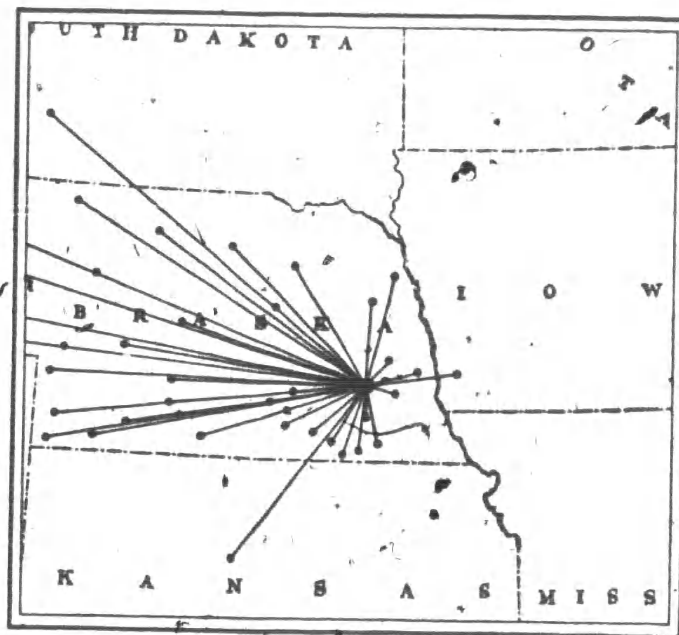


HIGH-SCHOOL INSTRUCTION BY MAIL A POTENTIAL ECONOMY



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Office of Education

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UNITED STATES DEPARTMENT OF THE INTERIOR - - - - *Harold L. Ickes, Secretary*
BUREAU OF EDUCATION - - - - - *William John Cooper, Commissioner*

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LETTER OF TRANSMITTAL

DEPARTMENT OF THE INTERIOR,
OFFICE OF EDUCATION,
Washington, D.C., July 1933.

SIR: One of the common inquiries today is, How can our schools save money? I think this bulletin furnishes part of the answer to that question especially for high schools of less than 100 or 150 enrollment. Since somewhat more than half of the high schools in this country, or about 12,000, are believed to enroll 100 pupils or fewer this bulletin should find wide use.

Correspondence instruction has been urged upon us for a number of years as a means of enriching the curriculum. I can see no good reason why most college preparatory students could not do the major part of their work in regular class work and take some courses by correspondence each year. This would undoubtedly effect a substantial savings in the cost of their education.

In this bulletin will be found also information concerning places and institutions where correspondence courses have been used with apparent success. The State school authorities assist in providing this work in Nebraska and we have heard no complaint. Perhaps other State officials will be willing to take it up or at least to extend the service they now render to adults to adolescents also. A careful study of this bulletin should prove helpful to a great many high schools in improving their work and doing so economically.

I recommend that this manuscript be published as a bulletin of this Office.

Respectfully submitted.

WM. JOHN COOPER,
Commissioner.

THE SECRETARY OF THE INTERIOR

HIGH-SCHOOL INSTRUCTION BY MAIL

A POTENTIAL ECONOMY

I. INTRODUCTION

During this time of economic stress more than ever before educational authorities are under obligation to effect every possible economy in the administration of public education. One such economy which has been widely suggested and which is being tried out in an increasing number of localities and with a growing variety of objectives is the use of high-school instruction by correspondence. It should be recognized at the outset, that it is not the purpose here to suggest that high-school education by mail can or should be substituted in lieu of the regular instruction in residence. So far as the facts are known to the author comparatively little of such substitution has been advocated or has taken place. The movement of using correspondence lessons to provide instruction on the high-school level has made its greatest progress and has received its greatest endorsement because it has been recognized that here is a means of improving our present practices of secondary school administration, of enriching its offerings, and in numerous ways of extending its services. The use of correspondence lessons in high school originally attracted interest because of its possibilities of supplementing our present high-school program. But more and more schoolmen are recognizing in this service some real economies in the whole scheme of secondary education. Correspondence lessons as such and the correspondence technique of instruction are rapidly gaining recognition because they have been found to serve the following general purposes:

1. To eliminate many inordinately small classes, especially in the junior and senior years of large high schools and in all grades of the smaller high schools. The resulting increase in the pupil-teacher ratio naturally reduces the cost.

2. To enrich the offerings of the smaller high schools and to furnish unusual courses in the larger ones, thus more closely fitting the school program to the various needs of those seeking to continue education to this level.

3. To make it possible for the high school to meet the demand for vocational, technical, and other fields of instruction more closely related to practical everyday living.

4. To provide a means for recognizing individual differences in instruction and in student progress.

5. To serve as a means of providing post high-school education to persons who have graduated from high school, who are unemployed and who cannot afford to go to college. This objective is particularly attractive in localities where the school plant is overcrowded and the existing staff is overloaded.

6. To provide high-school education to persons who for a great many reasons stopped short of high-school graduation and who because of unemployment, additional leisure, the desire to remove college-entrance deficiencies, etc., wish to resume their interrupted education.

7. To extend some rudiments of secondary education to persons living in sparsely settled areas or at isolated points where it would be uneconomical to undertake the assembling of classes for high-school work.

8. To provide evening school, continuation school, and extension services in localities where regular classes are too small and the need too diversified to warrant such regular classes. School systems now finding it necessary to curtail these types of school services are finding correspondence lessons a means to continue a part of the work on a more limited basis.

9. To facilitate the instruction of persons who are crippled, invalided, or who for other reasons are either permanently or temporarily prevented from attending school regularly.

10. To provide a means of adult education. This latter function has long been served by the various agencies furnishing correspondence courses.

A good many of the uses and possibilities of correspondence courses on the high-school level cited above as urged by advocates of this departure in education have received considerable impetus from the economic depression. Our

general economic scheme is geared toward more and more unemployment. Even before the depression technical developments were constantly displacing the services of men and women with machinery. The invention and installation of automatic devices which lift the burdens from the backs of men are at the same time certain to result in a serious social problem, namely, the employment of fewer and fewer people per unit of commodity produced. This is true in all departments of production. Agricultural activities, construction work, mining operations, and manufacturing enterprise, all can produce more and more of the commodities needed with less and less man power. This means that social institutions must assume greater and greater responsibilities both for the development of youth to fit them into the constantly changing and growing complexity of society and for the greater leisure for all which must inevitably result from these changes.

With the present problem of unemployment it is being widely urged that the upper level of public education be raised to the completion of high school if not through junior college. The argument is that the longer we keep our young people in school the longer we keep them either out of the ranks of the unemployed themselves or we keep them from displacing employed men and women who have family responsibilities. Then, too, the growing complexity of life seems to demand longer periods of preparation.

The tendency, therefore, is to impose greater responsibilities upon the public schools at the very time when they are faced with the task of reducing their staffs, with curtailing the expansion of building and equipment, and, in general, with effecting budgetary savings. Not only are the schools compelled to find ways and means of spending fewer tax dollars but they must find methods of making these fewer dollars do the work which larger funds did before.

Industrial codes now being adopted and which rule out child labor will greatly augment the numbers of children who will continue their education.

The purpose of this publication is to show how correspondence courses and the correspondence technique may be used to effect economies both in terms of rendering for less money school services which are already being provided and at the

same time to extend such services to persons and areas which are not now being reached. Information will, therefore, be presented on the following general problems:

1. Is high-school instruction by correspondence feasible?
2. Are economies effected through such courses?
3. Where may reliable courses on the high-school level be obtained? What courses?
4. What of the quality of high-school correspondence courses? How can these courses be improved?
5. Are high schools using correspondence courses? Where? With what success?
6. What administrative problems are involved in the use of correspondence lessons in high school? How are these being solved?
7. Where can additional information on the use of high-school courses by correspondence be obtained?

II. IS HIGH-SCHOOL INSTRUCTION BY CORRESPONDENCE FEASIBLE?

Perhaps the best answer to the query of whether high-school instruction by correspondence is feasible is that this procedure is already in wide use and that the movement is constantly growing. No definite information on the number of pupils enrolled in correspondence courses on the high-school level is available. It is most difficult to obtain such information. First, there is the question of defining "correspondence courses." The impetus during recent years given to individualized instruction has in a real way brought closer together the correspondence technique and classroom procedures. The whole idea of more or less self-administrative lesson contracts employed by the Dalton plan, the "self-instructive and self-corrective practice materials" of the Winnetka plan, the "job sheet" idea long followed in vocational courses, all embody to a more or less degree the techniques of self-instruction, written assignment, individual pupil work and progress, etc., long integral parts of instruction by correspondence. If, therefore, "correspondence courses" include these techniques, it may be readily seen that the number of high-school pupils taught by this means is very great.

But even outside of this broad interpretation of instruction by correspondence, it must be realized that there is a great variety of practices which makes a complete count of persons studying high-school courses by correspondence impossible. For years universities and colleges have enrolled in high-school correspondence courses certain persons who had lost step with the educational system. Some of these wished to prepare for teachers' examinations; others wished to make up college-entrance requirements. Then there was that large group of persons who enrolled in commercial correspondence schools in the hope of preparing for certain positions or of removing deficiencies in the path of certain vocational and professional objectives. Very extravagant claims have been made by such schools of the number of persons enrolled in these courses. Data will be submitted later to show the part these commercial schools are playing in the whole correspondence movement.

Any effort to show the feasibility of correspondence instruction by citing figures on the extent to which such courses are used also involves the difficulty of defining "course." Some institutions offering correspondence instruction break the work up into individual projects or units of varying lengths and call each a course. Others give a large sequence of units constituting the equivalent of a course pursued for a full year in regular high-school attendance and call this a "course." Still others report units equal to semester courses or quarter courses. It is clear that when enrollments are counted on one basis the total number of pupils taking correspondence instruction is very much greater than when enrollment is counted on the basis of all pupils in a sequence or curriculum of courses.

Then, too, there are coming to be greater and greater numbers of pupils who are enrolled in the regular high schools but who pursue one or more courses by correspondence offered either by commercial institutions, by the regular higher institutions of learning, or even by State departments of education. Since such pupils divide their time between both the residence and correspondence type of instruction any effort to gauge the scope of the correspondence movement becomes further complicated.

Some fairly definite evidence of the extent to which high-school courses by correspondence are employed is, however, available. A recent study by Alderman¹ found that out of 800 institutions reporting to a questionnaire 21 State universities, 10 teachers colleges or normal schools, 9 private colleges, and 1 State department of education provided and offered correspondence lessons in high-school subjects. In 1929 Maul² made a study of correspondence instruction conducted by teachers colleges and normal schools. He found that of 157 such institutions 24 were offering high-school courses. These latter schools enrolled in these courses a total of 945 pupils.

In a survey of correspondence instruction in the United States Bittner and Mallory³ found considerable information on the extent to which such courses on the high-school level are offered by universities and colleges. They found that of 39 State universities and State colleges which were members of the National University Extension Association 25 offered high-school courses by correspondence. The study pointed out the difficulty of getting definite enrollment figures but it concluded that "the approximate total number of students taking high-school correspondence courses through the 25 institutions in 1929-30 is 6,000. Students enrolled in high-school correspondence courses of other colleges and normal schools probably total another 6,000."

180 SCHOOLS TRY CORRESPONDENCE COURSES

Aside from these figures various sources of information have revealed that there are about 180 high schools in the United States which either have experimented with instruction by correspondence or are now trying out this method. A recent study⁴ of the National Survey of Secondary Education found that of 96 high schools reporting to a questionnaire

¹ Alderman, L. R. *College and University Extension Helps in Adult Education, 1928-29*. Washington, D.C., Government Printing Office. (U.S. Office of Education Bulletin, 1930, no. 10.)

² Maul, Ray C. *A Study of Administrative Practices in Correspondence Study Departments of Teachers Colleges and Normal Schools*. Studies in Education, vol. 1, no. 1. Kansas State Teachers College. (Résumé of Master's Thesis, University of Kansas, 1929.)

³ Bittner, W. S. and Mallory, H. T. *University Teaching by Mail*. New York, Macmillan Co., 1933. (High-school chapter not published. Loaned by Dr. Bittner of Indiana University for this study.)

⁴ Kefauver, G. N., Noll, V. H., and Drake, C. E. *How 46 high schools use correspondence courses*. *School Life*, 17 : 161-162, May 1932.

on the subject 48 said that they either were using or had used correspondence lessons. Enrollments ranged from 1 pupil to 70 pupils per school. Forty-one schools giving information on this point reported a total of 305 pupils; or an average of 7 or 8 pupils per school.

As indicated, the study cited above should not be thought of as in any sense giving complete statistics on correspondence courses now employed by and administered through the public high schools of the United States. In the first place the list of schools experimenting with such courses was not complete. In the second place only about half of the schools to which the questionnaires were sent returned replies. Some idea of the scope and progress of the use of correspondence lessons as a means of improving public education on the high-school level may be obtained from the history of this movement in one State. According to a recent report by Professor Broady,⁵ of the University of Nebraska, "supervised correspondence study" in Nebraska had its beginning in the summer of 1929. The first year Latin and English were offered in a village high school in Northwest Nebraska. The next year 8 schools undertook supervised correspondence study with a total of 46 pupils registered. The service has continued to expand until at present more than 60 schools, registering more than 200 students, are cooperating with the university."

Commercial schools are also playing a significant role in the movement. In a recent survey of education by correspondence, Stuart Chase⁶ declares that in a single one of these institutions "the total enrollment averaged 170,000 a year from 1920 to 1930," and since the beginning of this school in 1891 "close to 4,000,000 enrollment cards have been recorded, six times as many freshmen as have entered the gates of Harvard in 300 years." He declares that it is most difficult to get "accurate total figures" but that the

⁵ Broady, K. O. The Nebraska Plan of Enriching the Curriculum of Small High Schools. Address before the Eighteenth Annual Convention of the National University Extension Association, Bloomington, Ind., May 28, 1933.

⁶ Chase, Stuart. Two Hundred Thousand Students and 4,000,000 Alumni. Fortune, 7: 66-71, 96-101, June 1933.

following table imparts a general idea of the magnitude of the enterprise:

Total annual enrollment in correspondence schools.....	750, 000
Total tuition fees paid per year (gross income)....	\$25, 000, 000
Number of private profit-making schools.....	100
Number of universities and colleges giving home study courses.....	150

Of especial interest to a consideration of the use of correspondence courses on the high-school level are the following percentages which Mr. Chase attributes to J. S. Noffsinger,⁷ of the National Home Study Council, who found that of 107,346 students enrolled in 19 representative correspondence schools 34 percent had a previous education equal to grade-school or less, 46 percent had been in or had graduated from high school, 14 percent had done some college work, 1 percent had graduated from college, and for 5 percent information concerning previous education was not available. Chase also found that "students range from 14 years of age to 65, with a median at 26. Seventy-five percent of them are above college graduation age of 22."

Though very general in character the foregoing statistics show that there is a great demand for correspondence courses, that many of the persons enrolling desire instruction on the high-school level, and that most of the persons enrolled are still comparatively young. The data not only indicate a demand for such courses, but the fact that such enormous numbers have furthered their education by means of correspondence courses compel the conclusion that instruction of this kind is feasible.

USE OF COURSES GROWING

All the available evidence seems to indicate that the practice of using correspondence courses as a means of providing high-school education is growing. More pupils are enrolling in such courses, larger numbers of high schools are experimenting with these courses, and the educational literature is giving more and more attention to the movement. The movement can scarcely be said to be new or untried.

⁷ Noffsinger, J. S. *Correspondence Schools, Lyceums, Chautauquas*. New York: Macmillan Co. 1924.

In Canada this movement has spread from British Columbia eastward until now the four Western Provinces—British Columbia, Saskatchewan, Alberta, and Manitoba—have developed correspondence departments. Having found this method successful in the elementary grades they have now extended its use to high-school levels. In British Columbia correspondence courses giving public-school education were started nearly 15 years ago. Three years ago this service was extended to the high school. No enrollment data are available but shortly after this work was inaugurated an editorial in *School Review*⁸ said:

The Department of Education of British Columbia for more than a year has been offering correspondence courses in high-school subjects. During this first year applications were received from approximately 600 students, many of whom resided in remote parts of the province.

A letter from A. B. Ross, director of correspondence instruction in the Department of Education of Saskatchewan, reported that for the year 1931 courses were prepared for the first three grades of the high school and that a total of 5,400 pupils were enrolled in such courses.

In Alberta, so far as information is available, more than 500 pupils are enrolled annually but these activities are limited to the elementary grades. There is, however, much enthusiasm concerning the success of correspondence lessons for children in areas where the maintenance of a regular school is not feasible, and some work has been done looking toward extending the service to the secondary level.

Educational authorities of Manitoba report that "for the 2 years in which we have sent out correspondence work in grade IX we have had 500 and 600 pupils, respectively. Next year we are adding grade X."

Public education by correspondence has also achieved considerable prominence in Australia and in Puerto Rico. The Puerto Rico Department of Education⁹ reports that in 6 years from 1925, when this departure was undertaken, until 1931, the date of the report, "enrollments had increased from

⁸ High-School Correspondence Courses in British Columbia. *School Review*, 39: 87-89, February 1931.

⁹ Letter to C. L. Wisseman, and published in his *Correspondence Study of the Secondary School Level*. Doctor's Thesis, New York University, 1932.

276 to more than 3,000." By far the most of these courses are on the high-school level.

For nearly two decades various States of Australia have tried out correspondence lessons as a means of bringing education to areas where there were too few children to maintain a regular school economically. The Australian States were probably the first to resort to correspondence as a means of extending educational services. Descriptive accounts of these activities have appeared in the educational journals from time to time. Reference to these may be had through the bibliography appended to this study.

On the strength of the large number of institutions offering high-school correspondence courses, the enrollment in a single year in such courses in the United States of more than 12,000 pupils, the number of high schools which have endorsed work of this kind, and the wide success of such courses in other countries, the evidence seems to be overwhelming that such courses are feasible. Indeed, the indications are that the movement holds much promise for the economical spread and enrichment of secondary education in the United States.

III. WHAT ECONOMIES ARE POSSIBLE IN SECONDARY EDUCATION THROUGH CORRESPONDENCE COURSES?

The economy aspects of the movement of providing or supplementing secondary education by the correspondence technique must be approached from several angles. For purposes of this account the potential economies which may be effected by this means have been organized and will be discussed from the standpoint of four major questions; (1) Can correspondence courses be used to reduce the cost of providing high-school education? (2) Can such courses become the means of improving the quality of secondary education, thus resulting in larger returns for the school dollar? (3) Can they be used to provide opportunities for secondary education to isolated children without exorbitant increases in costs? and (4) Do such courses contain possibilities of keeping high-school graduates, persons who would normally attend night schools, and others profitably employed and growing educationally during this unusual time of unem-

ployment and economic stress? There are, of course, other ways through which this device could effect educational economies. These will be cited only briefly.

A. SAVINGS IN PER CAPITA COSTS

There can be no doubt that small high schools have been established in many of our States without sufficient numbers of available pupils to make it administratively possible to furnish an acceptable quality of secondary education at reasonable costs. A recent study¹⁰ showed that in 1928 there were 130 schools in the United States which were attempting to offer 4 years of high-school work with but a single teacher each, and 1,195 schools were offering a 4-year program with only two teachers each. Indeed, it was found that the median rural high school employed but three teachers. Statistics show that due to increasing proportions of children attending high school there is a slight tendency for these schools to increase in size, but even as late as 1930, the latest comparable figures available, nearly 55 percent of all our high schools enrolled fewer than 100 pupils each, and more than a fourth had enrollments of fewer than 50 pupils.

A number of prominent educators¹¹ have questioned the necessity of so many small schools. They have invariably shown that small schools are expensive and that the quality of their services falls considerably short of what secondary education ought to be. Through the use of correspondence courses many of these extremely small high schools could be eliminated. In Australia and in the western Provinces of Canada high schools are not organized unless there is a sufficient number of available students. In these countries children who cannot afford to go away to attend school and who cannot be economically transported begin their high-school education by correspondence courses furnished by the central departments of education. The costs are naturally

¹⁰ Gaumnitz, W. H. *The Smallness of America's Rural High Schools*. Washington, D. C., Government Printing Office, 1930. (U. S. Office of Education, Bulletin, 1930, no. 13.)

¹¹ Ashbaugh, E. J. *High School in Every School District Means Too Many Small Schools*. *School Life*, 14: 123-125, 128, March 1920. Combs, M. L. *Efficiency in Relation to Size of High School*. Richmond, Va., State Department of Education, Division of Research and Surveys, 1927. Holy, T. C. *Distribution of County High Schools*. *Educational Research Bulletin*, 9: 412-418, October 1930. (College of Education, Ohio State University.)

much lower than when schools are maintained for small numbers of pupils.

The effort of our high schools to meet the needs of so cosmopolitan a group of children as now annually present themselves for enrollment in our high schools is resulting in an ever-increasing number of courses. Efforts on the part of high schools to prepare their pupils for the growing complexities of modern economic and social life have resulted in the practice of offering several curricula, each accompanied with large numbers of elective courses. With elimination of many pupils in their progress through high school the junior and senior classes, where elective courses are most prevalent, have a tendency to become small. This tendency is augmented by the necessity on the part of pupils of making up certain subjects needed for high-school graduation or of supplying certain deficiencies for college entrance. All of this means the multiplication of classes and a tendency to reduce the number of pupils per class.

A recent survey¹³ of 72 Ohio counties found that a total of 94 high-school classes enrolled but 1 or 2 pupils each; it found a total of 697 other classes enrolling 3 to 5 pupils each. In a study of 263 high schools in the State of Oregon with a total of 6,753 classes, Stetson¹⁴ found that 14.7 percent of these classes enrolled only from 1 to 5 pupils each, 20.2 percent had 6 to 10 pupils, 18.2 percent had 11 to 15 pupils, 17.6 percent had 16 to 20 pupils, and only 29.3 percent of the classes had more than 20 pupils each. "The most striking point in this summary", Stetson concludes, "is the fact that more than one third of the 6,753 classes did not enroll more than 10 pupils each and one seventh had fewer than 6 pupils."

Ferriss, Gaumnitz, and Brammell¹⁵ report in Monograph No. 6 of the National Survey of Secondary Education that in a representative number of schools enrolling fewer than 40 high-school pupils they found an average of 9 pupils per

¹³ Collins, M. Earle. Tutorial Needs of Ohio High Schools. Educational Research Bulletin, 9: 223-239, April 1930.

¹⁴ Stetson, F. R. The Organization and Administration of Standard High Schools, University of Oregon, Education Series, vol. 2, no. 7, pp. 271-272.

¹⁵ Ferriss, E. N., Gaumnitz, W. H., and Brammell, P. Roy. The Smaller Secondary Schools. National Survey of Secondary Education, Washington, D. C., Government Printing Office, 1933. (U. S. Office of Education, Bulletin, 1933, no. 17, Monograph No. 6.)

teacher; in schools of 41 to 75 pupils there were 13 pupils to each teacher; in schools enrolling 76 to 150 there were 16 pupils per teacher; in those with enrollments of 151 to 300 there were 20 pupils per teacher; and in schools larger than 300 there were 25 pupils for each teacher. The average number of teachers per school was found to be 3, 4, 7, 10, and 18 in the respective enrollment groups. Since these data dealt with high schools, all of which offered complete programs for 4 years of high-school work, it is clear that many of the classes were very small.

OHIO'S TUTORIAL PLAN

Data such as those cited could be multiplied. The facts submitted are illustrative of the general practice of our high schools of permitting many classes to function which enroll small numbers of pupils. We cannot escape the conclusion that when schools and classes are small the per capita costs are inordinately high. Indeed, it has been abundantly shown by various studies that until a school reaches an enrollment of about 300 pupils the per capita costs bear an inverse ratio to the size of the school. There is no doubt that correspondence lessons could be used to eliminate many of these small schools and classes. Indeed, this is the major purpose advanced by some of the advocates of the use of this device. In Ohio¹⁴ a scheme was developed whereby all classes enrolling fewer than a given number of pupils were to be abandoned. Groups of children needing certain specific high-school courses were to be provided for by a tutorial system, under which these pupils were to be assembled for certain initial instructions and to be given more or less self-administrative lesson materials involving the best characteristics of correspondence lessons. They were then to work at home or in any other convenient place near home. The scheme provided for a tutor who assigns the lesson materials prepared by subject-matter specialists in the State Department of Education, who reads and corrects the study products, and who keeps scheduled office hours, say once a week, at a certain central point to which pupils might come for guidance and help. According to those evolving the scheme

¹⁴ Op. cit.

"the tutorial plan was worked out to embrace the conveniences of the correspondence method, together with the advantages of the contract plan."¹⁶ The author might have added that it also involves certain aspects of "peripatetic" or "itinerant" teaching. In the matter of costs preliminary investigations in connection with the Ohio plan showed that reductions could be effected from approximately \$25 per pupil-semester-subject found for the small classes abandoned to about \$10 for the same unit of instruction under the plan utilizing the correspondence technique.

In a recent address before the American Council on Education, Dr. A. A. Reed¹⁷ of the University of Nebraska cited seven primary objectives or functions which an experiment with correspondence courses in high school has revealed as attainable.

Second in his list is economy in the operation of schools. He asserts that "many high schools large and small are instructing class groups so small that supervised correspondence work would be much less costly." He declares that this objective has assumed a place of especial importance during the present period of economic distress. Doctor Reed points out that the substitution of correspondence study for many courses offered on the traditional plan has made it possible to close some of the smallest high schools, to eliminate many small classes, and to accomplish the same or better results with fewer teachers. "From information available," he reports, "it appears that the financial savings from the use of a combination of classes and alternation of subjects, together with the use of supervised correspondence study as applied to the small high schools in Nebraska would amount to approximately a million dollars a year."

COMPARISON OF COSTS

Comparatively little exact data can be found to show definite reductions in costs which can be attributed to the use of correspondence lessons. The whole question is involved with the problem of the number, variety, and quality of

¹⁶ Baker, H. W. The Tutorial Plan for Ohio Schools. Educational Research Bulletin, 9: 123-132, March 1930.

¹⁷ Reed, A. A. Nebraska's Experiment with Rural High Schools. Educational Record, vol. 14, no. 3, July 1933.

courses a school attempts to offer, the pupil-teacher ratio resulting, and sizes of classes maintained. There is, however, considerable information which shows that such courses cost comparatively less than courses offered in residence.

By letter, Earl T. Platt, in charge of the Nebraska experiment, cited the following result of a study comparing the cost of correspondence instruction in a certain school with costs under the traditional plan during the previous year:

In terms of money spent and education purchased, correspondence study was found to be an excellent investment. Such courses were offered to 14 pupils, 6 in history of English literature and 8 in second-year Latin. The total cost, figured with a safe margin for supplies and deterioration of texts, was \$177.72. The total was arrived at in the following manner:

Cost of fees for 14 courses at \$7 each.....	\$98. 00
Cost of matriculation.....	14. 00
Cost of stamps and envelopes at \$0.03 per lesson per pupil.....	9. 72
Cost for paper, ink, pens, deterioration on texts, etc..	56. 00
Total cost.....	\$177. 72

This proved to be a cost of \$12.70 per pupil subject. That is, the school district spent \$12.70 for each pupil in each subject. During the year previous to the introduction of the correspondence courses the cost per pupil subject given in residence was \$28.88.

The figures showing costs of correspondence courses are for the year 1929-30 and those for the traditional courses are for the previous year. The figures are exact, and since they predate the depression they are believed to represent fair comparisons.

Supt. S. C. Mitchell,¹⁸ who evolved the Benton Harbor plan under which he employed correspondence lessons developed and sold by commercial correspondence schools, declares that courses given by correspondence are cheaper than any taught in the traditional way. By the simple procedure of finding the total cost of each class and dividing this by the number of pupils enrolled he found the per student subject costs for a year of instruction as indicated for the following several departments of his high school:

¹⁸ Mitchell, S. C. The Benton Harbor Plan—An Economy Measure. *American School Board Journal*, 84: 20-21, April 1933.

Agriculture.....	\$23.95	Natural sciences.....	\$10.63
Home economics.....	17.31	Manual arts.....	10.50
Physical science.....	14.60	Commercial.....	10.05
Mathematics.....	12.92	English.....	9.26
Foreign language.....	11.28	Correspondence.....	7.01
Social sciences.....	11.23		

He points out that "the actual cost to the student varies with the type of correspondence course he takes. Obviously some courses will be more expensive than others. At present this cost seems to run between one and five dollars for a per pupil semester subject unit of work." Superintendent Mitchell has been a pioneer in the field of employing correspondence courses in high school. He inaugurated this departure in 1923. His long experience with this type of instruction should qualify him to speak on the question of relative costs. Another superintendent¹⁹ who has made considerable use of correspondence courses in high school has found that "correspondence study is in no wise prohibitive. In fact the per capita cost is often less than that of many courses now being offered in high school."

Kefauver, Noll, and Drake²⁰ concluded from the replies received from 46 high schools relating to the question of cost and other administrative problems that: "On the whole, it is evident that this type of instruction is used with considerable success by a number of small high schools. They are pleased with the result and regard the practice favorably. It is not expensive as compared with the cost of adding to the staff and the equipment." Individual reports declared "it decreases administrative costs."

According to a study by Wisseman,²¹ made during the year 1931 of 13 universities and 18 teachers colleges which furnished high-school correspondence courses, tuitions and fees were found to range from \$8 to \$44 per high-school credit, the average cost being about \$18.50 per pupil per subject per year.

In a study of 15 State universities, Bittner and Mallory²² found a range in costs per high-school correspondence course

¹⁹ Woodan, H. Z. Supervised Correspondence Study for High-School Pupils. *Teachers College Record*, 30: 447-452, February 1929.

²⁰ Op. cit.

²¹ Wisseman, C. L. Correspondence Study on the Secondary School Level. Doctor's thesis, New York University, 1932.

²² Op. cit.

from \$10 to \$30, with an average per capita cost of about \$19 per subject per year. Several other State universities were found to charge on the basis of assignments, or they quoted different prices for succeeding courses from the first course. The University of Chicago quoted a price per half unit of \$25 if paid for separately, but by paying \$47 at one time a person might have 2 half units, and by paying \$65 at one time 3 half-unit courses. Columbia University quoted \$85 for the first course and \$35 for each succeeding course up to 16. High-school correspondence courses are furnished by the State Department of Education of Massachusetts at an average of \$4.50 per half-year course and \$8 per full-year course. The University of Nebraska² has recently announced a price of \$6 per student semester subject and a registration fee of \$1 per student. This institution further announces that if schools wish to purchase courses to be used as individualized instruction material, the courses are available at the following prices:

	Each		Each
1 to 4 copies	\$1.25	40 to 59 copies	\$0.85
5 to 9 copies	1.15	60 to 99 copies	.75
10 to 19 copies	1.05	100 copies or more	.60
20 to 39 copies	.95		

To the costs given above must often be added costs of postage, textbooks, and sometimes examination fees. Since each pupil is expected to carry four subjects, the average per pupil cost for a full year of high-school instruction by correspondence may be estimated from the various figures given to be about \$75 to \$80 per year. Comparing these to \$122, the approximate per capita costs for regular high-school instruction in the cities of the United States for 1930, we see clearly that costs for correspondence instruction are considerably lower. The per capita cost of \$122 per year for high-school instruction in residence does not include any charges for administrative control, operation, maintenance, financing, and the like. Of course, when correspondence courses are taken as a part of the regular high-school program some of the overhead costs must in fairness also be charged to pupils

² Supervised Correspondence Study. University Extension News, vol. 13, no. 40, Jan. 18, 1931.

pursuing such courses. It should also be borne in mind that the per capita costs of regular high-school instruction given above are for city schools only, a general figure for all high schools not being available. Since the pupil-teacher ratios are much lower in the smaller high schools than in the larger city schools the per capita costs of instruction for all schools would probably be considerably higher than \$122 per year.

Although most of the progress made in the use of correspondence lessons in high school has been motivated by purposes other than merely cutting costs the evidence is conclusive that this device does have the possibilities of saving money. Wherever correspondence study costs are compared to those for traditional instruction the testimony is most favorable to the correspondence procedure. Director Hargreaves, of British Columbia, where correspondence courses have been used for about 15 years, writes: "You may take my word for it, this is the best spent money in British Columbia and gives entire satisfaction to parents and pupils." And the commissioner of education of Puerto Rico reports "The cost per capita for secondary instruction by the Bureau (of Extension) is \$10.87, while for the (regular) public schools it is \$63, approximately."

As has been pointed out the matter of determining the actual costs of correspondence lessons is most difficult. Wherever the practice prevails of obtaining such courses from the extension department of universities and colleges such courses are prepared, the returns read and criticized as a regular part of the institutions' service to the State. Professors often do the work on a part-time basis. The actual costs to the State can, therefore, scarcely be ascertained. No safe estimates can at this time be undertaken of actual savings possible through the use of correspondence lessons. Should they come into wide use it seems obvious that the preparation of such lessons could be undertaken cooperatively by several States, their administration could become centralized, and the work more or less standardized. By these means the costs of production and administration of such courses could undoubtedly be reduced below what they now are.

B. ECONOMICAL IMPROVEMENT AND ENRICHMENT
OF SECONDARY EDUCATION THROUGH
CORRESPONDENCE COURSES

The question which has chiefly motivated those interested in introducing the correspondence technique into the high schools of this country has obviously been enrichment and improvement of secondary education rather than merely reducing cost. Important as the latter aspect of the movement is, it is probably a point more pertinent to economy to inquire rigorously into the question of what a large number of our high schools are now purchasing for the dollar expended. It has been widely maintained that the chief problem of secondary education, especially in the more sparsely settled communities, is the very limited and stereotyped offerings constituting the high-school program. Numerous studies have shown that except in the larger communities the high-school curriculum is largely limited to college preparatory courses. Vocational courses, fields of study more closely related to modern life, courses of peculiar and vital interest or value to individual pupils have commonly been shut out for want of staff, room, time, and most of all, because of the excessive costs entailed in the multiplication of small classes. Now more than ever educators have the responsibility of checking the product as well as the production methods to assure themselves that the schools are really rendering the vital services which they might render.⁵

Perhaps the most comprehensive plan thus far evolved for the enrichment and vitalization of secondary education, especially in our smaller schools, is now being worked out in Nebraska.⁶ This plan involves three major procedures: (1) Alternation of classes, (2) locally administered individual instruction, and (3) supervised correspondence study. Definite programs and schedules have been worked out and as will be seen below excellent results are being obtained.

Only in a general way can the advantages found by the Nebraska experiment be cited as a direct saving in costs. The economy features of most of the advantages cited must

⁵ Broady, K. O., Platt, E. T., and Bell, M. D. Practical Procedures for Enriching the Curriculum of Small High Schools. University of Nebraska, Educational Monograph No. 2, June 1937.

be sought in terms of more and better high-school education so greatly needed, especially in the smaller communities. The task this institution has set itself has been to demonstrate in selected high schools strategically located the place of correspondence lessons in a completely reorganized scheme of secondary education. A grant of \$5,000 has been given by the Carnegie Foundation to the University of Nebraska to help to defray the expenses of investigating ways and means by which the educational services of the small high school may be improved. A bulletin entitled "Practical Procedures for Enriching the Curriculums of Small High Schools", and a number of additional printed and mimeographed circulars have been issued by the university describing various aspects of the experiment.

Besides savings in costs those in charge of the Nebraska experiment envisage a long list of advantages resulting to high-school education from courses by correspondence. Publications emanating from this source point out first of all that by this means the subject offerings may be increased. They argue that "only by the use of supervised correspondence study can the special interests and abilities of all high-school pupils be cared for. Every administrator knows that to force all those who go to high school to take college preparatory work certainly results in giving many of the pupils courses that are not suited to them."

ADVANTAGES OF CORRESPONDENCE COURSES

Some "specific advantages" that grow out of or are closely related to the enrichment of secondary education by correspondence courses pointed out by these publications are: (1) Provisions may thereby be made for problem and gifted pupils. Without some unusual device like correspondence lessons the smaller schools are unable to provide for the peculiar needs of the various deviates. (2) Provisions may be made for irregular students through this means. The most frequent difficulty with alternation of courses in the smaller schools, an administrative device commonly used to reduce some of the many small classes, arises in connection with the irregular pupils, that is to say, those who must start late in the year, those who have moved in from another school district, or those who have for other reasons been

retarded. These irregular pupils can very handily be cared for by supervised correspondence study, thereby leaving in full operation any schedule built upon alternation. (3) Worth-while courses may be provided by supervised correspondence lessons for postgraduates or for adults who wish to continue their education. (4) Through correspondence lessons, schools may make available instruction in vocational subjects. Small schools especially have thus far been unable to offer the opportunity for growth or orientation in the vocations which so often are of all-absorbing interest to some of the pupils attending.

A number of other important uses of supervised correspondence courses, closely related to the enrichment and vitalization of secondary education, have been revealed by the Nebraska experiment. It was found that by this means the teaching load of the administrator could be decreased, thus leaving time for greatly needed study and solution of supervisory and administrative problems. It was also found that correspondence materials could be used to supplement and enrich the educational activities of the regular classes. Schools have found it feasible to purchase correspondence courses in their entirety at the beginning of the course. These the teachers have used to supplement their regular work or to conduct on a supervised study-basis two or more related courses at the same time. Greater individualization of instruction has also been accomplished by use of these materials.

The costs have been found to be nominal and decidedly justified by the results obtained. Still another advantage found for supervised correspondence lessons in high schools was that it provided a higher type of instruction than could otherwise be given in subjects for which teachers are not prepared, but which, especially in the smaller schools, they are so frequently called upon to teach.

TYPES OF CORRESPONDENCE COURSES CHOSEN

Definite proof of the fact that pupils attending high schools desire lines of study and preparation which are not now being offered in our high schools can be had by an examination of the types of courses chosen by those who are taking correspondence courses both as a part of their work in a regular

high school or direct from a correspondence school on their own initiative.

Superintendent Mitchell²⁸ writes: "More than 400 courses are available to the boys and girls of Benton Harbor through the correspondence department. . . . Practically all of the courses are directly vocational. With this number and variety a boy or girl who wants to learn can get good training for almost anything he can think of. . . . At present there are 136 students enrolled in 22 different (correspondence) courses." They are listed as follows:

Mechanical drawing.....	49	Civil service.....	4
Pupils' automotive.....	15	Ship drafting.....	3
Electrical.....	14	Commercial, business manage-	
Salesmanship.....	11	ment, commercial art, and	
High-school subjects.....	10	blueprint reading, each....	2
Architectural drafting.....	10	Landscape gardening, car-	
Advertising.....	6	tooning, and sheet-metal	
Special mathematics.....	5	drafting, each.....	1
Tool design.....	4		

Wissemann²⁹ secured information from 65 pupils who had completed a total of 77 correspondence courses. These courses were grouped under 10 subjects and pupil enrollments were found to be as follows:

Mechanics.....	32	Engineering.....	5
Related arts.....	10	Academic subjects.....	4
Business courses.....	8	Electricity, civil service, and	
Radio.....	7	farming.....	2
Poultry.....	5		

He points out that all but 11 of these courses are technical and vocational. Mechanics, radio, and related arts, such as drawing, painting, and decorating, prove to be the most popular.

C. CORRESPONDENCE COURSES AS A MEANS OF ECONOMICALLY PROVIDING SECONDARY EDUCATION IN SPARSELY SETTLED COMMUNITIES

A third procedure by which high-school correspondence courses can become a means to economy in education is that of providing secondary education in certain sparsely settled areas in which there are too few pupils to warrant the estab-

²⁸ Op. cit.

²⁹ Op. cit.

lishment and maintenance of a high school and where transportation to existing schools is not feasible. Except for older persons this particular use of high-school correspondence lessons has not had, so far as this author knows, extensive development in the United States. Educational authorities of other countries, particularly in the several states of Australia and the western provinces of Canada, have definitely recognized this possibility in correspondence lessons. Indeed, it seems to be the chief purpose motivating this type of service in these countries. Whereas the development is still in its beginning stages, having been in progress on the high-school level only 2 or 3 years, the movement is showing rapid growth and is winning wide approval. Assistant Deputy Minister C. K. Rogers, of the Province of Manitoba, in a letter declares that "for the 2 years in which we have sent out correspondence work in grade IX (thus far limited to this grade) we have had 500 and 600 pupils, respectively. Next year we are adding grade X. These courses have proved the necessity for such an arrangement in these times. Ordinarily the rural school pupil on completion of grade VIII could get the money to attend the nearest high-school center for his secondary education. Practically all of the students now enrolled in grade IX with us would have gone without high-school education altogether if they had not been able to get the work by correspondence."

His letter further states that: "In several cases where the enrollment in an outlying school district gets very small, we close the school and put the children on correspondence lessons. It is much more economical than operating the school since we are able to provide for these children at a per capita cost of about \$14."

In the United States we have made it our goal to provide secondary education to every child who desires to attend high school. As a result we have, as pointed out above, established great numbers of high schools, many of them too small as operated at present to provide an acceptable quality of education and nearly always expensive. We have made wide use of transportation, have resorted to dormitories, and have developed ingenious schemes of organization; all of them calculated to bring secondary education to the child, but nearly always the results have been expensive when com-

pared to high-school costs in the larger centers, especially when quality of work was considered.

But despite the very large number of high schools with inordinately small enrollments and teaching staffs and with the special methods employed there are still a great many children, especially those living in the rural communities, who are not attending high schools and who under present administrative setups cannot attend such schools. For the Nation as a whole the United States Office of Education has derived reliable estimates which show that in 1930 only about 68 percent of all children 14 to 17 years of age entered high schools. These estimates also showed that about 95 percent of those within these age groups who live in the cities reach this level of education and that only about 41 percent of those living in centers of 2,500 or fewer population reach the high school. Further statistics could be adduced to show that in the more sparsely settled States, and especially in the rural areas of such States, the proportion of children continuing their education as far as high school is very much smaller than the percentages shown above.

Several studies have clearly shown that the availability of a high school within a reasonable distance from a child's home is one of the most important factors which determine whether or not a child continues to this level of education. After an exhaustive study of the factors affecting high school attendance Palm⁷⁷ concluded that the more high schools there are per 10,000 people the greater the proportion of children attending such schools. From a study of 13 States Troxel⁷⁸ found a positive correlation between the proportion of rural children attending high schools and the number of such schools available per population unit of 0.94. He draws the conclusion that "evidently the way to secure attendance of rural children at high school is to provide high schools near to the children's homes." Bringing high schools nearer to rural children's homes means, of course, more small high schools or other expensive methods of providing secondary education.

⁷⁷ Palm, R. R. *The Factors of Size of High School and Popularization of Secondary Education in the United States*. Master's thesis, University of Minnesota, 1928.

⁷⁸ Troxel, O. L. *State Control of Secondary Education*. Baltimore, Warwick, and York, 1928.

A study by Cook and Gaumnitz²⁰ of the whole problem of the availability of schools in rural communities showed that in most of the States there are considerable numbers of children who live so far from the schools upon which they must depend for their educational progress that either they cannot attend at all or their attendance is greatly handicapped. This condition is particularly true when children reach the level of high school.

EDUCATION WITHOUT SCHOOLS

Correspondence lessons are being used in other lands, and they obviously also have possibilities in this country, as a means of bringing more and better education to isolated rural children. Indeed they are already being used in this manner in this country. Wisseman²¹ found that of 419 pupils pursuing high-school courses by correspondence 47.9 percent lived within 2 miles of a 4-year high school, 18.6 percent lived between 2 and 5 miles from such a school, 17.1 percent lived 5 to 10 miles away, and 16.4 percent lived 10 miles or more away. Of this total number only about one third lived near routes affording transportation to such schools. Of a total of 606 reasons given by pupils for taking high-school work by correspondence according to Wisseman 32 stated definitely that the "distance to high school was too great" and 59 others revealed "no 4-year high school in my community."

If some plan could be devised whereby such isolated children could be guided and supervised in their efforts to do high-school work by correspondence better results could of course be obtained than if such courses are pursued without supervision. In Manitoba, Canada, the plan for high school by correspondence provides that "all students who enroll for grade IX correspondence courses must, if possible, attend the nearest rural school. Such students must attend regularly, work diligently, and in no way interfere with the regular routine of the school." By this plan a place and time is provided for regular study, certain reference books and other

²⁰ Cook, K. M. and Gaumnitz, W. H. Availability of Schools in Rural Communities. National Society for the Study of Education, Thirtieth Yearbook, pt. I, ch. III, Bloomington, Ill., Public School Publishing Co., 1931.

²¹ Op. cit.

educational materials are made available, and the help and guidance of a teacher is assured.

The tutorial plan ²¹ experimented with in Ohio also assures a way of providing definite supervision for correspondence courses. A few years ago Windes ²² outlined a plan for providing secondary education in rural communities which made use of individualized lesson units similar to correspondence lessons, but which provided for thorough guidance and supervision. Under this plan pupils were not to be organized into classes or to meet for recitations. Modifications of this plan so as to include correspondence lessons would seem to have much promise. Possibly some combination of correspondence lessons with the use of itinerant teachers who could provide guidance and supervision would result in a workable scheme for making available an acceptable quality of secondary education in localities where there are too few children to warrant the establishment and maintenance of a high school. The preparation and grading of such lessons would probably have to be placed in the hands of specialists either working out of State departments of education or in connection with extension departments of universities. In Ohio the plan provides for traveling teachers who are expected to keep office hours at scheduled times and at central places to which pupils pursuing high-school courses by correspondence can come for guidance and supervision.

D. POSSIBILITIES OF HIGH-SCHOOL CORRESPONDENCE COURSES IN ECONOMICALLY EXTENDING THE SERVICES OF THE HIGH SCHOOL

A problem which at the present time is of especial concern to school administrators is how to take care of the growing numbers of pupils who have graduated from high school but who for various reasons wish to continue their education locally. Many of these would normally have gone to college but shrunken family budgets and failure to find opportunities to earn a part of their college expenses often compel such persons either to become idle or to continue their education as

²¹ Op. cit.

²² Windes, E. E. Possibilities of Individualized Instruction in Small High Schools. *School and Society*, 21: 480-493, Apr. 25, 1925.

best they can at home. The scarcity of gainful employment is also causing many other persons to wish to continue their interrupted education. This whole situation involves both a problem of social economy difficult to measure in dollars and cents and an economy of educational expenditures. It would seem infinitely more profitable for society to enlarge and intensify the educational opportunities of such persons than to cast them out to shift for themselves at a time when there is nothing to do but to develop habits of loafing, become a "wandering boy or girl problem", or to resort to questionable if not antisocial activities as a means of occupying their time.

Some of the problems resulting from any effort to open the high schools to postgraduates are: Additional overloading of teachers, overcrowding of the school facilities, and expenditure of additional funds at a time when such expenditures must be contracted. School authorities generally recognize the need for opening the high schools to these people at this time and they would gladly do so. But lack of funds and facilities compel them to act contrary to their convictions in the matter. In many places the night schools are being abandoned as a means of retrenchment. This further enforces idleness and cuts off educational growth at the very time when these services of the schools are especially important.

It is now suggested that correspondence courses be used to provide for such students. These courses naturally demand far less attention from the teachers than regular classroom instruction; students can prepare their correspondence lessons at home, in public libraries, or they can use the school facilities after the regular school hours. In a review of "Instruction by Mail in Massachusetts," E. Everett Clark²³ points out that correspondence courses are being used in that State both for high-school postgraduate work and in lieu of regular evening high-school classes.

Still another use of high-school correspondence lessons which might be made both a social and a monetary economy relates to the idea advanced especially by those studying the problem in Nebraska, namely, instruction to persons who are

²³ Clark, E. Everett. *Instruction by Mail in Massachusetts*. *School Life*, 17: 168, June 1912.

physically handicapped or who because of temporary or extended illness cannot attend the regular high schools. Education in school for such special groups must of necessity be expensive. Because of the need for special equipment, special instructional procedures, and special grouping, higher per capita costs result than with normal children. For example, in many cases special transportation must be provided or instructors must be sent to the homes. There is also the very important fact that often the educational progress of such children is not provided for at all. As a result those who for various periods of time cannot attend the regular schools fall behind their grades and often find it most difficult to adjust themselves to the whole situation. For many such persons it is now proposed to provide high-school education by means of correspondence lessons.

IV. WHERE MAY RELIABLE HIGH-SCHOOL CORRESPONDENCE COURSES BE OBTAINED ?

In order that those in charge of schools and other persons interested in the possibilities of providing or supplementing courses in secondary education by correspondence may know where such courses may be obtained, an attempt will here be made to give the latest possible list of institutions providing such courses and insofar as possible to cite the particular courses which each offers. There are, of course, many classes and types of correspondence schools. Noffsinger²⁴ classified them on the basis of ownership and control into three groups: Public, quasi-public, and private. Under the first he placed those correspondence schools which are connected with various State and endowed universities and colleges; the second group includes those schools commonly run in connection with some industry whose ownership and control are usually in the hands of corporations; and in the third group he places those owned and controlled by individuals, partnerships, or stock companies. This section of the study will be interested chiefly in the first group. Data concerning the last two groups are for the most part difficult to obtain.

²⁴ Op. cit.

Most of these schools adhere to no definite standards because of rather frequent changes in their location, their management, and their offerings. Many of the private schools are owned (and sometimes manned) by a single person; others are huge corporations capitalized at millions of dollars, having long histories and long rosters of employees and courses.

Plans and policies in public colleges and universities also show so much shift that it is difficult to present accurate or complete lists of schools offering high-school correspondence courses or the particular courses offered. The data to be presented in this list were chiefly taken from a study by Alderman²⁵ and the unpublished chapter of Bittner and Mallory.²⁶ The data for the former are for 1928-29. For the latter the exact date of the data could not be established but the general study from which they come was begun in 1929.

TABLE 1.—*Institutions offering high-school courses by mail, and the courses offered*

Location	Name of institution	High-school correspondence courses offered
ALABAMA		
University.....	University of Alabama.....	No courses offered especially for high-school students but certain collegiate courses are available to high-school pupils.
ARIZONA		
Phoenix.....	Phoenix Union High School (Junior College).	All high-school subjects except those requiring laboratory work, and industrial work.
ARKANSAS		
Conway.....	Arkansas State Teachers College.	High-school subjects.
Fayetteville.....	University of Arkansas.....	Do.
CALIFORNIA		
Berkeley.....	University of California.....	Commercial subjects, English, mathematics, history, classical languages, modern languages, a few other subjects.
COLORADO		
Boulder.....	University of Colorado.....	English, mathematics, history, classical languages, and a few other subjects.

²⁵ Op. cit.

²⁶ Op. cit.

TABLE 1.—*Institutions offering high-school courses by mail, and the courses offered—Continued*

Location	Name of institution	High-school correspondence courses offered
COLORADO—Con.		
Greeley.....	State Teachers College.....	English, world history, American history, social science, English history, algebra, plane geometry, general science, botany, high-school geography.
FLORIDA		
Gainesville.....	University of Florida.....	Agriculture, commercial subjects, English, French, history, Latin, mathematics, Spanish.
GEORGIA		
Athens.....	University of Georgia.....	No data.
Douglas.....	South Georgia Training College.....	American history, civics, economics, literature, and life.
Tifton.....	Georgia State College for Men.....	Algebra, English, history.
ILLINOIS		
Chicago.....	University of Chicago.....	Accounting, drawing, English, French, German, history, Latin, mathematics, physics, physiography, Spanish.
INDIANA		
Bloomington.....	Indiana University.....	Commercial subjects, French, English, German, history and civics, Latin, mathematics, science, Spanish.
KANSAS		
Hesston.....	Hesston College and Bible School.....	Algebra, American history, Bible history, Biblical geography, English, German, Latin, Spanish.
Manhattan.....	Kansas State Agricultural College.....	Agriculture, drawing, economics, English, history and civics, home economics, mathematics, science.
Emporia.....	State Teachers College.....	Agriculture, commerce, English, geography, history and civics, Latin, mathematics, physics, physiology, psychology.
Hays.....	State Teachers College.....	English, mathematics, electives.
Pittsburg.....	State Teachers College.....	General biology, commercial law, composition, American literature, English literature, grammar, elements of geography, American history, civics, algebra, geometry, physics.
Hillsboro.....	Tabor College.....	Algebra, English, general science, history, physiography, psychology.
Lawrence.....	University of Kansas.....	Civics, English, French, German, history, Latin, mathematics.

TABLE 1.—*Institutions offering high-school courses by mail, and the courses offered—Continued*

Location	Name of institution	High-school correspondence-courses offered
KENTUCKY		
Lexington.....	University of Kentucky.....	Civics, English, German, history, Latin, mathematics, rural management science.
Murray.....	Murray State Teachers College.....	Agriculture, education, English, geography, history, mathematics, science.
Louisville.....	Simmons University.....	English, general biology, history.
Morhead.....	State Teachers College.....	No data.
LOUISIANA		
Baton Rouge.....	Louisiana State University.....	Algebra, geometry.
MASSACHUSETTS		
Boston.....	State Department of Education.....	Offers more than 200 courses in a wide range of subjects—Literature, music, art, drawing, English, foreign language, history, economics, sociology, education, psychology, mathematics, science, commercial, and technical subjects.
MINNESOTA		
Minneapolis.....	University of Minnesota.....	English, mathematics, commercial subjects, modern language.
MISSOURI		
Columbia.....	University of Missouri.....	Agriculture, algebra, economics, English, geometry, German, history, Latin, trigonometry.
Cape Girardeau.....	State Teachers College.....	Agriculture, business, commerce, English, geography, history, language, mathematics, music, science.
NEBRASKA		
Lincoln.....	University of Nebraska.....	Art, mechanical drawing, typewriting, shorthand, bookkeeping, English, literature, journalism, Latin, French, algebra, advanced algebra, trigonometry, healthful living, general science, chemistry, physics, freshman orientation and guidance, economic geography.
Kearney.....	State Teachers College.....	English, Latin, algebra, plane geometry, European history, American history.
NEW JERSEY		
New Brunswick.....	Rutgers University.....	Business economics, business English, civics, English, history, mathematics, mechanical drawing, plan drawing, shop, trigonometry.

TABLE 1.—*Institutions offering high-school courses by mail, and the courses offered—Continued*

Location	Name of institution	High-school correspondence courses offered
NEW MEXICO		
Silver City.....	State Teachers College.....	Civics, English, history, mathematics, Spanish.
NEW YORK		
New York City.....	Columbia University.....	Subjects in the 4-year high-school course. Bible study.
Keuka Park.....	Keuka College.....	
NORTH DAKOTA		
Grand Forks.....	University of North Dakota.....	Commercial subjects, English, foreign languages, mathematics, science, social science.
Fargo.....	North Dakota Agricultural College.....	Business subjects in regular high-school courses, practical agriculture.
Ellendale.....	State Normal and Industrial School.....	Ancient history, modern history, sociology.
OHIO		
Toledo.....	St. John's University.....	Algebra, American history, civics, commerce, English, general history, geometry, Latin.
OKLAHOMA		
Norman.....	University of Oklahoma.....	Agriculture, bookkeeping, English, French, government, history, Latin, mathematics, shorthand, typing.
Stillwater.....	Oklahoma Agricultural and Mechanical College.....	Agriculture, economics, English, history, mathematics, physics.
Edmond.....	State Teachers College.....	Biology, English, history, mathematics.
Ada.....	do.....	English, algebra, plane geometry, history, commercial geography, physical geography, psychology, economics, arithmetic.
OREGON		
Eugene.....	University of Oregon.....	Biology, botany, drawing, economics, education, English and literature, geology, health education, history, mathematics, modern language, physics, physiology, psychology, sociology.
PENNSYLVANIA		
State College.....	Pennsylvania State College.....	English, mathematics, history.
SOUTH DAKOTA		
Aberdeen.....	Normal and Industrial School.....	English language and literature, history, Latin, shorthand, and typewriting.
TENNESSEE		
Knoxville.....	University of Tennessee.....	Practically all secondary school subjects.

TABLE 1.—*Institutions offering high-school courses by mail, and the courses offered*—Continued

Location	Name of institution	High-school correspondence courses offered
TEXAS		
Austin.....	University of Texas.....	Algebra, American literature, bookkeeping, business administration, English history, English literature, Esperanto, geometry, history, journalism, trigonometry.
Lubbock.....	Texas Technological College.....	All subjects given in high-school residence courses except laboratory science.
Ablene.....	Ablene Christian College.....	Bible, economics, education, English, geography, history, home economics, Latin, mathematics, psychology, sociology, Spanish.
Huntsville.....	Sam Houston State Teachers College.....	Agriculture, biology, business administration, English, French, geography, history, mathematics, Spanish.
Canyon.....	West Texas State Teachers College.....	English, history, mathematics.
UTAH		
Salt Lake City.....	University of Utah.....	Biology, English, history and civics, mathematics.
Logan.....	State Agricultural College.....	All high-school courses.
St. George.....	Dixie College.....	Algebra, American history, domestic art, English literature, general literature, geometry.
WASHINGTON		
Seattle.....	University of Washington.....	Commercial subjects, English, mathematics, history, classical languages, modern languages.
Pullman.....	State College of Washington.....	Economics, science, education, English, foreign languages, hygiene, manual arts, mathematics, physics, politics, psychology, secretarial science, sociology.
WEST VIRGINIA		
Huntington.....	Meghall College.....	Commerce, education, geography, history, Latin, physical education, Spanish.
Montgomery.....	New River State School.....	Agriculture, economics, English, history, mathematics.
WISCONSIN		
Madison.....	University of Wisconsin.....	Bookkeeping, chemistry, English, French, general science, German, Greek, history, Italian, Latin, library methods, mathematics, physics.
Milwaukee.....	State Teachers College.....	Algebra I and II.
WYOMING		
Laramie.....	University of Wyoming.....	Commercial, English, Latin, mathematics, social science.

An analysis of the data just presented reveals that public institutions offering high-school courses by correspondence are found in a total of 32 States. In 23 of these States this work is carried on at the State university; in 1, Massachusetts, it is handled through the extension division of the State Department of Education. In other States such courses are given in colleges under the control of both State and private agencies like Rutgers University of New Jersey. In 12 States such courses are offered by State teachers colleges, and in several others State agricultural colleges also provide correspondence on the secondary level. Two of our largest private colleges, Columbia University and the University of Chicago, have for many years offered such courses.

The very extended list cited leads to the conclusion that if a school wishes to employ correspondence courses or if individuals desire to pursue their education by this means there are institutions in all parts of the Nation ready to fill the need. And they offer a very large assortment of courses from which choice might be made. The number and variety of the courses offered can be better appreciated if the total offerings are arranged in a sort of composite curriculum. The "curriculum" given below was compiled by listing but once all of the different courses listed by the various institutions as subjects available for persons desiring high-school instruction by mail. Since many colleges and universities list their offerings under such inclusive terms as English, mathematics, social science, science, and the like, it is likely that many specific and different courses are provided which do not appear in this list.

English, usual high-school subjects:	Social sciences—Continued
Grammar.	History, English.
Literature, general.	History, Ancient.
Literature, American.	History, Bible.
Literature, English.	Geography, high-school.
Library methods.	Geography, Physical.
Journalism.	Geography, Commercial.
Mathematics:	Geography, Bible.
Algebra.	Civics or government.
Geometry, plane and solid.	Sociology.
Trigonometry.	Economics.
Social sciences:	Science, general:
History, American.	Botany.
History, World.	Biology.

Science, general—Continued	Language:
Chemistry.	Classical.
Physics.	Latin.
Physiography.	Greek.
Commercial subjects:	Modern.
Accounting.	French.
Bookkeeping.	German.
Business administration.	Italian.
Commercial law.	Spanish.
Typewriting.	Fine arts:
Shorthand or stenography.	Drawing.
Secretarial science.	Music.
Practical arts:	Health education:
Agriculture.	Hygiene.
Home economics.	Physiology.
Shop or technical subjects.	Psychology.
Mechanical drawing.	Education.
	Rural management.
	Freshman orientation.

The foregoing list, large and rich though it is in the offerings it suggests, does by no means exhaust the possibilities of fields of education which may be obtained by correspondence. As will be noted from table 1, the State Department of Education of Massachusetts states that through its Division of Extension "more than 200 courses in a wide range of subjects" are available. If to these were added the very large list of technical and unusual courses offered by the commercial correspondence schools it becomes apparent that the variety of courses which may be provided for the high-school child is almost without limit. As pointed out, Superintendent Mitchell, who perhaps has used commercially prepared courses more extensively than any one else in this country, declares that "more than 400 courses are available to the boys and girls of Benton Harbor through the correspondence department."

It is to be regretted that the specific courses composing these long lists could not be ascertained. It would have been interesting to note the extent and character of the "composite curriculum" if all these courses could have been fitted into the scheme. Suffice it to say, that if and when this wealth of offerings is made a reliable and practical part of the education provided by our high schools, secondary education will have arrived at the goal so frequently set but seldom

attained of providing adequately for the diversified needs and interests of "all the children of all the people."

V. WHAT OF THE QUALITY OF HIGH-SCHOOL CORRESPONDENCE COURSES? HOW CAN THESE COURSES BE IMPROVED?

As one considers the lists of courses offered the impression is gained that in many cases they are regular college correspondence courses open to but not especially prepared for high-school pupils. Insofar as this is the practice the high-school correspondence service falls far short of what it might be. All those who have studied the problem have agreed that high-school courses to be taught by mail must, to be successful, be very carefully prepared. Perhaps the best progress made in this regard is the procedure followed in Nebraska where those in charge of the University Extension Division cooperate very closely with professors in the college of education, and where very careful studies and experiments are being conducted with a view to constructing and administering these courses in such a way that the best possible results will be obtained.

INDIANA'S POLICY

From an extensive study of the high-school correspondence courses offered by the universities Bittner and Mallory³⁷ report the following findings (it should be noted that these findings are presented largely from the university point of view):

Most of the institutions in the National University Extension Association (to which 39 of the foremost universities belong) offer some home-study courses for persons who wish to complete their preparation for college entrance. A few institutions offer the courses for another purpose as well, as an adult education service to older persons who wish the equivalent of a high-school education for the satisfaction it may give or for the purpose of meeting professional certification requirements. The courses available throughout the United States are adequate to meet the needs of everybody, but they are not well known nor well patronized. This is doubtless due in part to competition in this field by commercial correspondence schools. It is also due to failure of most universities to make any marked effort to advertise the service. What little promotion they undertake usually emphasizes

³⁷ Op. cit.

instruction of college level. The criticism is sometimes heard on the campus that the "university has no business giving high-school courses", and this attitude may make university administrators overcautious.

Hundreds of courses are available to persons who may wish to pursue the usual high-school curriculum, and the cost of the courses is relatively small. They should be better known especially in the rural districts where many an adult unprepared for college instruction would profit by courses on the secondary school level. Mr. R. E. Cavanaugh, Director of the Extension Division of Indiana University says:

"Correspondence courses below the college level are intended primarily for mature persons who realize the handicap of lack of education in general as well as for those who desire instruction in some particular subject. President William Lowe Bryan of Indiana University was one of the first educators to appreciate the importance of such courses by mail for disadvantaged adults. He pointed out that the high-school movement even in States where it has developed rapidly has failed to reach many of the intelligent adult population for whom there are now no educational institutions in a position to offer a training suitable to their needs. He saw, too, that there are many young persons also who might still attend high school but are prevented from doing so, especially in the rural districts. . . .

"With this view of the situation, President Bryan lent his support to a plan which was presented to the State board of education for the purpose of offering an opportunity for every capable person to secure training in high-school subjects. The State board authorized the acceptance of high-school credits earned by students of such courses offered by approved colleges and universities in lieu of credits formerly granted only to applicants who successfully passed the high-school equivalency examinations which are offered to those who desire to qualify for college or university entrance.

"This plan was endorsed by the State board of education nearly 10 years ago and has been operating successfully in Indiana. Hundreds of students, most of them mature people, have taken advantage of the opportunity to make up deficiencies in high-school training. The extension division of Indiana University is careful to enroll only those students who are past the usual high-school age or who for some special reason are approved by the principals of their high schools for this type of study. Among those so approved are students afflicted with physical handicaps that keep them out of the classroom. There are others who need certain courses not available to them in their own schools. In several instances public authorities have authorized and paid for special high-school correspondence courses for entire classes for which they did not have available teachers who could give sufficient time to teach the work. In such cases, the work is offered under the supervision of the school where the work is to be done and where the credit is to be accepted. These schools assume responsibility for directing the study of the class and for the tests and examinations required. Such a program of cooperation might well be developed to the advantage of many small high schools where the teaching staff is limited. In order to

make such a plan most successful, however, a technique slightly different from that usually followed would be necessary in order to adapt the courses to the needs of high-school students who are less mature than most students to whom courses by mail usually appeal and for whom this work is usually planned.

"The quality of the correspondence instruction in high-school subjects is excellent because expert teachers are employed and the number of students is relatively small. Instructors are invariably eager to help the students who usually belong to one or two stimulating types: The mature person who is determined to overcome long-suffered handicaps and the young student of exceptional ability who is eager to make more rapid progress than his preparatory schooling has permitted. A few students are the perfunctory type who have to make up some deficiency in college entrance credits in their freshman year in college or to meet a special requirement for graduation from their local high school. But some of the most inspiring examples of personal effort to 'get an education' are those of men and women who on account of occupation or because of disabilities in their youth find the high-school correspondence curriculum a new road to opportunity.

"Often the best instruction is that given by a member of the college faculty who has had experience in both high-school and university instruction and is conducting correspondence teaching on both levels. On the other hand it is possible to find easily the superior high-school teachers since of the hundreds in the State only one or two are needed until the enrollment mounts considerably above present figures. Such high-school teachers usually have some connection with the university, doing advanced graduate work, teaching in summer sessions, cooperating in contests, etc.

"They are given supervision in the preparation of the courses and in the conduct of the instruction usually by both the administration and the residence department at the university. The courses are thoroughly worked out and frequently revised to suit not only the State requirement but also some of the special objectives of the resident department. Thus the connection with the university is of distinct advantage."

The attitude toward providing high-school home study courses differs in the States according to the respective administration's varying conceptions of the function of the university. The attitude of the University of California, which represents that of a number of similar institutions, is reflected in the following quotation:

"We offer a few courses in the field of high-school work. These, however, are especially for adults in order to prepare them for more advanced work by correspondence. No credits are accepted for entrance. We use regular university instructors and readers. The same fee, \$7, for a course of 15 assignments is charged in and out of the State. All but very few students are beyond the high-school age. We have not had any experience with attempts of high-school officials

to use correspondence courses to enrich the local curriculum. In general high-school students should not be encouraged to take our correspondence courses, because they are prepared especially for adults." ²⁸

A statement by the director of extension of the University of Alabama expresses a similar attitude:

"There are a few courses such as trigonometry, French, and German, and the like which may be offered in high schools but which are also recognized subjects of collegiate grade, for which we have correspondence courses and in this way high-school students may pursue them, but there is no definite effort at present to provide for this character of correspondence course." ²⁹

COLLEGES GEARED TO ACADEMIC NEEDS

The testimony presented above of the directors in charge of this work in universities throws considerable light upon what the universities think of these courses and what cooperative relationships have been established between themselves and the high schools or individuals taking such courses.

There is obviously some difference in the types of correspondence courses taken by students as a part of their program of studies in a high school and those chosen and pursued on the initiative of individual students. As was pointed out the former chose chiefly vocational, technical, and other courses which cannot be provided for in the regular high-school program without greatly multiplying small classes and increasing the per unit costs. Persons taking such courses by themselves usually choose college preparatory courses. It is their major objective to remove high-school graduation deficiencies or to enter college. Persons in the latter group are usually older than the regular high-school age.

It is the purpose of most of the high-school correspondence courses now offered by the colleges to serve this latter group. As a result, most of the courses offered are academic, tending to duplicate those offered in the traditional college preparatory courses in high school. Often, too, very few changes are made in the courses formerly provided on the college level. The chief adjustment is that a lower quality of work is expected of the student taking these courses on the high-school level.

Now that school authorities are beginning to see the wide range of possibilities which such courses might have in the whole educational scheme of things some serious thought is

²⁸ Letter by Acting Director of Extension Division, B. B. Rakestraw.

²⁹ Letter by R. E. Tidwell.

being given not only to the kind, but also to the quality and adaptability of the courses offered by collegiate institutions for use by high-school pupils. Improvements of both the types of courses offered and the lesson materials constituting such courses are now being undertaken. Men are being placed in charge of the preparation of such courses who have had training and experience in the teaching of high-school children.

Broady⁴⁰ points out that the improvement of their high-school correspondence lesson materials and the instructional techniques employed constitute some of the major problems challenging this development of this service in that State. He says:

At the very beginning we found that the courses already available were weak in that they required the use of too long written assignments, that the lessons were too involved, and that it was necessary to return them too frequently to the extension center. It was also evident that there was a lack of true learning situations. By this I mean that there were no devices for creating interest. Objectives were neither clearly pointed out nor subject to accurate test. There were no summarizations or reviews. The only definite formal tests were those in connection with the final examination which could not serve the progressive teaching situations. Moreover, the courses themselves were lacking in the guidance that should have prevented numerous errors into which the students naturally fall when left to their own responsibility.

The defects disclosed, of course, suggest the remedy. Taking the Morrison technique of instruction on the secondary level as the basis for revision, we sought for and are seeking to incorporate into the lesson, material changes that will overcome the weaknesses enumerated. Thousands of dollars are being spent in rewriting of lessons. To prepare a semester's work according to these standards we are developing means of expanding the material sent to the schools by as much as 1,000 percent. But, although the lessons are expensive to build, the cost of correcting the pupils' work is considerably less, due to the fact that less frequent and more nearly objective tests are used. We are hoping that in the long run the newer type of extension lessons being developed will cost less than the old type.

CORRESPONDENCE COURSE STANDARDS

Doctor Reed⁴¹ summarized the situation as follows:

Experience indicates that courses built for supervised correspondence study must be completely individualized and practically self-administering. This calls for the following conditions:

⁴⁰ Op. cit.

⁴¹ Op. cit.

1. Preparing the lessons within the language range of pupils.
2. Giving complete and explicit directions at the place where the directions are to be carried out.
3. Setting up and picturing step by step each procedure or principle of presentation.
4. Explaining and illustrating thoroughly all definitions and principles.
5. Providing self-checking and self-testing devices, with accompanying standards and keeps.
6. Making it convenient for the student to keep permanently the materials of the course.

Earl T. Platt, who is in charge of correspondence study at the University of Nebraska, stated in a letter:

We have two general criteria which we follow in building our courses.

1. We must prepare our courses so that the student will expend the least amount of energy and time in learning.
2. Nothing is to be returned to the Extension Division for correction and grading unless it is a definite check on the students' learning.

The first of these two means that the student is not expected to write when writing is not the most economical means of learning. The second means that the extension teacher will check on the learning that has taken place. This can be easily done in most cases through the use of objective tests or other forms of objective replies. In our courses it is no longer necessary for students to send in voluminous papers. This saves the extension and the local school considerable in postage and makes the cost for reading the papers quite nominal.

Mr. Platt might have added that the procedure of testing the result of learning rather than checking on every detail of the many activities in which the pupil engages while preparing his lessons greatly reduces the labor and the tedium involved. Too often correspondence courses are composed of extensive readings and equally extensive writings. The student is expected to write out in detail the answers to certain questions, write out long discussions, describe what he thinks of certain propositions, and engage in other equally lengthy and boresome activities. Testimony to the effect that the average correspondence course consumes vastly greater quantities of time than residence courses is common. The labor involved and the slow movement of the course are probably the chief factors responsible for so many "incompletes" in study by correspondence. For pupils of high-school age such procedures are especially deadening.

The various procedures, principles, and criteria laid down by those studying the building of correspondence courses for

the high schools of Nebraska indicate that the problem is by no means a simple one, but that excellent progress is being made. The teaching process is never simple and when it is to be done with the teacher "in absentia" it is naturally even more complex. It is encouraging that such scientific attacks are being made upon the problem. The possibilities of such courses in effecting economy, enrichment, and other improvements in education are so far-reaching that an intensive study of the whole matter, at or near the outset, should pay high dividends for the future.

COMMERCIAL CORRESPONDENCE SCHOOLS

Very little has been said above about high-school correspondence courses provided by private or commercial correspondence schools. It should be recognized that in the past most of these courses used in high schools have been provided by such private schools run purely for profit. Except for a very limited number of comparatively large and very old commercial correspondence schools not much accurate information can be obtained concerning either their offerings or the character of their instruction. Dr. J. C. Noffsinger, Director of the National Home Study Council, Washington, D.C., points out that being private schools they do not readily submit their institutions to investigation. His organization does, however, publish "A Directory of Approved Home Study Schools" and he is in position to give considerable information concerning the reliability of any school of that type. Some of them have had a long history of successful operation and are known to give satisfactory service as superintendents and principals using these courses will testify. Some are "one-man" schools which spend most of their income in an effort to sell their courses and very little on course improvement.

For some time yet high schools will probably have to depend upon private commercial correspondence schools for many courses, especially those of vocational and technical character. As was pointed out it is such vocational and technical courses which seem to be most in demand by pupils seeking courses not provided by the regular high schools. And if proper precautions are followed, if school authorities will carefully examine the content of these courses, if they

will assure themselves of the quality of the instruction offered and the reliability of the business practice of the schools offering these courses, satisfactory results can be obtained. Failure to exercise such care will not only result disastrously for pupils enrolling with some of the schools of this type but the whole movement of supplementing the high-school program with correspondence courses will suffer and its development will be retarded. A bulletin⁴² recently issued under the auspices of the Minneapolis public schools calls attention to the questionable practices followed by some correspondence schools, and provides some timely information on the whole problem relating to such courses. There is the advantage in commercial correspondence schools of being on the ground ready with a wide assortment of offerings. Being under necessity of selling these courses and keeping on selling them, the better of these schools have done considerable to adapt their offerings and their instruction to the demand for such services, but it is only fair to point out that anyone wishing to enroll with such a school on an individual basis or any high school wishing to use such courses in an effort to improve their services to their communities is under obligation to study carefully the whole situation before making an investment.

In a discussion of administrative problems and practices some additional data will be presented in a later section of this brochure to show how and where reliable high-school correspondence courses can be obtained. Recent experiments promise significant improvements in this regard in the near future.

VI. ARE HIGH SCHOOLS USING CORRESPONDENCE COURSES? WHERE? WITH WHAT SUCCESS?

This section will devote itself chiefly to presenting a list of public high schools which are either now, or which have in the past used correspondence courses. A few which have indicated their intention to sponsor such courses are also included. Complete or up-to-date information is of course not available.

⁴² Vocational Guidance Bulletin, Minneapolis Public Schools, 1928.

Schools vary in their practices as regards such courses. Certain high schools such as Benton Harbor, Mich., Newton, Iowa, Butler, Ind., and a considerable number in Nebraska have made correspondence courses a regular part of their program. Some of these have used such courses successfully for a long time and school officers in charge regard this feature as a permanent part of their programs. Other high schools have on special occasions helped their students to complete a course or two by correspondence. Some schools have set up regular correspondence departments whose duty it is to supervise a long and growing list of subjects. Others permit the taking of such courses on demand and within narrowly prescribed limitations. It is, therefore, not possible to present a complete picture of the schools now using high-school correspondence courses. Schools enrolling students who are taking a comparatively small part in this movement cannot be differentiated from those taking a large part.

The list given below is presented as a part of this study with the view of encouraging those interested in any of the several aspects of high-school work by correspondence to study the problem further. Probably the best way to obtain practical information is to study the situation in concrete cases. School authorities who have actually used these courses can probably give the most authentic information available. They can cite both the advantages and the disadvantages. They can also point out errors to be avoided.

According to reports reaching the United States Office of Education, the high schools using such courses are distributed over 32 States. To be sure, in some of these but a single school has used such courses; in others, for example, Nebraska, Michigan, Massachusetts, and Pennsylvania, comparatively large numbers of schools have experimented with this departure. In all cases we have listed only the city and State address. In some cities there may be more than one school using correspondence courses. Facts can be obtained by writing the superintendent of schools of the respective cities. It may be safely assumed that the best and most reliable information concerning this type of experiment will be obtainable in the office of these superintendents.

Since the list was built up from information derived from a variety of sources its reliability could not be checked. Commercial correspondence schools, State departments of education, and references found in various studies yielded most of the information. Such checks as have been applied indicate that the list is fairly accurate. It is felt that its chief defect is its incompleteness. The impression was gathered by the investigator that the movement is growing rapidly and that experimentation with such courses is being carried on in a small way by a growing number of schools, many of which do not appear in the list. High schools which have in the past used correspondence courses but which have discontinued the practice are probably as important to those considering the use of such courses as those now using them. Such schools should be able to supply important information on the weaknesses of instruction of this type or on the administrative problems involved.

The map on page 46 will show at a glance the locations of colleges and normal schools from which high-school courses may be obtained by mail and most of the secondary schools which have in the past used or are now using correspondence courses.

TABLE 2.—*Localities in which high schools have used correspondence lessons*

Arizona: Phoenix.	Massachusetts: Adams, Ashby, Attleboro, Ayer, Baldwinsville, Bernardston, Chicopee, Bridgewater, Fall River, Greenfield, Leicester, Oak Bluffs, Orange, Pittsfield, Stoughton, Sudbury, Westport, Whitman.
California: Alameda, Santa Barbara.	Michigan: Albion, Battle Creek, Benton Harbor, Berrien Springs, Bridgman, Buchanan, Colon, Deckerville, Ferndale, Grand Rapids, Greenville, Ionia, Ironwood, Jackson, Lansing, Manistee, Paw Paw, Pontiac, Remus, St. Joseph, St. Louis, Stevensville, Vermontville, Zeeland.
Connecticut: Derby, Litchfield, Storrs.	
Delaware: Georgetown.	
Florida: Bradenton, Brewster, Jacksonville, Lake Worth, Tampa.	
Georgia: Madison, Rockmart.	
Illinois: Des Plaines, Highland Park, St. Charles.	
Indiana: Butler.	
Iowa: Merrill, Newton, Underwood.	
Kansas: Hiawatha, Claffin.	
Kentucky: Madisonville.	

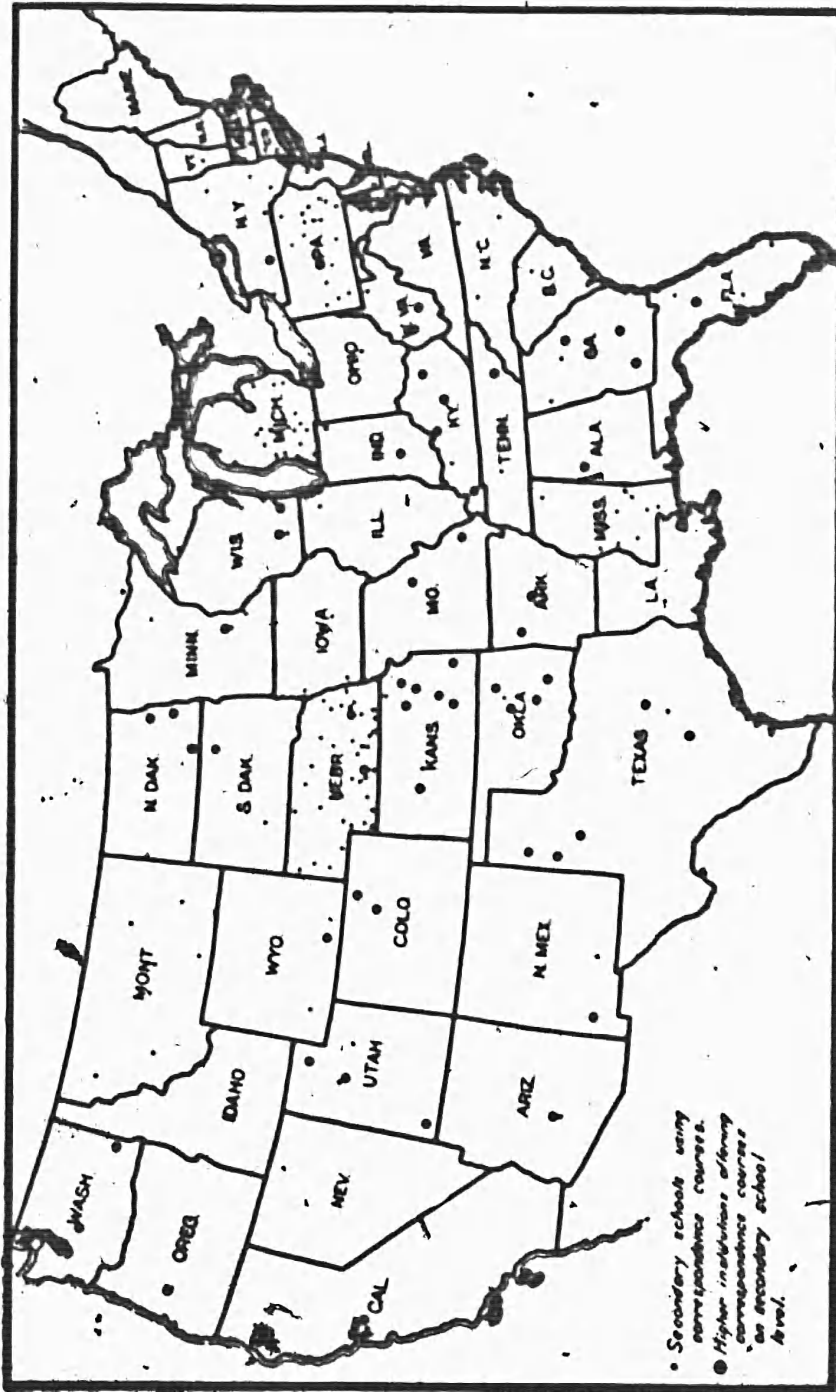


FIGURE 1.—Distribution of universities and normal schools offering high-school correspondence courses and secondary schools which have experimented with such courses as a part of their educational program.

TABLE 2.—Localities in which high schools have used correspondence lessons—Continued

Minnesota: Chisholm, Minneapolis, Red Wing.	North Carolina: Dover, Roanoke Rapids, Winston-Salem.
Mississippi: Holly Bluff, Lumberton, Meridian, Newton, Norfield, Quitman, Sumrall, Walnut, Yokena.	Ohio: Coshocton.
Montana: Billings, Deer Lodge, Glasgow, Kalispell, Lewistown, Miles City, Windham.	Oklahoma: Drumright.
Nebraska: Albion, Alliance, Ansley, Arthur, Bartley, Bertrand, Broken Bow, Brule, Burchard, Carleton, Chappell, Chester, Clark, Decatur, Eagle, Glenvil, Harrison, Hickman, Holdrege, Juniata, Long Pine, Lyons, McCook, Minatare, Nelson, Nehawka, Odell, Ord, Palisade, Republican City, Shickley, Stratton, Stuart, Syracuse, Theford, Tilden, Valentine, Valley.	Pennsylvania: Beaver, Braddock, Carlisle, Coatesville, Girardville, Hatfield, Hazleton, Lewisburg, Mahanoy City, Monessen, Montrose, Perkasié, Pine Grove, Rock Glen, Saltillo, Tarentum, Williamsport.
New Jersey: Rahway.	South Carolina: Darlington.
New York: Albany, Liberty, Luzerne, Mount Vernon, New York, Oceanside, Sidney, Westfield.	South Dakota: Wall.
	Tennessee: Nashville.
	Texas: Georgetown.
	Utah: Salt Lake City.
	Vermont: Rutland.
	Washington: Port Orchard.
	West Virginia: Morgantown.
	Wisconsin: Green Bay, Madison, Sheboygan, Wauwatosa.
	Wyoming: Green River.

VII. WHAT ADMINISTRATIVE PROBLEMS ARE INVOLVED IN THE USE OF CORRESPONDENCE LESSONS IN HIGH SCHOOLS?

A. PREPARATION AND ADMINISTRATION

The first, and probably the most important administrative problem is: Who shall prepare and administer high-school correspondence lessons? In the past when correspondence instruction was almost entirely a matter between the individual and the school offering the course the administration of high-school correspondence courses was a simple matter. Such courses were often brought down bodily from the collegiate level. All that was necessary was for the student to select his course, apply for enrollment, pay his tuition, wait for his lesson materials, follow the written or printed directions, write out the lessons, and probably arrange to

take a written final examination, either under the supervision of the superintendent of schools or someone designated by him. His credits would then be mailed him in the form of certificates. It was all an individual matter. Too often the school providing the course recognized no further obligation for the students' educational welfare. Most of the students taking such courses were over 20 years old and were regarded as of sufficient maturity to know their own business. Many of those enrolling were found to make comparatively little progress beyond enrollment, payment of fees, and the receipt of the first lesson. Many never sent in a single report. The majority failed to complete the course. Only a few persisted to the completion of the several units leading to a diploma. The courses were often very difficult. The work, demanding much reading and writing, often proved uninteresting and tedious. Lessons were built on the lecture method; the recitations were written out in detail. Very little opportunity was provided for student activities or for vitalized learning.

Under the conditions described above it is little wonder that public-school authorities have viewed correspondence lessons for high schools with suspicion. Making such lessons a part of the high school was, and by many still is, considered a venturesome departure from good academic procedure. If it had not been for the fact that the individualized, self-administrative lesson techniques had begun to gain acceptance among progressive educators the step from the old individual correspondence courses to their use as a part of the public high-school program would probably have been too great.

In Nebraska the University Extension Division and the Department of School Administrators of the Teachers College have begun cooperatively to work toward the realization of the following program designed to overcome objections to correspondence instructions and meet needed changes:

1. Developing for every subject a type of correspondence lesson that embodies the very best method and content.
2. Discovering and providing the proper physical setting in the high school for correspondence work, developing plans for a not too expensive general shop in which boys may work at a variety of vocational subjects taken by correspondence;

and developing plans for other rooms or types of equipment so that a variety of other subjects may be taken by boys and girls.

3. Discovering how to supervise and administer the work in the high school with greatest effectiveness.

4. Developing a more adequate guidance program in order that the greatly enriched curriculum which supervised correspondence study will make available can be utilized to its fullest advantage.

5. Setting up a department within the extension division devoted exclusively to supervised correspondence study.

Generally speaking those studying the problem as well as those experimenting with correspondence lessons in high school seem to agree that to be successful this work should not only be tolerated by the schools but it should be very definitely a part of the whole educational program.

In a study of the small high school and its limitations, Long⁴³ concluded that correspondence lessons have great possibilities in improving the organization and services of these schools. He laid down the following as features essential to the successful use of this device:

1. A correspondence study department for high-school pupils organized and maintained by a State agency, preferably the State Department of Education.

2. Each small high school employing such courses, (a) to set aside a room or rooms for pupils wishing to pursue such courses, (b) to provide for a specific time in the pupils' program for such study and (c) to see to it that such study takes place at the specified time and place.

3. Each school using such courses to assign a teacher or teachers to supervise correspondence lessons.

4. All contacts with the correspondence school to be made by the teacher in charge.

If correspondence courses are to be used extensively in the high schools our educational agencies should take a more active part in study and experimentation with a view to the proper building and administering of such courses. It would seem best both from the standpoint of the quality and the cost of such courses that this work should be more

⁴³ Long, F. E. The Organization of Secondary Education—With Special Reference to the Small High School. Doctor's thesis, New York University, 1928.

definitely a part of the State's educational program. Study materials could probably best be built for the whole State, or perhaps even for two or more cooperating States, by subject specialists; the reading, criticizing, and scoring of lessons could also probably best be done by such specialists. The sending out of materials, the recording of results, and the many other administrative functions should for the sake of economy and efficiency undoubtedly be placed in the care of some centralized State agency such as the State Department of Education or the State University. This conclusion is reached in consideration of the fact that a good deal of overhead cost would be involved in preparing good self-administrative lessons geared to the pupil's level of learning and in accompanying these with objective devices for effectively checking the learning progress. But once properly constructed such lessons could be used over and over again at comparatively small expense. Proper administrative safeguards would of course have to be set up so that true individual learning can be gaged.

But where do the commercial schools fit into the picture? The whole situation may be summarized by saying that at the present time as many of the correspondence courses taken by high-school students are purchased from the commercial schools as are obtained from the universities and colleges. Both agencies have made and are making valuable contributions; both must considerably improve their wares and their services before they will fully meet the needs of this movement. The best of the commercial schools, being under the obligation of selling their products, have perhaps more nearly approximated the interests and needs of high-school pupils as these interests and needs relate to daily living; the universities and colleges on the other hand have more adequately met the academic needs of such pupils. Both obviously have had and perhaps still do have a place in the scheme of things.

B. FINANCING

The second administrative problem which immediately asserts itself is: Who shall pay for such courses? This query naturally assumes that these correspondence lessons shall become a part of our program of public secondary

education. If the cost of operating public high schools is a legitimate charge upon the public treasury, and if courses offered through the medium of correspondence are recognized as sufficiently high in quality to be made a part of the high-school program, then the answer would seem to be clear. Under such conditions it would seem only reasonable that such instruction should be paid out of public funds, whether pupils taking them are enrolled in the regular high schools or not. Indeed, if such courses are used as an economy measure it would seem quite unfair to charge them up to the pupils pursuing them.

If such courses were prepared and administered by State agencies it would probably be best to support this whole service from State sources. The possibility of making such service State-wide together with the fact that the movement has the advantage of more nearly equalizing educational opportunities would also suggest the desirability of State support. So far as is known, however, most of the localities using high-school correspondence courses in this country are compelled to pay the greater part of the costs themselves. Sometimes the pupils taking such courses are required to pay, but more frequently the local school board pays the expenses; in some cases the cost is divided between the pupils and the school. In Nebraska the State has reduced the cost to high-school pupils to half what it costs persons taking similar courses on the college level. The general practice in this State is for the school board to pay the bill. In other countries experimenting with secondary education by correspondence the central educational agencies have largely assumed responsibility for the expenses involved.

When such courses are purchased from commercial correspondence schools the more common plan is for the school boards to defray the costs. The arrangement usually involves a contract between such a correspondence school and the local board of education in which the latter agrees to pay at a certain rate for specified services. All administrative arrangements are made by the person in charge of the high-school correspondence department. Lesson materials are received by him and distributed to the pupils, and written reports are received from the pupils and for-

warded for criticism and correction. Reading and scoring are done at the correspondence school. Records are kept at both ends. A bill is rendered once a month, which, if approved by the director of correspondence, is promptly paid. This arrangement is said to work well by those who have used it. Of course there are certain minor variations in each administrative plan worked out by individual schools purchasing such services.

C. SUPERVISION

The third administrative problem is that of supervision. As has been pointed out, best results are obtained with high-school work by correspondence when work of this kind is carefully supervised locally as well as by some central State agency. It has been found necessary to set up some very definite restrictions and to fix definite principles of procedure. In most cases where correspondence courses are used the local school appoints a director to be in charge of this work. In schools like Benton Harbor, where such courses have been used extensively, this person is usually the instructor who is also in charge of vocational subjects and vocational guidance. Sometimes a part of the supervisory duties are distributed to the various teachers in whose fields the subjects fall. Usually a definite time and a definite place for study is provided for. Students are expected to bring their problems to the supervisor only when they get "stuck" or when they are in particular need of help. The supervisor is not necessarily expected to be trained in the field covered by the particular course in question. All he is expected to do is to give more mature judgment, indicate sources of additional information, suggest another line of attack, and the like. With such help it has been found the high-school pupils get along very well with such courses.

In order to facilitate the work the extension division of the University of Nebraska ⁴⁴ has set up the following 5 qualifications for schools wishing to register supervised study correspondence pupils:

1. The application for registration must be approved either by the superintendent of the school in which the work is to be done, or by the county superintendent if the work is to be done in an 8-grade school.

⁴⁴ Special bulletin of the Extension Division, University of Nebraska.

2. The superintendent of the local school must appoint a local instructor to supervise the student's work. If the work is done in an 8-grade school, the county superintendent must appoint a teacher in that school as local supervisor.

3. A remittance to cover the cost of registration or permission to bill the board of education must be included with the application.

4. The local supervisor must arrange a definite schedule with the student at which time he or she will give such supervision as appears necessary.

5. The local supervisor must be responsible for carrying out the suggestions and instructions made by the teacher in charge of the course at the extension division.

Of 16 high schools which designated some high-school official as supervisor of correspondence study, Wisseman⁴⁵ found that 7 placed this work in the hands of teachers; 3 of these were persons in charge of the vocational or industrial instruction of the school. In 4 schools this work was supervised by the principal; in 3 it was handled by full-time directors of correspondence; in 1 it was placed in the hands of the librarian, and in 1 school the superintendent looked after the correspondence work. Other schools place responsibility for any given pupil taking such courses on an individual basis. Some schools do not seem to have a very definite plan. Being a new departure and often involving very few pupils definite policies have in some cases not been worked out. All seem, however, to agree that this work should be supervised. The general attitude of the schools not definitely committed to correspondence lessons seems to be that if this innovation can improve the general educational service of the school the departure is welcomed and the school stands ready to assist. The Vocational School of Green Bay, Wis.,⁴⁶ is typical of many. In a recent bulletin this school announces:

The school stands ready at all times to serve as a medium through which special students may secure special courses by correspondence. The service rendered in regard to such courses is twofold: (a) To assist persons wishing to take up correspondence work in selecting and securing the courses best suited to their needs; (b) to assist persons who have purchased correspondence courses but who are unable to master the work without the assistance of an instructor in solving their difficulties and enable them if possible to complete their assignments in a satisfactory manner.

⁴⁵ Op. cit.

⁴⁶ Green Bay Vocational School. Department of Evening Instruction. Bulletin published by Board of Vocational Education, Green Bay, Wis. 1932.

In a few cases⁴⁷ correspondence instruction or the correspondence technique has been employed by teachers as a means of teaching several related classes during the same class period. Under this plan instead of attempting regular recitations, pupils study their correspondence lesson materials during class periods, each proceeding at his own rate, and each receiving the aid and guidance of the teachers if and when needed. The results from the standpoint of obtaining subject-matter content were satisfactory.

D. ACCREDITMENT

In addition to the administrative problems pointed out there is, of course, the question of how to handle the matter of credits. Students taking correspondence courses as well as schools fostering this type of study are very much concerned over the question of whether or not credits earned by correspondence will be accepted by the colleges. Schools seem to fear that the accrediting associations may not recognize work done by correspondence or that their standing with these associations might be placed in jeopardy. It is not too much to say that the whole question of credits has more than anything else retarded the use of such lessons by high schools.

Of course where a pupil's academic standing is gaged by such definite examinations as those of the New York Regents the question of how the necessary knowledge is obtained loses point, but in places where admission to college depends entirely upon "credits earned" the quality of such credits must be considered. When a high school has a definite standing with an accrediting association credits earned by correspondence are recorded like all other credits and no questions are asked. So far as is known the accrediting associations have raised no objection. Where schools do not have accredited standing the problem is more complicated.

As concerns correspondence courses offered by the universities and colleges Bittner and Mallory⁴⁸ found that—

The practice of State departments in the matter of acceptance of credits is not definitely crystallized in many States. In the Eastern States, however, there is probably no general disposition to accept

⁴⁷ Platt, Earl T. *Techniques for Enriching the Curriculums of 2-teacher, 4-year High Schools*. Master's thesis, University of Nebraska, 1930.

⁴⁸ *Op. cit.*

correspondence credits though there are instances of individual cases: The State department of New York has indicated its willingness to certify in the case of mature students who completed a full 4-year course provided the student submits examination papers for inspection and they are found to be equivalent to the regents examination.

The following institutions reported that they have an agreement with the State department to accept correspondence credits in lieu of equivalency examinations or for certification purposes: University of Florida, Indiana University, Massachusetts Division of University Extension, University of Nebraska, University of Utah.

The University of Colorado reports that no question is asked as to whether credits are earned in residence or by correspondence. Columbia University does not give credits for home study, preferring that their students take the examinations of the College Entrance Examination Board. The University of Chicago says that credits are accepted so far as they know. The University of North Dakota states that if the high school accepts the credit, the State does. The University of Oklahoma accepts credit in lieu of residence high-school credits. In 1931 the Texas State Department of Education passed a ruling accepting correspondence credits from standard institutions. The State Department of Education of Wisconsin accepts correspondence study courses of university grade toward State teachers' licenses or other certificates issued by the department. By special arrangement between the department of mathematics and the registrar's office of the University of Wisconsin, correspondence study grades in mathematics are accepted in lieu of entrance examination grades. Students in other fields must take entrance examinations and can use correspondence study courses only as a means of preparation for the examinations.

The following institutions report that they accept the correspondence credits for entrance:

University of Arizona, University of Arkansas, University of Chicago, University of Colorado, University of Florida, University of Kansas, Kansas State Teachers College at Emporia (if transferred through an accredited high school), University of Kentucky, University of Louisiana, Michigan State Normal College (if the entrant holds a high-school diploma), University of Minnesota, University of Missouri (from institutions of similar standing), University of Nebraska, Nebraska State Teachers College, New Mexico State Teachers College, (if accredited), University of North Dakota, University of Oklahoma (department organized at State department's request), Pennsylvania State College, University of Tennessee, University of Texas, University of Utah, University of Washington, State College of Washington. Massachusetts Department of Education and Columbia University offer their courses as preparation for entrance examinations.

In his study of correspondence departments of teachers colleges and normal schools Maul ⁴⁰ found that in 56 out of

⁴⁰ Op. cit.

59 of these institutions the same credit is given to correspondence courses as to courses given in residence; and 55 out of 58 institutions accept correspondence study credits from other institutions on the same basis as they accept credits earned in residence. Although Maul's findings relate particularly to correspondence courses taken on the collegiate level the facts indicate that the same policies are followed by these institutions with respect to courses taken on the high-school level.

The administration of credits earned through correspondence work with commercial correspondence schools is of course more complicated than when such work is taken through the universities and colleges. Thus far State departments of education and collegiate institutions seem to follow the general practice of accepting any credits accepted by the accredited high schools. If the movement should become so general that such courses should be offered generally by high schools not accredited, or if more and more individual pupils in sparsely settled rural areas should take such courses, it is clear that some more definite policies would have to be worked out. Some arrangement whereby such pupils can take such courses under the sponsorship of the State department of education which sets up safeguards and which provides for definite final examinations seems to hold out the greatest promise. This is the practice followed by the Canadian Provinces which have used correspondence lessons on the high-school level. So far as can be learned these provinces have found the plan of administering such courses from the central department of education successful. These provinces have, however, limited this work to students who are not within reach of a high school or those who cannot otherwise get a high-school education. The experiment to supplement the available high-school courses by correspondence lessons has not been undertaken to any great extent.

Closely associated with the question of credit is the problem of whether or not pupils do satisfactory work by correspondence. The general conclusion of several studies on this point is that if anything correspondence pupils do better work than those in residence. Most of the data available come from the universities and colleges and as pointed out

the pupils taking high-school work by correspondence are somewhat older than students in residence. Another factor affecting the quality of the work is that the students taking courses by correspondence have a more definite objective for studying than those enrolled in the regular high-school classes. The former either wish to remove deficiencies for college entrance, they wish to fit themselves for certain definite positions, or they wish to prepare themselves for certain examinations. In either case proficiency is the objective rather than the accumulation of credits which plays such an important role in the average high school.

Bittner and Mallory⁵⁰ cite several studies showing the success of college students by correspondence and in nearly every case, students doing work by correspondence excel those doing work in residence. One study made by Dr. Herbert Sorenson of the University of Minnesota gives a comparison of 20 students in an evening class and 35 correspondence students who studied a course in educational psychology in which intelligence and age are held constant. His findings are presented in table 3.

TABLE 3.—Comparison of achievements by evening school students and correspondence students in a course in educational psychology

Measure	Evening school		Correspondence	
	Aptitude-intelligence score	Final examination score	Aptitude-intelligence score	Final examination score
1	2	3	4	5
Median.....	54.5	247	59	259
Range.....	39-74	141-306	44-74	186-304
Standard deviation.....	8.84	45.9	9.1	34.8
Correlation between aptitude and achievement.....	73.07		61.07	

The differences are of course not marked but they do favor the correspondence students. Similarly controlled experiments were carried out by a Pennsylvania committee⁵¹ and

⁵⁰ Bittner, W. S., and Mallory, H. F. *University Teaching by Mail*. New York, Macmillan Co., 1933.

⁵¹ Klonower, Henry. *The Value of Correspondence Courses*. Mimeographed Report, Harrisburg, Pa., Department of Public Instruction, 1930.

the findings were similar. On the high-school level the problem has not yet been extensively studied. From Manitoba, Canada, where high-school correspondence courses have been provided for the ninth grade for several years the following comparative data are submitted:

	Correspondence students	Regular students
Number examined.....	502	2,700
Percent securing complete standing.....	54.2	54.1
Complete but for one subject.....	21.2	18.5
Incomplete.....	24.6	27.4

EXAMINATION RESULTS BY SUBJECTS

Subject	Percent failure correspondence students	Percent failure regular students
Grammar.....	17.7	16.4
History.....	30.1	28.2
Science.....	10.2	10.4
Art.....	10.1	14.0
Music.....	22.7	28.2
Literature.....	37.1	45.5
Composition.....	50.2	53.6
Mathematics.....	80.9	77.3

Again the differences are not great but in a general way they favor the correspondence pupil. Nearly 3 percent more pupils studying in residence fail to secure complete standing than correspondence students. In 5 out of the 8 subjects studied fewer correspondence pupils recorded failures than residence pupils and in 3 fewer residence pupils fail.

Testimony from Puerto Rico on the quality of the scholarship of students doing high-school work by correspondence is more general in character but again it indicates that such work compares favorably with residence work. In a letter reported by Wisseman²² the Commissioner of Education of Puerto Rico states that—

In a survey made by the Registrar of the University of Puerto Rico it appears that the work of graduates by extension compared favorably

²² *Op. cit.*

with that of graduates of most secondary schools in the islands. Thirty-four schools are included in this survey. In order of efficiency the Bureau (of Extension) stands above 18 schools, on a par with 11, and below 4.

These data should not be interpreted as meaning that correspondence study is a method of instruction superior to residence study. Such factors as maturity, purpose, and intelligence are probably in part responsible for the favorable showings made by correspondence students. The data do, however, show that such instruction can be conducted with success and that the credits earned can be as high or higher in quality than those earned in residence.

When the problem of providing high-school instruction by correspondence is undertaken with some earnestness in the way of careful study and experimentation as has been done in Nebraska and in certain individual schools there is no doubt but that the problems of organization, division of costs, supervision, and the quality and acceptance of credits will find satisfactory solutions. These difficulties are by no means insurmountable. The possibilities of correspondence lessons as a means of improving and enriching our program of secondary school education, especially in our rural areas are so great and so far-reaching that the whole matter should receive much more thought and study than has been given to it in the past. It is believed that school administrators can find values in correspondence technique which can contribute much to the progress of secondary education, especially in rural communities.

There are, of course, a great many other problems upon which valuable information could be presented. For example, the proportion of the high-school program for which correspondence credit can be allowed, the character and adaptability of such courses, the relationship of correspondence to the problem of guidance, problems relating to the State course of study, and a great many others, all these need to be investigated. On some of them information will be found in the readings listed in the next section; others will have to await further study and experimentation.

VIII. ANNOTATED REFERENCES RELATING TO HIGH-SCHOOL EDUCATION BY CORRESPONDENCE

ALDERMAN, L. R. College and university extension helps in adult education, 1928-29. Washington, Government Printing Office, 1930. (Office of Education Bulletin, 1930, No. 10.)

Lists the collegiate institutions offering correspondence and extension courses for high-school pupils and the courses offered on this level.

BAKER, HAROLD WM. The tutorial plan for Ohio schools. Educational Research Bulletin, 9: 123-32, March 5, 1930.

The plan described in this article was devised to supplement the curriculum offerings of the small high schools and to obviate the high per pupil costs due to very small classes. The plan borrows from both the correspondence method and from the individual contract plan. The experiment is thus far confined to the eleventh and twelfth grades. A survey was made of the curricular choices of students in outlying districts and of teachers in the larger schools capable of offering the work. Subjects for which 15 to 30 pupils can be found are sanctioned by the State department, teachers are assigned, and arrangements are made for a group meeting to initiate the work. After that each student pursues his work on a contract or correspondence plan. Opportunities are provided for office hours at certain central points to which pupils may come to meet their teachers for additional aid. Standardized tests are used. It was found that costs could be reduced by this arrangement from \$25 per-pupil-subject semester hour under the small high-school plan to \$10 under the tutorial plan. Money to defray these costs was levied upon the district from which the students came.

BALL, AUGUSTUS H. The Saskatchewan correspondence school. The School, 20: 314-20, December 1931.

The article describes the elaborate system of elementary and secondary education contained in the "Outpost Correspondence School" which was established in the elementary school in 1925 and which was received so enthusiastically that it had to be extended to the high school. The general plan is that when there are fewer than 10 children in sparsely settled areas education is provided by correspondence. During 1930-31 the elementary enrollment in these courses totaled 617; for high-school pupils it was 766; and for returned soldiers taking high-school correspondence courses it was 37. More than 90 percent of the ninth- and tenth-grade pupils were successful in being promoted; of the eleventh-grade pupils who had to stand departmental examinations 73 percent were successful.

BAWDEN, WILLIAM T. The contribution of correspondence-instruction method to industrial education. Washington, Government Printing Office, 1922. (Bureau of Education, Industrial Education Circular No. 19, January 1922.)

A conference report of specialists in industrial education pointed out that "correspondence instruction is essentially a method of individual instruction which has great possibilities in vocational education", and that "It is important that we as educators find ways and means of delivering far more of educational service for less money."

BITTNER, W. S., and MALLORY, H. F. University teaching by mail. New York, The Macmillan Co., 1933.

This book represents a Nation-wide survey of correspondence instruction. It presents data on the history of such instruction, the courses and subjects offered, the students enrolled, problems and policies involved, success of students studying by correspondence, and the principles of teaching worked out. The study is limited to courses offered by universities and colleges and to those offered on the college level, but it points out a great many facts which are equally applicable to the high-school level.

BITTNER, W. S. and MALLORY H. F. High-school correspondence courses. Unpublished manuscript in the files of Prof. W. S. Bittner, Extension Division, University of Indiana, 1933.

The manuscript was prepared in connection with the book "University Teaching by Mail." It lists the universities and colleges offering high-school correspondence courses, analyzes the character of such courses, cites the principles and policies of these institutions in the administration of such courses, gives some data on pupil enrollment, age of pupils, occupations of pupils, successes with correspondence courses, and cooperative relationship between the institutions furnishing such courses and the high schools using them.

BRAINARD, F. P. Personal elements in correspondence study. *School and Society*, 17: 384-87. April 1923.

Shows several ways in which correspondence courses may be vitalized and adapted to the nature of the course and the needs of the persons taking the course.

BROADY, KNUTE O. Supervised correspondence study given new impetus. *Nebraska Educational Journal*, 12: 58, February 1932.

An announcement of a \$5,000 grant made by the Carnegie Foundation to the University of Nebraska for the support of experimental and developmental work of correspondence study as a part of the curriculum of the high schools. A general plan of procedure is also outlined.

PLATT, EARL T., and BELL, M. D. Practical procedures for enriching the curricula of small schools. Lincoln, Nebr., University of Nebraska publication, Educational Monograph, no. 2, June 1931.

A discussion of various ways and means through which curriculum offerings in high schools, especially small high schools, can be enriched. The plans chiefly emphasized are (1) more and better alternation of courses; (2) individualized instruction; (3) supervised correspondence lessons. Definite programs and daily schedules are presented utilizing these plans.

CASTLE, A. W. Enrichment of secondary school courses of study by the use of correspondence courses. *Addresses and proceedings of the National Education Association*, 69:331-39, 1931.

Points out the various reasons why correspondence courses are particularly useful in improving the services to society of secondary education. It argues that only through the aid of such courses can the high school offer a sufficiently diversified course of study to meet the individual pupil needs of the present day. It also points out that the correspondence procedure has some advantages over the group recitation scheme in fitting children for adult life.

CHASE, STUART. Two-hundred-thousand students and 4,000,000 alumni. *Fortune*, 7:66-71, 96-101, June 1933.

A discussion of correspondence education as it is provided chiefly by commercial correspondence schools, and especially the International Correspondence School. Gives some definite data on the scope of their activities, their business practices, and the advantages and disadvantages of the services rendered by these schools.

CLARK, E. EVERETT. Instruction by mail in Massachusetts. *School Life*, 17:188, June 1932.

Describes how correspondence courses fill a need in the ever-increasing demands of educational progress and points out how such courses are used to furnish the needs of high-school pupils, especially in rural areas.

COMMITTEE ON CURRICULUM PROBLEMS IN THE SMALL HIGH SCHOOL. In *Sixth Yearbook of the Department of Superintendence of the National Education Association*.

The committee report cites the general curriculum problems which result because of the smallness of small high schools and among other methods, suggests the introduction of correspondence courses to supplement curriculum offerings. The article also suggests the provision of itinerant special teachers.

CUNNINGHAM, K. S. Primary education by correspondence. Melbourne, Australia, Melbourne University Press, 1931.

This little book gives a complete account of the methods and achievements of the Australian correspondence schools in instructing children living in isolated areas. This work was first begun in 1914 in the State of Victoria. The other Australian States followed until in 1922 all of them had correspondence departments. In 1930 a total of 13,284 pupils were enrolled in these courses, being 1.5 percent of all the children in school. Since its beginning the correspondence departments in all the Australian States have enrolled a total of 55,000 pupils in such courses. They employ a total staff of 240 full-time teachers, 1 part-time teacher, and 15 clerks.

DIAMOND, THOMAS. Cooperation between a correspondence school and a public high school. *Educational Review*, 71:34-41, January 1926.

Mr. Diamond gives an account of the administrative policies developed by Superintendent Mitchell in the high school of Benton Harbor, Mich. This school has affiliated itself with the several commercial correspondence schools through which it supplements its curriculum offerings. Correspondence courses are taken both by pupils in regular daily attendance and others attending at intervals only.

FRONTIER SCHOOLS IN MANITOBA. *Survey*, 63:226-27, November 15, 1929.

Gives brief account of the inauguration of correspondence for children in Manitoba in districts where as yet no schools have been built, for children in districts in which schools were closed because pupils had dwindled to fewer than the required number, crippled children unable to attend school, and children eliminated or needed for work before completing the eighth grade. After some experimentation a scheme has been evolved so that each correspondence child has the help and interest of (1) an experienced teacher, (2) a teacher in training, and (3) a class of city children. The second helps to provide practice in teaching and the third provides a means of personal contact for isolated children.

HENZLIK, F. E., RICHARDS, W. M., and IRELAND, C. J. Practical economies in school administration. Lincoln, Nebr., University of Nebraska, Educational monograph no 3, 1932.

Among other suggestions for school economies it outlines the possibilities of high-school correspondence courses. Specific cases of savings are cited.

HIGH-SCHOOL LEAVING CORRESPONDENCE COURSE. Technical Branch, Department of Education, Parliament Building. Winnipeg, Manitoba, Canada.

This bulletin recognizes the variety of aptitudes for which the high school must fit its products and points out the difficulty of providing courses in the special fields, especially in the vocations, without recourse to correspondence lessons. It points out the need for high-school courses for those who will not go to the university or to normal schools. To meet these problems a new high-school leaving course was planned. The pupil who chooses this course may take correspondence work instead of a foreign language or some other option. Arrangements have been made with a number of the old reliable correspondence schools whereby their textbooks and instruction service are made available to high-school students in any part of the Province as a part of their regular course.

KEFAUVER, G. N., NOLL, V. H., and DRAKE, C. E. How 46 high schools use correspondence courses. *School Life*, 17: 161-62, May 1932.

A questionnaire to 183 high schools which were reported as using correspondence lessons brought returns from 93 and a statement that such courses were being used by 46 schools. The major part of the study is devoted to the administrative practices followed in these 46 schools with respect to correspondence courses, the types of correspondence courses offered, advantages of such courses, and the results achieved.

KEFAUVER, G. N., NOLL, V. H., and DRAKE, C. E. Part-time secondary schools. Washington, Government Printing Office, 1933. (Office of Education, Bulletin 1932, no. 17, National Survey of Secondary Education, Monograph no. 3.)

Presents data from an investigation of the use of correspondence lessons in high school. Of 183 schools reported as using such courses 96 responded to a questionnaire and 48 of these said they either had or were now using such courses. The study revealed a wide variety of courses but two types stood out: (1) Those commonly offered in small high schools, and (2) highly technical courses which the average high school is not prepared to give. Correspondence courses were given mostly in small high schools. Courses were obtained from both collegiate and commercial schools. Enrollments in such courses ranged from 1 to 70, averaging 7 or 8 pupils per school.

KEISTER, BAIRD V. A comparison of resident and nonresident students in two Nebraska high schools. Master's thesis, University of Chicago, 1928.

Compares 400 resident and nonresident high-school pupils as to entrance preparation, intelligence, and high-school progress.

KOOS, L. V. Securing cooperative effort within the Chaffee union high school and the Chaffee junior college district. *In* Seventh Yearbook of the Department of Superintendence of the National Education Association, 1929. pp. 160-63.

An account of how elementary school trustees and union high school trustees cooperate for the common good. An organization of trustees was formed which promotes their mutual welfare. The union high school junior college district transports all children, sends special teachers to rural schools, conducts evening schools, provides correspondence courses for pupils of high-school age who cannot attend as well as for adults, conducts an experimental fruit farm, gives agricultural training to farmers, and provides traveling schools if needed.

LONG, FORREST E. Correspondence study in the small high school. *Junior-Senior High-School Clearing House*, 4: 236-42, December 1929.

A general discussion of the whole movement and a proposed plan for the administration of high-school correspondence courses on a State basis.

The organization of secondary education with special reference to the small high school. Doctor's thesis, School of Education, New York University, 1928.

A study based upon the curricular offerings of 165 small high schools. It finds college preparatory courses greatly predominating. It reveals some important findings concerning vocational courses, and the whole problem of supplementing the offerings of small high schools by correspondence lessons. The study concludes that such lessons are feasible and worthy of promotion. A definite plan of procedure is outlined providing for the preparation of such lessons by State school authorities, a definite room and teacher for the administration of these lessons, and a definite time and place on the pupils' program for study.

The study also evaluates the experience with correspondence lessons of British Columbia, Benton Harbor, Mich., and Newton, Iowa. The study gives an excellent list of references on the use of correspondence lessons.

WINNIPEG, CANADA. DEPARTMENT OF EDUCATION.

The correspondence branch of this department has issued several mimeographed circulars describing the high-school courses offered to pupils not accessible to a regular high school and giving the plans and regulations which have been worked out to govern this work.

MAUL, RAY C. A study of administrative practices in correspondence study departments of teachers colleges and normal schools. *Studies in Education*, vol. 1, no. 1, January 1930. Kansas State Teachers College, Emporia.

(Resume of study also published in *Bulletin of Education*, University of Kansas, vol. 2, no. 8, April 1930).

Represents a study of 157 teachers colleges and normal schools. It was found that 59 of these offered correspondence work. A total of 24 were offering courses on a high-school level and enrolled 945 pupils in this work. The cost was found to range per credit hour from \$1.75 to \$6.25. The average was \$3.25.

MICHIGAN STATE DEPARTMENT OF PUBLIC INSTRUCTION. A comprehensive plan of vocational education for high schools. State Board of Control for Vocational Education, Lansing, Mich., 1926.

A small pamphlet compiled by Prof. Thomas Diamond of the University of Michigan and presented as a report of the Vocational Education Committee of Michigan State Teachers Association. The plan presented calls for providing an opportunity in high school to take vocational courses by correspondence. In general the plan proposed is similar to that followed at Benton Harbor.

MINNEAPOLIS, MINN. Vocational Guidance Bulletin. Minneapolis Public Schools, 1928.

Issues a warning against the defects of many training courses offered by commercial correspondence schools, analyzes their methods, and points out the advantages of attending day or evening schools instead.

MITCHELL, S. C. For the 90 percent. *School Review*, 31: 439-44, June 1923.

The article points out that 90 percent of our children are eliminated from school before they graduate from high school. The writer asserts that the failure of the average high-school course, especially in the small school to fit the pupils' needs, is one of the reasons why pupils and their elders lose interest in these schools. He points out that thousands are taking courses offered by commercial correspondence schools because these fill a practical need, and he proposes that such correspondence courses shall be made a part of the offerings of our public high schools. The article represents the beginnings of the "Benton Harbor Plan."

— The Benton Harbor Plan—An economy measure. *American School Board Journal*, 84: 20-21, April 1933.

Discusses the economy aspects of the plan evolved by this school of making more than 400 courses available to high-school pupils by arrangement with a few of the best and most reliable commercial correspondence schools.

MORRISON, ROBERT H. Opportunities for educational extension in rural school communities. *American Schoolmaster*, 30: 267-72, October 1927.

The article gives a discussion of the curricula limitations of the rural high school and makes suggestions for the extension of these curricula by means of correspondence courses, evening courses, short courses, and directed reading. It proposes a definite plan for State management of correspondence work for high schools.

NEBRASKA, UNIVERSITY OF. Lincoln, Nebr.

Several circulars published as "University Extension News" and mimeographed reports have been brought out by both the Extension Division and the Teachers College of this University giving detailed information on the use of high-school correspondence courses in that State.

NOFFSINGER, JOHN S. Correspondence schools, lyceums, chautauquas. New York, The Macmillan Co., 1926.

The first 96 pages of the book are devoted to a study of the history and the present status of the correspondence schools. Most of the data presented deal with the private or commercial schools, analyzing their business practices, the courses offered, the student body, and the methods, content, and cost of the instruction offered by these schools. The book also suggests a law for the regulation of correspondence schools.

PLATT, EARL T. Techniques for enriching the curriculums of 2-teacher 4-year high schools of Nebraska. Master's thesis, University Library, University of Nebraska, Lincoln, 1930.

The study reports the combination of pupils of several year levels, e.g., first- and second-year English, and the use of self-administrative lessons developed locally and correspondence lessons as aids in teaching these pupils on an individual basis. It was found that by this plan much less time was necessary for class instruction, that the teacher could handle larger classes, and that class progress was normal.

— Long-distance courses. *School Life*, 18: 191-92, June 1933.

A brief but pointed discussion of secondary education by correspondence as it is being developed in Nebraska.

REED, A. A. Nebraska's experiment with rural high schools. *Educational Record*, vol. 14, no. 3, July 1933.

An address given before the American Council on Education describing the plan for using correspondence courses for the enrichment of the curriculum of small high schools and pointing out the various advantages of this plan in Nebraska.

SOUTH AUSTRALIA. Education department lessons by mail for children "out back." *School Life*, 17: 81-82, January 1932.

Describes the plan of providing by correspondence for the education of children in areas where there are too few to maintain a school. To be eligible, pupils must live 4 miles or more from a school. The work is limited to the elementary level. This instruction is practically free.

VANDERCOOK, D. C. How one high school expanded its service to the community. *Trained Men*, 12: 58-60, 64, Autumn 1932.

A historical sketch of the "Benton Harbor Plan" and a brief account of its present status.

VICTORIA, AUSTRALIA, DEPARTMENT OF EDUCATION. Rural education in Victoria maintained at State expense. *School Life*, 12: 141-42, April 1927.

Describes the plan followed in this State providing education to isolated children by correspondence both on the elementary and secondary level. The experiment has been successful.

WESTERN AUSTRALIA, DEPARTMENT OF EDUCATION. Educating a scanty population scattered over enormous area. *School Life*, 12: 171-73, May 1927. (See also *School Life*, June 1927.)

A brief account of the use of correspondence lessons in Australia as a means of bringing education to isolated children. This work began with elementary children but has spread to the high school.

WINDES, E. E. Possibilities of individualized instruction in the small high schools. *School and Society*, 21: 489-93, April 25, 1925.

The article proposes a scheme through which itinerant supervisors and teachers are to give individualized instruction on a contract basis. Such lesson contracts and the necessary study materials could be provided by correspondence.

WISSEMAN, C. L. Correspondence courses in secondary schools. Doctor's thesis, School of Education, New York University, 1932.

An investigation of two aspects of correspondence study in high school, viz, (1) those offered through college and university extension services, and (2) those for which arrangements are made with other agencies for the purpose of enriching high-school opportunities. With respect to each of these aspects the study presents data on (a) nature and amount of high-school work offered by correspondence, (b) administrative practice adopted by institution preparing and high schools using these courses, (c) the types of pupils enrolling for these courses, (d) types of courses which are most popular, (e) reasons for taking high-school courses by correspondence, (f) some conditions of study under which correspondence courses are pursued, (g) failures in high-school study by correspondence, and (h) advantages and disadvantages peculiar to high-school study by correspondence.

WOODEN, H. Z., and MORT, PAUL R. Supervised correspondence study for high-school pupils. *Teachers college record*, 30: 447-52, February 1929.

The article describes the administrative problems and educational advantages resulting from the use of correspondence courses to supplement the curriculum offerings of a small high school at Butler, Ind. Agreements have been reached between selected correspondence schools and the local board of education whereby the former offer their regular services under specified conditions and the board pays the tuition charges; the student pays the cost of books and materials. The school supervises the instruction and assists the pupil in his work.

In the introduction Doctor Mort endorses the scheme and discusses the possibilities of its wider use in high schools.

APPENDIX

Samples on pages 67-69 illustrate the type of publicity materials sent out by the Massachusetts Division of University Extension. This service unit of the State Department of Education of Massachusetts strives constantly to keep before persons of high-school age, adults, and the local school authorities the availability of various types of instructional aid by correspondence. And it tries to develop a demand for such service. One of the chief reasons why high-school correspondence courses have not been used as widely as they could be is that educational institutions offering such courses have not sufficiently made this service known; they have not convinced either the schools or the public that this is a reliable means of economically acquiring an education and usefully employing the ever increasing leisure.

If You Hope To Make Good—

Everyone of us has plans for the future. No matter what we do now, no matter what position we occupy, we look ahead to something better in the years to come.

This hope, this sort of expectation, this optimistic outlook is one of the finest things in life. It gives us renewed courage when difficulties face us. It wipes out the dark clouds from our picture of life and paints in sunshine.

Such a vision of the future as this embraces many things — a better position — more leisure — more real enjoyment of life.

But in this regard there is one vitally important principle of action that we must never forget, a principle that is best stated as a warning —

Don't Stop Learning!

There is no surer way to kill your aspirations than to stop learning. Progress is the first law of the universe and to you progress means constantly refreshing your store of knowledge.

Of course, there are various ways in which to learn. You may learn by experience alone, which is slow and seldom necessary. You may learn also by picking up information, piecemeal out of books, by attending stray lectures, and the like. But in truth, are these methods praiseworthy or even practical?

No, the easiest way, the quickest way and, without doubt, the best way is to take systematic instruction — educational courses. Courses of study comprise no royal road to learning. You must work and study but you are given expert guidance and assistance.

The Division of University Extension of the State Department of Education offers you unequalled opportunities for training; it presents to you the materials out of which the ladder to real achievement may be constructed. Correspondence courses in over two hundred subjects are available, more than one of which are surely applicable to your particular circumstances.

Massachusetts University Extension home study courses have lifted many a man and woman to success — have helped them to realize their dreams of the future. Let them do the same for you. Cut out the coupon on the opposite page, mail it immediately and you are one day nearer your goal.

SAMPLE 1.—An appeal to continue education under guidance through home study courses

The Material Value of An Education

A large investment trust company with offices in many cities emblazons the page of an advertising booklet with the following headline: "You don't need wealth to leave your son a legacy — GIVE HIM AN EDUCATION."

Business advertises education because the value of knowledge is recognized universally. It has an appeal to all. The humblest man in the street understands perfectly that a good education means a good income. Therefore, he will sacrifice and save to put his children through school.

Massachusetts University Extension presents the appeal in behalf of education in a slightly different way. It challenges you not only to recognize the value of education but to ACT upon it.

GIVE YOURSELF AN EDUCATION

Indifference is the only obstacle in the way. For a small cost you have the best training at your disposal. Act at once. Mail the coupon below today.

MASSACHUSETTS STATE-SUPPORTED HOME STUDY COURSES—

Accounting	Engineering	Methods of Teaching
Advertising	Mechanical	Citizenship
Art Appreciation	Electrical	English
Astronomy	Structural	Mathematics
Automobiles	Government	Music Appreciation
Biology	Harmony	Penmanship
Blue Print and Plan Reading	Heating and Ventilating	Personnel Management
Bookkeeping	History	Physics
Building Repairs	Home Decoration	Plumbing
Carpentry	Household Management	Psychology, Applied
Chemistry	Industrial Management	Pulp and Paper Making
Civics	Journalism	Radio
Civil Service Preparatory	Languages	Refrigeration
Commercial Correspondence	English	Salesmanship
Concrete Construction	French	Show Card Writing
Design, Machine	Italian	Sociology
Drawing, Mechanical and	Latin	Steel Building Design
Architectural	Spanish	Stenography and Typewriting
Economics	German	Textile Processes and Design
Electricity	Law, Business	Traffic Management
	Lumber and Its Uses	
	Mathematics	

Courses may be started at any time.

Without incurring obligation of any kind please check (x) subjects in which you are interested and mail *whole* coupon to University Extension, State House, Boston, Mass.

Name

Address

SAMPLE 2.—A list of the courses offered for home study by the State of Massachusetts and a convenient means for gaining additional information.

Coupon—CUT HERE



Division of
University Extension

The Commonwealth of Massachusetts
Department of Education

State House, Boston.

June 6, 1933

Dear Sir:

Ten days ago I wrote to high school principals in Massachusetts, calling attention to the valuable opportunity available to graduates this year through State University Extension correspondence courses. I had particularly in mind the fact that probably eighty per cent of these graduates will not be able to go on to higher institutions, and that of these, many either will not find jobs for some time, or will have to start work at very poor jobs.

To date, 86 principals have requested over 8611 copies of the "Don't Stop Learning" bulletin for distribution to their graduating classes.

This immediate response suggests a widespread realization among principals that unless graduates use their leisure time to good advantage, their ambition, initiative, and powers of concentration will suffer dangerously.

The response also leads me to believe that you probably intended to reply, but postponed the matter and have since overlooked it.

Copies of the bulletin are still available. I shall be glad to send you a supply upon receipt of the return post-card which this letter contains.

I am also enclosing a recent University Extension Newsletter bearing directly upon this whole question. You may find it suggestive in presenting the matter to your seniors.

Of course, if you have already sent for the bulletins, please disregard this letter.

Sincerely yours,

James A. Moyer

Director.

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SAMPLE 3.—A timely letter to school officers suggesting continued study for unemployed high-school graduates.