

GRADE POINT AVERAGE

In some technical fields such as engineering, there is a positive relationship between grades and salaries. Results from several other colleges within the University, have shown that graduates with GPAs below 2.5 hold a decided salary advantage. In the College of Agriculture and Natural Resources, neither pattern was clearly evident though the graduates with GPAs above 3.5 did not receive the highest salaries. The highest overall salary average was found for the 2.5 to 3.0 GPA group.

All GPA groups were buffeted by inflation and poor economic conditions. Those graduates with GPAs above 3.0 and below 2.5 have recovered strongly from the low point encountered in 1982-83 as 1985-86 salaries exceeded 1978-79 levels. The group with GPAs between 2.5 and 3.0 faced a more cyclical pattern with 1985-86 salaries still below salaries offered in 1978-79 (real).

RACE

The number of minorities reporting salaries was small, only 88 observations over eight years. Blacks dominated the minority population, representing 69% of the reporting minority population. The overall average starting salary for Blacks was \$14,174, approximately \$1,232 higher

Figure 6: Agriculture Salaries (real) by Grade Point Average

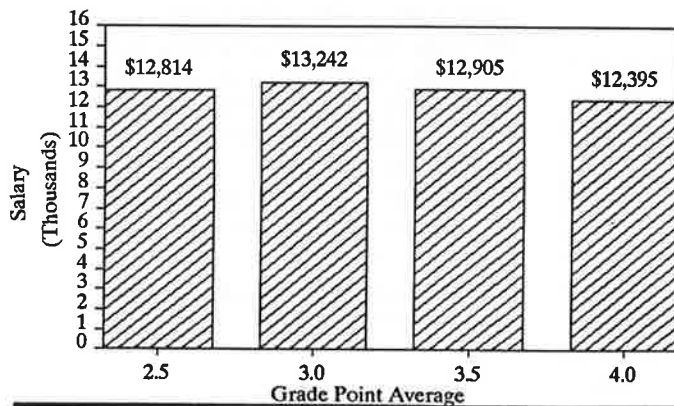
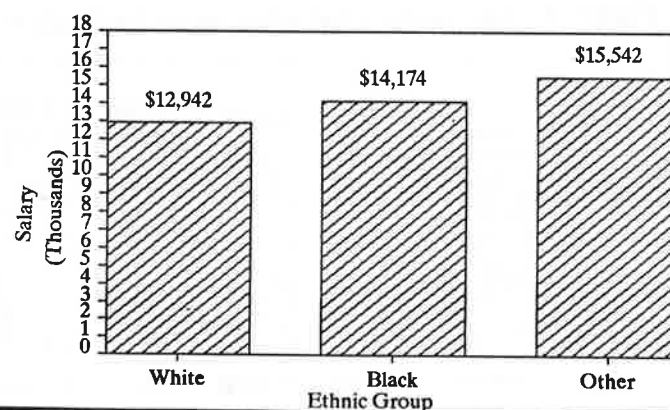


Figure 7: Agriculture Salaries (real) by Ethnic Group



than the average salary for Whites. For all other minorities the average salary was \$15,542.

CONCLUSION

In spite of the serious economic conditions within the agricultural sector and the lack of job opportunities in government, salaries for agricultural graduates have held up fairly well over the last eight years. The salary picture in the College of Agriculture and Natural Resources, however, is dominated by packaging graduates that not only have the highest salaries but also have more graduates reporting salary. Salaries within the college fall into two major categories: above \$14,000 (real) for packaging and building construction and between \$10,000 and \$12,800 for the other majors. Therefore, care must be taken when interpreting overall college salary figures.

Inflation and economic conditions negatively affected starting salaries, particularly between 1979 and 1983. However, the labor market remains unsettled, as salaries have fluctuated widely over the last three years. Some improvement has been noted, and hopefully will continue in 1987.

Salary comparisons by gender, job location, employer and racial group revealed several important differences. The most disturbing difference was the gap in salaries between men and women, even within the same major. Comparable salaries in packaging is an encouraging sign. More

attention needs to be given to the question of why women's salaries lag behind men's.

Collegiate Employment Research Institute

Starting Salary Trends for Agriculture Graduates of 1978-1986

Salary Bulletin No. 5

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INTRODUCTION

For most years during the 1980's, economic conditions in the agricultural sector have been viewed as the worst since the 1920's and 1930's. General economic conditions have also caused federal, state, and local governments, a major employer of agricultural and natural resource majors, to cut back in their hiring. Opportunities in the labor market for these graduates have been limited. One impact of constricted labor markets is often observed in starting salaries: they often decline. What has been the impact of recent economic conditions, including inflation, on starting salaries of agricultural and natural resource majors?

This bulletin presents salary information for the past eight years (1978-1986), taking into account the effect of inflation on starting salary. This bulletin is a summary of Salary Report No. 8, Starting Salary Trends, College of Agriculture and Natural Resources, 1978-1985 (available from

the Collegiate Employment Research Institute), plus data from the 1985-86 graduating class.

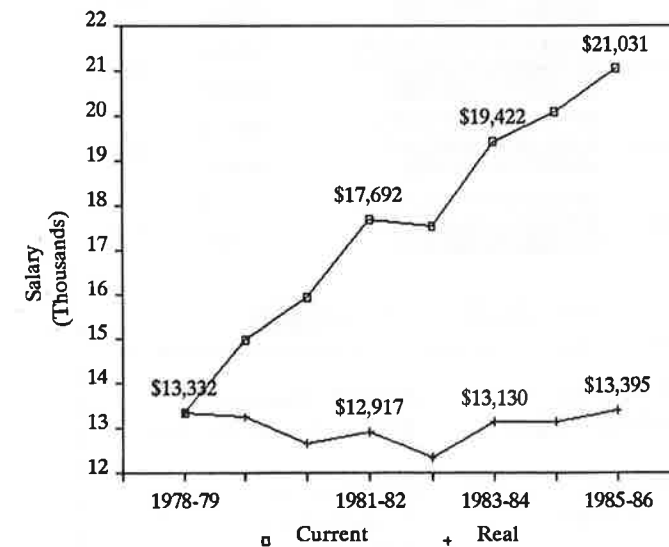
STARTING SALARY TRENDS

The 1978-79 average starting salary (current dollars not adjusted for inflation) reported was \$13,332. Starting salaries have annually increased from between 5% and 12%, except between 1981-82 when there was nearly a 1% decline. Salaries in 1984-85 showed a more modest gain of 3% over the previous year. In 1985-86, the average starting salary (current) had reached \$21,031.

After adjusting salaries for inflation¹, the inflationary impact on current salary trends can be measured. In three periods, salary increases did not keep pace with inflation. Between 1978-79 and 1979-80, salaries fell behind inflation by less than 1% but in the other two periods, 1979-80 and 1980-81 and 1981-82 and 1982-83, salaries lagged by 4% in each period. The increase experienced

between 1983-84 and 1984-85 was equal to the inflation rate (no real change).

Figure 1: Average Starting Salary All Agriculture Graduates (Current and Real)



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

Individual departments did experience different salary trends over the study period. A common pattern was for graduates to suffer through several years when salary increases fell noticeably below the inflation rate before improving over the latter

years of the study period. Departments in this group included packaging, agricultural business/ agricultural engineering, building construction, horticulture and animal sciences. Another observed trend found salary increases falling behind inflation during the early years of the study, improving for several years, before falling off between 1983-84 and 1984-85. Food science, resource development and parks and recreation, forestry, and public affairs management followed this pattern.

Soils graduates experienced a steady decline in real starting salaries, except for a 1% increase between 1978-79 and 1979-80 and a 5% increase between 1980-81 and 1981-82. For the other periods, yearly salary differences fell 7% to 10% below the inflation rate, suggesting a poor labor market where current salaries were actually decreasing; an indication why more soils graduates may be continuing their education (15%) than other majors.

Salaries for all university graduates increased at the rate of inflation in 1985-86. Engineers and technical

graduates actually saw their salaries fall behind as the annual increase was below the inflation rate. In the College of Agriculture, packaging, agricultural business and engineering, building construction and animal science graduates encountered lower real salaries in 1986. The other majors reported gains in salary, which was a turn-around for most of these majors. Soils made the biggest gains with a 22% increase. Even with these gains, 1986 graduates from all majors except soil science, found that their real salaries still lagged behind salaries from 1978-79 (Figure 2).

Figure 2: Salary (real) by Academic Major

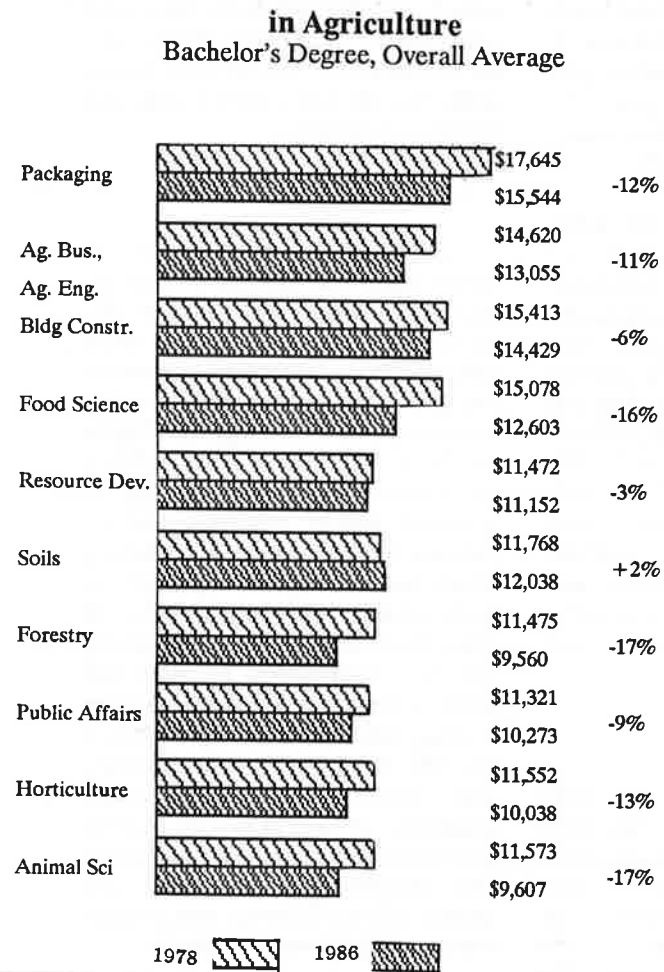
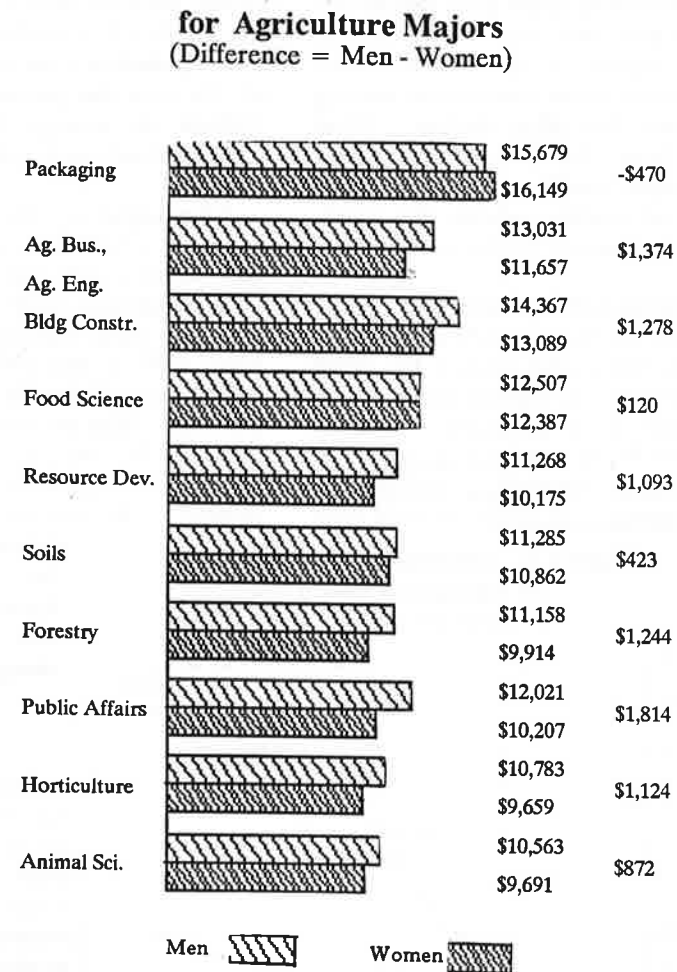


Figure 3: Average Salary (real) by Gender



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EMPLOYER

Graduates were employed within each major economic sector. Starting salaries offered by manufacturing firms were significantly higher than all other sectors. The overall average salary for manufacturing was \$15,017, more than \$3,000 higher than the other sectors where the salaries ranged from \$10,584 to \$11,499.

When examined by year of graduation, each sector experienced periods when salary increases were below the inflation rate intermixed with periods when salaries increases were well above the inflation rate. Upon comparison of the 1978-79 and 1985-86 averages, government employees fared the best against inflation as the 1985-86 average was \$886 higher than the 1978-79 average. Salaries in education and "other" also fared well, being \$408 and \$221 higher, respectively, in 1985-86 than 1978-79. Manufacturing and service sectors did not fare as well with 1985-86 starting salaries trailing 1978-79 by approximately \$1,100.

JOB LOCATION

The decision to accept a position in Michigan versus one outside the state may be a related to differences in salary offers in various locations across the country. The difference in average starting salaries between those working in and out-of-state was \$2,135, with the advantage to out-of-state positions. Overall average salaries were higher in all the other regions as shown in Figure 4.

Figure 4: Agriculture Salaries (real) by Region

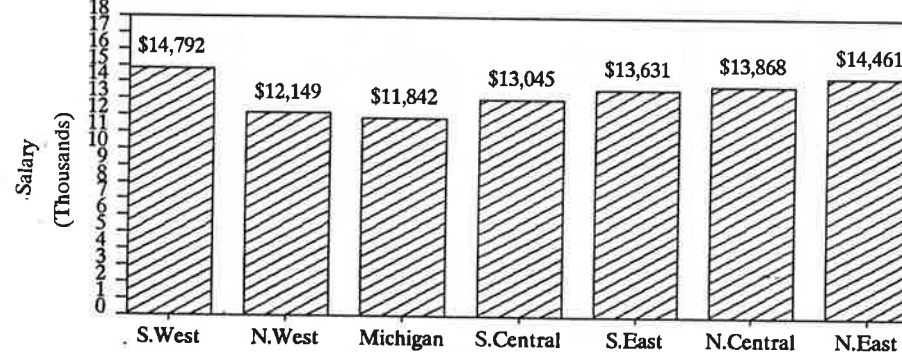
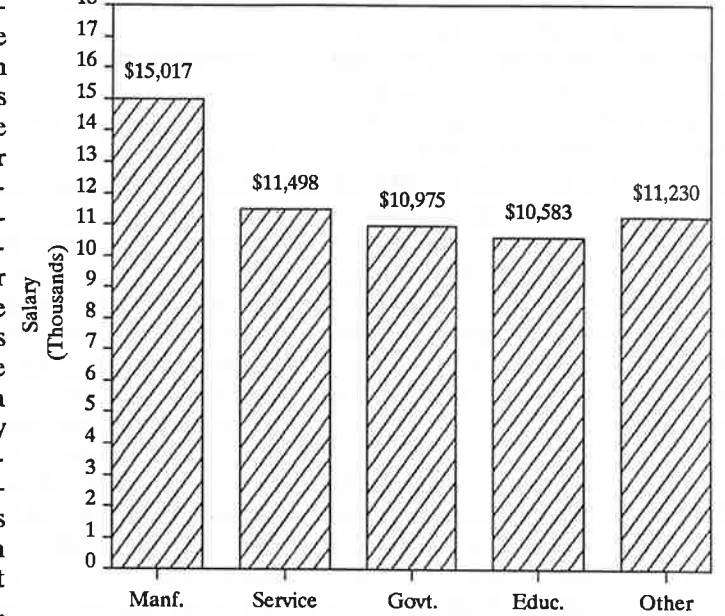


Figure 5: Agriculture Salaries (real) by Type of Manufacturing Firm



Salary trends found Michigan positions experiencing a three year decline in starting salaries (adjusted) before rallying with four strong years of increases. Out-of-state positions followed a similar pattern but have not rebounded as strongly as in-state positions. As a result, the salary differences between in- and out-of-state positions have been cut in half over the last several years, (\$1,423 in 1986).

GENDER

The overall average starting salary for men was \$13,348 as compared to the \$12,362 average for women; a difference of \$986. Both men's and women's salaries have followed cyclical swings of increases and decreases when measured against inflation. Even though men experienced no real gain in salaries in 1986, steady increases in two previous years have brought their salary level in 1985-86 to the 1978-79 level.

Between 1978 and 1983 women's salaries were more seriously affected by inflation than men's with a 6% erosion in their salary. An 8% increase in 1984 was partially negated by a 4% decline in 1985. Women did

experience a 4% increase in 1986; very robust in comparison to men. Women's salaries in 1986 exceeded the 1978 level by \$284

The gap between men's and women's salaries has persistently held around \$1,000, though a small difference of \$402 did occur in 1983-84. The two year decline in the gap that culminated in this difference did not mark a general trend as the differential tripled to \$1,262 in 1984-85.

Salary differentials can be partially explained by comparing salaries across departments. Women actually enjoy slightly higher salaries than men in packaging, with a difference of \$471. However, the majority of women graduated from low paying majors where men enjoyed the salary advantage. The differences were relatively small for food science/FSM and soils graduates at \$120 and \$423, respectively, but exceeded \$800 for animal science/FM graduates, and \$1,000 for graduates from other departments. Considering only departments with adequate cases (greater than 25), the largest difference occurred in public affairs management.