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A Survey of the Public High School Commercial Departments in the State of Washington

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A SURVEY
of the
PUBLIC HIGH SCHOOL COMMERCIAL DEPARTMENTS
IN THE STATE OF WASHINGTON

A Thesis
Presented to
the Faculty of the School of Education
Central Washington College of Education

In Partial Fulfillment
of the Requirements for the Degree
Master of Education

by
Ralph Vernon Thomas

December, 1954

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COLLECTION

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ACKNOWLEDGMENTS

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TABLE OF CONTENTS

CHAPTER	PAGE
I. THE PROBLEM AND DEFINITIONS OF TERMS USED . .	1
The problem	1
Statement of the problem	1
Importance of the study	2
Definitions of terms used	2
Organization of the thesis	3
Methodology	3
A statement of the sources of data.	3
Method of procedure	4
Treatment of the findings	7
II. REVIEW OF THE LITERATURE	8
III. THE QUESTIONNAIRE RESULTS	11
Explanation of Table I.	11
Explanation of Table II	14
Explanation of Table III	17
Explanation of Table IV	19
Explanation of Table V	22
Explanation of Table VI	28

Explanation of Table VII	31
Explanation of Table VIII	34
Explanation of Table IX	36
Explanation of Table X	39
Explanation of Table XI	42
Explanation of Table XII	44
Explanation of Table XIII	48
IV. SUMMARY AND CONCLUSIONS	53
Summary	53
Conclusions	54
Recommendations	57
BIBLIOGRAPHY	61
APPENDICES	62
A. First questionnaire	62
B. Follow-up post card	66
C. Final questionnaire	68
D. A compiled list of suggestions and comments taken from question ten on the questionnaire	72

LIST OF TABLES

TABLE	PAGE
I. Group Percentages of Current High School	
Enrollments	13
II. Three-Year and Four-Year High Schools by	
Enrollments	16
III. Total Number of Teachers Employed	18
IV. Total Number of Commercial Teachers	
Employed per High School	21
V. Subject Offerings with Related Information from	
the Commercial Departments of the	
224 High Schools of this Study	27
VI. Frequency of Subject Offerings in the Commercial	
Departments of the 224 High Schools in this	
Study	30
VII. Number of Business Machines Available in the	
Commercial Departments of the	
224 High Schools in this Study	33
VIII. Total Number of Business Machines Available	
in the Commercial Departments of the	
224 High Schools in this Study	35

**IX. Electric Typewriters per High School in the
State of Washington Reporting 38**

**X. Manual Typewriters per High School in the
224 High Schools of this Study 41**

**XI. Commercial Clubs Sponsored by the Commercial
Departments of the 224 High Schools in this
Study 43**

**XII. The Commercial Subject Course Additions
that were Requested by the 224 High Schools
in this study 47**

**XIII. The Commercial Subjects that could be Eliminated
or were of the Least Value in the 224 High Schools
of this Study 52**

CHAPTER I

THE PROBLEM AND DEFINITIONS OF TERMS USED

For a long period of time information about the commercial courses of the high schools of the State of Washington has been needed. It is hoped that from this study will come an understanding of the present commercial curriculum which will enable educators to realize the present status of commercial subjects and opportunities for enrichment of this curriculum.

I. THE PROBLEM

Statement of the Problem. The purpose of this study was to survey the commercial curriculum of the high schools of the State of Washington. Of particular emphasis was (1) the number of high school commercial teachers employed; (2) commercial subjects offered, grade level at which offered, and total semesters offered; (3) the availability of business machines; (4) commercial courses least needed, and (5) commercial course subjects that could be added. This survey reveals the common characteristics of the commercial departments of the high schools at this time.

Importance of the study. Research material about the commercial departments of the high schools in this State is extremely limited. This study was built around an attempt to take an unbiased inventory of the commercial course offerings and situations in the State of Washington. In this study an earnest attempt was made to use the questionnaire as fairly as possible. Although this is the second thesis in the field of commercial education in this state,¹ it is important from time to time to review the progress and to reevaluate the program. The present study will provide a measure or point of departure from which a later study and recommendations could be made.

II. DEFINITIONS OF TERMS USED

This study. This study refers to this thesis in its entirety, consisting of 224 questionnaires returned from the public high schools of the State of Washington.

High schools of the State of Washington, also High schools. These are the accredited three- and four-year public high schools of the State of Washington, accredited by the State Department of Education.

¹ Gibson, Mildred, "A Survey of the Commercial Curriculum of the High Schools of the State of Washington for the Year 1947-48." Unpublished Master's Thesis, Washington State College, Pullman, Washington, 1948.

Shorthand. This includes all types of shorthand, Gregg, Linton, Thomas, etc., that are taught in the public high schools of the State of Washington.

III. ORGANIZATION OF THE THESIS

Chapter II reviews the literature available in the field. The decided lack of related information was one of the determining factors in the selection of this study.

Chapter III includes the presentation of the results of the questionnaires. This chapter deals entirely with the original research gathered for this thesis.

Chapter IV contains a summary of this study with recommendations and conclusions. Following Chapter IV is the bibliography and the appendices.

IV. METHODOLOGY

A statement of the sources of data. The questionnaire in this study was mailed to each principal of an accredited high school in the State of Washington. The list of accredited high schools was obtained from the Washington Educational Directory.¹

¹ Wanamaker, Pearl A., Superintendent of Public Instruction, Washington Educational Directory (Olympia, Washington: State Printing Plant, 1952-1953), pp. 30-33.

Method of procedure. After the problem was defined, a questionnaire was devised upon the following principles, which are stated by Bowley, with reference to the questions asked:

(1) They should be comparatively few in number; (2) it is better that they require an answer in terms of a number, or of a "yes" or "no"; (3) they should be simple enough to be readily understood; (4) they should be formulated so as to avoid bias in answering; (5) they should not be impertinently or unduly inquisitorial in character; (6) so far as possible, they should be corroboratory, or provide checks on each other as to accuracy; (7) and they should cover the points of information desired as directly and unmistakably as possible.¹

Ackoff goes beyond Bowley and states that:

. . . Questionnaires may be effective where the participants can be assumed to know what their pertinent interests are and are willing to communicate their interests.²

Upon the completion of the questionnaire it was pretested at the Central Washington College of Education, under the guidance and with the cooperation of the Business Education Department, during the summer of 1953. The pretest questionnaire was given to commercial teachers who had returned to the college for advanced work. It was felt a pretest was necessary to improve the questionnaire, if possible,

¹ Bowley, A. C., Elements of Statistics (London: P. S. King and Company, 1920), pp. 18-25.

² Ackoff, Russell L., The Design of Social Research, (Chicago: The University of Chicago Press, 1953), p. 23.

before mailing it out. Gee states that

If possible, a test should first be made by sending the questionnaire, in typewritten or mimeographed form, to a small number of those to be solicited, to see how they answer it. This provides opportunity to improve it before it is broadcast.¹

Following the pretest the necessary corrections and additions were made and a copy of the questionnaire was then mailed to the principal of each accredited high school in the state on December 7, 1953.²

December 7, 1953, was chosen as the date for mailing the questionnaires as it seemed the best possible date for getting the maximum returns. Prior to Thanksgiving, a principal is usually very busy with the start of a new school year. One week was allowed for the school situations to return to normal following Thanksgiving vacation, and then the questionnaires were mailed. This allowed the principal about three weeks for returning the completed questionnaires, during which time one follow-up post card could be mailed before Christmas vacation.

¹ Gee, Wilson, Social Science Research Methods (New York: Appleton-Century-Crofts, Inc., 1950), p. 318.

² See Appendix A.

On December 18, 1953, a mimeographed post card reminder was mailed to each principal whose questionnaire had not been returned.¹ On January 6, 1954, a second questionnaire was mailed to all principals who had not returned the original questionnaire.² The second questionnaire was the same as the original, with the exception of the accompanying letter as shown in Appendix A. It was not felt that additional reminders would be beneficial to the total program as by this time 232 questionnaires had been returned from the 248 accredited high schools in this state to whom questionnaires had been mailed. Therefore, a return of 93.5 per cent was forthcoming from the questionnaires mailed to the high schools in this study. Eigelberner comments that

Often the percentage of replies received from questionnaires is discouragingly low. A return of between 8 per cent and 10 per cent is considered good for those types of questionnaires that are sent out to dealers, consumers, and so forth, as a part of a market survey. In the case of special questionnaires sent to scientists, technicians, engineers, and so forth, a larger percentage of replies is often obtained. The writer, in a number of cases of this kind, has had as high as 70 per cent returns and knows of cases where even higher percentages have been received.³

¹ See Appendix B.

² See Appendix C.

³ Eigelberner, J., The Investigation of Business Problems, (New York: McGraw-Hill Book Company, 1926), pp. 150-151.

Treatment of the findings. As the questionnaires were returned, the name of the school was checked off the master card lists. The results were then tallied by the relative position and number of the question on the questionnaire. The information was double checked. The results were then converted to tables, similar to the tables appearing in Chapter III of this thesis. After converting the questionnaire results to tables, the tables were then explained, and the tables and explanations combined formed Chapter III. A brief summary of the questionnaire results may be found in the conclusion to this thesis.

CHAPTER II

REVIEW OF THE LITERATURE

There has been only one other study made in this state that is related to this thesis. Because of the limited amount of research in this area, an attempt will be made here to briefly summarize the previous study, written in 1948.¹

For this study 203 responses to the questionnaires were returned out of 326 questionnaires mailed, for a return of 62 per cent.

The majority (95.1 per cent) of the high schools in this state offered commercial subjects at the time this study was made.

The skill subjects (typewriting, bookkeeping, and shorthand) were being greatly stressed. Typewriting I was taught by more schools than any other commercial subject, followed by Bookkeeping I, Typewriting III, and then Shorthand I. Of these three basic commercial subjects, Typewriting I was offered in 98.9 per cent of the schools reporting; Bookkeeping I was offered in 78.5 per cent of the schools reporting, and Shorthand I was offered in 67.8 per cent of the schools reporting in this study.

¹ Gibson, Mildred, "A Survey of the Commercial Curriculum of the High Schools of the State of Washington for the Year 1947-48." Unpublished Master's Thesis, Washington State College, Pullman, Washington, 1948.

An effort on the part of the smaller schools to supplement their curriculums by offering additional subjects on alternating years or when the demand presented itself was apparent. Shorthand was the subject most frequently listed as sometimes taught. Other subjects, in the order of their frequency, were Bookkeeping I, Commercial Law, Business Arithmetic, General Business, and Economic Geography.

Little was being done to stimulate interest in commercial clubs in the high schools, as less than half of the schools had commercial clubs or participated in extra-curricular business activities.

Few schools contemplated adding any additional commercial subject. However, forty-four schools did list some commercial subjects which might be added in the future. The leading subjects that were requested were Office Practice, Office Machines, and Business English.

No commercial subject was offered below the ninth grade, and the only subject offered to any extent in the ninth grade was General Business.

A study of the foregoing findings resulted in a list of recommendations which concluded the study. A few of the more important recommendations are summarized here.

Leading the list of important recommendations was a request for further efforts toward consolidation of neighboring small high schools. This request was made in an effort to offer more complete commercial

programs and to provide better trained commercial teachers. Also every effort should be made for all commercial teachers to hold at least a minor in commercial work.

It was felt that the practice of giving credit for unorganized office work done for the high school principal or superintendent under his supervision should be changed, either by enlarging upon the subject matter offered under such a program or by listing credit for this work under extra-curricular activity credits rather than subject matter course credit.

Expensive office machines could be circulated among several high schools, much like the traveling library plan.

Alternate year programs should be worked out with extreme care. Because of the rapid turnover of teachers a new curriculum should be so planned that it can and will be carried out, despite faculty change.

Consolidation of certain commercial subject classes where the enrollment is very small should be studied in order to derive the most good from the teaching personnel and the available facilities.

Commercial educators should consider the problem of overcrowded schedules for commercial students in their last two years of high school, particularly in the twelfth year, in an effort to shift some of the subjects to the ninth and tenth years.

CHAPTER III

THE QUESTIONNAIRE RESULTS

Explanation of Table I

Table I shows the group percentage distribution for the current enrollment in the high schools of the State of Washington reporting. The high schools reporting range in size from an enrollment of 30 to 2400 students with the median falling in the second size group at 178.5 students. The groups are in ranges of 100's. The largest number of schools reporting (29.5 per cent of the total) is in the group having an enrollment of less than one hundred. The second largest number of schools reporting, the 100-199 group, contains 24.3 per cent of the total. The third largest number of high schools reporting, or 14.8 per cent of the total, is in the 200-299 group. The majority of the high schools in this study, 82 per cent of the total, have an enrollment under 500 students, as compared to those with an enrollment of over 500 students or 18 per cent of the total. Only 31.4 per cent of the high schools reporting have an enrollment of over 300 students. While the results will indicate the status of commercial opportunities in the larger high schools, as well as the smaller ones, it must be kept in

mind that the majority of the schools, 68.6 per cent of the total, have an enrollment below 300 students, and that the median high school in this study has an enrollment of 178.5 students. Therefore, the figures on commercial subjects and commercial teachers are related primarily to the school of this median size.

TABLE I
 GROUP PERCENTAGES
 OF CURRENT HIGH SCHOOL ENROLLMENTS

Group	Number of schools reporting	Percentage of schools reporting
0 - 99	66	29.5
100 - 199	54	24.3
200 - 299	33	14.8
300 - 399	13	5.8
400 - 499	17	7.6
500 - 599	3	1.3
600 - 699	6	2.7
700 - 799	6	2.7
800 - 899	3	1.3
900 - 999	4	1.8
1000 - 1099	0	0.0
1100 - 1199	1	0.4
1200 - 1299	2	0.9
1300 - 1399	3	1.3
1400 - 1499	1	0.4
1500 - 1599	2	0.9
1600 - 1699	3	1.3
1700 - 1799	4	1.8
1800 - 1899	0	0.0
1900 - 1999	1	0.4
2000 - 2099	0	0.0
2100 - 2199	1	0.4
2200 - 2299	0	0.0
2300 - 2399	0	0.0
2400 - 2499	1	0.4
TOTALS	224	100.0

Explanation of Table II

Table II lists the number of three-year and four-year high schools in the State of Washington reporting, by enrollment. The table shows that 78 per cent of the total are four-year high schools while 22 per cent are three-year high schools, the ratio being about 4 to 1 in favor of the four-year high school. Of the total three-year high schools 59 per cent are over 300 in size, but these are only 13 per cent of the total number of high schools in this study. There are no three-year high schools with an enrollment under one hundred. This data certainly shows that the three-year high school appears much more frequently in the larger high school. This fact is also shown in the comparison of the medians of the three-year and four-year high schools from Table II. The median of the total number of four-year high schools reporting is in the 100-199 group, while the three-year high school median is in the 400-499 group. Thus the median of the four-year high school is about the same as the median for the total high schools reporting as shown in Table I as 178.5 students.

Another comparison of the three-year against the four-year high school shows that 22 per cent of the schools reporting were three-year high schools, while the three-year high schools reported 39 per cent of the enrollment. This fact compared against the four-year high schools

with 78 per cent of the schools reporting shows a student enrollment of 61 per cent. The conclusion may be drawn that the three-year high school is larger on the average than is the four-year high school by 17 per cent of the total enrollment.

The total number of students enrolled in the three-year high schools reporting is 30,214 students and the students enrolled in the four-year high schools total 48,149 students for a total student enrollment of 78,363. This fact restated in percentages shows that 39 per cent of the students are enrolled in three-year high schools and 61 per cent of the students are enrolled in four-year high schools, for those schools reporting in this study. Although the majority of the high schools reporting are comparatively small four-year high schools, it still must be taken into consideration that the larger enrollment of the individual three-year high school has tended to overstate the median of 178.5 students per high school.

TABLE II
THREE-YEAR AND FOUR-YEAR HIGH SCHOOLS
BY ENROLLMENTS

Group	Number of schools reporting	Three-Year high schools	Four-Year high schools
0 - 99	66	0	66
100 - 199	54	11	43
200 - 299	33	9	24
300 - 399	13	4	9
400 - 499	17	6	11
500 - 599	3	2	1
600 - 699	6	3	3
700 - 799	6	2	4
800 - 899	3	1	2
900 - 999	4	1	3
1000 -1099	0	0	0
1100 -1199	1	1	0
1200 -1299	2	1	1
1300 -1399	3	1	2
1400 -1499	1	0	1
1500 -1599	2	2	0
1600 -1699	3	1	2
1700 -1799	4	3	1
1800 -1899	0	0	0
1900 -1999	1	0	1
2000 -2099	0	0	0
2100 -2199	1	0	1
2200 -2299	0	0	0
2300 -2399	0	0	0
2400 -2499	1	1	0
TOTALS	224	49	175

Explanation of Table III

Table III shows the total number of teachers employed in the high schools of this study. Of the 224 schools reporting in this study 80 per cent have less than twenty-five teachers in their high school. Of the high schools reporting, 65 per cent have less than fifteen teachers, and 46 per cent of the schools in this state have less than ten teachers per high school. The median for the total number of high school teachers per high school falls in the ten to fourteen teachers employed per high school group. Only twenty per cent of the high schools reporting have a total teacher staff of more than twenty-five teachers.

There were 78,363 students enrolled in the high schools that answered this questionnaire. The total teachers employed in this study totaled 3,843 teachers. From the above figures it is possible to obtain a student-teacher ratio of 20.4 to 1 in the high schools of this state reporting.

TABLE III
TOTAL NUMBER OF TEACHERS EMPLOYED

Teachers employed per high school	Frequency
0 - 4	17
5 - 9	86
10 - 14	43
15 - 19	21
20 - 24	11
25 - 29	8
30 - 34	12
35 - 39	4
40 - 44	4
45 - 49	2
50 - 54	0
55 - 59	6
60 - 64	0
65 - 69	5
70 - 74	2
75 - 79	2
80 - 84	1
Total	<u>224</u>

Explanation of Table IV

Table IV shows the total number of commercial teachers employed in the high schools of the State of Washington reporting. Approximately 71 per cent of the high schools in this study have less than two commercial teachers in their commercial departments. Only about 14 per cent of the high schools reporting have more than three commercial teachers per high school. The median commercial department in the high schools of this state contains at least one but less than two commercial teachers per high school.

The following comments concerning the small number of commercial teachers per high school were noted as being of interest.

. . . Under present conditions our offerings are about the best we can do since our commercial teacher must also teach in other fields.¹

. . . The big difficulty we have found for a school of our size is to find a commercial teacher who can or is willing to teach in other areas.²

. . . We have had to cut Commercial Law and General Business from our curriculum because of a shortage of teachers to teach them. . .³

¹ See Appendix D.

² Loc. cit.

³ Loc. cit.

From the above typical comments the conclusion may be drawn that one of the difficulties of obtaining teachers in the commercial field is a lack of interest and willingness on the part of commercial teachers to teach in other unrelated fields. Perhaps this is due to a shortage of commercial teachers, which makes it unnecessary for them to teach outside of their specialized field in order to procure employment. Perhaps this shortage of commercial teachers who are willing to teach in other areas could be reduced by the teacher training institutions of this state. This might be done by encouraging those in other fields on the high school level to minor in commercial education.

As has been previously reported there were 78,363 students enrolled in the high schools of this state. The total number of commercial teachers employed in the high schools was 399, from which a student-teacher ratio of 196.5 students per teacher may be obtained. A comparison of the commercial teachers employed in this state, 399, to the total teachers employed, 3,843, shows that approximately 10 per cent of the teachers in this study teach in the commercial field.

TABLE IV
 TOTAL NUMBER OF COMMERCIAL TEACHERS
 EMPLOYED PER HIGH SCHOOL

Commercial teachers employed per high school			Frequency
at least	-	less than	
0	-	1	31
1	-	2	134
2	-	3	28
3	-	4	7
4	-	5	8
5	-	6	4
6	-	7	7
7	-	8	2
8	-	9	1
9	-	10	0
10	-	11	<u>2</u>
TOTAL			224

Explanation of Table V

Typewriting as shown in Table V is being offered in 219 out of 224 high schools in this study. This sizeable figure shows there are only five high schools in the study that do not offer typewriting on the high school level. Of the 98 per cent of the high schools that do offer typewriting, only one school in the study reported that they offer it on an alternate-year basis. The balance of the high schools indicated that typewriting was offered annually. Seven of the schools reporting noted that they required typewriting of a commercial major, while the balance of the high schools reported that they offered typewriting strictly on an elective basis. Of the schools in this study that offer typewriting, 90 per cent admit seniors, 95 per cent admit juniors, 68 per cent admit sophomores, and 8 per cent admit freshmen to the typewriting classes. While typewriting courses vary in length, 24 per cent of the schools in this study offer a one-year course, 6 per cent offer a three-semester course, 69 per cent offer a two-year course, while the remaining schools of the 219 in this study report that they offer a three-year course in typewriting.

The typewriting comments that were returned with the questionnaires in this study were very interesting.

Typing should be required of all "C" grade or better students in high school. ¹

In another year we will add ten typewriters because of growing interest in commercial work and an increasing enrollment. ²

We have maintained a class entitled "Office Practice" in the past but this bowed to an increased demand for another class in beginning typing. We hope to add an advanced typing class and run it alternate years in the future. ³

Typing in 8, 9, or 10th level very desirable to improve quality of instruction and learning in the total program. ⁴

. . . Actually we have more students in typing than all other commercial courses combined. Three classes of 35 each plus 15 advanced typing. ⁵

We are sold on typing for 9th graders. ⁶

Every comment, as shown above, is a positive approach to the typewriting problem. Two of the comments deal directly with a growing interest in commercial work, while two of the suggestions are that typewriting be offered on the eighth, ninth, and tenth grade level. At the present time only 8 per cent of the schools in this study admit students

¹ See Appendix D.

² Loc. cit.

³ Loc. cit.

⁴ Loc. cit.

⁵ Loc. cit.

⁶ Loc. cit.

with less than junior standing to typewriting classes. As evidence of the rapid growth of typewriting is the comment stating that there are more students enrolled in typewriting classes than in all other commercial courses combined, in this one particular situation.

Bookkeeping is the second most frequently offered subject in the commercial departments of the high schools of this study as shown in Table V. Bookkeeping was checked as being offered in 97 per cent of the high schools in this study. Of the schools that reported bookkeeping as being offered in their commercial departments 85 per cent reported that they offer a one-year course, while the remaining 15 per cent of the schools reported that they offer a two-year course in bookkeeping. With regard to the grade level at which bookkeeping may be taken this study shows that 98 per cent of the schools admit seniors, 45 per cent of the schools admit juniors, 30 per cent admit sophomores, and only one school in the study admitted freshmen to their bookkeeping classes. It is interesting to note that bookkeeping is the only subject in the commercial curriculum that tends to limit instruction to seniors only. Only 2 per cent of the high schools in this study require bookkeeping of commercial majors in their curriculum, the remaining 98 per cent of the high schools offer bookkeeping on an elective basis only. While the majority of the high schools in this study offer bookkeeping every year,

18 per cent do offer bookkeeping only on an alternate-year basis.

The third most frequent subject offered in the high schools of this study, as reported in Table XII, is shorthand. The typewriting course was offered the most frequently with 98 per cent of the schools reporting, bookkeeping was second with 97 per cent of the schools reporting, and shorthand the third most popular course with 85 per cent of the high schools reporting that they offer shorthand in their commercial curriculum. Of the high schools that offer shorthand 98 per cent allow the students to take the course on strictly an elective basis. The grade level at which shorthand may be taken is as follows: seniors 95 per cent, juniors 89 per cent, sophomores 8 per cent, and only 2 per cent of the schools in this study admit freshmen to shorthand classes. Of the schools in this study 85 per cent offer their shorthand classes on a yearly basis, while the remaining 15 per cent offer shorthand on an alternate-year plan. Of the schools that do offer shorthand, 59 per cent offer a one-year course, 37 per cent offer a two-year course and 4 per cent of the schools in this study offer courses of different lengths.

Table V shows that only approximately 4 per cent of the courses in this state are required of commercial majors. The other commercial courses are offered on an elective basis. However, no commercial courses are required for high school graduation by state law.

As shown by Table V, 49 per cent of the commercial classes are offered and open for seniors, 33 per cent are open for juniors, 14 per cent are open for sophomores, while the remaining or 4 per cent are open for freshmen.

Only the three most frequently offered commercial courses have been discussed above. The remaining courses, with supporting data, are shown in Table V.

TABLE V

SUBJECT OFFERINGS WITH RELATED INFORMATION FROM
THE COMMERCIAL DEPARTMENTS OF THE 224 HIGH SCHOOLS OF THIS STUDY

Grade level at which subject may be taken	E l e c t i v e	R e q u i r e d	SUBJECTS OFFERED				Offered		TOTAL SEMESTERS OFFERED						Total Times Subject Offered in Study
							Y e a r l y	A s s e s s m e n t	1	2	3	4	5	6	
1	65	97	214	212	5	Bookkeeping	177	40	0	185	0	32	0	0	217
0	1	0	0	1	0	Personal Bookkeeping	1	0	0	1	0	0	0	0	1
18	152	212	202	212	7	Typewriting	218	1	0	53	13	152	0	1	219
0	0	2	2	2	0	Consumer Math	2	0	1	1	0	0	0	0	2
20	25	20	23	48	2	Business Arithmetic	42	8	25	25	0	0	0	0	50
2	3	14	34	32	5	Business English	37	0	30	7	0	0	0	0	37
0	0	2	2	2	0	Business Administration	0	2	2	0	0	0	0	0	2
1	9	44	64	66	3	Business Law	54	15	50	19	0	0	0	0	69
4	13	14	14	23	0	Commercial Geography	17	6	19	4	0	0	0	0	23
0	4	47	71	78	2	Economics	54	26	71	9	0	0	0	0	80
3	1	0	0	3	0	Penmanship	3	0	5	0	0	0	0	0	3
43	21	8	5	48	8	Business Training or General Business (9th Grade)	46	10	12	44					56
0	2	5	18	19	0	Business Training or General Business or Senior Business Training (12th Grade)	16	3	4	15	0	0	0	0	19
0	0	0	1	1	0	Business Practice	1	0	1	0	0	0	0	0	1
0	1	1	5	6	0	Salesmanship	6	0	4	2	0	0	0	0	6
0	0	2	2	2	0	Distributive Education	22	0	1	21	0	0	0	0	22
1	5	9	16	18	2	Consumer Education	15	5	16	4	0	0	0	0	20
0	0	2	0	2	0	Advertising	2	0	1	0	1	0	0	0	2
0	0	0	1	1	0	General Clerical Practice	1	0	1	0	0	0	0	0	1
3	15	171	181	187	4	Shorthand	163	28	1	112	7	71	0	0	191
4	12	61	126	125	4	Office Training	125	4	13	107	0	8	0	1	129
0	0	12	37	34	3	Transcription	36	1	14	19	0	4	0	0	37
0	1	20	40	40	1	Office Machines	40	1	21	19	0	1	0	0	41
0	0	2	2	1	1	Secretarial Training and Science	2	0	0	2	0	0	0	0	2
1	3	13	37	37	1	Work Experience	37	1	7	28	0	2	0	1	38

Explanation of Table VI

Table VI lists the commercial subjects offered in the high schools of the State of Washington tallied from the questionnaires returned.

Table VI is a summary of Table V. Typewriting leads the field with 98 per cent of the high schools offering typewriting in their commercial curriculum. Bookkeeping is second on the list with 97 per cent of the high schools in this study offering bookkeeping in their commercial curriculum. It has been well known for some time the important position that typewriting has taken on the high school curriculum; however, bookkeeping as shown by Table VI is as well represented as is typewriting, there being only 1 per cent fewer schools in this study offering bookkeeping than typewriting. Shorthand is third on Table VI with 85 per cent of the schools in this study offering a course in shorthand. The above three, typewriting, bookkeeping, and shorthand, are being offered in more than 85 per cent of the high schools in this study.

Office training, which is fourth on Table VI is reported in 58 per cent of the high schools in this study. This large percentage of schools reporting that office training is offered seems to question the validity of the interpretation of "office training" on the part of the principals involved. The questionnaire requested that the subjects offered be

checked. It was meant to mean for credit in the commercial department. It may be possible that a large number of principals checked their student office help, whether or not credit was given for the course. Nevertheless, there was a good showing for this subject by the fact that 58 per cent of the schools reporting do offer office training.

Economics with 36 per cent and Business Law with 31 per cent are grouped closely together on Table VI. General Business or Business Training (9th grade) and Business Arithmetic are next in popularity on commercial curriculums with a showing of 25 per cent and 22 per cent respectively, in this study.

The next group indicated is Office Machines with 18 per cent; then Work Experience, Transcription, and Business English each reporting 17 per cent. The remaining subjects offered in the commercial departments are represented in 10 per cent or less of the schools reporting. They are as follows: Commercial Geography, 10 per cent; Distributive Education, 10 per cent; Consumer Education, 9 per cent; Business Training or General Business (12th grade), 9 per cent; Salesmanship, 9 per cent; Penmanship, 3 per cent; Business Administration, Advertising, Secretarial Training (or Science) and Consumer Math reported in 1 per cent of the schools in this study. Business Practice, General Clerical Practice and Personal Bookkeeping were listed on only one questionnaire of the schools reporting in this study.

TABLE VI
FREQUENCY OF SUBJECT OFFERINGS
IN THE COMMERCIAL DEPARTMENTS
OF THE 224 HIGH SCHOOLS IN THIS STUDY

Subject	Number of schools offering	Per cent of schools offering
Typewriting	219	98
Bookkeeping	217	97
Shorthand	191	85
Office Training	129	58
Economics	80	36
Business Law	69	31
Business Training or General Business (9th Grade)	56	25
Business Arithmetic	50	22
Office Machines	41	18
Work Experience	38	17
Transcription	37	17
Business English	37	17
Commercial Geography	23	10
Distributive Education	22	10
Consumer Education	20	9
Business Training or General Business (12th Grade)	19	9
Salesmanship	6	3
Penmanship	3	1
Business Administration	2	1
Advertising	2	1
Secretarial Training (Science)	2	1
Consumer Math	2	1
Business Practice	1	0.5
General Clerical Practice	1	0.5
Personal Bookkeeping	1	0.5

Explanation of Table VII

Table VII lists the total number of business machines available per high school of the 224 high schools in this study. Of the machines listed in Table VII duplicating machines were listed as being available in all but 24 per cent of the high school commercial departments in this study. Of the 224 high schools in this study duplicating machines were the only group of machines that showed two machines per school more frequently than one machine per school. No doubt this is due to the two main types of duplicating machines available on the market at the present time, spirit duplicators and the mimeograph process duplicators.

The ten-key adding machines were reported as being available for instruction in 53 per cent of the high schools of this study, while the full-keyboard adding machines were reported as being in 52 per cent of the commercial departments of the high schools of this state. Voice-writing machines, of one type or another, were reported as being available in 26 per cent of the schools in this study. Approximately 25 per cent of the schools in this study report that they have both rotary calculators and/or key-driven calculators available in their commercial departments for instructional purposes. Bookkeeping

machines were listed as being available in only sixteen high schools of this study and only one high school reported that an addressograph machines was available and located in their commercial department.

There were 1,096 business machines reported as being available in this study. Of this figure 314 machines were listed as being the only machine of its type available in that high school's commercial department.

Explanation of Table VIII

Table VIII, which is a summarization and continuation of Table VII, shows the number of business machines available in the commercial departments of the 224 high schools in this study. The largest number, 27.6 per cent of the total machines reported, were duplicating machines. Key-driven calculators, ten-key adding machines, and full-keyboard adding machines each had approximately 16 per cent of the total machines reported. The only other groups listed were the voice-writing machines with about 10 per cent of the total, bookkeeping machines with 1.5 per cent of the total, and only one school reporting had an addressograph machine in its commercial department.

TABLE VIII
TOTAL NUMBER OF BUSINESS MACHINES AVAILABLE
IN THE COMMERCIAL DEPARTMENTS
OF THE 224 HIGH SCHOOLS IN THIS STUDY

Machines	Total machines reported in the study	Per cent of total machines
Duplicating Machines	303	27.6
Key-Driven Calculators	181	16.4
Ten-Key Adding Machines	178	16.3
Full-Keyboard Adding Machines	175	16.2
Rotary Calculators	132	12.0
Voice-Writing Machines	109	9.9
Bookkeeping Machines	17	1.5
Addressograph	1	.1
TOTAL	1,096	100.0

Explanation of Table IX

Table IX shows the accumulation of the data on the electric typewriters per high school in the State of Washington reporting. There was a total of 119 electric typewriters reported in this study, for 1.6 per cent of the total typewriters, manual and electric, available in the high schools of this study. Of the 224 high schools in the study, 73.4 per cent of the high schools reporting revealed that they had no electric typewriters. Only 11 per cent of the high schools of this state have two or more electric typewriters in their commercial departments. The largest number of high schools reported that they had electric typewriters available was the group that had one electric typewriter available per high school or 15.6 per cent of the total schools reporting.

Of the total students reporting, 78,363 students, it is possible to obtain a student-electric typewriter ratio of approximately one electric typewriter available for every 660 students. The electric typewriter-commercial teacher ratio is one electric typewriter available for every three commercial teachers. It is of further interest to point out that the median high school in the State of Washington reporting has no electric typewriters as shown by Table IX. The following comments show that the electric typewriter is gradually earning its place in the classroom

along with the manual typewriter.

. . . We could use additional business machines and an electric typewriter or two.¹

The electric typewriter is used for those students who want to become familiar with it for a period of three to four weeks each.²

We are including key punch fingering as part of our office machines course. We use the rotation plan in the course. Some of the students in the course spend nine weeks on it. Electric typewriters are used for the work. There is a great demand for key punch operators in state offices here in Olympia.³

¹ See Appendix D.

² Loc. cit.

³ Loc. cit.

TABLE IX
ELECTRIC TYPEWRITERS PER HIGH SCHOOL
IN THE STATE OF WASHINGTON REPORTING

Electric typewriters per high school reporting	Frequency	Per cent of high schools reporting
0	164	73.4
1	35	15.6
2	13	5.8
3	5	2.2
4	2	.9
5	0	.0
6	3	1.3
7	0	.0
8	1	.4
9	1	.4
TOTALS	224	100.0

Explanation of Table X

Table X contains the tabulation of the manual typewriters per high school of the 224 high schools in this study. The most significant fact, as shown by Table X, is that approximately 80 per cent of the high schools have less than forty manual typewriters per school. The median high school reporting falls in the group with twenty to twenty-nine typewriters per high school. Although every high school reporting listed manual typewriters among their commercial equipment, only three high schools in the study reported that they had less than ten typewriters in their commercial departments. No doubt the majority of the high schools in this study have more than three typewriters per high school due to the fact that it is very expensive to teach a class with a ten to one student-teacher ratio. The number of manual typewriters reported as being in the commercial departments of the high schools participating in this study total 7,412 manual typewriters. It is interesting to note that 98.4 per cent of the typewriters reported are manual typewriters. The enrollments of the high schools as previously listed total 78,363 students, which give an approximate ratio of eleven students per manual typewriter in this study. As has been previously noted there are 399 commercial teachers in this study which produces an approximate ratio of nineteen

typewriters available for every commercial teacher in this state. The following comment shows that additional equipment is being purchased continually.

In another year we will add ten typewriters because of growing interest in commercial work and an increasing enrollment.¹

¹ See Appendix D.

TABLE X
 MANUAL TYPEWRITERS PER HIGH SCHOOL
 IN THE 224 HIGH SCHOOLS OF THIS STUDY

Manual typewriters per high school reporting	Frequency	Per cent of high schools reporting
0 - 9	3	1.3
10 - 19	73	32.6
20 - 29	65	29.1
30 - 39	38	17.0
40 - 49	15	6.7
50 - 59	4	1.8
60 - 69	6	2.7
70 - 79	3	1.2
80 - 89	1	.4
90 - 99	4	1.8
100 - 109	4	1.8
110 - 119	0	.0
120 - 129	3	1.3
130 - 139	0	.0
140 - 149	2	.9
150 - 159	2	.9
160 - 169	0	.0
170 - 179	0	.0
180 - 189	0	.0
190 - 199	0	.0
200 - 209	1	.4
TOTALS	224	100.0

TABLE X

MANUAL TYPEWRITERS PER HIGH SCHOOL
IN THE 224 HIGH SCHOOLS OF THIS STUDY

Manual typewriters per high school reporting	Frequency	Per cent of high schools reporting
0 - 9	3	1.3
10 - 19	73	32.6
20 - 29	65	29.1
30 - 39	38	17.0
40 - 49	15	6.7
50 - 59	4	1.8
60 - 69	6	2.7
70 - 79	3	1.2
80 - 89	1	.4
90 - 99	4	1.8
100 - 109	4	1.8
110 - 119	0	.0
120 - 129	3	1.3
130 - 139	0	.0
140 - 149	2	.9
150 - 159	2	.9
160 - 169	0	.0
170 - 179	0	.0
180 - 189	0	.0
190 - 199	0	.0
200 - 209	1	.4
TOTALS	224	100.0

Explanation of Table XI

Table XI lists the commercial clubs sponsored by the commercial departments of the high schools of the State of Washington reporting in this study. Twenty high schools in this study report their commercial departments do sponsor clubs of varying names and types. This is a very small representation as only 9 per cent of the high schools of this state offer a club under the supervision of the commercial department.

Of the twenty high schools reporting a commercial club, eleven of the high schools declared that the club which they sponsored did not meet on school time. There seems to be no continuity, as shown in Table X, between the length of the meetings in minutes per meeting and whether or not the club was school sponsored. The meeting times varied from twenty minutes per meeting to one hundred twenty minutes per meeting with no recognizable relationship between the length of the meeting in minutes per meeting and the frequency of the meeting. The average meeting time was 41.3 minutes per meeting. The majority of the clubs met either on a monthly or bi-monthly basis.

TABLE XI
COMMERCIAL CLUBS
SPONSORED BY THE COMMERCIAL DEPARTMENTS
OF THE 224 HIGH SCHOOLS IN THIS STUDY

Meeting frequency	Does the club meet on school time?	Length of meeting in minutes per meeting
Monthly	No	120
Monthly	No	60
Monthly	No	45
Monthly	Yes	40
Monthly	Yes	30
Monthly	Yes	30
Monthly	No	30
Monthly	Yes	25
Bi-monthly	Yes	65
Bi-monthly	No	60
Bi-monthly	Yes	45
Bi-monthly	Yes	40
Bi-monthly	No	30
Bi-monthly	No	30
Bi-monthly	No	30
Bi-monthly	Yes	20
Weekly	No	40
Weekly	Yes	30
Four days per week	Yes	39
Daily	Yes	37

Explanation of Table XII

Table XII schedules the additional commercial subjects that were most needed in the 224 high schools whose questionnaires were returned. Requests for course additions were indicated on 149 of the 224 questionnaires in this study. There were a total of 251 requests for the addition of commercial subjects as compared against thirty-seven requests for the elimination of certain commercial courses. This seven-to-one ratio in favor of the addition of commercial courses points out the recognized need for the enlargement of the commercial curriculum.

A course in Office Machines led the field with thirty-seven schools reporting a definite need for the addition of this course in their curriculum. Office machines, although expensive, may be used in many different education classes and situations. Some of the additional classes in which one or more of the office machines could be used would be Bookkeeping, Office Practice, Business Administration, Business Training, General Business, Salesmanship, Distributive and Consumer Education, Advertising, Vocational shops and many additional courses. Other uses for business machines could be the book store, administration offices, student government, ticket sales, cafeteria, and miscellaneous learning

processes. Perhaps some of the above suggestions could be a positive approach to the teachers who felt that additional machines are needed in their departments. That additional machines are needed is pointed out in the following comments.

So many of these useful machines are too expensive for our small districts to purchase; we have unsuccessfully tried to get another district to go in with us on the purchase of one. . .¹

. . . We could use additional business machines and an electric typewriter or two.²

I feel we should have more equipment--i. e., dictating machines, calculator, etc.³

We are including key-punch fingering as part of our office machines course. We use the rotation plan in the course. Some of the students in the course spend nine weeks on it. Electric typewriters are used for the work. There is a great demand for key-punch operators in state offices here in Olympia.⁴

In the same manner in which the high school in Olympia has led the way, it may be possible for more schools in this state to tie in actual class instruction in business machines with the needs of the local community.

By a comparison of Tables VII and XII it may be shown that a

¹ See Appendix D.

² Loc. cit.

³ Loc. cit.

⁴ Loc. cit.

course in business machines is offered in only forty-one high schools in this study. It is noted that there are 119 schools in the study with ten-key adding machines, 115 schools with full-keyboard adding machines, 59 schools with voice-writing machines, 54 schools with key-driven calculators, 49 schools with rotary calculators, and 16 with bookkeeping machines. From the above facts the question naturally arises as to why there are not more machines classes offered if there are this many schools with business machines available in this study.

Business Arithmetic is the second most frequently requested subject tabulated in Table XII. Business Arithmetic was requested to be added to their curriculums by twenty-seven of the high schools in this study. One high school in this study mentioned that it is going to offer Business Arithmetic next year in its curriculum.

Following the first two choices are Business English with twenty-two requests, Business Law with twenty, Office Practice with eighteen, General Business with fifteen, and Shorthand with fifteen requests that the subject be added to their commercial course offerings. The only course which would require an additional capital outlay in addition to the textbooks would be Office Machines out of the top ten requests for class additions as listed in Table XII. If additional commercial classes are needed in the high schools of this state, Table XII would tend to act as a guide to which subjects might be added.

TABLE XII

**THE COMMERCIAL SUBJECT COURSE ADDITIONS
THAT WERE REQUESTED BY THE 224 HIGH SCHOOLS
IN THIS STUDY**

Subject	Frequency
Office Machines	37
Business Arithmetic	27
Business English	22
Business Law	20
Office Practice	18
General Business	15
Shorthand	15
Economics	11
Shorthand (Second Year)	9
Consumer Education	8
Transcription	8
Distributive Education	8
Business Geography	7
General Business (9th Grade)	5
Salesmanship	5
Business Training	5
Bookkeeping	5
Work Experience	3
General Business (12th Grade--only for an intense course)	3
Typing (Second Year)	3
Typing (Personal Use--for a one-semester course)	2
Penmanship	2
Advertising	2
Bookkeeping (Second Year)	2
Filing	2
Business Administration	1
Business Printing	1
Simplified Record Keeping	1
Business Correspondence	1
Clerical Training	1
Boys' Shorthand	1
Speedwriting	1
TOTAL	251

Explanation of Table XIII

Table XIII lists the commercial subjects that could be eliminated or were considered the least valuable in the 224 high schools in this study. It is realized that the majority of principals of the high schools reporting would find it difficult to put themselves in the light of having a course in their commercial department they felt could be or should be eliminated when they have the power to eliminate it. However, the attitude will be accepted here that the broad interpretation of the question was used in that the following is the least valuable subject offered at the present time in their commercial departments. The question reads as follows: "9. What commercial subjects do you now offer that you feel could be eliminated or are the least valuable?" Of the 224 high schools reporting only thirty-seven schools completed this question. Undoubtedly the principal was put in an uncomfortable position by the wording of the question; nevertheless, seventeen per cent of the schools of this state reporting did check the subjects in Table XIII as being the least valuable of their present curriculum.

Heading the list of least valuable subjects was Shorthand which received eight votes out of the total of thirty-seven least valuable subjects checked. Some of the following comments taken from the questionnaires

may be of some help in understanding why each subject was checked as being the least valuable subject in their curriculum or that it could be eliminated.

This is a very small school and very limited. They give shorthand and bookkeeping for one year only. I feel that when the year of shorthand is completed that the students are just learning to understand and use shorthand. The subject is dropped and the next year we take up bookkeeping. The students like typing and bookkeeping. I feel that shorthand should be extended for one more year but not at the expense of bookkeeping. If this is not possible, drop shorthand and give as a substitute a course in office machines. . .¹

I believe that we should either have two years of shorthand or none. As it now is we offer one year.²

It is of interest to note in the above comments that both favored two years of shorthand or none. In the small high school it is a problem to offer a two-year course in shorthand when there are only enough students for Shorthand I and the majority of the class drops out by the time Shorthand II is offered the following year. The cost of maintaining a class for less than ten students is almost prohibitive.

The elimination of General Business which was recommended by five schools is ranked next to Shorthand in Table XIII. This may seem rather strange as General Business ranked sixth on the list of course

¹ See Appendix D.

² Loc. cit.

additions requested by the high school commercial departments, as listed in Table XII, with fifteen schools reporting in favor of adding this subject. The following comment describes one of the difficulties encountered by a high school in the study, with regard to the elimination of General Business from their curriculum.

We have had to cut commercial law and General Business from our curriculum because of a shortage of teachers to teach them. . .¹

The following least-desired subjects are listed in Table XIII in the order of their rank: second-year Typewriting and Business Law, Office Training, Bookkeeping, Business Arithmetic, Commercial Geography, fourth-semester Typewriting, second-year Bookkeeping, fourth-semester Bookkeeping, Retail Selling, second-year Shorthand, Bookkeeping taught as a one-semester course, and Clerical Practice. The following comments taken from the questionnaires add additional meaning to the above-listed subjects.

Combine second-year Shorthand and Typewriting.²

We can combine Shorthand II and Transcribing with Office Practice and Business Machines. We hope to try this next year.³

¹ See Appendix D.

² Loc. cit.

³ Loc. cit.

Selling, Business Law, and Business English have been tried in the last few years with but limited success due to the lack of interest or real need.¹

The above comments show a definite desire to eliminate Shorthand II, and to combine Shorthand II with other business subjects. As is noted, Shorthand II could be combined very satisfactorily with Typewriting II, Transcribing, or Office Practice. No doubt, in the smaller high schools of this state the above combinations would work out very satisfactorily. Lack of interest and motivation is, of course, a real problem in all phases of the secondary school not only in the commercial departments as listed in the comment above. It must be kept in mind that the median high school of the State of Washington reporting has an enrollment of 178.5 students, and therefore this problem could be more universal than has been reported in Table XIII.

¹ See Appendix D.

TABLE XIII
THE COMMERCIAL SUBJECTS THAT COULD BE ELIMINATED
OR WERE OF THE LEAST VALUE
IN THE 224 HIGH SCHOOLS OF THIS STUDY

Subject	Frequency
Shorthand	8
General Business	5
Typing (Second Year)	4
Business Law	4
Office Training	4
Bookkeeping	4
Business Arithmetic	3
Commercial Geography	3
Typing (Fourth Semester)	2
Bookkeeping (Second Year)	1
Retail Selling	1
Shorthand II	1
Bookkeeping taught as a one-semester course	1
Clerical Practice	1
TOTAL	37

CHAPTER IV
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

SUMMARY

The purpose of this study was to obtain an understanding of the present high school commercial curriculum in order that educators will realize the present status of commercial subjects and opportunities for enrichment of this curriculum in the State of Washington.

Of the 248 questionnaires mailed to the accredited high schools in this study, 232 questionnaires were returned or 93.5 per cent of the questionnaires mailed. Eight of the questionnaires that were returned were unsatisfactory, to give a total of 224 questionnaires that were used as the foundation of this study.

CONCLUSIONS

The median high school in the State of Washington, as shown by Table I, has an enrollment of 178.5 students. The majority of the high schools in this state, 82 per cent of the total, have an enrollment of under 500 students, as compared to those with an enrollment of over 500 students of 18 per cent of the total. More than 68 per cent of the total high schools in this study have a student body of 300 students or less.

Table II shows that 78 per cent of the total high schools in this study are four-year high schools while 22 per cent are three-year high schools. The median of the four-year high schools falls in the group with an enrollment of 100-199, while the median of the three-year high schools falls in the group with an enrollment of 400-499.

The median for the total number of high school teachers per high school falls in the ten-to-fourteen teachers employed per high school group. Only 20 per cent of the high schools reporting have a total teacher staff of more than twenty-five teachers.

There were 78,363 students enrolled in the high schools that answered the questionnaire. The total teachers employed in the State of Washington reporting totaled 3,843 teachers, for a student-teacher

ratio of 2.4 to 1 in the high schools of this study.

Approximately 75 per cent of the high schools in this study have less than two commercial teachers in their commercial departments, while only 14 per cent of the high schools in this study have more than three commercial teachers per high school. A comparison of the commercial teachers, 399, employed in this state, to the total teachers employed, 3,843, shows that approximately 10 per cent of the teachers in this study teach in the commercial field.

Typewriting as shown in Table V and Table VI is being offered in 219 out of 224 high schools in this study. This sizeable figure, 98 per cent, shows that there are only five high schools in this study that do not offer typewriting on the high school level.

Bookkeeping was checked as being offered in 97 per cent of the high schools in this study, while shorthand, being third on the commercial curriculum, was offered by 85 per cent of the high schools in this study.

With reference to the grade level on which these commercial subjects may be taken as shown on Table V, 49 per cent of the classes admitted seniors, 33 per cent admitted juniors, 14 per cent admitted sophomores, and only 4 per cent of the commercial classes were open for freshmen.

There were 1,096 business machines reported as being available in this study, while of this figure 314 business machines were listed as being the only machine of its type available in that high school's commercial department.

There was a total of 119 electric typewriters reported, for 1.6 per cent of the total typewriters, manual and electric, available in the high schools of this study. Of the 224 high schools in the study 73.4 per cent of the high schools reporting revealed that they had no electric typewriters.

Only 9 per cent of the high schools of this state offer a club under the supervision of the commercial department. Of the twenty high schools reporting a commercial club, eleven declared that the club which they sponsored did not meet on school time.

There was a total of 251 requests for the addition of commercial subjects as compared against thirty-seven requests for the elimination of certain commercial courses from their commercial curriculum, as shown by Tables XII and XIII.

Since 1948, high schools in this state offering bookkeeping have increased 18.5 per cent while high schools offering shorthand have increased 17.2 per cent.

RECOMMENDATIONS

A review of this study brings forth the following recommendations.

It is recommended that an earnest attempt be made in furthering the cause of consolidation. A median of 178.5 students per high school is certainly not the most desirable size with reference to curriculum, specialized teachers, and economy of operation to the taxpayers of this state.

It is recommended that students now preparing for high school teaching be directed and informed of the opportunities for high school teachers with a minor in commercial education. This would tend to lighten the teacher shortage a great deal in the commercial field.

It is further recommended that teachers on the high school level, teaching commercial subjects, should have a minimum of a minor in the commercial education field. This would allow only qualified people to teach in this department.

It is recommended that additional curriculum changes be brought about, in the commercial education field, in order that commercial subjects be made available to freshmen and sophomores. It may be possible to rearrange the sequence of the commercial curriculum as it now stands so that the juniors and seniors majoring in commercial

education have a lighter load and students would have an opportunity to take some commercial subjects during their freshman and sophomore years. It may not be necessary to change the sequence of the commercial curriculum if it is possible to add some additional commercial classes above and beyond what is now being offered.

It is further recommended that additional studies be made to determine what subjects should be added to the commercial curriculum in order to make them more meaningful and useful. The majority of the high schools in this study offer only the three basic commercial subjects, typewriting, bookkeeping, and shorthand which does not fully cover the needs of this ever-changing society.

It is recommended that administrators and teachers should fully explore the possibility of several adjoining high school commercial departments working out a cooperative machine-sharing pool from which business machines could be borrowed or shared, in order to have a more complete selection and functional department.

It is also recommended that the commercial departments obtain a higher ratio of electric typewriters to manual typewriters than they now possess. This need for additional electric typewriters is evident in the gains that have been made in the sales of electric typewriters. The students of today must be taught on the most modern up-to-date machines

that are available if education is going to remain functional, and the student possess a knowledge of typewriting that will be satisfactory and complete in the business world in the years to come.

It is further recommended that in this fast-changing world all curriculums should be revised and amended constantly in an honest effort to present in the public high schools of this state the finest training our commercial departments can offer.

It is recommended that one year of typewriting be required for graduation from all public high schools in the State of Washington due to the increased use and demand for this skill, both for vocational and for personal use.

It is recommended that the high schools in this state that offer commercial clubs review their objectives as the majority of the high school commercial clubs have been discontinued.

It is recommended that commercial subjects for personal use be stressed more than in the past, as the majority of the students will use their commercial education for personal use and not vocationally.

It is also recommended that more courses be offered on an alternate-year basis, especially in the smaller high schools. Only 13 per cent of the courses in this study are now offered on an alternate-year basis. By offering more courses on an alternate-year basis the

average and small high school can enlarge and improve its commercial curriculum without the addition of teachers or facilities.

It is recommended that possible combinations of certain commercial subjects be seriously considered in order to modernize, supplement, and enrich the curriculum. Combinations of certain commercial classes would also eliminate some of the overlapping that traditional subject course lines now have.

It is also recommended that no academic course credit be given for unorganized office practice under the direction of and for principals and superintendents. If it is felt that academic course credit must be given for unorganized office work, then the goals of the course should be reviewed and broadened.

It is recommended that further research be done in order to determine if it would be possible and feasible to give academic college credit for some commercial subjects, especially bookkeeping, taught on the high school level.

BIBLIOGRAPHY

BOOKS

- Ackoff, Russell L., The Design of Social Research. Chicago: The University of Chicago Press, 1953.
- Bowley, A. L., Elements of Statistics. London: P. S. King and Company, 1920.
- Eigelberner, J., The Investigation of Business Problems. New York: McGraw-Hill Book Company, 1926.
- Gee, Wilson, Social Science Research Methods. New York: Appleton-Century-Crofts, Inc., 1950.
- Wanamaker, Pearl A., Superintendent of Public Instruction, Washington Educational Directory. Olympia, Washington: State Printing Plant, 1952-1953.

UNPUBLISHED MATERIALS

- Gibson, Mildred, "A Survey of the Commercial Curriculum of the High Schools of the State of Washington for the Year 1947-1948." Unpublished Master's Thesis, Washington State College, Pullman, Washington, 1948.

APPENDIX A

THE FIRST QUESTIONNAIRE

MAILED DECEMBER 7, 1953

411 South Eighth Avenue
Yakima, Washington
December 7, 1958

Dear Sir:

The attached questionnaire is being sent to each of the High School Principals in the State of Washington to discover the Commercial subjects offered, their variation, length, and the grade level on which they are offered. From this data an attempt will be made to make recommendations for improvement in the Commercial education curriculum.

This questionnaire is being requested as partial fulfillment for a Masters Degree from the Central Washington College of Education.

If a copy of the result of this survey is desired, please check the following square.

Your cooperation is sincerely appreciated.

Sincerely,

Ralph V. Thomas

Enclosures 2

COMMERCIAL COURSE STUDY

STATE OF WASHINGTON

Directions: Please fill out the questionnaire completely and accurately, returning it in the stamped, self-addressed envelope.

Current High School enrollment? _____

Three-year or four-year High School? _____ 3-year _____ 4-year

Number of High School teachers employed? _____

Number of Commercial teachers employed? _____ full time.

_____ part time teachers for four hours daily.

_____ part time teachers for three hours daily.

_____ part time teachers for two hours daily.

_____ part time teachers for one hour daily.

Do you offer typing instruction on the electric typewriter? _____ Yes _____ No

a. How many manual typewriters do you have? _____

b. How many electric typewriters do you have? _____

Does your Commercial department sponsor a club? (Commercial, Business, F. B. L. A., etc.)

Yes _____ No _____

a. Does it meet on school time? Yes _____ No _____

b. How often does it meet? _____ daily
_____ bi-weekly
_____ weekly
_____ bi-monthly
_____ monthly

c. Average length of meeting in minutes? _____

What commercial subjects do you feel a definite need for in your high school which you do not offer at the present time?

a. _____

c. _____

b. _____

d. _____

What commercial subjects do you now offer that you feel could be eliminated or are the least valuable?

a. _____

c. _____

b. _____

d. _____

Suggestions and comments:

APPENDIX B

THE FOLLOW-UP POST CARD

MAILED DECEMBER 18, 1953

411 South Eighth Avenue
Yakima, Washington
December 18, 1953

Dear Principal:

On December 7, 1953, a Commercial Course Survey in the form of a two-page questionnaire was sent to you for completion.

It will certainly be appreciated if you would be so kind as to take the time out to complete and return the questionnaire as soon as possible.

Thank you,

Ralph V. Thomas

APPENDIX C

THE SECOND (AND FINAL) QUESTIONNAIRE

MAILED JANUARY 6, 1954

411 South Eighth Avenue
Yakima, Washington
January 6, 1954

Dear Sir:

On December 7, 1953, a copy of this questionnaire was mailed to you and has not been returned. This second copy is being sent as the first copy may have been mislaid.

The attached questionnaire is being sent to each of the High School Principals in the State of Washington to discover the Commercial subjects offered, their variation, length, and the grade level on which they are offered. From this data an attempt will be made to make recommendations for improvement in the Commercial education curriculum.

This questionnaire is being requested as partial fulfillment for a Masters Degree from the Central Washington College of Education.

If a copy of the result of this survey is desired, please check the following square.

Your cooperation is sincerely appreciated.

Sincerely,

Ralph V. Thomas

Enclosures 2

COMMERCIAL COURSE STUDY

STATE OF WASHINGTON

Directions: Please fill out the questionnaire completely and accurately, returning it in the stamped, self-addressed envelope.

Current High School enrollment? _____

Three-year or four-year High School? _____ 3-year _____ 4-year

Number of High School teachers employed? _____

Number of Commercial teachers employed? _____ full time.

_____ part time teachers for 4 hours daily.

_____ part time teachers for 3 hours daily.

_____ part time teachers for 2 hours daily.

_____ part time teachers for 1 hour daily.

How many of each of the following machines do you have in your Commercial Department?
Check the number that applies.

	1	2	3	4	5	6	7	8	9	More
Rotary Calculators										
Key-Driven Calculators										
Full-Keyboard Adding Machines										
Ten-Key Adding Machines										
Voice-Writing Machines										
Duplicating Machines										
Special machines, and others (Please list)										

Do you offer typing instruction on the electric typewriter? _____ Yes _____ No

- A. How many manual typewriters do you have? _____
B. How many electric typewriters do you have? _____

Does your Commercial department sponsor a club? (Commercial, Business, F. B. L. A., etc.)

Yes _____ No _____

- A. Does it meet on school time? Yes _____ No _____
B. How often does it meet? _____ daily
_____ bi-weekly
_____ weekly
_____ bi-monthly
_____ monthly
C. Average length of meeting in minutes? _____

What commercial subjects do you feel a definite need for in your high school which you do not offer at the present time?

- A. _____ C. _____
B. _____ D. _____

What commercial subjects do you now offer that you feel could be eliminated or are the least valuable?

- A. _____ C. _____
B. _____ D. _____

Suggestions and comments:

APPENDIX D

**A COMPILED LIST OF SUGGESTIONS AND COMMENTS
TAKEN FROM QUESTION 10 ON THE QUESTIONNAIRE**

SUGGESTIONS AND COMMENTS
TAKEN FROM THE QUESTIONNAIRES

1. "Our enrollment has gone down from seventy-six to thirty-eight in the past three years. Under present conditions our offerings are about the best we can do since our commercial teacher must also teach in other fields."
2. "So many of these useful machines are too expensive for our small districts to purchase; we have unsuccessfully tried to get another district to go in with us on the purchase of one. Have there been any studies made, relative to small districts cooperatively securing such machines?"
3. "We have a wide offering in commercial subjects for a small high school. However, these subjects are popular and we feel justified from a 'personal use' standpoint if not entirely from a vocational."
4. "An easy form to work on. Thanks."
5. "Would like to see more interest in bookkeeping and other commercial subjects."
6. "We require one year of typing. We offer Typing II every other year. We offer Bookkeeping and Speedwriting on alternate years. We are not a vocational school in the sense that we offer a commercial

course. We feel by offering the elementary commercial subjects, we are extending to those who might be interested in the commercial field a chance to find out. The big difficulty we have found for a school of our size is to find a commercial teacher who can or is willing to teach in other areas."

8. "None have had as much training as is desirable."

9. "We have been in the position of having to offer courses in alternate years as our staff is small and our junior and senior classes are very small, making it difficult to get a class large enough to justify the time. This is a very small mining town and the girls marry about the end of the sophomore year. The boys go into logging or mining as soon as they leave school."

10. "This is a small school and very limited. They give shorthand and bookkeeping for one year only. I feel that when the year of shorthand is completed that the students are just learning to understand and use shorthand. The subject is dropped and the next year we take up bookkeeping. The students like typing and bookkeeping. I feel that shorthand should be extended for one more year but not at the expense of bookkeeping. If this is not possible, drop shorthand and give as a substitute a course in office machines. I hope that I have been a service to you."

11. "Combine second-year shorthand and typewriting."

12. "I feel that we need to emphasize more on personal and business ethics, and getting along with people."
13. "Year before last we did try work experience for one-half day the last semester for six of the girls. It proved rather successful, but from year to year, our town is too small to make the placements."
14. "Typing should be required of all 'C' grade or better students in high school."
15. "We are going to offer next year: business arithmetic (11th and 12th years), and general business (9th and 10th years)."
16. "I believe that we should either have two years of shorthand or none. As it now is we offer one year."
17. "Too small a high school."
18. "We can combine Shorthand II and transcribing with office practice and business machines. We hope to try this next year."
19. "Need more space or another teacher to offer more classes."
20. "A class in journalism is also taught by our commercial teacher."
21. "In another year we will add ten typewriters because of growing interest in commercial work and an increasing enrollment."
22. "We have maintained a class entitled 'Office Practice' in the past but this bowed to an increased demand for another class in

beginning typing. We hope to add an advanced typing class and run it alternate years in the future.

"We could use additional business machines and an electric typewriter or two."

23. "Typing in 8, 9, or 10th level very desirable to improve quality of instruction and learning in the total program."

24. "I feel we should have more equipment -- i. e. dictating machines, calculator, etc."

25. "Our size doesn't warrant any more intensive work."

26. "We have had to cut commercial law and general business from our curriculum because of a shortage of teachers to teach them. Actually we have more students in typing than all other commercial courses combined. Three classes of thirty-five each plus fifteen advanced typing."

27. "Improve teaching in subjects we have rather than bring in more for which there is no definite need."

28. "That someone sell schools like the University of Washington on giving academic unit credit to commercial subjects for entering freshmen."

29. "Selling, business law, and business English have been tried in the last few years with but limited success due to the lack of interest or real need."

30. "Basic business course required of all students. Coordinate terminal business course with Junior College."

31. "Our district is peculiar in that it is unable to support a good distributive education course. We're too far from the city for the students to work in the stores and there aren't enough businesses close by to take care of them here. Right now it is simply a classroom course which we have found quite unsatisfactory. Without the real situation, motivation is difficult. (Retail selling)."

32. "The electric typewriter is used for those students who want to become familiar with it for a period of three to four weeks each."

33. "In this fast-moving world, all courses should be re-evaluated carefully and often, so that the emphasis is placed on the skill most needed. It is a case of adding in some spots and eliminating in others. Student selection especially in advanced courses is needed."

34. "Special typewriters in office practice, i. e., elite, small elite, pica, executive, large vogue, ten-key tabulator, etc."

35. "We are including key-punch fingering as part of our office machines course. We use the rotation plan in the course. Some of the students in the course spend nine weeks on it. Electric typewriters are used for the work. There is a great demand for key-punch operators in state offices here in Olympia."

36. "The social science department offers a course in economics from time to time for juniors and seniors. We do not require it."

37. "We offer all the subjects. However, only a very small number enroll. Consumer education and economics should be taken by everyone but only about thirty each or less enroll in each class."

38. "We are sold on typing for 9th graders."