

A STUDY TO DETERMINE AN ACCEPTABLE TEACHING LOAD IN VOCATIONAL AGRICULTURE

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During this Bicentennial year there continues to be a shortage of qualified teachers of Vocational Agriculture throughout the United States. Shortages in numbers of undergraduates in teacher preparation programs are quite evident when compared with the projected needs for teachers in programs of Vocational Agriculture. In many states, this continued shortage has been reflected in ever increasing teacher loads. The end result has been that larger student enrollments have been a threat to some concepts considered fundamental to programs of Vocational Agriculture.

Like many other states, Vocational Agriculture enrollments in Washington have been increasing each year. A study¹ was conducted to determine if large student enrollments would have an effect on the participation of students in supervised agricultural experience programs and in the FFA.

Objectives

The major objectives of the study were to identify:

1. The current student enrollment per teacher of Vocational Agriculture in Washington.
2. Areas of Vocational Agriculture program that suffer as a result of teacher overload.
3. An acceptable teaching load as viewed by school superintendents, high school principals, and teachers of Vocational Agriculture.
4. The recommended student enrollment per Vocational Agriculture class, and the maximum number of students that can be effectively supervised according to the Vocational Agriculture teacher, high school principal, and district superintendent.

Methodology

Questionnaires were sent to all Vocational Agriculture teachers in Washington, and to their high school principals, and district superintendents. A total of 136 returns were received from teachers, 96 from principals, and 94 from superintendents.

Results

Table I shows the number and percent of individual students taught by the 136 responding teachers of Vocational Agriculture. Three-fourths, or 102 teachers, reported that they were each instructing over 75 students.

Table I

Student Enrollment as Reported by 136
Vocational Agriculture Teachers

<u>Number of Students</u>	<u>Number of Teachers</u>	<u>Percent</u>
0 - 49	12	9
50 - 74	17	12
75 - 99	49	36
100 - 125	41	30
Over 125	12	9
No answer	<u>5</u>	<u>4</u>
Total	136	100

The same group of Vocational Agriculture teachers reported on the number of students which had supervised agricultural experience programs. Table I shows that 102 teachers had enrollments of over 75 students. Yet, only 23 teachers indicated that they had 75 students with supervised programs. The data clearly indicates that many students do not participate in a supervised agricultural experience program.

Table II

Number of Student Supervised Agricultural Experience
Programs (SAEP) as Reported by 136
Vocational Agriculture Teachers

<u>Students with (SAEP)</u>	<u>Number of Teachers</u>	<u>Percent</u>
None	11	8
1 - 25	36	26
26 - 50	47	34
51 - 75	17	13
Over 75	23	17
No answer	<u>2</u>	<u>2</u>
Total	136	100

Table III shows that 75 percent of the respondents had less than 70 students who were members of the Future Farmers of America. This information reveals that a large number of students do not belong to an FFA chapter.

Table III

Number of Students in Vocational Agriculture Classes who were Members of the FFA as Reported by 136 Vocational Agriculture Teachers

<u>No. of Students</u>	<u>No. of Teachers</u>	<u>Enrollment</u>	<u>No. of Students</u>	<u>No. of Teachers</u>	<u>Enrollment</u>
None	5	3.5	61 - 70	7	5
1 - 10	13	10	71 - 80	10	7
11 - 20	17	13	81 - 90	5	2.5
21 - 30	15	11	91 - 100	7	5
31 - 40	21	15	101 - 110	6	4.5
41 - 50	16	12	111 - 150	2	2
51 - 60	8	5.5	No answer	<u>4</u>	<u>5</u>
			TOTAL	136	100

Vocational Agriculture teachers indicated as shown in Table IV that supervised agricultural experience programs were the first to suffer as a result of student overload. FFA supervision was the second most neglected area. Table IV totals do not equal 136 as some teachers do not have responsibilities for all five areas. This is due to differences in teacher assignments in multiple teacher departments.

Table IV

Agriculture Teachers Ranking of Areas Which are Neglected Because of High Student Enrollment

	<u>Classroom</u>	<u>Shop</u>	<u>FFA</u>	<u>Supervised Farming</u>	<u>Cooperative Education</u>
First	11	14	21	61	23
Second	19	6	49	41	10
Third	37	21	36	13	15
Fourth	40	39	15	8	8
Fifth	15	22	2	0	28

Table V pertains to the number of students per class which Vocational Agriculture teachers can most effectively teach as perceived by teachers, principals, and superintendents. It is apparent from the data that administrators are in favor of greater numbers per class than the teacher.

Table V

The Most Satisfactory Number of Students That Can be Taught Effectively in an Agriculture Class

<u>No. of Students</u>	<u>No. of Teachers</u>	<u>Percent</u>	<u>Principals</u>	<u>Percent</u>	<u>Superintendents</u>	<u>Percent</u>
10 - 15	42	31	7	7	9	10
16 - 20	72	53	43	45	39	41
21 - 25	19	14	36	37	35	37
26 - 30	0	0	8	9	8	9
Over 30	0	0	1	1	0	0
No answer	<u>3</u>	<u>2</u>	<u>1</u>	<u>1</u>	<u>3</u>	<u>3</u>
TOTALS	136	100	96	100	94	100

When the same groups were asked what was the maximum number of students a teacher of Vocational Agriculture could supervise in each class, the results as shown in Table VI increased about 5 students per class.

Table VI

The Maximum Number of Students That Can be Taught Effectively in a Vocational Agriculture Class

<u>No. of Students</u>	<u>No. of Teachers</u>	<u>Percent of Total</u>	<u>No. of Principals</u>	<u>Percent of Total</u>	<u>No. of Superintendents</u>	<u>Percent of Total</u>
10 - 15	7	5	1	1	2	2
16 - 20	47	35	9	9	6	7
21 - 25	62	46	37	40	44	47
26 - 30	15	11	31	32	32	33
Over 30	3	2	15	16	8	9
No answer	<u>2</u>	<u>1</u>	<u>2</u>	<u>2</u>	<u>2</u>	<u>2</u>
TOTALS	136	100	96	100	94	100

Teachers, principals, and superintendents were asked to respond to the recommended number of students per shop class which Vocational Agricultural teachers can teach most effectively and the maximum number of students that can be safely taught and supervised. Vocational Agriculture teachers, principals, and superintendents responded as given in Table VII and VIII.

Agriculture teachers and administrators agreed that 11 - 16 students enrolled in a shop class was the most satisfactory. However, administrators indicated that the maximum number of students that could be taught effectively by the Agriculture teacher could reach 25. Most agriculture teachers stated that over 20 students is excessive.

Table VIII

The Maximum Number of Students That Can be Taught Effectively and Safely in a Vocational Agriculture Shop Class

<u>No. of Students</u>	<u>Teachers</u>	<u>Percent</u>	<u>Principals</u>	<u>Percent</u>	<u>Superintendents</u>	<u>Percent</u>
1 - 10	1	1	0	0	0	0
11 - 16	48	36	24	25	20	21
17 - 20	63	46	32	33	32	35
21 - 25	14	10	34	36	37	40
26 - 30	0	0	2	2	0	0
No answer	<u>10</u>	<u>7</u>	<u>4</u>	<u>4</u>	<u>5</u>	<u>4</u>
TOTALS	136	100	96	100	94	100

Table VII

The Recommended Number of Students That Can be Taught Effectively and Safely in a Vocational Agriculture Shop Class

<u>No. of Students</u>	<u>Teachers</u>	<u>Percent</u>	<u>Principals</u>	<u>Percent</u>	<u>Superintendents</u>	<u>Percent</u>
1 - 10	11	8	3	3	5	5
11 - 16	99	66	50	53	41	45
17 - 20	29	21	36	38	38	42
21 - 30	0	0	4	4	4	4
No answer	<u>7</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>4</u>	<u>4</u>
TOTALS	136	100	95	100	92	100

Summary

The study showed that Vocational Agriculture teachers in Washington for the most part have too many students enrolled in Vocational Agriculture to effectively supervise all aspects of their program.

Vocational Agriculture teachers reported that an average of 71.8 individual students was an acceptable daily teaching load. Principals recommended an average of 88.5, and superintendents 86.7 individual students. The study showed that 75 percent, or 102, of the 136 teachers had enrollments of over 75 students with 12 teachers showing enrollments in excess of 125.

Over half of the teachers reported that supervised agricultural experience programs were the initial area neglected, because of teacher overload. For the same reason 21 percent indicated that the FFA was the most neglected.

The majority of the Vocational Agriculture teachers, principals, and school superintendents agreed that 16-20 students per agriculture class was the most satisfactory teaching situation. However, 37 percent of the administrators indicated that 21-25 students was a satisfactory class size. The same situation existed concerning the maximum number of students that can be taught effectively in a Vocational Agriculture class. Vocational Agriculture teachers and administrators stated that 21-25 students was about the maximum number of students per class. Yet, administrators (over 30%) indicated that 26-30 was not too many.

When applying the same principle to shop classes, teachers recommended an average of 14.5 students per class. They indicated that about 17 was the maximum that they could control effectively. Administrators recommended that 16 students per shop class was most satisfactory and 20 as the recommended maximum.

Implications

Survey results indicate that very often large enrollment per teacher has its effect on the quality of a Vocational Agriculture program. When enrollment per teacher reaches a certain level, it is impossible for the teacher to perform adequately. Teachers cannot devote the time needed with students to properly develop and supervise agricultural experience programs. Likewise, FFA chapters with a wide variety of activities becomes an exception rather than the general rule. Shops that become overcrowded are places where safety hazards are more likely to take place. When these situations exist, a decision must be made: either enrollment must be curtailed or teaching personnel must be added.

Agricultural supervisors and teacher educators have recently requested new standards. When enrollment in a Vocational Agriculture program reaches one hundred (100) students, the district will give consideration to the employment of additional staff. This has been accepted by the Superintendent of Public Instruction, Old Capitol Building, Olympia, Washington 98504. Enrollments in excess of 100 students per teacher in a Vocational Agriculture program is not expected in the future. The adoption of such guidelines would help to insure the vocational integrity of the courses offered.

Footnotes

¹A Study to Determine an Acceptable Teaching Load in Vocational Agriculture, Washington State University, Robert E. Gallagher, Joseph G. Cvancara.