

AN ANALYSIS OF SELECTED FACTORS
INFLUENCING USE OF TIME BY FORTY VOCATIONAL
AGRICULTURE INSTRUCTORS IN NEBRASKA

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During the nine years, 1967-1976, enrollments in secondary vocational agriculture programs in Nebraska have grown from 5,097 to 8,460 students. In the same period, the number of agriculture teachers increased by thirty-four, from 117 to 151, and the number of departments with two teachers grew from two to sixteen. In 1975-1976 there were sixty-five secondary school vocational agriculture departments in Nebraska with over 60 students enrolled, and only three of these sixty-five departments had two teachers. Expanding programs were stretching the teacher's use of time far beyond the school day and five-day school week. One of the top five reasons given by a group of 26 teachers who left vocational agriculture teaching in Nebraska between 1970-1975 indicated that too many hours were required in proportion to the salary that was paid.

The Problem

The problem was to systematically record how Nebraska vocational agriculture teachers utilized their time for one year, and to make comparisons of mean hours worked on selected independent variables.

The Procedure

An instrument containing a list of 27 duty categories was developed after a search of previous research in (1) the use of teacher time and (2) developing multi-teacher programs.

Group instruction was given, and data collection instruments were distributed at the early July, 1975, State Vocational Agriculture Teacher's Conference held at Norfolk, Nebraska. Forty vocational agriculture teachers completed the year of data collection from July 1, 1975 through June 30, 1976. Twice during the year, in December and again in April, each teacher was contacted by telephone. A progress report was obtained, and individual questions were answered regarding placement and recording of activities in duty categories. Time was recorded

in quarter-hour blocks. The data were totaled by each of the 27 duty categories.

The Findings

The mean hours worked per month by the 40 teachers was 221, with an annual mean of 2,652 hours. The range was from 1,833 to 4,633 hours annually. Table 1 shows the annual mean hours by duty category for the forty teachers. A study of the table shows that (1) 31 percent of the time was devoted to "planning and teaching day vocational agricultural classes," (2) "advising and supervising FFA activities" accounted for 11 percent of time used, (3) "curriculum planning" accounted for 8 percent, and (4) "supervising occupational experience programs" for 6 percent. The remaining 44 percent was devoted to community activities, adult teaching, and department management in the remaining 23 duty categories.

This report includes the results of one-way analysis of variance tests computed on five program-oriented independent variables for the group of 40 teachers, and sub-anova tests for each of the 27 duty categories on each of the five main variables. Those relationships that were found to be significant will be reported. An alpha level of .05 was used for all mean difference statistical tests.

Variable 1: Number of Students Enrolled in Vocational Agriculture Program

Table 2 shows the distribution of student enrollment within four groups. The anova test showed no significant difference among groups in mean hours worked per month by teachers in these groups. The data showed there was, however, a significant difference among the four groups on one of the 27 duty activities. Teachers in group two devoted significantly higher mean hours per month to other school responsibilities compared to teachers in the other three groups, with twice the hours per month compared to group three for this duty category.

Variable 2: Number of Students in FFA

Table 3 shows the distribution of FFA membership within four groups. The anova test showed no significant differences among the groups in mean hours worked per month by teachers in each group. The data showed, however, that there were significant differences among the four groups on two of the 27 duty categories. First, teachers in group three had significantly

TABLE 1
 MEAN HOURS WORKED BY FORTY NEBRASKA
 VOCATIONAL AGRICULTURE TEACHERS,
 BY DUTY CATEGORY

| Duty Category | Mean Hours Per Year |
|---|------------------------|
| 1. Plan & teach day agriculture classes | 834.17 |
| 2. Plan & teach non-agriculture day classes | 82.80 |
| 3. Plan & conduct young farmer classes | 14.20 |
| 4. Plan & conduct adult classes | 26.40 |
| 5. Conferences with students | 81.72 |
| 6. Supervise study halls | 58.97 |
| 7. Supervise occupational experience programs | 167.67 |
| 8. Scheduling & upkeep of facilities | 111.07 |
| 9. Advising and supervising FFA activities | 302.20 |
| 10. Training judging teams | 90.17 |
| 11. Completing official reports | 29.20 |
| 12. Other school responsibilities | 77.80 |
| 13. Budgeting, requisitioning & inventorying | 45.25 |
| 14. Public Relations for the department | 48.37 |
| 15. Participation in community activities and responsibilities | 57.82 |
| 16. Participation in state, regional or national professional organizations | 76.30 |
| 17. Recruitment for the department | 11.22 |
| 18. Curriculum planning | 201.35 |
| 19. Completing award applications | 27.55 |
| 20. Preparing for and participation in fairs | 86.20 |
| 21. Organizing and using advisory committees | 6.62 |
| 22. Attending local school teacher staff meetings | 29.95 |
| 23. Teaching & supervision in post-high agriculture vocational programs | 6.42 |
| 24. Participation in young farmer association activities | 5.27 |
| 25. Class sponsor | 7.25 |
| 26. Participation in other agriculture organizations | 16.32 |
| 27. Other activities conducted on a regular basis | 149.87 |
| Total Annual Mean Hours | 2,652.20 |

higher mean hours per month teaching non-agriculture classes compared to all other groups. Second, teachers in group three had significantly higher mean hours per month in completing award applications compared to all other groups.

TABLE 2

MEAN HOURS WORKED PER MONTH FOR FORTY
NEBRASKA VOCATIONAL AGRICULTURE TEACHERS
BASED ON STUDENT ENROLLMENT IN
VOCATIONAL AGRICULTURE PROGRAMS

| Group | Number of Students | Number of Teachers | Mean Hours Per Month |
|-------|--------------------|--------------------|----------------------|
| 1 | 0-20 | 0 | 0 |
| 2 | 21-60 | 16 | 224 |
| 3 | 61-90 | 19 | 212 |
| 4 | over 90 | 5 | 242 |
| | | TOTAL | 40 |

Variable 3: Conducted Young Farmer Classes

Table 4 shows the number of teachers who conducted young farmer classes. The anova tests showed there was no significant difference in mean hours worked per month between teachers who conducted and those who did not conduct young farmer classes. There were, however, significant differences found in comparisons of mean hours worked on four of the 27 duty categories.

Teachers who conducted young farmer classes devoted significantly higher mean hours per month to planning and conducting young farmer classes and participating in young farmer association activities. Teachers who conducted young farmer classes devoted significantly fewer hours per month toward scheduling and upkeep of facilities, and serving as class sponsor compared to teachers who did not conduct such classes.

TABLE 3

MEAN HOURS WORKED PER MONTH FOR FORTY
NEBRASKA VOCATIONAL AGRICULTURE TEACHERS
BASED ON NUMBER OF STUDENTS IN FFA

| Group | Number of Students In FFA | Number of Teachers | Mean Hours Per Month |
|-------|---------------------------------|-----------------------|-------------------------|
| 1 | 0-20 | 1 | 234 |
| 2 | 21-50 | 16 | 209 |
| 3 | 51-80 | 16 | 232 |
| 4 | over 80 | 7 | 218 |
| TOTAL | | 40 | |

Variable 4: Conducted Adult Classes

Table 5 shows that twelve teachers conducted adult classes in 1975-1976. The anova test showed no significant difference in mean hours worked per month between the twelve teachers who conducted adult classes and the 28 teachers who did not conduct adult classes. There were, however, significant differences found in four of the 27 duty categories. Teachers who conducted adult classes devoted significantly higher mean hours per month to planning and conducting an adult program, participating in community activities and responsibilities, organizing and using advisory committees, and conducting post-high school agriculture instruction, including supervision of off-farm agriculture job placement.

Variable 5: Formal or Informal Advisory Committee Utilized

Table 6 shows that 28 teachers indicated they utilized a formal or informal advisory committee in their department. The anova mean difference test showed no significant difference in mean hours worked per month between the 28 teachers who did and the 12 teachers who indicated they did not use advisory committees. There were, however, significant differences found in three of the 27 duty categories based on this variable. Teachers who utilized advisory committees recorded significantly higher mean hours per month in supervising occupational

experience programs, completing award applications, and planning and operating an advisory committee.

TABLE 4

A COMPARISON OF MEAN HOURS WORKED PER MONTH FOR FORTY NEBRASKA VOCATIONAL AGRICULTURE TEACHERS WHO DID AND DID NOT CONDUCT YOUNG FARMER CLASSES DURING 1975-1976

| Conducted Young Farmer Classes | Number of Teachers | Mean Hours Per Month |
|--------------------------------|--------------------|----------------------|
| Yes | 14 | 220 |
| No | 26 | 221 |
| TOTAL | | 40 |

TABLE 5

A COMPARISON OF MEAN HOURS WORKED PER MONTH FOR FORTY NEBRASKA VOCATIONAL AGRICULTURE TEACHERS WHO DID AND DID NOT CONDUCT ADULT CLASSES DURING 1975-1976

| Conducted Adult Classes | Number of Teachers | Mean Hours Per Month |
|-------------------------|--------------------|----------------------|
| Yes | 12 | 241 |
| No | 28 | 212 |
| TOTAL | | 40 |

Summary

Forty teachers of vocational agriculture in Nebraska worked an average of 2652 hours per year, or 221 hours per month. About one-third of their time was used for teaching agriculture day classes, eleven percent for supervising FFA activities, eight percent for curriculum planning, and six percent for supervising occupational experience programs. These

four duty categories accounted for 56 percent of the time of the teachers.

TABLE 6

A COMPARISON OF MEAN HOURS WORKED PER MONTH FOR
 FORTY NEBRASKA VOCATIONAL AGRICULTURE TEACHERS
 BASED ON UTILIZATION OF A FORMAL OR
 INFORMAL ADVISORY COMMITTEE

| Used an Advisory Committee | Number Teachers | Mean Hours Per Month |
|-------------------------------|--------------------|-------------------------|
| Yes | 28 | 225 |
| No | 12 | 209 |
| TOTAL | | 40 |

Of the five program-oriented variables studied and being reported, none had significant influence on mean hours worked per month for the 40 teachers. There were, however, several significant differences found among groups on the anova tests for certain duty categories. Teachers with 21-60 students enrolled in their program devoted significantly higher mean hours per month to other school responsibilities. Teachers with 61-90 FFA members devoted significantly higher mean hours per month to teaching non-agriculture classes and completing award applications.

Teachers who conducted young farmer classes devoted significantly higher mean hours per month to conducting young farmer programs and participating in young farmer associations, and significantly fewer mean hours per month toward upkeep of facilities and serving as class sponsor. Teachers who conducted adult classes devoted significantly higher mean hours per month to conducting an adult program, participating in community activities, organizing and using advisory committees, and conducting post-high agriculture instruction including supervision of on-job placement.

Teachers who utilized advisory committees devoted significantly higher mean hours per month to supervising occupational experience programs, completing award applications, and planning and using advisory groups.

These data provide strong clues for the agriculture teacher, and for the teacher educator to (1) examine how teacher time is being utilized, and (2) evaluate if time is being efficiently and effectively allocated in line with established approved practices as outlined in federal, state, and local vocational education policy.

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