living differences among the states.

These favorable national rankings reflect Minnesota's strong commitment to education, as well as the relatively disadvantaged situation of teachers in many other states. For example, a recent Harris survey of American teachers, while noting some recent gains in their standing as professionals, paints a rather dismal portrait of teachers' situation nationally.

Two critical factors associated with the professional status of teachers -- whether or not they feel respected and their ability to earn a decent salary -- have shown some improvement in the mid-to-late 1980's. . . . Today 48% of teachers believe they can earn a decent salary as a teacher, up from only 37% in 1984. And today 53% of teachers agree that "as a teacher, I feel respected in today's society." In 1984, only 47% agreed. . . . Teachers' views about their ability to earn a decent salary also correspond with their evaluation of the quality of education at their schools.²

Thus, Minnesota teacher salaries currently appear relatively healthy on the basis of both historical and national comparisons; nevertheless any complacency would be ill-advised. Rather, in the face of impending national economic uncertainty and state budgetary difficulties, the challenge in the 1990's for those concerned about teacher salaries will be to maintain the gains of the 1980's.

² Metropolitan Life Insurance Company and Louis Harris and Associates, Inc. *The Metropolitan Life Survey of the American Teacher 1989*. May-June, 1989 (Foreword and Chapter 2).