Collegiate Employment Research Institute

Starting Salary Trends for Bachelor's Degree Graduates of 1978-1986

Salary Bulletin No. 1 **July, 1987**

INTRODUCTION

How well have college graduates been remunerated in their first jobs? Have the starting salaries for new college graduates kept pace with inflation? The economic conditions during the early 1980's prompted questions regarding the salary status of new college graduates during that period of time. This bulletin presents salary information for the past eight years (1978-1986), taking into account the effect of inflation on starting salary levels. This bulletin is a summary of Salary Report No. 2, Starting Salary Trends for Bachelor Degree Recipients from Michigan State University, 1978-85 (available from the Collegiate Employment Research Institute), plus data from the 1985-86 graduating class.

STARTING SALARY TRENDS

The average starting salary for graduates in 1978-79 was $13,444 (current dollars) and has risen steadily to $20,706 in 1985-86. Annual increases have ranged from $535 to $1,467, or 3% to 11%. After showing two strong years of growth of approximately 7% annually between 1982-83 and 1984-85, the average salary only grew by 3% in 1985-86.

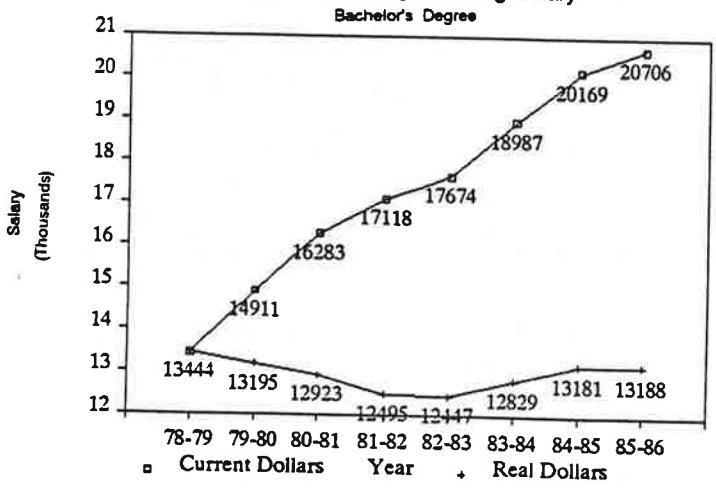
After adjusting starting salaries for inflation[1], the actual salary position of graduates deteriorated from 1978 to 1982 when starting salary averages actually dropped between 2% and 3% each year. In other words, the annual increases of 9% to 11% (current terms) did not cover inflation. A possible reason that salaries could not keep pace with inflation was the slow growth, even retrenchment, in the general economy. At that time, salary increases of 10% appeared reasonable and justifiable based on the economy's performance. Graduates from this period (1980 to 1982), however, experienced an erosion in what their salaries would purchase compared to graduates from earlier and later classes.

Inflation came under control around 1982-83 and the economy began to perform better. As a result, average starting salaries increased at a rate slightly ahead of inflation in 1983-84 and 1984-85. In 1984-85, the average salary of $13,181 was $263 (2%) below the 1978-79 average.

If recent salary trends continue with increases in 1985-86 exceeding the inflation rate by 2%, 1986-87 salary levels will equal or exceed salaries of 1978-79. Salaries increased by approximately 3% in current terms between 1984-85 and 1985-86. This increase did not exceed the inflation rate (real increase was 0%). After nearly 10 years, college graduates are still no better off financially than graduates of the mid - 1970's.

While these yearly salary figures provide insight into the general trend faced by all graduates, important differences across groups within the university are not revealed. College major, gender, job location, grade point average, type of employer, and ethnic background have been known to influence an individual's starting salary level. Starting salary comparisons using these characteristics are also useful in further clarifying the salary picture of new college graduates.

Figure 1: Average Starting Salary



[1] *The CPI index has been calculated for the annual period from July to June which closely approximates the academic year. For the academic year, 1981-81, the period covers July, 1980 to June, 1981. The 1978-79 year equalled 100 in the index.*

COLLEGE MAJOR

A key factor when preparing for various types of work is the knowledge and training received in the academic major chosen by the graduate. As a proxy for major, graduates have been grouped according to the college granting their degree. Engineering and technical fields are generally recognized as offering the highest starting salaries while education, humanities and social science disciplines are often viewed as low paying disciplines

According to average salaries for this eight year period, engineering graduates reported the highest (real) salaries, ($17,629), followed by nursing, ($13,437), agriculture, ($12,988), and natural science, ($12,645), graduates. Starting salaries for arts and letters, ($10,685), communications, ($10,497), education, ($10,4[illegible]), and human ecology, ($10,173), are at the low end of the salary scale. Business ($12,657) and social science ($11,315) are situated in the middle.

Annual changes in starting salaries varied by college, reflecting the different employment markets encountered by their respective graduates. The accompanying chart provides 1978-79 and 1985-86 average salaries (in real dollars) for each college. The percentage figures indicate whether salaries in 1986 were below or above the 1978 level. For example, engineering graduates fared better than other graduates against inflation with annual increases just above or below the inflation rate. Yet, over the study period, engineering salaries fell behind, 2.5% lower in 1986 than 1978.

For two colleges, Agriculture and Nursing, average salaries equalled or exceeded 1978 levels. The figures for nursing are somewhat deceiving. Salary data were available for nursing from 1980-81 when the college was established to 1985-86. Without 1978-79 data, the percentage increase refers to a change from a period when salaries were low to a high period. Thus the 13% increase slightly overstates the gains made in nursing salaries.

This chart marks the strong improvement many of the colleges experienced over the last several years. The graduates form the College of Business, for example, saw salaries drop more than 11% between 1978 and 1982. Small but persistent increases over the last four years have placed 1986 business salaries approximately 5% behind 1978 salaries. This pattern was experienced by the other colleges.[2] Social Science and natural science salaries in 1986, however, lagged considerably behind 1978 levels. Be-

Figure 2: Salary (Real) by College Major

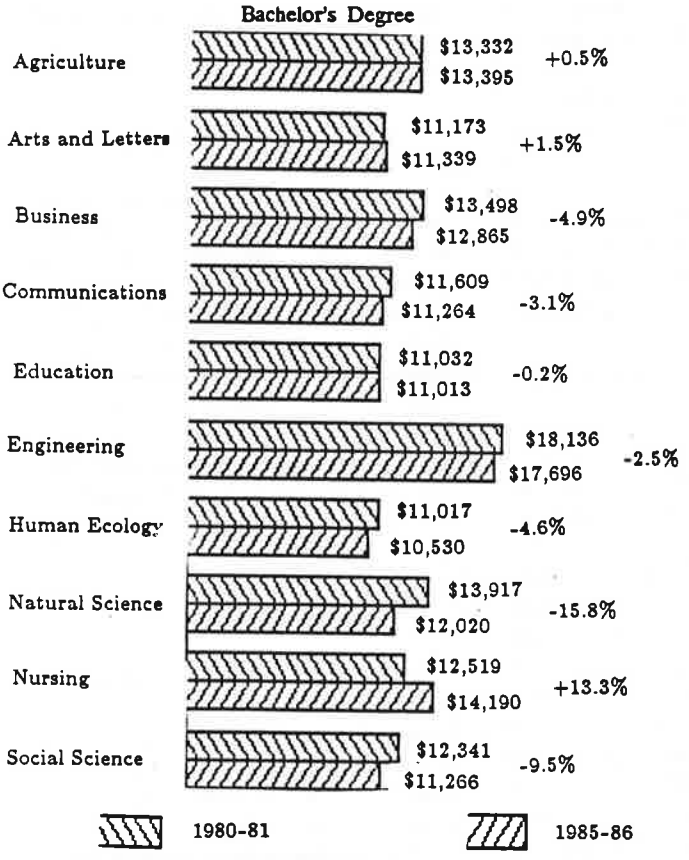


Figure 3: Salary (Real) by Gender

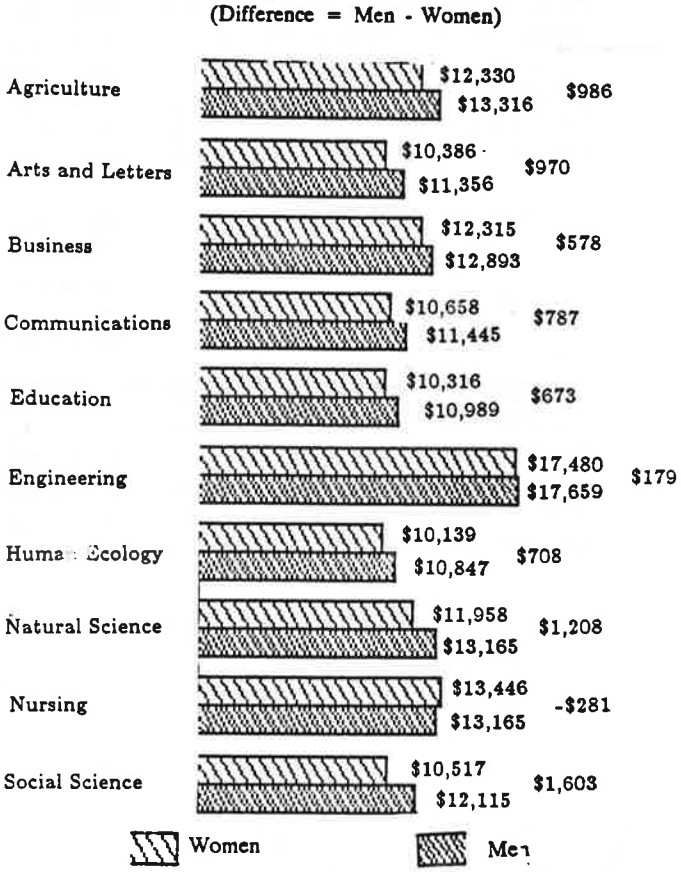


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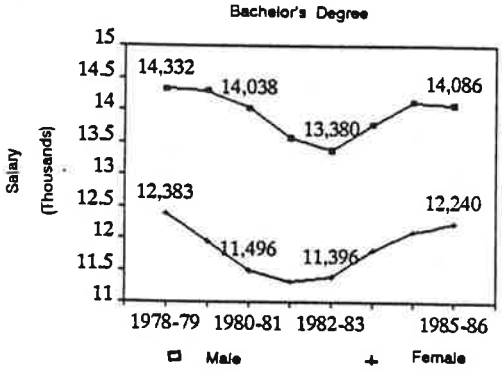
Figure 4: Salary by Gender



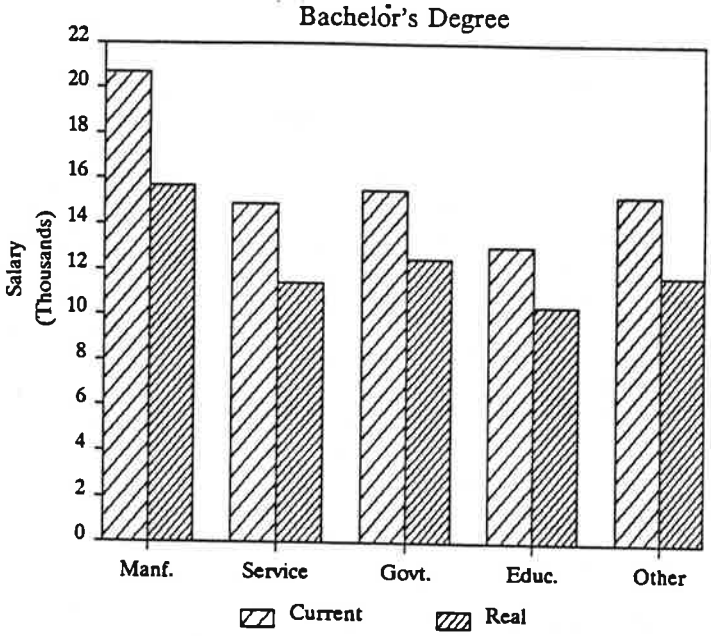
sides facing a very soft job market, the removal of nursing graduates from natural science in 1980 caused the average salaries in subsequent years to drop slightly. Social science salaries have simply failed to overcome the serious erosion in salaries resulting from severe economic problems within Michigan in 1980, 1981, and 1982.

[2]*Separate bulletins covering the salary trends for each college are in preparation and will be available in the near future.*

GENDER

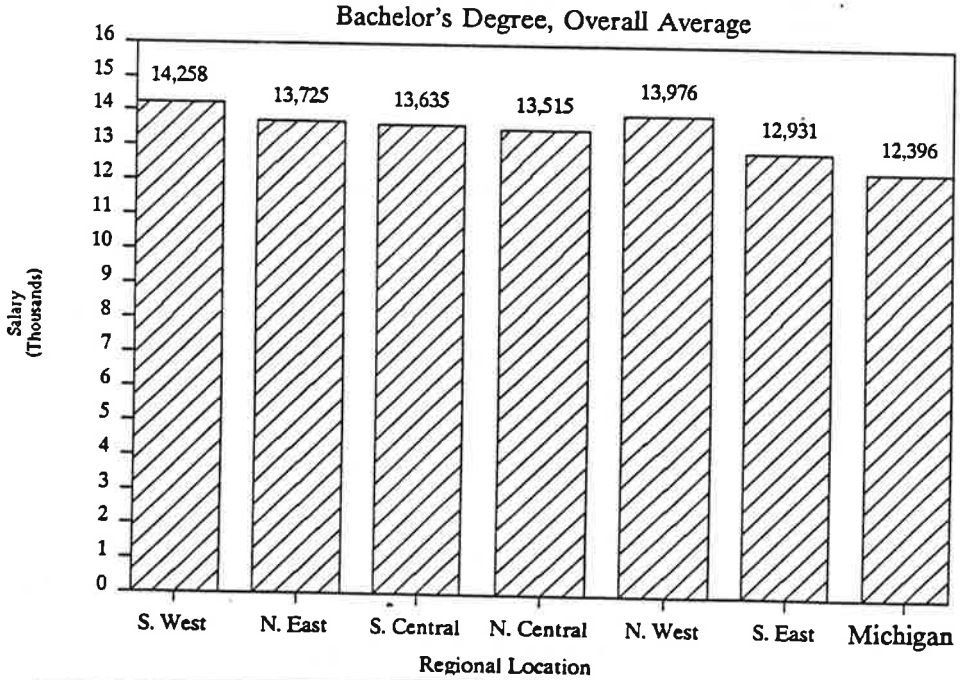
The average starting salary (real) for men was $13,982, and for women, $11,853. Men have higher starting salaries than women across all years of the study. In 1985-86, the gender salary gap was $1,846: the lowest yearly difference recorded. Between 1978-79 and 1980-81, starting salary increases for men, while not keeping pace with inflation, were not as negatively impacted as women's salaries. Since 1981, women's salary increases have out-paced their male counterparts. Women have been able to pull out of the inflationary economic slowdown better than men and sustain growth in their salaries. In 1985-86, women's salaries exceeded the inflation rate by 1% while the increase in men's salaries just equalled the inflation rate.

Figure 6: Salary (Real) by Type of Employer



Many of the differences in earnings between men and women can be explained by college major. The average salary for men and women in each college are presented in the accompanying chart. In engineering, a male-dominated college, the women's average starting salary is not too much different from the men's average. In nearly every other college, men have the higher salaries. Women being concentrated in majors with low salaries, such as education, human ecology and communications is another factor that contributes to low starting salaries for women.

Figure 5: Salary (Real) by Regional Location



JOB LOCATION

Location can play an important role in setting starting salary levels. Cost of living and the strength of the regional economy are two locational aspects that are often factored into starting salary offers. In this report, adjustments have not been made for these conditions in the reported averages.

The average starting salary for graduates working in Michigan was $12,396 (real), nearly $1,243 less than the reported out-of-state average of $13,639 (real). With improvement in the Michigan economy over the last several years (1983 to 1985), the locational dif-

ference has been shrinking. In 1985-86, the difference stood at $825 (real).

Graduates are accepting positions in every region of the country. The most popular areas include the northcentral (Great Lake states other than Michigan), northeast, southwest, and southcentral regions. Starting salary levels were highest in the southwest ($14,258 real). Los Angeles, San Fransisco, Boston, Chicago and Dallas were regional centers where employers offered attractive salaries. The accompanying chart provides information on average starting salaries for the six regions and Michigan for this eight year period. Michigan recorded the lowest salaries over this period.

EMPLOYER TYPE

Manufacturing firms paid the highest salaries, averaging $15,692 (real) over the last eight years. Prominent among manufacturing firms were automotive, aerospace, petroleum, chemical, electrical and electronic companies. Automotive companies generally paid the highest salaries. Following manufacturing, in terms of salary were government ($12,476), service sector employers ($11,393), primary and secondary educational institutions ($10,390), and a composite, "other" group that includes consulting firms, volunteer organizations, and self employed ($11,777).

GRADE POINT AVERAGE

A commonly held assumption is that graduates who have demonstrated higher academic achievement receive higher salaries. Based on the overall averages presented in the accompanying chart, there is a positive relationship between grades and starting salaries. The lowest salaries were reported by graduates with grades under 2.5 ($12,417 real) and the highest salary by those with GPA's above 3.5 ($13,345 real). This relationship is strongest in the technical fields such as engineering, natural science, nursing, and accounting. In other disciplines, the association between grades and salaries is not straightforward. Other attributes of the graduate may play a more important role when determining salary levels in these cases.

ETHNIC GROUP

The average starting salaries for major ethnic groups are reported in the chart below. The number of Hispanics and Native Americans reporting salaries were small, introducing a problem of how representative these figures were. Black and White graduates had comparable salaries, $13,213 and $12,940 (real) respectively. The other groups, except Hispanic, were slightly higher.

CONCLUSION

Starting salaries for new college graduates have not fared well against inflation, particularly from 1980 to 1982. The drop in salary levels was assisted by poor economic conditions, especially in Michigan, which depressed the labor market for new college graduates.

Graduates from this period have seen the purchasing power of their salaries eroded. The inability of salaries to keep pace has various implications from the repayment of student loans to the type of lifestyle chosen by graduates. Graduates will have to budget and alter their expectations until they can make adjustments in their salaries.

Salary comparisons by college, gender, job location, employer, and ethnic group revealed several important differences. Technical fields generally offer the highest salaries, and women are often receiving the lowest salaries, for example. Several of these issues particularly the salary trends in specific colleges, will be addressed in other bulletins of this Series.

Figure 7: Salary (Real) by Grade Point Average

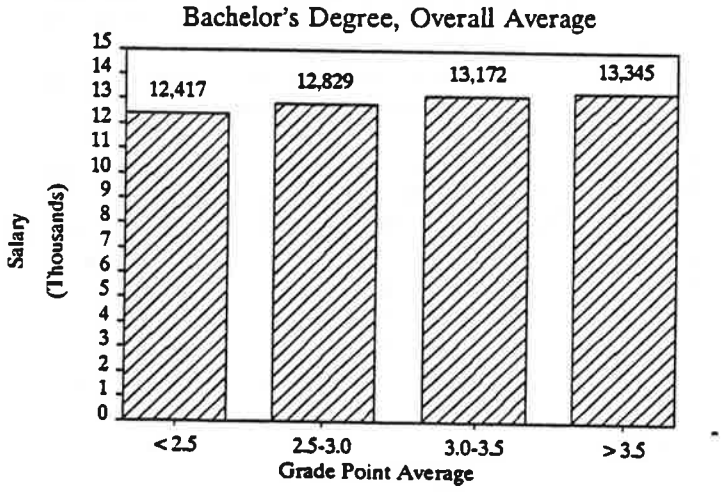


Figure 8: Salary (Real) by Ethnic Group