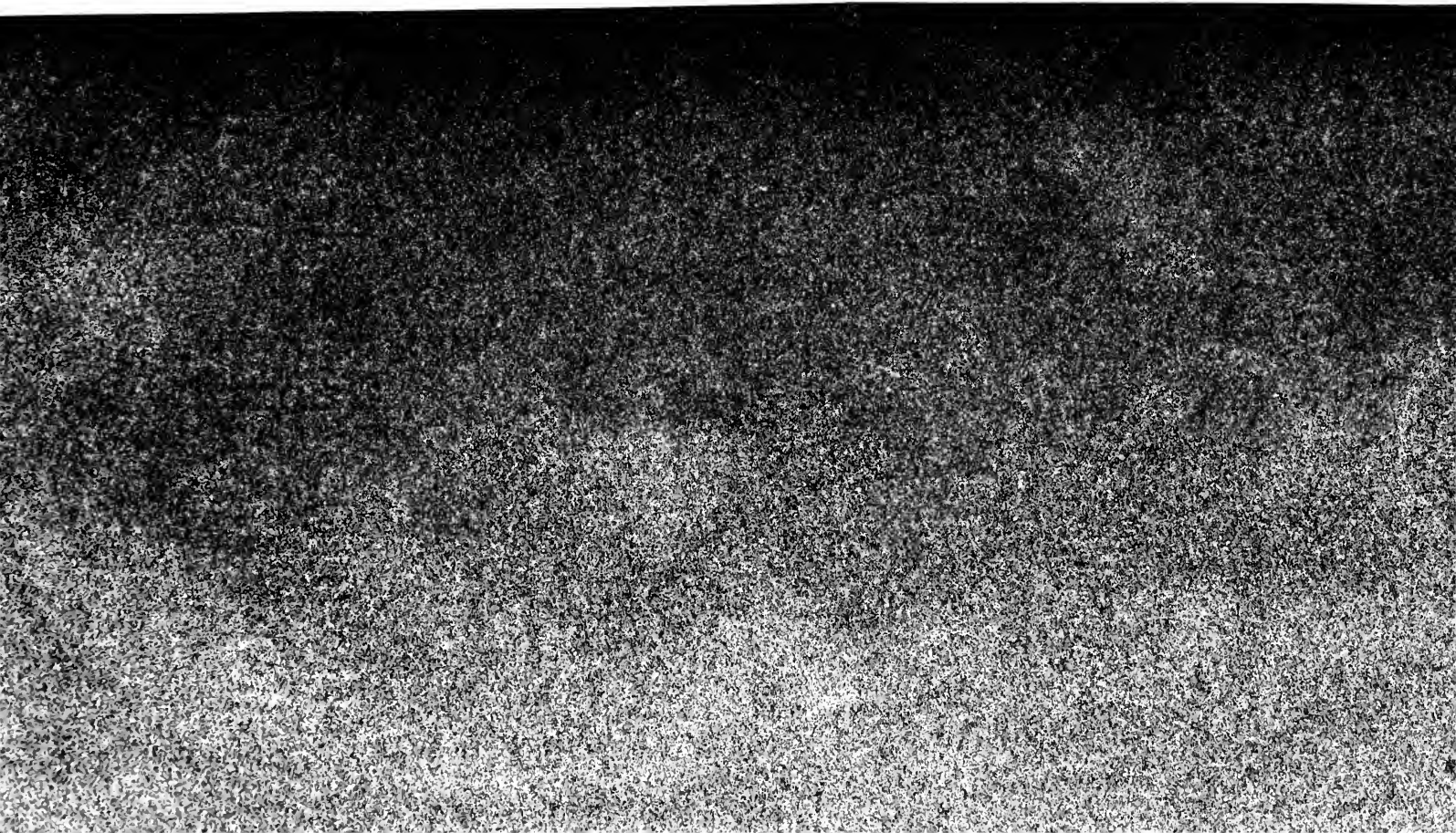
SCHOOL DOCUMENT NO. 11 — 1928
BOSTON PUBLIC SCHOOLS

ANNUAL REPORT OF THE SUPERINTENDENT

OCTOBER, 1928

BOSTON
PRINTING DEPARTMENT
1928



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Boston, October 15, 1928.

To the School Committee of Boston:

I have the honor to submit herewith the forty-sixth annual report of the Superintendent of Public Schools.

This report covers the school year ending August 31, 1928.

Respectfully submitted,

JEREMIAH E. BURKE,
Superintendent of Public Schools.

In School Committee, October 15, 1928.

On motion, it was

Ordered, That this Board hereby adopts as its annual report for the current year the Annual Report of the Superintendent as contained in School Document No. 11, 1928.

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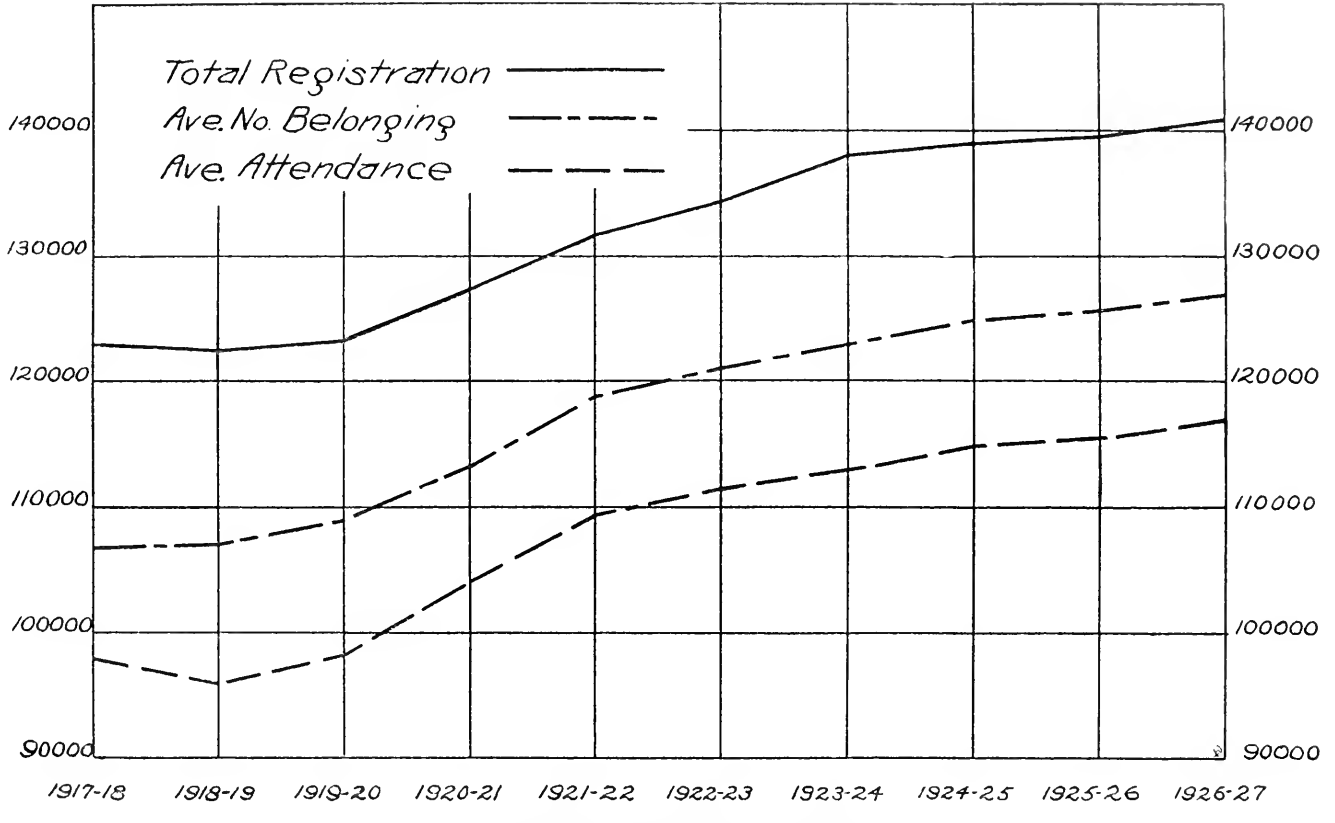
GRAPHS.



Day School Population, 1917-1927.

This graph represents the relation during the last ten years of the total registration, average number belonging and average attendance. It will be noted that there is a slight increase in the average attendance.

STATISTICS.

The following table shows the total registration, the average number belonging and the average attendance of pupils in the Boston public schools during the school years 1925–26, 1926–27, and 1927–28:

	Total Registration.			Average Number Belonging.			Average Number Attending.		
	School year ending June 30.			School year ending June 30.			School year ending June 30.		
	1926.	1927.	1928.	1926.	1927.	1928.	1926.	1927.	1928.
Teachers College of the City of Boston.	744	788	805	724	772	789	704	754	774
High and Latin	23,238	23,377	24,202	21,278	21,347	22,332	19,874	19,984	20,790
Elementary Grades	103,533	103,682	103,624	93,466	94,470	94,712	86,937	88,279	88,469
Kindergartens	10,214	10,843	11,107	8,801	7,368	9,207	6,992	7,368	7,451
Totals	137,729	138,690	139,738	124,269	125,630	127,040	114,507	116,385	117,484
Special Schools	1,902	2,020	2,071	1,520	1,528	1,695	1,371	1,410	1,545
All Day Schools (except Continuation and Day School for Immigrants).	139,631	140,710	141,809	125,789	127,158	128,735	115,878	117,795	119,029
Evening High	6,248	7,070	7,356	3,644	3,958	4,238	2,873	3,101	3,362
Evening Elementary	7,614	7,321	6,485	4,195	3,911	3,454	3,360	3,180	2,829
Boston Trade School (Evening Classes).	1,609	1,473	1,531	770	728	772	565	541	609
Totals, Evening Schools.	15,471	15,864	15,372	8,609	8,587	8,464	6,798	6,882	6,800
Continuation School *	6,685	7,267	6,457	3,476	4,055	3,995	3,379	3,933	3,918
Day School for Immigrants.	1,254	1,186	1,076	666	573	515	513	451	408
Totals of all Schools,	163,041	165,027	164,714	138,540	140,373	141,709	126,568	129,001	130,155

* Represents number of children between the ages of fourteen and sixteen who are not enrolled in any regular day school.

FINANCIAL STATEMENT.

The following table copied from the report of the Business Manager summarizes concisely the expenditures for maintenance of public schools and for repairs and alterations of buildings (but not including cost of land and new buildings) for the period beginning January 1, 1927, and closing December 31, 1927.

For general school purposes, including Americanization and vocational guidance:	
Salaries of Instructors (principals, teachers, members of the supervising staff and others)	$10,904,956 41
Salaries of Officers (administrative officers, attendance officers, clerks, stenographers, storekeepers and other employees)	346,719 83
Salaries of Custodians (including matrons)	809,027 05
Fuel and Light (including electric current for power)	445,754 27
Supplies, Equipment and Incidentals	930,014 60
Pensions to Attendance Officers and Custodians	4,642 24
Physical Education (salaries of teachers, members of the supervising staff and others, supplies and equipment — day schools and playgrounds)	284,507 53
Salaries of School Physicians and Nurses	189,299 04
Pensions to Teachers	133,015 82
Payments to Permanent Pension Fund	73,227 88
Extended Use of the Public Schools (salaries, supplies, equipment and incidentals)	82,130 63
Repairs and alterations, protection against fire and fire hazard, and new furniture and furnishings for old buildings, including new lighting fixtures	1,675,124 10
Total expenditures	$15,878,419 40

SURVEY OF THE PUBLIC SCHOOL SYSTEM.

Under date of March 19, 1928, the following resolutions and orders were adopted by the School Committee:

Whereas, the expenditures of the School Committee for all purposes, including land and new buildings, have increased from $7,495,052.62 in 1918 to $19,581,458.81 in 1927; and

Whereas, popular interest and concern is evidenced by contemplated surveys from time to time and recently a preliminary survey by the Finance Commission for an elaborate survey costing $60,000, apparently now abandoned; and

Whereas, the Board of Superintendents and the Board of Apportionment, to whom have been referred by the School Committee, orders for investigation and report on certain phases of activities of our school system, are already taxed to the maximum with their official and ordinary functions; and

Whereas, the School Committee is desirous of having all the facts that have caused the increased cost of maintaining the public school system during the past decade made known, together with the relation of the increase in cost to the numerical, pupil and curricula growth of the school system; and

Whereas, the School Committee is willing to provide the necessary funds for a survey of the public school system and to appoint a committee to make such survey, of which a majority shall be citizens of Boston who are neither officials nor employees of the school system; said survey to have special reference to the increased and increasing cost of the maintenance of the school system,

Be it therefore,

Ordered, That a committee of seven, to serve without pay, be appointed by the School Committee to make a survey which shall include the following:

I. Intermediate and High School Organization.

(*a*) A study of vocational education with special reference to shop work.

(*b*) A careful study of the curriculum with a view to ascertaining whether or not subjects are being taught which are of so unusual a nature as may be broadly classified as "fads and fancies."

II. School Building Survey and Program.

(*a*) Survey of buildings which will become obsolete within the next ten years.

(*b*) A study of the growth and shifting of population as related to a building program.

(*c*) A comprehensive ten-year building program.

(*d*) Construction of high schools by sale of bonds (long-term or short-term as distinguished from the "pay as you go" policy.)

III. Survey of such other educational aspects of the school system as appear advisable to the Survey Committee, and which have a bearing upon the increased cost of the school system.

And be it further,

Ordered, That His Honor the Mayor, the Chamber of Commerce and the Boston Real Estate Exchange be invited to nominate each one member of said Survey Committee who will thereupon be appointed by the School Committee to constitute the Survey Committee of seven with the following, who are hereby appointed:

Honorable Michael H. Sullivan, Chairman, former Chairman of the School Committee and former Chairman of the Finance Commission.

Arthur L. Gould, Assistant Superintendent, Boston Public Schools.

Walter F. Downey, Head Master, Boston English High School.

Archer M. Nickerson, Master, Frank V. Thompson Intermediate School.

And be it further

Ordered, That the Survey Committee be and hereby is authorized to employ such specialists and to appoint such sub-committees not of their own number and such clerical and other assistants as it deems necessary, with the approval of the Board; and

That the teachers and members of the supervising staff on the Survey Committee and on the sub-committees, if any, shall be granted such leave with pay as shall appear proper and necessary to the School Committee; and

That all orders of reference now pending before the Board of Superintendents and the Board of Apportionment, related to and contained within the scope of the within survey, be and hereby are referred to the Survey Committee; and

That the Survey Committee shall report with all reason-

able expedition the facts, results and recommendations of the within survey to the Superintendent and the School Committee.

At subsequent meetings of the School Committee it was voted that a representative of organized labor nominated by the Central Labor Union, and a woman nominated by the Boston Home and School Association be included on the School Survey Committee.

In addition to the appointees named in the order of the School Committee of March 19, membership of the Survey Committee comprises the following:

President A. Lawrence Lowell of Harvard University, nominated by His Honor the Mayor; Mr. Carl Dreyfus, nominated by the Chamber of Commerce; Mr. Francis R. Bangs, nominated by the Boston Real Estate Exchange; Mr. Frank P. Fenton, President of the Boston Central Labor Union, nominated by that body; and Mrs. Willard D. Woodbury, former President of the Boston Home and School Association, nominated by that body.

Immediately after appointment the Survey Committee organized and earnestly entered upon its labors. At the meeting of the School Committee of July 9, Judge Michael H. Sullivan, Chairman of the Survey Committee, presented a report of progress which reads as follows:

The Survey Committee respectfully submits to the School Committee the following report of progress relating to its work up to date:

Meetings — The Committee has met weekly since its organization on May 5, 1928. Each session has lasted ordinarily about three hours. These meetings have been held at the School Administration Building.

Headquarters — Headquarters have been established in Room 21, School Administration Building, 15 Beacon Street, with Miss Agnes E. Reynolds assigned as clerk of the Committee.

Procedure — Some time has been spent by the Committee in securing a grasp of the complete problem and in outlining the scope of the inquiry. Sub-committees have been appointed and are engaged in the preparation of reports which will later be submitted to the entire Survey Committee.

Report of the Survey — The Survey Committee cannot at this time give a definite statement as to the date of the completion of its report.

CITIZENSHIP THROUGH CHARACTER DEVELOPMENT.

The early pioneers of New England were the spirit of civil liberty incarnate. No sooner had they landed upon these rockbound shores than they proceeded to establish a government of the people. The Town Meeting still persists as the purest type of local self-government that the world has ever known. But the forefathers were not merely idealists, they were far-seeing statesmen. They knew that absolutism flourishes in illiteracy, but that an unenlightened democracy shall fall! They foresaw that if freedom of speech, freedom of the press, freedom of worship and trial by jury are to abide; if freemen are to counsel, make just decisions and rule wisely — then the electorate must be intelligent and virtuous, as well as free.

In order that the ideal they cherished might be shielded and defended, these nation-founders placed Liberty under the guardianship of law. And then to insure the inviolability of civil liberty and the perpetuity of government under law, they created the free public school, "New England's fairest boast." The school thus became the bulwark and support of popular government. It would be stupid to declare that free government is dependent wholly upon popular education. There are other powerful contributory forces; but it is significant that the chief agency sanctioned by the state for its own defense and perpetuity is universal and compulsory education. Therefore, popular education and democratic government are mutually inter-dependent, each deriving from the other elements of security and stability.

The purpose of popular education is twofold. It should enable every child or youth — regardless of his gifts or limitations — to rise to the very height of his capabilities and endowments and then to become a citizen of power in the service of the Commonwealth. In this definition, I advisedly place the child before the State. Both as a human being and as a future citizen, he possesses certain indefeasible rights which the State must recognize and foster. At the same time, next to worship of his Maker, a citizen owes unreserved fealty to his country, its institutions and its laws. This reciprocal relation of citizen to State, therefore, is intimate and protective.

The Puritan forefathers believed that they had reconciled the various educational complexities — intellectual, emotional, moral and spiritual — and thus had insured a virtuous citizenship, by making religious instruction an integral part of the public school's curriculum. Such a program was unobjectionable and practicable so long as communities were denominationally homogeneous and the closest union existed between Church and State. But it was unable to resist the onward march of events. With the advent of heterogeneous populations came the disestablishment of Church and State and the secularization of education. Not only has the teaching of religion been swept away, but in many instances instruction in the moral and civic virtues, and consequently in good citizenship, has been relegated to a subordinate place. It is a serious question whether the centrifugal force of these rapidly revolving wheels of progress has not hurled us out of our true proportions. Whatever be our personal points of view, however, there are certain facts which cannot be disregarded.

We, engaged in the field of popular education, are not privileged to teach whatever we may choose; upon us are imposed either by customs or by statute law certain well-defined limitations. In the present day public schools, we cannot teach religion. Such instruction is reserved for the home, the church and religious teachers. Nevertheless, since moral instruction is indispensable to good government, teachers and administrators have very distinct obligations. Indeed, there exists in Massachusetts an ancient statute which is mandatory and unequivocal in its insistence upon moral training in our schools as a preparation for citizenship. It reads as follows:

"All instructors of youth shall exert their best endeavors to impress on the minds of children and youths committed to their care and instruction the principles of piety and justice and a sacred regard for truth, love of their country, humanity and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance, and those other virtues which are the ornament of human society and the basis upon which a republican constitution is founded."

Man and society are reciprocally inter-related. The citizen of character is the foundation of good government. Conversely, the citizen without character is a menace to the State and for his delinquency society stands accused. Social right-

cousness depends upon individual morality. There is no such thing as collective virtue which can be practiced by a community whose members are not personally virtuous in any manner or degree. Integrity of life in each citizen is the only sure guarantee of worthy citizenship.

It was such conclusions as the foregoing — with a consciousness of an imperative call for more intensified citizenship training — that urged the school folk of Boston to prepare an epoch-making report entitled "Citizenship Through Character Development" which has for its essence and core the inculcation of natural and civic virtues. In this document which was approved as a course of study, a definite time allotment is assigned daily for the practice and exercise of these virtues under the guidance of the teachers. Thus character and citizenship training has been elevated deservedly to a position of supereminence in all our school programs, elementary and secondary. At every point, all the machinery of the school is operating to produce a spiritual entity,— an upright, honorable and dependable citizenship.

Manifestly teachers always have regarded moral and civic instruction as the chiefest of their duties. All honor to those unselfish men and women whose illuminating personalities have been beacon lights to generations of youths! But for the most part, such instruction has been left to the initiative of individual teachers. Now the obligation is upon all, and all teachers must become equipped for this inspiring service. In consequence, a campaign of education has been inaugurated in Boston to collect material, organize instruction, develop skill, and formulate special technique of procedure. Normal training schools, teachers colleges, and graduate schools of education everywhere might well co-operate in this missionary enterprise.

It is unsafe to prophesy: But it is altogether likely in the future that public school teachers will be required to qualify for instruction in citizenship as thoroughly as they now prepare in so-called academic subjects. It is wholly within the range of probability that power in the molding of civic virtues may become the chief criterion of the teacher's ability.

Interwoven in the warp and woof of the Boston plan is the impelling conviction that a prerequisite to worthy citizenship is the habitual practice of fundamental moral and civic virtues similar to those enumerated in the ancient statute of the Commonwealth.

These then are the essential requirements demanded of every youth who aspires to don the *toga virilis* of American citizenship, and thereby join in this glorious venture for equality of rights and identity of responsibilities:

First and foremost, the worthy citizen must be capable of distinguishing between right and wrong, and must acquire the habit of willing to do the right.

He is clean in thought and word and deed

He practices self-control and self-denial

He has convictions and the courage of his convictions

He appreciates truth and has an established habit of speaking truthfully. "Every child should have, during his school life, innumerable lessons in mental truthseeking and truthtelling"

He interprets freedom as opportunity for service, privilege to do the right.

The worthy citizen is virtuous socially, as well as personally:

While steadfast in maintaining his individual rights, he is obedient to regularly constituted authority

He has a keen sense of justice and respects all the rights of others

He has a proper sense of loyalty and is loyal to his family, his institutions, his community, his country, and his faith

Fair-minded and magnanimous, he is tolerant toward the opinions, beliefs, and convictions of his fellow-citizens; he dispenses good will; he promotes the brotherhood of man; "Thou shalt love thy neighbor as thyself".

Every citizen must be a public servant, performing meritorious deeds that add to the happiness of his fellow-citizens and promote the prosperity of his country. He should know through practice that it is more blessed to give than to receive.

You are interested to know what are the fruits, the results of this ambitious and adventurous program. Is it functioning? What are its accomplishments? — are pertinent inquiries.

We are laboring under no illusions. We appreciate fully the magnitude of our tasks, and are far from extravagant in our expectations. The results flowing from this work in character development — the very tap-root of good citizenship — are intangible and unmeasurable as all spiritual reactions are. "Behind the visible work there is a work invisible." However, evidences of the effectiveness of our program, coming from parents, teachers and even from the pupils themselves, indicate quite conclusively that we are making noticeable and persistent gain in personal and civic honesty, practice in truth-

telling, effort to choose the right and reject the wrong, reverence for elders and superiors, respect for law and order and for others' rights and privileges, growth in moral judgments, and appreciation of spiritual values.

It is particularly gratifying to record in many instances the development of a better civic virtue, of a finer collective spirit; in short, the dawning of an educated public sentiment.

Pupils are beginning to assume responsibility for the good reputation of their school communities, and are learning the lesson paramount in a democracy, namely, the indispensableness of a high order of leadership and the moral purpose to select such leadership.

A teacher writes: "I feel that the most distinct benefit from our work in citizenship is the formation of a new attitude of mind. The weight of public opinion (that is, what will my classmates think?) is manifestly on the side of right. Whereas a few years ago a boys' club generally would choose the most daring or most mischievous boy for their leader, the choice now falls to one who in the estimation of the class possesses qualities as a citizen. I believe that the creation of public opinion that immediately condemns the slacker, the dishonest, the disobedient, and commends the praiseworthy and reliable is most vital, since in the final analysis it is public opinion that rules in democracy."

****

In his Annual Report for the year 1927, the Superintendent wrote:

"The original course of study in Citizenship through Character Development was prepared by a council of intermediate and elementary principals. Coincidentally with its appointment, the Superintendent invited the head masters of high schools likewise to formulate an outline in character and citizenship for the instruction of pupils of high school grade. The Head Masters' Association for some time has been actively engaged in the preparation of such an outline of work, designed especially to meet the needs of their pupils. The problem was a most difficult and serious one and the head masters have been justified in proceeding slowly toward its solution. Their task is now complete. The report on 'Character Education in Secondary Schools,' which the head masters submitted to the Superintendent late in the current school year and

which was approved by the School Committee, is a most noteworthy contribution to the literature of character development. We doubt if any document equals it in its intelligent and satisfactory adaptation to instruction in public high schools."

Since the above statement was recorded, the document referred to has been printed by authority of the School Committee and distributed among all teachers in our secondary grades.

In order that there may be preserved a more adequate description of this important educational achievement, a brief description of some of the salient features of this Course of Study in Citizenship is herewith presented by a representative of the Head Masters.

Report of the High School Head Masters on Character Education in Secondary Schools.

In presenting this statement relating to character education in secondary schools let us say that it is the result of over four years of intensive study, investigation and experimentation by the High School Head Masters' Association of Boston.

Our purpose is to submit certain principles and illustrative material of practical value in shaping and conducting a program of character education in the secondary schools of Boston. The Association has endeavored to prepare a suggestive, workable plan of procedure. It includes the factors involved in the proper conduct of this important work of developing right attitudes in the youth of our city schools, and is an attempt to formulate a plan by which specific worthwhile qualities of character may be developed through definite life situations.

The development in the individual pupil of a good character which shall rightly shape and control his conduct in and out of school, and throughout his later life, is an educational task of no mean order. No plan, however well conceived and organized, will, of itself, bring about the desired result. The successful achievement of our great objective can be secured only through the loyal, painstaking, and intelligent co-operation of every teacher. The teacher must make all the life of the school, the teaching of every subject, the dealing with all matters of discipline, the atmosphere and spirit of the school, count for good moral education. The teacher must realize that the work of character education is a practical everyday

matter demanding constant attention and practical wisdom in its conduct. And to the degree that the teacher measures up to this ever present responsibility, to that degree will the success of this character program be assured.

THE PUPIL AND THE WORLD OF TODAY.

What is the exact situation faced by a teacher who has the responsibility for developing right character in secondary school pupils? In the first place, it must be recognized that these young people have arrived at the age when they are thoughtfully keen and critical concerning all matters which secure their attention, more especially those things which seriously affect any purpose or result upon which they have set their hearts. Therefore, situations which arouse strong satisfaction or strong dissatisfaction are likely to be of frequent occurrence. Again, these pupils are engaged in that most interesting but baffling process of finding themselves, which further complicates the situation. They are living in an age of phenomenal change and progress as well as of intense activity and competition. The world about them is full of challenge, arousing their curiosity at every turn and constantly stimulating them to interested inquiry and investigation. All parts of the globe are so intimately linked together today by the telegraph, the radio and other recent inventions that, without leaving his own community, the child may be brought each day into direct contact with the life of far distant lands; and, as a matter of fact, the city in which he lives is cosmopolitan in its population, customs, language, and ideals. The individual boy and girl in the group varies widely in native ability, in environment and cultural opportunities, in knowledge and background, in disposition, ambitions and ideals.

MASTERY IN ALL UNDERTAKINGS.

In the modern conception of education a most important phase of character development lies in guiding the pupil to complete achievement in all of his tasks, so that he may acquire what is sometimes spoken of as achieving power and habit. The process of education through self-activity requires three conditions to operate effectively: (1) that the pupils should be given opportunity to be problem finders as well as problem solvers, because problem finding and solving are infinitely more productive in the development of vital minds

than is problem solving alone; (2) that whatever activity is undertaken, whether it be academic study, mechanic arts, practical arts, fine arts, or athletics, the principle should be accepted and followed that if the thing is worth assigning and is properly assigned, before passing on to the next bit of work, it is worth mastering one hundred per cent, not sixty per cent or seventy per cent only, and (3) that, before considering any problem as completed, the pupil should feel sure in his own mind, through the use of checks and other means, that his work is correct. In this way he reaches that assured success in one undertaking which brings to him great encouragement amounting to a strong motivation for the next undertaking. This is in accord with the fundamental principle that character building is a cumulative process.

CHARACTER TRAITS.

These should include the following habits and attitudes:

1. *Responsibility.*— The willing acceptance of personal and social responsibility.

2. *Justice.*— The cultivation of habitual acts of fair play, honesty, truthfulness and honor.

3. *Strength.*— The development of strength of various sorts, including independence, bravery, industry, perseverance, self-respect, self-control, moral cleanliness in thought, word and act; cheerfulness and self-sacrifice, with their varieties and inter-relations.

4. *Good-will.*—The promotion of good-will, including kindness, generosity, open-mindedness, sympathy, service, respect for the rights of others and reverence for all that is good.

5. *Loyalty.*— The development of loyalty, in thought, word and deed, to the ethical and moral standards of the family, school, church, community, state and nation, and a proper regard for duly constituted law and authority.

NOTE.— These qualities of character are not mutually exclusive. In general, one quality cannot be developed fully without the cultivation of others.

FACTORS INVOLVED IN CHARACTER EDUCATION IN THE SCHOOL.

The character developed in the pupil by the school is the result of all the experiences which constitute his school life. Therefore, everything which enters into his life as a pupil must be thought of as contributing its share to the result, and

each activity and influence must be so guided and controlled as to work toward the desired goal. Many and varied are the factors which have a part in this complex business of making strong men and women.

FUNCTIONS OF THE HIGH SCHOOL PRINCIPAL.

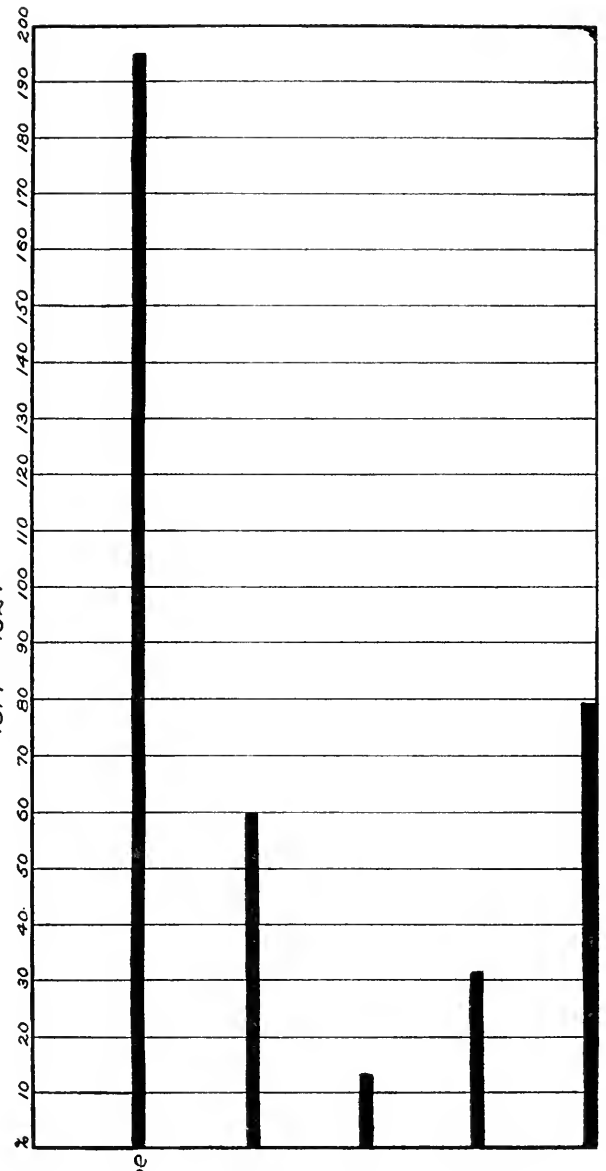
The Head Master has a number of important and difficult functions to perform in the general scheme of moral training. He is the liaison officer between the school and the parents. He is the interpreter to the public of the aims and the achievement of the school. To the faculty he is not merely an administrative superior; he is both counselor and friend. To the students (besides being judge and court of appeal) he is a quickening, vitalizing influence, a perennial source of encouragement. Moreover, he represents the school to the alumni, and endeavors to make them realize their part in fostering the ideals of the school and in maintaining as an active force for good that larger community which is made up of past and present pupils.

THE TEACHER.

The Head Master sets the scene for these activities of the school out of which moral training grows. The organization of the school and the final control of policy are in his hands. But it is the teacher who has the close and constant daily contact with the pupil. His, therefore, is the great molding influence: "As is the teacher so is the school." Day after day, by word and deed he touches the emotions, influences the thoughts, guides and inspires the actions of the pupils with whom he comes into intimate contact. The teacher stands before his class an open book read by them at all times. There is no more alert audience than a group of pupils. "Actions speak louder than words." Therefore, the teacher's ideals of life, his habits of action, his character, are making daily impress on the lives of his pupils, and are received by them as his real teaching concerning character and citizenship.

Included in our report we present a professional code of ethics for the teachers, as well as two moral codes for pupils. Experience has shown us that student participation in school government appears to be an important means of promoting worthy citizenship training in the school.*

* By permission:— See the Twenty-fifth Yearbook of the National Society for the Study of Education, Part II.



The above graph shows the increase based on average membership in the day schools as follows: Teachers College 195 per cent, High and Latin Schools 60 per cent, Elementary Schools 13.4 per cent, Kindergarten 31.4 per cent, Special Schools 79 per cent. The greatest increases are in the Teachers College, the high and Latin schools, and in the special schools where the costs are very high.

A school wishing to introduce student participation will do well to consider the following conclusions, drawn from a study of practice throughout the country for two decades.

a. Student participation should be introduced gradually.

b. The machinery for its administration should be simple.

c. The students themselves must desire in a genuine way to participate in the government of the school.

d. The faculty must be sympathetic, patient and willing in every way to make the movement a success. Student participation is necessarily a co-operative matter.

e. The plan must provide for means by which *all* students are given opportunities to participate in the government of the school.

Student participation seems to aid in developing important qualities, such as responsibility, initiative, leadership, fellowship, school pride, and a respect for law and order.

To assist others in the organization and control of student participation we have included constitutions of student councils now in use in some of the Boston high schools.

STUDENT GROUP ACTIVITIES.*

The word "extra-curricular" as commonly applied to student group activities is something of a misnomer. It is questionable whether it is wise to use a term which seems to make a decided separation between the curriculum itself and activities which have their rise in the curriculum. Since, however, the connotation of the term is generally understood, it will doubtless continue to be used until a better one is accepted by educators.

CHARACTER VALUES OF SCHOOL CLUBS.

The following character values are claimed for school clubs: (1) They furnish the opportunity for adolescent boys and girls to express themselves in wholesome and recreative instead of dangerous activities. (2) They serve as a training ground for leadership, not self-appointed or self-willed, but a socially-

* By permission:— See the Twenty-fifth Yearbook of the National Society for the Study of Education, Part II.

minded leadership. (3) They offer training in co-operative team work. (4) They provide an opportunity for the development of loyalty. (5) They help to develop character by the overcoming of unsocial or purely individualistic tendencies.

Among many clubs it is possible for each pupil to find a place where, led by his individual tastes and interests, he may learn to follow as well as to lead, to co-operate as well as to initiate. Loyal "fellowship," leadership, co-operation, and initiative may be developed through club organizations.

PRINCIPLES UNDERLYING A CLUB PROGRAM.

For a successful club program the following principles should be observed.

1. Time should be set aside for the club activities.
2. Only those clubs should be introduced which meet the aims of education.
3. Enough clubs should be included in the social program so that the varied interest of all pupils may be met.
4. Each club should be sponsored by a teacher who is interested in individuals as well as in subjects, and who knows how to work by indirect and suggestive methods.
5. Each club must stand for something worth while so that it will hold the interest of its members.
6. Guidance of pupils in choice of clubs is often necessary.

A list is given of twenty-four different clubs found in secondary schools of the country, with the purpose of each and the type of student activity represented by each.

Next we call attention to the character values of (*a*) the High School Library and (*b*) the various forms of Visual Aids including:

1. Sculpture. 2. Mural Tablets. 3. The flag. 4. Announcements of Student Activities. 5. Honor Rolls. 6. Thrifts and other Educational Charts. 7. Films. 8. Exhibition Cases. 9. Exhibits. 10. Moral Code Posters. 11. Messages through Art Display Posters.

(Copies of large display posters, issued by the Mather Co., Chicago, Ill., are included.)

The character values which may be obtained from each

subject in the curriculum of the secondary school are analyzed, organized and presented. For this purpose the curriculum has been divided as follows:

1. Social Studies. 2. English Composition and Literature. 3. Foreign Languages. 4. Mathematics. 5. The Sciences. 6. Music. 7. Art. 8. Commercial Subjects. 9. Domestic Arts. 10. Physical Education for boys and girls.

In addition, we have studied various specific forms of personality records, with which we have experimented for many years. Definite suggestions for the necessary administrative technique relating to these records are given. Abundant material has been supplied for special instruction by section and home room teachers as well as a list of specific school situations in which character traits are stressed.

We have included also in our report twenty-four pages of quotations classified under the headings responsibility, justice, strength, good-will and loyalty, as well as an extensive bibliography on the subject.

In presenting our report, we do so with the hope that it may be in the nature of a definite forward step in organized material, which will be of assistance to administrators and teachers, to the boys and girls in their charge, and that it may assist the secondary schools in achieving their great aim — "to equip pupils as fully as possible with the habits, insights, and ideals that will enable them to make America true to its traditions and its best hopes." *

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Survey on Character and Citizenship Training in the Boston Public Schools.

In the autumn of 1927 Mr. Henry A. Pulliam of Paducah, Kentucky, visited Boston and spent several days in the public schools, observing patiently and thoughtfully the attitude of teachers and pupils towards the program in citizenship and character development.

Mr. Pulliam makes no pretensions of being an educator; by profession he is an engineer. He is, however, deeply interested in the education of children and is favored with leisure time for the study of social and economic problems.

When Mr. Pulliam had completed his observations in the schools and was about to leave the city, the Superintendent

* Bureau of Education Bulletin (1917) No. 51.

asked him if at his convenience he would write his impressions or criticisms of what he had observed. The report of Mr. Pulliam is so intelligent, so dispassionate, and so illuminating, that with the author's kind permission I am submitting it in its entirety.

REPORT OF MR. HENRY A. PULLIAM.

I write to you the impressions of my survey of the citizenship and character education work being done in the Boston Public Schools.

The impressions are not those of the professional educator. My profession is civil engineering and my interest in citizenship education is largely an outgrowth of a modest part in Kentucky politics during the last six years. I have given considerable study, as an office holder, to educational administration and finance, and during these last few years to character and citizenship education.

This survey of twelve days was directed to a determination of the results that are being attained by this work in Boston, so far as such can be gauged. I am interested also in the applicability of the methods in use to public schools elsewhere. Hence the survey was utilitarian rather than technical.

METHODS USED.

Your familiarity with the methods in use dismisses any need of my dwelling on them. Briefly, they seem to be about as follows: A specified period of fifteen minutes at the commencement of each day's work, the latter ten minutes of which is allotted to citizenship and character education; the participation of all teachers in the work, in contradistinction to the use of specialists; talks on ethics by teachers, forum discussions by teachers and pupils; stories, songs, dramatics, duty projects, making character stimulating posters, displays, thrift clubs, helpful clubs, courtesy clubs, self-government, safety councils — all with the object of giving both the theory and practice of good citizenship and right living; a monthly variation in progress synchronized throughout the school system to emphasize in succession different virtues and phases of character development; and a monthly bulletin supplied to all the teachers containing suggestions, stories, short dramas and other aids to the work, contributions to the bulletin being by teachers as well as from other sources.

It seems to be realized by all leaders in this work with whom I talked that the present methods are tentative and subject to any improvements which extensive research in the field of citizenship and character training whenever it may be made, either under public or private auspices, shall demonstrate to be possible.

RESULTS OBTAINED FROM CITIZENSHIP AND CHARACTER EDUCATION IN BOSTON.

Some of the results of the character and citizenship work are tangible enough to be discerned by the teachers and parents. However, the most important results are naturally those of the future,—results that can be measured now only by deduction, by the use of common sense and common knowledge about the character training methods which every good parent utilizes to a greater or lesser extent. In making this survey I was not of course expecting the results of character work to be as easily measured as, for example, proficiency in spelling and arithmetic. Furthermore, it was not expected that the results achieved with the children who have had this training from one to four years, while the teaching staff are wrestling with new ideas and procedures, are a full measure of the efficacy of the plan. It is naturally to be expected that when children have had a full school life of from eight to twelve years of this work, especially when they have had it through high school and the teachers have additional experience in the new methods, a more complete estimate of the results can be made. The results here recorded consequently are taken merely as a tentative portrayal.

RESULTS NOTICED IN SCHOOL.

An observer in some of the class discussions will easily perceive the unusual ability of the children in making distinctions between right and wrong, and the interest which they evince in such distinctions. This moral knowledge, which the teachers are carrying to the children, seemed very obviously in excess of that which children are accustomed to acquire at their respective ages. To listen to some of the discussions is to see very clearly how they receive this moral knowledge.

In regard to putting this knowledge into practice, which is naturally of more importance, there were indications of sub-

stantial results, some of which were tangible and others deducible, but none the less obvious to even a mediocre student of human nature.

Among the tangible results noted and reported was testimony by some masters that their schools run more smoothly and with less disciplining since this work was inaugurated. There were reports of less truancy. However, some masters said that they had not been able to notice any difference in the operation of the school.

I found three reports of less police action concerning bad boys in neighborhoods, less profanity coming to notice than formerly and a more respectful attitude of pupils toward teachers. No master with whom I talked reported conditions as worse than before the character and citizenship work was inaugurated. None reported harm done by this new training.

At the Boys' Disciplinary School it was stated that since the citizenship and character training was started there has been a reduction in commitments to that school, and a reduction in numbers sent to court for action.

In several places I was informed that parents had expressed themselves to teachers and to masters as having noticed improvement in their children, although the amount of this sort of testimony that I could locate was very limited. Most of the teachers appeared to have slight contact with the homes. I could find no evidence of there having been adverse criticism from parents at any time since the course began. It occurred to me, and has probably been considered in your office, that questionnaires concerning the character education might to advantage be addressed to the parents some time soon, and, in the course of years, to the alumni who have had this work.

Among a very few teachers there was some adverse criticism of the courses. These were undoubtedly in a very small minority. Among these few the character work was considered as a waste of time, and likely to make hypocrites and prigs of the children. They believed that but few of the teachers would read the bulletin and all were opposed to making contributions to it on account of the extra work it entailed. I believe that there are others who are adverse to the character work and would have talked in similar vein had I not been a stranger and had they not considered it a matter of policy or loyalty to keep their opinions to themselves. Nevertheless, the

quantity and evident sincerity of the favorable testimony for both the courses and the bulletin was convincing to me that the adverse opinions are held by a very small percentage of the teaching force,— possibly well under five or ten per cent, a much smaller number than I expected of a new process.

EFFECT ON THE TEACHERS.

In view of the fact that several thousand teachers in Boston are called upon each day to instill in more than a hundred thousand children a training in good workmanship, kindness, reliability, veracity and other desirable traits of character, I was interested in what effect this work was having on the teachers themselves.

This also is something that can be estimated best by observation of the work in progress and drawing commonsense conclusions, although some tangible evidence was available in the testimony of some of the masters that the schools run smoother since the character work was started. One master stated that in his opinion the teachers get more from the work than does the average individual among the pupils.

The teacher's daily concentration on this species of ideas will, according to the laws of human nature, I think we are safe in concluding, have an influence on her own habits of living and working.

My opinion is that the execution of the work which I saw, the daily concentration of the teacher's attention on that species of ideas, can be expected to have a substantial influence on her work and life. It would seem to me to refute many of the laws of human nature if the result were otherwise. Hence I am utilizing the postulate for my own purpose, and I offer it to you merely as my personal deduction, that the character educational work as given in your schools makes for better teachers and a better functioning educational system. Whatever direct evidence there was tended to substantiate rather than refute this postulate.

It is the opinion in some quarters, I found, that the practice of having the teachers contribute to the monthly bulletin is very helpful to these contributors. It was stated that it helps to develop their resourcefulness in dealing with character situations when they arise in class, to emphasize in their own minds the character work, and to make for more stress on character throughout the school day. This opinion would seem to square with common sense and with natural expectancy.

EFFECTS ON OTHER SCHOOL WORK.

From numerous sources there was offered testimony that the stressing of such character traits as industry, good workmanship, self-reliance, will-power and obedience to constituted authority, has resulted in better work by the pupils in their other subjects. If this be accurate it may be just to conclude that the expenditure of fifteen minutes or about three per cent or four per cent of each school day in character work may be more than made up by improved work in the other studies. It may be time saved rather than lost to the other school work. At any rate it can be accepted that very little improvement in a pupil's attitude can account for a three or four points higher grade, where grading is done on the system of 100 points being perfect.

There was also testimony from some individuals that where the teacher had been successful in administering the character work the improved conduct and better work by the pupils made her other class work less arduous and trying.

CONJECTURE AS TO EFFECTS ON FUTURE SOCIAL AND POLITICAL PROGRESS.

Since it is generally accepted that the improvements in our political and social organization can be assisted by newspapers, books and other publications, by certain club activities and other secular agencies, it seems reasonable to believe that the ideas which accomplish good for the body politic and for the individual citizen when utilized by these agencies can be equally effective when made available through the schools to the growing young citizen.

In fact, when we consider the plasticity of the young mind, and its Nature-endowed appetite and enthusiasm for good, the possible future benefits of this work appear most vast in scale, especially when the methods have been perfected by years of experience and research, and preparation for character training has become a part of every teacher's professional education.

Since some civic and social ideas can be grasped best by children after they have reached the high school age, more pronounced results than I have had the privilege of observing can be expected after the inauguration of your proposed system of character and citizenship work in the high schools of the city.

Today you can truthfully say in Boston that you are not stopping after having given to the future citizen a mental training and a store of useful information, but that you are making a deliberate and intelligent effort, as a city-wide policy of your school administration, to insure that this training and knowledge will be put to beneficent uses for the individual and for the future political and social life of the Republic.

PERFECTING THE METHODS.

The work as a whole seems to be so effectively developing and so much devotion and sacrifice is evident among the school forces that I hesitate to mention even the few elements of weakness which appeared to me.

You have many of the problems of the pioneer, and if I did not mention whatever I saw of weakness in the work I should be detracting from the force of the commendations which I can so sincerely render,— and I should not be following your request.

Uniform excellence was not expected or found. Some few, apparently very competent teachers whom I saw, can, I believe, get more vital results in their character work. It would appear to be a case of not realizing the vast possibilities inherent in the work. It is new. It is discouraging, for results are of the subsurface variety. One does not see easily the growth in what he is doing. In engineering it could be compared to building a very intricate and difficult underground system where the work was covered as fast as completed, as against the satisfaction of building a bridge which stands out visible to the builder and to the world. Hence character work, as one master remarked, will always demand more encouragement, more inspiration, to be effective, than other more measurable, even though less important, phases of education.

It was said in various quarters that the results achieved in any school depend largely on the attitude of the master. There was some evidence to support this statement, as would be expected in a work so dependent on encouragement and enthusiasm, although some teachers seemed to be doing very well regardless of the attitude of the master.

Some of the work intended to aid character may miss the mark, but none that I saw could be called harmful to character. This more or less innocuous work might be noticed, for example, in some of the dramatics, games and stories, and in some of

the talks by the teacher on ethical values where they become too abstract and removed from the children's familiar problems. This also is a minority condition which will tend to disappear, I believe, as the teachers increase in skill and experience in this new work.

It may be noticed, too, with a very few teachers, that some of the "forums" or "discussions" by the children of ethical matters can easily take on the forms of mere quizzing and exhorting by the teacher. This latter manner of handling the class in discussion of right and wrong is easier and calls for less resourcefulness on the part of the teacher than does her attempt to guide a general "forum" discussion by the pupils, where it is necessary to suggest, restrain, temper, require courtesy of a pupil to another and direct the course of a general debate without seeming to be too much the guardian of order. It may be presumed that the greater the part taken by the pupil the more he is forming his own code and helping to raise the group code of right and wrong. Forums are, of course, more applicable to older children. I have seen a whole class "on its toes" in attention to a general discussion, where, on the other hand, in one class of forty I counted only five children who were giving the least evidence of attention to the teacher's treatment of ethical matters in the conventional recitational manner.

Although story-telling and story-reading are generally recognized as having a place in character training, yet they may become a constant temptation to a teacher as the easiest way to fill the ten-minute character and citizenship period, when some of the other methods requiring more initiative could well be given more prominence. This, however, seems hardly likely to become a grave drawback. Another minor comment might concern the need in a very few places to avoid spending the character training effort on trifles.

If there is any outstanding need it would appear to be that of bringing a realization of the benefits and importance of the work to those masters and teachers who do not yet appreciate its significance. We can feel some certainty that the teacher of the near future will see her advancement in her profession gauged to a large extent by her success in character building as well as by her proficiency in what are today called purely academic subjects, and her educational qualifications. It possibly is not too much to prophesy that the time is by no

means in the distant future when the teacher's character-moulding abilities will be the chief criterion of her proficiency.

BOSTON PRACTICE COMPARED WITH OTHER CHARACTER EDUCATIONAL METHODS.

In some essential points the Boston character education differs from that of some other schools in the country. For example, some schools have the ethical training given not by the regular teachers but by specialists especially equipped for the work. In some such schools the character education work is not given every day as in Boston. In one well-known school it is confined to a period of 20 minutes per week; in another, a 40-minute period each week.

The Boston method of having about 10 minutes each day devoted to character work, assuming that the first five minutes of the 15-minute period is consumed by calling the roll, announcements and other routine, is a daily reminder to both pupils and teachers of the ultimate and great object of public education. Habit formation would likely achieve better results due to daily attention to the matters at hand than to a treatment once a week. However, once a week, as in these other schools, or even once a year, is to be preferred to not at all.

The Boston method of having the character work handled by all the teachers, instead of by specialists who go from room to room, has some distinct advantages, as far as I can judge. Undoubtedly more skill in some phases of the work can be expected from the teacher who specializes in the work. But when we remember that character is something that needs attention throughout the day, that it cannot be learned entirely out of a book nor under skillful direction for ten minutes a day, we see the benefits of allowing the teacher who follows the children's work through the rest of the day to keep in touch with what she is doing in the character and citizenship period. She can then better correlate the other school work with it and find more situations for practice and demonstration of principles which are being considered in the character courses. The teacher who at the beginning of each day's work has focused her attention on developing character and has centered the thoughts of her pupils on this as a great objective in life, is better prepared to make the entire school day contribute to the character training of the children than would be the case if she had no connection with the character and

citizenship period. The Boston method is likely the less expensive. It distributes also whatever benefits the character work may have to the several thousand teachers of the city.

The monthly bulletin or teachers' magazine is another feature of the Boston practice which seems to be well adapted to starting and developing a city-wide program. It serves not only to co-ordinate and standardize the work throughout the city but conveys suggestions which should be especially helpful in a work so taxing on the resourcefulness and ingenuity of the teacher. If it did nothing else but induce the teachers to make contributions, induce them to give study to character methods and write of them for the use of others, it would probably more than justify its existence, though this is but an incidental and by-product benefit.

ADAPTABILITY OF BOSTON METHODS TO PUBLIC SCHOOLS IN GENERAL.

The Boston method should lend itself to adoption in other schools without great difficulty. However, for small school systems, or for single schools, it would likely be necessary to procure from outside sources such aids as the monthly bulletin and other literature. It would of course be possible to carry on some local bulletin work in multigraph editions.

ATTITUDE OF THE CLERGY.

In several quarters I was told that during the four years of experience with this work there had not been a case of opposition from any member of the clergy of any faith. This is of particular interest, for Boston has large representations of all religions. I found individuals of all these affiliations co-operating without lines of demarcation.

It would seem that Boston has demonstrated that this is a work to which people of all creeds can lend aid. This is about what anyone who understands the objects and methods of the work would anticipate.

COMMENTS.

If faculty meetings are held in the different schools it might be a good place to have specified time devoted to promoting the spirit necessary for the proper functioning of the character and citizenship work. It requires more inspiration than does arithmetic and other subjects, and this inspiration can come from the masters, from individual teachers, or from outside speakers.

Probably the best teachers have always given attention to character training when the occasion demanded. In your system even the best teachers are given more opportunity for such practices than they had before its installation, and occasions can be made by the teacher to occur.

It seems reasonable to believe that just as nearly all parents can do something in the way of character training for their children, so even the least skilled teacher can do something in that direction. This would refute the remark that is often made concerning character education in the public schools, that with the general average of teachers very meagre results can be expected. It could be said in further refutation, that the teacher, unlike prospective parents, must pass certain tests of her qualifications, must be well above average intelligence, and that she enters her work with more training than do the majority of even the best fitted young parents.

It was said that suggestive outlines are being prepared for guiding the character work in all grades, just as it had already been done for the sixth grade, the first grade and the kindergarten. These additions to your methods should add to the effectiveness of the work.

In the proposed high school courses some co-ordinating agency, some separate publication, such as the monthly bulletin as utilized in the elementary grades, should prove desirable.

I admit some enthusiasm in contemplating the prospects of results from a properly conducted high school system of training in the work, and I hope to have the privilege some day of observing it in action in your schools.

In conclusion, and in view of the pioneer nature of your efforts, it is hard to say enough in praise of the work in citizenship and character education which you and the Boston School Committee are carrying forward. Nor can too much be said for Mr. Egan, Miss Carrigan, Mr. Patton and many others who are giving of themselves for its advancement. The Boston work is deserving of the gratitude of the entire country, which sooner or later will follow in your footsteps and profit by your experience, your errors detected and obstacles surmounted.

I appreciate the courteous and helpful attitude which I encountered in this survey, and wish you increasing success, which seems assured as you are now progressing.

TRAINING OF THE EMOTIONS.

Intimately associated with character development is the training of the emotions. The one suggests the other. The work in character development in our schools would have naturally led to the need of education of the emotions. When the program in character training was fairly well established, our thoughts turned toward this related problem. Accordingly the Superintendent invited a group of teachers to make a study of the emotions and their educability. This council under the direction of Dr. William F. Linehan of the Teachers College has approached this new and important field of education with rare tact, industry, and vision, and is rapidly enlisting the interest and support of many of our progressive teachers.

While only upon the threshold of this great movement, we can, however, report considerable progress. In the last Annual Report of the Superintendent it was recorded that the council had published a school document entitled, "The Educability of the Emotions; A Suggested Discussion Approach." During the current year it has made an inestimable contribution, "Controlling Fear."

One of the characteristics of fear is its universality. It is doubtful if any one is absolutely free from its influence. An eminent psychologist in discussing the subject frankly declares that he has never overcome completely a deeply intrenched fear. He says, "Probably my own fear in the dark has made me particularly interested in this problem. My reactions in the dark are chaotic and more or less infantile."

Imaginative fear is the root of superstition and is more intricately interwoven with human conduct than is generally conceded. Imaginative fear or superstition frequently overmasters intelligence. It was Madam de Stahl who remarked that she did not believe in ghosts but that she was afraid of them.

Many boys will appreciate the experience of Andrew Carnegie. In boyhood he was fortunate in having an uncle who at eventide told him stories and taught him songs about the heroic Scottish patriots. In Carnegie's own language: "There were two roads," he writes, "by which to return from my

uncle's house. . . . One along the eerie churchyard of the Abbey among the dead, where there was no light; and the other along the lighted streets by way of May Gate. When it became necessary for me to go home, my uncle, with a wicked pleasure, would ask which way I was going. Thinking what Wallace would do, I always stoutly replied that I was going by the Abbey. . . . Trying to whistle to keep up my courage, I would plod through the darkness falling back in all emergencies upon the thought of what Wallace would do if he had met with any foe, natural or supernatural."

A real disciple of Wallace and Bruce could never give up. He would die first.

The Boston Council on the Educability of the Emotions warns teachers and parents against undue introspection on the part of pupils. It finds, however, many instances where children are conscious of emotional conflicts and are struggling heroically for control. One pupil describes his conflict as follows:

WAR.

> There is a war going on with two parts of my mind. This war is over a fear. One part said, "This fear is terrible, and something terrible is going to happen." The second part said, "Nonsense, this is all foolishness, and I am right." This fear is to walk under a ladder which is said to bring bad luck. I have not declared peace, for I haven't decided who has won. I will have to let the fight go on till some day one side will win.

Self-assertion, like all emotional trends, requires direction and control. Like all emotions likewise it may become helpful or harmful. Positively speaking, self-assertion assists in the cultivation of individuality, in independence of action. On the negative side it produces certain complexes. The inferiority complex may arise from physical imperfections, unfortunate environment, lack of sympathy or appreciation; from shame, ridicule, or consciousness of disadvantage in comparison with others.

The remedies for such disorders are rational readjustment, the establishment of self-confidence, encouragement in the performance of tasks, and an experience of the joy of achieve-

ment. Unquestionably, sarcasm or ridicule should be taboo in dealing with sensitive children. One pupil tells her sad experience as follows:

FEAR OF RIDICULE.

> The greatest fear in my school life is to be laughed at. When I first started school I knew very little English, because I came from Europe. When I gathered enough courage to say a few words in front of the class, they were badly pronounced and caused laughter.
>
> An incident that I shall never forget occurred one day when I was talking to a group of people and mispronounced a word, and one person in that group whom I most admired made fun of my pronunciation. A lump rose in my throat, tears came to my eyes, and I felt I would much rather go back to Europe than speak English again.
>
> I am five years in this country, and have not quite overcome that fear yet, but I hope in the years to come to be perfectly at ease in a group of people.
>
> Conversely: "A word fitly spoken is like apples of gold in pitchers of silver."

Many of these emotional tendencies develop very early in the life of a child and are shaped largely by environment. Speaking of his laboratory work at Johns Hopkins University, Dr. Watson says:

> I have tried many experiments and I have come to the conclusion that the first few years are the all-important ones for shaping the emotional life of the child. We have centralized on teaching the child proper conventional habits of study and conduct, while neglecting almost entirely his emotional training. In so far as I have learned from my work, I should say that it shows first, that parents and second the early grade teachers equally must share the responsibility of making or marring the emotional life of the average child.

Parents and teachers should realize that the future careers of children are dependent largely upon the development of

instincts, emotions and impulses — whether they be properly directed, misdirected, or thwarted, and our task is magnified as we contemplate the vast number of these tendencies.

In the presence of our children let us not express too freely our own emotions of dislike; our fear, anger, contempt and disgust for actions we dislike and for persons who commit them; let us rather put a restraint on such criticisms. We should, however, freely and fully express the emotions of gratitude, admiration, wonder and love which we feel on contemplating a fine action or a noble character.

The relation between emotional tendencies and health is reciprocal. Emotional arousals or conflicts frequently result from physical disorders, and health in turn is affected by emotional disturbances. According to Dr. Healy, loneliness, homesickness, speech defects, deformities, unfortunate family reputation, and physical condition, may cause emotional disturbances. On the other hand, the problems of shyness and fear of recitation, of absentmindedness, of obstinacy and unruliness, of lying, etc., are issues which may call for as careful an analysis and understanding as those clearly morbid conditions which today are brought to the attention of physicians.

Suggestibility is a fruitful source of physical alarm and discomfort. The strong and sudden emotional reaction to suffering, pain, or grief are well known. Chameleon-like we take on the colors of our environment. Reason seems to be temporarily dethroned and a mob of imaginary imps run riot.

How we
Walk the livelong day, and watch our shadows;
What our shadows seem, forsooth, we will ourselves be;
Do I look like that? You think me that? Then I am that.

There is a Hindoo legend of a pious pilgrim who, journeying toward a distant city, was accosted by a female figure of ghastly mien who begged leave to ride beside him to her journey's end.

He asked her who she was and she replied, "I am Cholera, but I will spare your life if you carry me to the city." "And how many lives will you destroy when you reach the city?" asked the pilgrim. "Two thousand, no more, no less," was the reply. On condition that the victims should not exceed two thousand, the pilgrim permitted her to accompany him. On

a subsequent occasion the twain met again and the pilgrim reproached the woman: "You failed to keep your agreement. You promised you would slay not more than two thousand and you have actually slain twenty thousand." "You do me a great injustice," replied Cholera, "I slew but two thousand, the remainder were killed by my sister, Fear or Worry."

It is needless to comment upon the lesson embodied in this legend. Incredible is the mischief wrought by fear in its various forms including worry, anxiety, dread, depression, melancholy, and despondency. We teachers and parents must awaken to our responsibility. We must study the emotional strivings and conflicts of our children and aid them in making instincts, emotions and impulses more directly subject to mental and volitional life.

May I suggest a few safeguards:

One of these is the constant bestowal of what Frederic Ozanam loved to call, "The alms of good counsel."

Others are: Self-control, self-restraint, self-denial, a sense of true values, worthy comradeship, wholesome recreation, and whole-hearted joyous play.

And last but not least: Purity of mind, of body and of heart.

Inherent and fundamental in man's nature is the instinct for worship. Its accompanying emotions are admiration, awe and reverence — "a blend of wonder, fear and gratitude." Manifestly, the highest ideal of the race is the worship of a Being, infinitely merciful and just. The emotions are not designless. They are given to us, I believe, as a vehicle, by means of which we may come more readily and perfectly to the knowledge, love and service of God. Here and here alone are Security and Peace. Spiritual health is our ultimate goal. The words of the Master Physician are comforting and reassuring:

> "Come to Me, all you that labor and are burdened,
> and I will refresh you."

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Report of Dr. William F. Lineham for the Council on the Educability of the Emotions.

In the preceding reports of the Superintendent of Schools the chairman of the council on the educability of the emotions has kept our readers acquainted with the progress that had

been made. In like manner he now submits a brief statement of the work of the council during the past year:

I am submitting herewith a report regarding progress during the current academic year in the program of training pupils' emotions.

The indirect program, which would aid the teacher in recognizing and redirecting the pupil's emotional behavior and which was established by the publication of School Document No. 2, 1927, entitled "The Educability of the Emotions," has during the current year been maintained or enriched in the following ways:

(1) Instruction in the psychology of personality adjustment has been continued as part of the graduate curriculum of the Teachers College.

(2) Recent scholarly works contributing to the teacher's knowledge of the emotional foundations of behavior have been abundantly added to the Administration Library and to the library of the Teachers College.

(3) On April 30, at the beginning of Health Week, the Superintendent delivered over the radio an address to parents and teachers on training emotional nature. In regard to this address the council would express its gratification and, also, its hope that the address may become available in printed form.

During the current year the project of training the emotions has concentrated particularly on the construction of a direct program. This program seeks to give the child wholesome insights into emotional nature, thereby aiding him in rational, volitional self-control and in sympathetic helpfulness to others. A course of study, applicable to the fifth and successive grades, has been published as School Document No. 2, 1928, entitled, "Controlling Fear." Assuming on the part of teachers basic psychological training and mature sympathies, the course of study "Controlling Fear" gives a minimum of psychological theory. Constructed entirely through experiment in the classroom, the course endeavors concretely to outline, step by step, methods of presentation and discussion, offering at every step ample options in procedure. Abundant examples are given, with classification, of pupils' typical fears, objective and subtle. The course employs especially the case method, the method of conference on concrete, real-life instances. Through the cordial

co-operation of the respective principals and by classroom teachers selected by these principals, this course of study has been established in the following schools or school districts:

English High School
High School of Commerce
Memorial High School (Girls)
Bowdoin School
Christopher Gibson School
Dearborn School
Edward Everett School
Elihu Greenwood District
Frank V. Thompson Intermediate School
Robert Gould Shaw School
Shurtleff School

Having, we believe, no precedent, the course of study in fear, toilsomely evolved, may for the present serve as our model method in building what we should urge as the next and concluding course in the direct program — a course in redirecting self-assertiveness. The course of study in controlling fear has concerned itself with timidity, lack of confidence, undesirable inhibitions — in a word, with the avoidance response. Our next and concluding course would concern itself with the approach response, including the striving for self-expression, the desire for recognition, the will-to-power. Especially, this course might aid pupils to meet thwarted self-assertiveness in more direct and enlightened ways and, in the face of thwarting, to find wholesome compensatory adjustments. A theory of self-assertiveness has been worked out by the chairman and fully discussed with experienced teachers. Some of these teachers have made preliminary experiment with the theories presented. Already a considerable amount of illustrative material has been collected. Accordingly, the experimental construction of the course in self-assertiveness should begin early in the coming academic year and should proceed apace. For this project the council on the educability of the emotions would welcome the appointment of an associate council of classroom teachers. At group conferences conducted in the final weeks of school the teachers applying the course in fear in the eleven co-operating schools expressed themselves unanimously as willing to become members of this contemplated associate council. With the co-operation of this associate council, the next course of study may, division by division, be immediately established in the schools.

In substance, the council would respectfully recommend for your approval, besides the continuance of the indirect program maintaining interest in the rapidly developing psychology of personality adjustment, these two immediate and comprehensive steps:

(1) The extension in our schools of the course of study "Controlling Fear."

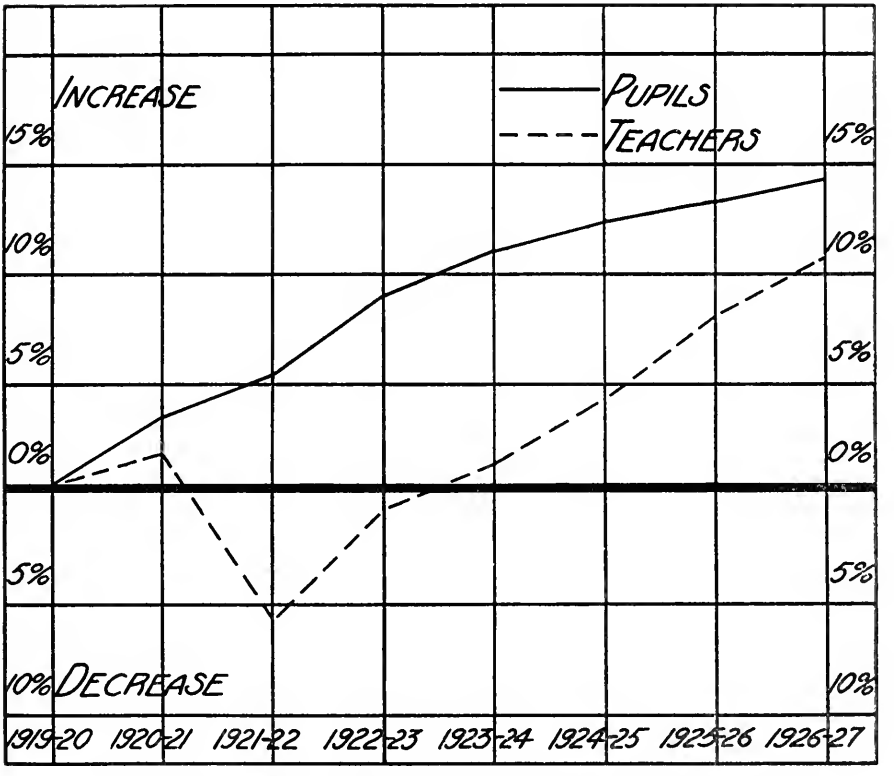
(2) The co-operative, experimental development of a second and concluding course of study.

PERCENT OF INCREASE

TOTAL REGISTRATION, DAY SCHOOLS

TOTAL NUMBER OF TEACHERS, DAY SCHOOLS

1919-20 TO 1926-27



This graph shows the increase in the number of pupils in the Boston public schools and the increase in the number of teachers. Although the tendency has been to reduce the number of pupils per teacher, still the increase in the number of teachers has not kept pace with the increase in the number of pupils.

COMMERCIAL EDUCATION.

According to our statistics fifty-two per cent of the pupils in the public high schools of Boston are pursuing so-called commercial courses. They are taking such subjects as bookkeeping, stenography, salesmanship, merchandising, commercial law and geography, together with a substantial amount of social subjects and English.

During the past few years there has developed a noticeable demand in business houses for young men and women equipped for clerical routine and possessing skill in manipulating the office machines which are rapidly increasing in number. The question is constantly arising whether business concerns, in the future, are likely to call for these routine accomplishments and manipulative skills to a greater extent than for preparation in the traditional commercial subjects, such as bookkeeping and stenography.

Teachers of commercial subjects are desirous, so far as possible, of anticipating future demands of business and of adjusting school programs accordingly. For these reasons the friends of commercial education in Boston are preparing to make a very thorough investigation, with a view of determining the future needs of business and of reorganizing curriculum and procedure more definitely in accordance therewith.

The history of commercial education must be studied. Curricula must be formulated, based upon the experiences of the past and the business requirements of the future, so far as they can reasonably be ascertained.

A beginning has been made of this general survey. During the past year the School Committee delegated Mr. Raymond G. Laird, Head Master of the Boston Clerical School, to visit several cities of the country, acquaint himself with the present status and tendencies of commercial instruction, and in so far as he was able, to ascertain what the future demands of business are likely to be.

I am presenting herewith the results of Mr. Laird's studies. At the same time I am submitting a brief outline of the history of commercial education in Boston prepared by Mr. Louis J. Fish, Educational Statistician of the School Department.

Commercial Education in Retrospect.

By Louis J. Fish, Educational Statistician.

There was a little trace of commercial education in the American colonies, although at that time it did not play an important part in the school system. With the rising importance of trade in the eighteenth century "writing schools," so called, came into prominence. Young men of good families who showed more aptitude for money making than for learning Latin were sent to the writing schools to learn "good hands and accounts." These writing schools taught an elaborate system of penmanship, arithmetic in forms somewhat fantastic, and the science of bookkeeping complicated and made intricate by the multitude of varying monetary and metrical systems.

Writing and ciphering schools had been a part of the Boston public schools since 1682. In 1740, however, writing schools under private auspices were established in Boston. These writing schools, in contrast to the severity practiced in the grammar schools, enforced no discipline whatever. Until the close of the eighteenth century such homely but useful schools were rarely if ever endowed.

At that time commercial life was a simple matter, and commercial education was thought not to be a function of the schools, being considered too humble a form of activity for the exercise of great talents or even for any special preparation. At first the boys left school early and were trained by their employers. More boys were attracted than offices could train. This led to the development of the private commercial schools during the nineteenth century.

Private commercial schools and classes in bookkeeping sprang up in Boston between 1830 and 1840. They were the forerunners of the modern business school now found in all important cities. The main subjects taught in these private schools were penmanship, bookkeeping, commercial arithmetic, commercial law, and later on stenography and typewriting.

Bookkeeping, as such, made its first appearance in the public high schools in the program of the English Classical (High) School of Boston for 1823–24, where it was prescribed for the third or lowest class as "Book-keeping, by Single and Double Entry." By the law of 1827 it was made a required subject in the high schools of all towns containing five hundred families or over and it remained among these requirements until the

law of 1898. Notwithstanding this legal support, however, as late as 1834 the returns indicate but one town claiming to offer the subject. By 1838–39 the number had increased to seventeen and in 1840–41 twenty-one towns claimed to offer bookkeeping in the public schools. By 1860–61 it had appeared in the curricula of fifty-five towns out of the selected group of sixty-three and over eighty-seven per cent of the towns required by law to provide the subject in the high schools met the requirements.

Since the opportunities in office service have grown by leaps and bounds during the last seventy-five years, the training of workers to meet these demands has provided an interesting chapter in the history of commercial education. Naturally the innovation in the educational world of training for business originated and was shouldered by private individuals who appreciated the opportunities and the importance of the new demands. Pioneer commercial educators and schools were more or less evanescent, but at least twelve private business colleges were established in various cities in the United States before 1850, and more than thirty before 1860, all of which survived the Civil War and reconstruction period. Between 1860 and 1870, more than fifty new business colleges sprang up to meet the increasing demands of reviving business after the war, but only fourteen responded to the United States Commissioner of Education in 1870, reporting 3,055 students.

Four of those established before the Civil War were located in Boston, Sawyer's Commercial College being organized in 1838, Comer's Commercial College in 1840, French's Business College and Stenographic Institute in 1848, and Bryant and Stratton's Commercial School in 1860. In 1880, three of these, Sawyer's, French's, and Bryant and Stratton's, reported 795 students, of which 689 were men and 106 women. "Common English and Correspondence," Penmanship, Bookkeeping, Banking, and Commercial Law were taught in all. French's and Sawyer's offered in addition Higher Mathematics, Surveying, Political Economy and Phonography.

The commercial schools developed greatly both in quality and quantity during the twenty years from 1870 to 1890, when they largely controlled the training of men and women wishing to go to work in business or commercial lines.

Commercial subjects as we now know them were introduced into the Boston public schools in 1893–94. In 1893

there were enrolled in the private commercial schools of the United States 115,748 pupils. This number was roughly about three-fourths of all the students seeking a business education. After that year the number enrolled in private commercial schools diminished for two reasons: 1. The general business depression. 2. The increasing number of public high schools, normal schools and universities offering commercial instruction. In the year 1893 there were already 15,220 pupils pursuing commercial subjects in the high schools in the country.

In 1894 the students studying commercial subjects in public high schools constituted but one-tenth (10.1 per cent). The proportion of commercial students trained in public high schools continued to increase parallel with a decrease in the private commercial schools during the next five years. In 1910 the high schools trained more than one-third (34.8 per cent) and the private commercial schools trained more than one-half (57.7 per cent) the students of commercial subjects. In 1898 the Commissioner of Education wrote, "The business course in the greatest number of these (public high) schools does not differ from the business course in the private secondary schools."

In Boston, in 1897–98, the "so-called commercial courses" were introduced into the day high schools and offered to all boys and girls who desired to take them. Special instructors in bookkeeping, phonography, and typewriting were employed. The commercial course of study, as adopted September 24, 1897, was to extend through two years and provided an almost appalling range of subjects:

"First Year.— English language and literature, ancient history, phonography, penmanship and commercial forms, commercial arithmetic and bookkeeping, botany, drawing, music, physical training.

"Second Year.— English language and literature, mediæval history, modern history, phonography and typewriting, elements of mercantile law, bookkeeping, commercial geography, zoology, physiology and hygiene, drawing, music, and physical training."

Two high schools, the Girls' High and the Roxbury High, reported 117 students (of whom seventeen were boys) taking the course out of a total of 1,635. In October, 1899, stenography and typewriting were reported in seven Boston high schools.

The three and four year courses later instituted in the Boston High Schools existed side by side until 1907–08, when the commercial courses were placed on a four-year basis in all the high schools. In the graduating classes of 1908 were found the last survivors of a three-year course. The majority of the students had left school when they "graduated" as a matter of course, regardless of the length of time required. Thus, in a graduating class of 226 commercial students in the Dorchester High School, a little more than one-fourth (27 per cent) were graduates of a four-year course. In a graduating class of fifty-seven in East Boston, slightly more than one-fifth (21.1 per cent) were graduates of a four-year course.

The introduction of commercial work in high schools of the country led to the establishment of high schools specializing in commercial education. In 1892 Professor Edmund J. James of the Wharton School of Philadelphia had already pleaded for the establishment of separate commercial high schools. Until 1900 progress was slow. In 1909 there were in the United States 574 separate commercial departments in high schools with 146,288 students enrolled. With the introduction of commercial work in the Boston high schools, there also came a demand for the establishment of separate high schools specializing in commercial work.

The Boston High School of Commerce was established in 1906 and was evidence of the growing demand for a separate school specializing in commercial education. This high school has maintained a high standard of scholarship in commercial work, and has enlarged its sphere of usefulness so that its graduates are filling positions of responsibility in business leadership in the City of Boston. Five per cent of the Certified Public Accountants of Massachusetts are graduates of this school. A graduate division consisting of one full year of post graduate work has been established. The work done in this graduate division is of such a quality that it is recognized and credited as a complete first year's work in a college of business administration.

In 1911 an attempt was made to return to a two-year course of study, and an "intensified clerical course" was introduced into the Roxbury High School "to afford special vocational training to those pupils who desire to become stenographers and bookkeepers and to give them as good training and prepa-

ration as they could obtain in the best business colleges. It can be completed in two years or less by able and faithful pupils. . . ." A large number of girls of widely varying background flocked into the new "short course" but a very small number seemed to have survived.

In 1914 the Boston Clerical School was established to provide an intensive business training for girls who had completed at least two full years above the eighth grade. Pupils might enter at various times during the year with almost equal advantage and graduate when the courses were completed, regardless of the date. In other words, it was established as a municipal business college. The Boston Clerical School has shown a continuous growth since its establishment. Like all other educational institutions the standards of this school have been raised greatly since 1914. This is attested by the fact that nearly all the young women attending are graduates of an approved high school. The institution has veritably become a junior college.

Although training for business is of more recent origin than any other line of scientific training, there are more students taking this type of training today than there are in all other unit vocational schools combined. The expansion of the curriculum in high schools was brought about by the demands of the pupils, the wishes of the parents, the needs of business and the threat of migration to the business college.

As a result of these definitely voiced demands the commercial course in our high school has come into its own.

Recent developments in commercial education are numerous. Large corporations have established in their own organizations training schools for their employees in clerical work. Inventors and manufacturers of special devices used in mercantile offices have established schools for instruction on those appliances. These courses are given at a minimum cost to the pupils, and aim to provide operators in abundance for the skill required for the operation of the machine. New projects are continually being undertaken to adapt the offerings in commercial education to current employment needs. A few of these projects were described by Assistant Superintendent Rafter in the Annual Report of the Superintendent for 1927.

Commercial education has required the evolution of means and methods peculiar to itself, and to a degree at least, quite

dissimilar to those found in general education. The following method has been suggested within the last fifteen years and is now being increasingly emphasized:

1. Practical participation in productive work.
2. Technical studies related to the productive work.
3. Studies to enhance vocational skill and ideals.

Logically, the simple program for commercial education seems to be that which provides for the acquisition of practical experience in mercantile establishments, and for the processes of related instruction in high schools.

The importance and extent of commercial instruction in the public schools of Boston may be ascertained by the following tabulations:

TABULATION I.

NUMBER OF COMMERCIAL TEACHERS — BOSTON PUBLIC SCHOOLS.
(June, 1928.)

SCHOOL.	Men.	Women.	Total.
Brighton High School	2	4	6
Charlestown High School	2	4	6
Dorchester High School for Boys	10	.....	10
Dorchester High School for Girls	2	21	23
East Boston High School	2	9	11
English High School	14	.....	14
Girls' High School	3	21	24
High School of Commerce	20	.....	20
High School of Practical Arts	.....	2	2
Hyde Park High School	2	5	7
Jamaica Plain High School	4	6	10
Memorial High School (Girls)	1	20	21
South Boston High School	2	4	6
Boston Clerical School	4	12	16
Continuation School	2	1	3
Girls' Trade School	.....	3	3
Total number in these schools	70	112	182
Abraham Lincoln School	.....	1	1
Bennett School	.....	1	1
Bigelow School	.....	1	1
Frank V. Thompson School	.....	1	1

NUMBER OF COMMERCIAL TEACHERS — BOSTON PUBLIC SCHOOLS.— *Concluded.*

School.	Men.	Women.	Total.
Grover Cleveland School	.....	1	1
Henry L. Pierce School	.....	1	1
Mary Hemenway School	.....	1	1
Michelangelo School	.....	1	1
Norcross School	.....	2	2
Oliver Wendell Holmes	.....	1	1
Robert Gould Shaw School	.....	1	1
Shurtleff School	.....	1	1
Theodore Roosevelt School	.....	1	1
Washington Intermediate School	.....	1	1
Washington Allston School	.....	1	1
Washington Irving School	1	1	2
Total in Intermediate Schools	1	17	18
Grand total	71	129	200

TABULATION II.

The total number of different pupils taking commercial subjects in high schools and in the ninth grade intermediate schools is 10,485. If to this is added the number taking commercial subjects in the Clerical and Continuation Schools, the total is 12,183. Tabulation II shows by schools the number of different pupils taking the so-called commercial subjects. These pupils on an average take 2.32 commercial subjects. These figures were secured near the end of the school year, 1928.

TOTAL NUMBER OF DIFFERENT PUPILS TAKING COMMERCIAL SUBJECTS IN HIGH SCHOOLS AND NINTH GRADE INTERMEDIATE SCHOOLS.

(Including Clerical and Continuation Schools.)

Schools.	Boys.	Girls.	Total.
Brighton High School	66	271	337
Charlestown High School	100	349	449
Dorchester High School for Boys	702	.....	702
Dorchester High School for Girls	.....	1,278	1,278
East Boston High School	291	472	763
English High School	1,003	.....	1,003

TOTAL NUMBER OF DIFFERENT PUPILS TAKING COMMERCIAL SUBJECTS IN HIGH SCHOOLS AND NINTH GRADE INTERMEDIATE SCHOOLS.—*Concluded.*

(Including Clerical and Continuation Schools.)

Schools.	Boys.	Girls.	Total.
Girls' High School	.....	1,452	1,452
High School of Commerce	1,061	.....	1,061
High School of Practical Arts	.....	114	114
Hyde Park High School	205	340	545
Jamaica Plain High School	95	381	476
Memorial High School	.....	1,524	1,524
South Boston High School	.....	.....	638
Boston Clerical School	.....	334	334
Continuation School	633	731	1,364
Abraham Lincoln School	9	34	43
Bennett School	8	27	35
Bigelow	121	.....	121
Donald McKay	35	37	72
Frank V. Thompson	36	148	184
Gaston School	.....	21	21
Grover Cleveland School	7	24	31
Henry L. Pierce	8	28	36
John Winthrop School	14	51	65
Joseph H. Barnes School	83	82	165
Lewis School	38	73	111
Mary Hemenway School	17	41	58
Michelangelo School	.....	38	38
Norcross School	.....	43	43
Oliver Wendell Holmes School	48	73	121
Robert Gould Shaw School	9	27	36
Shurtleff School	.....	35	35
Theodore Roosevelt School	37	58	95
Washington Allston School	14	45	59
Washington Intermediate School	31	97	128
Washington Irivng School	15	83	98
Total in High Schools	.....	.....	8,890
Total in Ninth Grade Intermediate Schools	.....	.....	1,595
Clerical and Continuation Schools	.....	.....	1,698
			12,183

TABULATION III.

Tabulation III represents the number of boys and girls taking commercial subjects by subject in high schools and ninth grade intermediate schools, including the Clerical School and the Continuation School. The grand total for this chart is 28,382. This grand total, however, does not represent different pupils. It is possible for a pupil to take two or more commercial subjects and in that instance the pupil would be counted two or more times.

COMMERCIAL SUBJECTS TAKEN BY PUPILS IN HIGH SCHOOLS AND NINTH GRADE INTERMEDIATE SCHOOLS.
(Including Clerical School and Continuation School.)

Subject.	High Schools.			Intermediate Schools.			Boston Clerical School.		Continuation School.			Grand Total.
	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Girls.	Total.	Boys.	Girls.	Total.	
Stenography I	665	1,673	2,338	.....	.....	.....	282	282	.....	.....	.....	2,338
Stenography II	325	924	1,249	.....	.....	.....	.....	.....	.....	.....	.....	1,249
Stenography III	37	.....	37	.....	.....	.....	.....	.....	.....	.....	.....	37
Typewriting I	814	2,132	2,946	.....	.....	.....	330	330	197	244	441	3,717
Typewriting II	341	1,184	1,525	.....	.....	.....	.....	.....	51	11	62	1,587
Typewriting III	23	35	58	.....	.....	.....	.....	.....	.....	.....	.....	58
Clerical Practice or Bookkeeping I	1,473	2,563	4,036	430	1,062	1,492	.....	.....	.....	142	142	5,670
Bookkeeping II	1,146	2,032	3,178	.....	.....	.....	137	137	.....	23	23	3,338
Bookkeeping III	441	648	1,089	.....	.....	.....	.....	.....	.....	.....	.....	1,089
Bookkeeping IV	170	202	372	.....	.....	.....	.....	.....	.....	.....	.....	372
Merchandising I	261	228	489	.....	.....	.....	.....	.....	.....	.....	.....	489
Merchandising II	24	23	47	.....	.....	.....	.....	.....	.....	.....	.....	47
Merchandising III	19	37	56	.....	.....	.....	.....	.....	.....	.....	.....	56
Salesmanship I	92	140	232	.....	.....	.....	.....	.....	205	68	273	505
Salesmanship II	21	144	165	.....	.....	.....	.....	.....	79	.....	79	244
Commercial Law	504	686	1,190	.....	.....	.....	149	.....	.....	.....	.....	1,339
Salesmanship III	.....	47	47	.....	.....	.....	.....	.....	.....	.....	.....	47

Commercial Geography	1,104	1,899	3,003										3,003
Office Practice	59	565	624				18	18	101	243	344		986
Machine Practice		278	278				37	37					315
Economics	415	297	712										712
History of Commerce	326	41	367										367
Advanced Accounting	29		29										29
Foreign Trade	34		34										34
Commercial Design	427		427										427
Commercial Arithmetic	327		327										327
Total													28,382

While the mechanical side of commercial education, that is, skill in operation of machines, recording of facts and commercial arithmetic, have not been neglected, commercial education in Boston has placed increasingly greater emphasis on the executive and planning requirements of business. Leaving out the executive and administrative requirements, commercial education is fundamentally concerned with the following five operations:

1. Writing or recording
2. Comparing or checking
3. Rating, costing, pricing or coding
4. Figuring or proving
5. Sorting or assembling.

All commercial functions outside of administrative and executive work come under the preceding classification, and the work in the office and the commercial instruction in the school are divided accordingly.

With the new emphasis on administrative and executive instruction, however, the Boston high schools have for years instituted courses in business organization, merchandising and accounting. These courses in addition to the four-year technical commercial subjects include the following groups:

1. Courses dealing with the physical environment of business.
2. Courses dealing with the social environment of business.

They include industrial history, history of commerce, economics, commercial geography, commercial law, business English, salesmanship or merchandising, and commercial organization. The introduction of these commercial courses has naturally divided the work into four sections:

1. Stenographers — secretarial
2. Bookkeepers — accounting
3. Clerks — office practice
4. Salesman — store service and merchandising.

Commercial education in Boston has not limited the scope of its ambition to turning out clerks and office workers. The work has been sufficiently thorough and technical to enable the pupils to make immediate application of it in keeping books or doing work in shorthand and typewriting. Yet it has also aimed at something far more significant than this. It has put the young man and young woman into intelligent

sympathy with the vast business world around them. It has been liberalizing, educational and calculated to call out of the student his best mental powers. It has never lost sight of pedagogical principles, nor has it been unmindful that the first duty of any educational system or course of study should be the unfolding of the mental powers of the child.

Commercial education must produce intelligent citizens who can deal with the problems that face this nation. It must contain those studies, and follow methods that will appeal to the citizenship and character side of the pupil. It must develop business men rather than office workers and clerks.

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Commercial Education, Present and Future.

By Raymond G. Laird, Head Master,
Boston Clerical School.

In accordance with the authorization of the School Committee granted at their meeting of March 5, I spent two weeks in making a rapid survey of commercial education in the cities of Worcester, Providence, New Haven, Brooklyn, New York City, Philadelphia, Pittsburgh, Cincinnati, Detroit, Fordson, Mich., Cleveland, and Buffalo.

The object of the trip was to learn (after the phenomenal growth in recent years in this branch of education) whether in view of all the circumstances it might appear that training for business has reached its height and that such training is likely to become stationary or to resurge in the future; to ascertain if, in those cities, there were noteworthy achievements or experiments, the knowledge or adopton of which might be valuable to Boston schools; and to obtain an understanding of how commercial education, as conducted in the Boston school system, compares with that of the cities named. It was assumed that the schools in those twelve cities represented a fair cross-section of organized commercial instruction in the eastern portion of the United States.

My visits led me to the headquarters of six boards of education, to thirteen high schools, one continuaton school, and one private school. Also I had lengthy conferences with four city directors of commercial education, while a contemplated visit with a fifth one was prevented by his illness.

The result of careful inquiry leads to the conclusion that pupils undertaking commercial studies in almost every school

are steadily increasing in number, and in anticipation of a continuance of this growth, school boards are making plans for their accommodation.

It is quite generally believed that the fitness of those electing the commercial program is steadily improving. This is probably due to the fact that many not suited to it are being interested in some of the recently introduced courses of technical training. The proportion of those who persevere until graduation is increasing.

In the Commercial High School of Providence there is the most extensive system for ranking pupils, according to their intelligence, with which I have come in contact. The pupils of each school year are divided according to their I. R. and their achievement rating, which creates a number of sections for each term of a subject, grading from the superior to the poorest. The school day being divided into eight periods, it is possible for all the classes of one phase, say, second term English, fourth term shorthand, etc., to recite simultaneously, thus making it convenient to transfer individual pupils of any term of a subject from group to group until their proper place is found, which is accomplished without interfering with the remainder of a pupil's daily program. The principal states that the scheme has been most advantageous, but it is a matter of speculation what will happen when the school adopts the standard six-period day next September.

New Haven is conducting classes in telephony. This is the first definite achievement of what is generally recognized as a very much needed feature of instruction. The equipment, while rather inadequate, employs a number of telephones about the classroom which are operated through a P. B. switchboard. A very complete book of instructions is used, which is provided by the Southern New England Telephone Company and written by an employee of the company. The results obtained from this instruction appear to me to be very valuable.

The Girls' Commercial High School of Brooklyn faces two problems, the solution of which is causing the woman principal not a little anxiety. The building, with seats for about 2,800, has an enrollment of six thousand girls, necessitating the division of the membership into four groups, each coming to school at a different time of the day, which extends the school day for the group coming latest to about 5.30 p. m. The

securing of suitable employment for the great grist of graduates is a task that is accomplished only with increasing difficulty.

At the department of commerce of the Central High School in Philadelphia, each pupil in his senior year is required to prepare a thesis on some topic of materials of commerce and industry, commercial geography and commercial relations, transportation problems, banking, finance and business, survey of commercial activities of the past two years, economic history and government activities, etc. Under direction of a teacher the pupil consults the best sources of information in libraries, in public documents, and in the literature of various trade bodies. Very frequently his search for material will lead him to an exploration of the Commercial Museum or to visits to places of trade, finance, or manufacture. When the essay becomes acceptable, it is bound and indexed, and becomes a part of the library of the school, where there is frequent reference to it by pupils in geography of commerce, history, economics, etc. There have been instances where applicants at the Philadelphia Commercial Museum have been referred to the school for information on specific topics beyond what the museum had obtained.

In Cincinnati where cooperative studies have been tried for a number of years, with two weeks in school and two weeks in store, the plan is being discontinued.

The Detroit High School of Commerce, in addition to its regular four-year course of study, offers a course of two years' duration which is but little less narrow than the two-year intensified course that was given a short trial at the Roxbury High School. It is not held in high esteem by the teachers and the school authorities.

The Detroit High School of Commerce ties up with the printing needs of the Board of Education through the employment of its multigraphs and mimeographs. Millions of sheets are printed. The extensive variety of cards, similar to those used by the Boston schools, are run off. School documents and prospectuses, with eighty or more pages, are neatly printed and with appropriate covers are bound by stapling machines.

A teacher's position is relatively secure in Detroit, but it is no sinecure. The indolent, indifferent, incapable or worthless teacher is readily disposed of. At the close of a school year should a teacher receive the mark of "D," he is

placed on probation and transferred to a different school, where, if he receives a "D" at the end of the year, his connection with the school department ceases.

After visiting three schools in Detroit and observing the teachers with a view of determining the effect such a regulation might have, I concluded I had never seen an equal devotion to classroom work or as much an inclination to regard the "free period" as one belonging to the school, during which only school matters should receive attention.

The Detroit High School of Commerce offers a year of post-graduate commercial work. In no other school was there any provision made for pupils who had received diplomas from the commercial course but were inadequately trained for office work, or for graduates of normal, classical, or technical courses who felt that commercial life offered them greatest opportunities.

When the curricula of the Boston Clerical School was outlined to the school men and they learned of the high standards maintained, they were amazed at the generosity of Boston in making such a provision for worthy young people, who in other cities are obliged to patronize private schools before they are prepared for self-support.

At every school I received a hearty welcome. Every facility, in the nature of information, literature, opportunity to observe classroom practice, and conferences with teachers and officials, that would be of assistance to me, was freely provided. My time was as much occupied in explaining the work of the Boston system as in acquiring a knowledge of theirs. All school people warmly approved of the plan of dispatching an envoy, and commended the Boston School Committee for their enterprise in sending one.

At every turn there was assurance of the highest regard for our educational achievements. They wonder at our many high schools and their enormous enrollment of pupils in proportion to our population. They marvel at the numbers that are educating for business life, for Boston traditions have generated in their minds the idea of the classical instead of the commercial.

What I observed in my visits was more or less in harmony with my personal beliefs. In order that these observations and opinions may be of assistance to those on whom rests the responsibility of deciding to what extent our commercial

training is adequate, it may not be inopportune to offer a few general statements and present some of the statistical material that has come to my attention. While personal opinions may merit a certain amount of confidence, the most convincing evidence is that which is obtained from the complete and accurate data compiled by unbiased experts. The several tables and graphs will doubtless be of interest to commercial teachers, as it is improbable that much material of this nature comes to their attention, and this was uncovered only as the result of considerable research.

While there are many small concerns whose offices have fewer than ten employees, at the other extreme are gigantic industries each employing many hundreds of clerical workers. The stupendous quantity and the high quality of the output of these industries would be impossible without the use of the most modern machines. Inventors are urged to exert their utmost skill to produce machines that are as nearly automatic as is possible and requiring a minimum of human attention. Usually these machines can be operated by an unskilled class of persons who readily learn their simple duties and in a few days attain top output. This tends toward a lack of permanency in employment, for, when there is a dropping off in the demand for the product of a machine, the employer feels slight responsibility in retaining the worker, as a new worker can be trained promptly and cheaply for the job when occasion requires, or the worker, when tiring of operating a particular machine or actuated by some other motive for leaving his task, has little hesitancy because he has faith in his ability to find a new one and to learn quickly its operations.

If office methods had remained stationary the growth of "big business" would have been slowed down or, possibly, stopped. The number of clerks required over those at present found sufficient, with the several times additional space needed by them, would have placed an unbearable expense on many businesses. Wonderful inventions have been made to assist in the performance of office details, business has promptly adopted them, and certain demands have been made on the schools to train young people for their operation.

The special functions of commercial education in a high school are generally regarded as twofold. The first is to instruct in those fundamental principles of business that are useful to all and essential to any person in the successful

organization and management of his own business, to train the logical faculties of a student, and to awaken a critical and analytical attitude of mind toward his business surroundings. The second is to give the pupil such a training for some activity of a business that he may obtain lucrative employment, which not only extends to him satisfactory promotional opportunities, but in which he may either substantiate or refute the instruction received in the studies of the first objective.

The first aim, therefore, is to educate for business, and the second is to secure employment where commercial contact may be enjoyed and business experience may be gained. These aims have for their objective that business acumen combined with the results of thrift which may achieve worthy business success.

The St. Louis board of education apparently having these objectives in view has made the following statement of the aims of commercial education in the high schools of that city:

1. To acquire the specific knowledge and skill necessary for success in business occupations.
2. To acquire practical, technical skill in the operation of the typewriter, and other office machines in general use.
3. To acquire the knowledge and skill necessary for success in stenographic and secretarial work.
4. To acquire the fundamental principles of bookkeeping and accounting procedure.
5. To obtain a knowledge of technical business forms.
6. To gain the ability to analyze and interpret forms.
7. To acquire basic and exploratory knowledge of selling and advertising.
8. To gain a knowledge of the legal procedure applicable to common business transactions.
9. To acquire a knowledge of production, marketing and finance.
10. To acquire a knowledge of the prevailing forms of business organization and methods of administration.
11. To acquire a knowledge of world conditions directly affecting trade and industry.

12. To develop the ideal of service to society and a knowledge of desirable procedure in human relationships in business.

13. To obtain a knowledge of opportunities and conditions in the occupations for which training is given in the commercial curriculum.

14. To form habits of neatness, accuracy, and systematic procedure desirable in the performance of the business duties.

15. To develop a critical attitude in judging one's own performance and pride in work well done.

16. To realize the opportunities for fullest development of self in the commercial occupations.

17. To develop ideals for the improvement of commercial relations and procedure.

18. To appreciate the importance of good health, good citizenship, and the application of high ethical standards, as factors contributory to success.

19. To apply in the home, or wherever needed, the desirable knowledge, habits, ideals, and appreciaciation acquired through commercial training.

20. To develop and strengthen those qualities of mind and those habits which contribute to success in personal, social, and business life, with emphasis upon integrity, industry, initiative, self-reliance, loyalty and adaptability.

21. To gain a broad, general education and a thorough knowledge of business principles as a foundation for success in the higher types of business services.

Commerce and industry, history of commerce, business law, economics, banking, finance and insurance, salesmanship and advertising, office management, and business organization and administration are the subjects generally accepted as treating the fundamentals of business. The first five appear as offerings in School Document No. 17—1926, Provisional Curricula for General High Schools—Boston. Commerce and industry which is there named commercial geography is the only one that is required of all commercial course pupils, and is placed in the eleventh grade. The other four are left to the inclinations of the several head masters. Retail selling is represented in the merchandising course and is specifically directed toward

store service, and is not intended to cover the wider range recognized under the title of salesmanship.

Criticism is frequently directed at high schools in general that instruction in *business* is neglected. Undeniably those of Boston are placed on the defensive, for, except in business law, which has a strong representation, there is relatively nothing done. Several factors have produced this situation, the most important being the liberality of election of studies. In the eleventh and twelfth grades physical education, English, and one major are required and the remaining hours of work, constituting more than half, are left to the choice of the pupils. It is needless to specify them or to comment on the various reasons that influence young people in their choice of studies, except to give rather extended attention to election of bookkeeping and of shorthand with typewriting.

Teachers are censured for urging pupils to take up these subjects, since there is always a supply of bookkeepers and stenographers in excess of the demand. This is unjust in a large measure, for there are more cogent reasons than the advice of a teacher that decide the choice of these subjects. The pleasure that older pupils find in the study of them and the advice of people in employment who have pursued the study of these subjects are the principal deciding factors. Parents and relatives frequently decide years before the pupil reaches the secondary school that these subjects shall be studied. In very many humble homes there is as keen enjoyment when the boy or girl has completed these subjects as is experienced in the homes of the more fortunate when the son or daughter receives the college diploma. In all probability many who study shorthand but engage in some other occupation, either because their preparation was inadequate or because they were unable to find a position, regard their shorthand training as an accomplishment and, instead of viewing the time spent as wasted, experiencing little or no regret, recommend the study to their friends.

In a recent report, Harvard Bulletins in Education, No. XII, setting forth the results of a study of 4,336 clerical workers in fifty-four concerns in thirty-one cities of fifteen states and Canada, a considerable number stated they were taking improvement courses. These were set down as engaged in twenty-six different kinds of office trades, but did not include bookkeepers and stenographers. While the numbers were not

indicated in this particular table it is apparent that from two to three times as many were taking shorthand, typewriting, bookkeeping, and business English as were studying office practice, business management, calculating machine operation, business law, salesmanship, and economics. In spite of the claim that too many bookkeepers and stenographers are being turned out by the schools, it seems significant that these young people, who in their daily employment were constantly touching elbows with bookkeepers and stenographers, deemed it advantageous to utilize part of their after-work time in endeavoring to qualify themselves for those overcrowded fields.

In 1920 the Federal Board of Vocational Education in Bulletin No. 54 made this report on a Milwaukee survey:

> General, as well as technical educational requirements for entrance into commercial positions, are reaching higher standards. Applicants for such positions are confronted by the question: "What can you do? What education and preparation have you had?" In Milwaukee employers of office help favor young people who are 17 or more years of age and who have had a full, or at least part, high-school education. Unfortunately there are not enough secondary-school graduates to supply the demands of business. Economic reasons compel thousands of worthy and ambitious boys and girls to leave the elementary schools to find employment.
>
> In Milwaukee there are approximately 1,067 boys and girls between the ages of 14 and 17 years who are doing office work (mostly in small offices). Only a very small number have had some high-school training. About 200 have taken business courses, either in high schools, continuation, or private business schools. All of these boys and girls are attending the part-time continuation school. Fully 90 per cent of them are following courses of study intended to advance them in their commercial work.
>
> It will be noticed that only about $5\frac{1}{2}$ per cent are doing actual bookkeeping work, and only 11 per cent are doing stenographic work, proving that, as a rule, young boys and girls are not employed for such work.
>
> In reply to the question, "What must you know, learn, or do to advance yourself in your position?"

951 boys and girls under 17, who are now commercially employed, responded. The replies are grouped as follows:

Bookkeeping	158	Stenography	302
Billing-machine operating	12	Calculating machine	44
Multigraph operating	1	Addressograph operating	1
Dictaphone operating	2	Telegraphy	5
Filing	12	Bookkeeping-machine operating	3
Telephone operating	6	Selling	40
Shipping-clerk work	3	Time keeping	8
Cost-clerk work	15	Mail-clerk work	4
Advertising	3	Buying	4
Business law	3	Banking	5
Cashier	3	Checker	4
General clerical	25	English	99
Penmanship	86	Spelling	44
Arithmetic	44	Correspondence	15

The fact that about 50 per cent call for bookkeeping and stenography may be due to a lack of opportunity to pursue other courses; to a lack of knowledge that other kinds of office work offer as much pay and advancement as bookkeeping and shorthand, or because the false notion prevails among many young folks (old folks, too) that bookkeeping and stenography lend more dignity, refinement, and respect to a position. They look with disdain upon general clerical work, machine operating, retail selling, etc.

English in some form is called for by about 30 per cent. This is significant.

In a general way it may be stated that more time can profitably be given to the teaching of the essentials of English, arithmetic, penmanship, general clerical work, filing, and machine operating, rather than to technical bookkeeping and stenography, especially when the educational background does not equal at least a high-school education.

If the Milwaukee survey was at all representative of the conditions of the country at large, we may conjecture that the "disdain" for general clerical work has grown less during the period since the above report was issued. Recent data indicate the numbers employed in this branch as increasing. It is the logical work in offices for high school graduates who have made no study in preparation for business. The scope of clerical practice remains undefined. It places a premium on the high personal qualifications and leaves the nature of

the service to be performed largely to some outstanding characteristic or ability of the clerk or to the exigencies of the office. It is an explorative job. It presents opportunities for advancement, and it provides eager and excellent candidates for night and continuation school classes.

RELATIONSHIP BETWEEN PRESENT POSITION AND PROMOTIONAL OPPORTUNITY.*

Office Trades.	Number Reporting.	Opportunity for Advancement.	
		Yes.	No.
Primary.			
Correspondent	74	85	15
Dictating machine operator	96	78	22
Calculating machine operator	251	46	54
Bookkeeping machine operator	40	64	36
Typist	514	42	58
Multigraph operator	37	80	20
File clerk	457	40	60
Secondary.			
Ledger clerk	†	27	73
Statistical clerk	64	71	29
Cost clerk	143	66	34
Billing clerk	69	76	24
Shipping clerk	45	60	40
Cashier	45	87	14
General.			
Pay roll clerk	137	56	44
Timekeeper	57	20	80
Stock clerk	79	59	41
Receiving clerk	64	44	56
Miscellaneous.			
Adding and listing machine operator	61	43	57
Addressograph operator	76	39	61
General clerk	299	60	40
Hollerith machine operator	53	30	70
Inventory clerk	†	50	50
Mimeograph operator	7	33	67
Order clerk	129	64	36
Price clerk	34	52	48
Median for all	.....	56	44

* Table to be read as follows: 85 per cent of the correspondents believe they have promotional opportunity and 15 per cent believe they have none.
† Number not given.

The above table from Harvard Bulletins, Number XII, concerns about three thousand workers. It discloses the optimism of general clerks, who comprise one of the four large groups. In contrast, calculating machine operators, typists, and file clerks have much less expectation of advancement. The machines, because of their noise, are usually relegated to the farthest corners of the office, or to outer rooms, and the

bulky files are grudgingly placed in the office, if allowed there at all, while most of them are frequently placed in the basement. The duties of these three classes of clerks call for very little communication with those of high position and are accompanied with the apprehension that the workers may be overlooked.

Another factor which contributes to the neglect of fundamental business subjects is the early and abiding insistence on the part of many educators that certain studies, which have little or no value in the preparation and careers of our commercial pupils, be included in the commercial program. Often where those subjects are not "required" the curriculum is so planned as to almost insure their inclusion as electives, or the urgency in their support, which is started in the lower grades, decides their selection. However, too frequently, they occupy a place in the pupil's program thereby crowding out subjects that possess undisputed worth in business education.

> Another influence has been the persistent and widespread theory of mental discipline. According to this belief there are certain studies which are peculiarly fitted to train the mind to greater power, even though these have little practical value in themselves, in either a vocational way, or in giving a stock of cultural ideas and appreciations. Latin and mathematics occupy prominent places in all secondary school curricula, because of a general belief in their value as agents of mental training. This is illustrated by the fact that in almost all high schools mathematics is a prescribed study for girls as well as boys, although the former will very rarely follow the subject up and apply it either to vocational or cultural stages.
>
> — Dutton and Snedden.

> The conception of discipline that is ordinarily current seems to this writer to be misleading and dangerous. In spite of the very clear findings of educational psychology, the view is still common that one of the chief values of education is to be found in the cultivation of such mythical powers of the mind as reason, attention, imagination, discrimination and the like.

The fallacy in this point of view lies in the fact that there is no all-round ability to reason, or to attend, or to imagine, or to discriminate. A pupil may very well learn a lesson in mathematics and fail in history; he may cultivate a vivid imagination in literature and acquire no skill in projecting a plan in carpentry, or for seeing a result in physics. Further than this, when he graduates from high school and goes out into life, his reasoning ability, his imagination, his discrimination, acquired in his school tasks may be little in evidence in the office, the shop, or the factory.

However, it would be wrong to assume that the discipline gained through study has no value in after life. Frequently, doubtless, it has great value, but just how extensive this value is in any given case, and how it will manifest itself, is a matter so difficult to predict that mental discipline should never be made the sole or principal aim of teaching. . . Probably in no subject in the high school curriculum are materials which are presented in the form of problems, less real incentives to thinking, than in geometry.

— S. S. Colvin, "An Introduction to High School Teaching."

The majority of business or professional callings require no algebra, geometry, or trigonometry, and even the professions which use those subjects do so to a much smaller extent than is generally supposed. Only for those few men who become original designers and investigators is true mathematical skill and knowledge indispensable. If mathematics, however, had no value as a mental discipline, its teaching in the secondary schools could hardly be justified solely on grounds of its bread-and-butter value.

— A. Schultze, "The Teaching of Mathematics in Secondary Schools."

The values of secondary school mathematics (or some parts of it) are undoubtedly for some parts of certain professions. They are, however, less than is commonly thought and must be considered as highly contingent for most pupils.

> The values of the study of certain foreign languages for commercial use has been readily accepted as valid by the school public and by school authorities, who have, however, frequently failed to recognize that commonly such values are highly limited and highly contingent. They have failed commonly to appreciate the fact that bilingual men and women in this country are in plentiful supply in the great majority of instances and that the smattering of German, French, or Spanish gained in the secondary school does not enable the individual so equipped to compete on anything like equal terms with the German-American, the French-American, or the Spanish-American. Whether or not this be accepted as a fact it must be recognized that the annual increase of the number of those added to the commercial population who utilize German, French, or Spanish is relatively small — small out of all proportion to the number of those who leave our secondary schools equipped with some knowledge of one or more of those languages. That as high as five per cent of the pupils in the public secondary schools should study a foreign language for commercial or vocational purposes would probably be a gross over-estimate.
>
> — A. Inglis, "Principles of Secondary Education."

As the result of an extensive study and experiment which he made of the mental discipline obtainable from high-school studies, Thorndike decided that "the facts . . . prove that the amount of general improvement due to studies is small; that the differences between studies in respect of it are small, so that the studies may be decided largely by consideration of the special training which they give."

As a conclusion from the foregoing we may with advantage omit mathematics and foreign languages from the commercial curriculum where they doubtless occupy an average of one-fifth of the recitations, thereby leaving places for subjects that may be determined to have a more direct relation to the aims of the course. An objection, however, will be met, for such a program will prevent the girl or boy from going to college. Preparing for college and training for business are entirely different propositions and the course of study that attempts to do both fails in satisfactorily equipping in either.

The only practical solution where a boy or girl has started a definite course for college or for business, and then decides the other is preferable, is to switch over and accept the results of lack of judgment, information, or whatever caused the mistake.

Assistant Superintendent Charles H. Lake of Cleveland summed up the situation somewhat in these words, "If I am uncertain whether I want to go to New York or Chicago, and take a west-bound train and later decide that New York should be my destination, I have no alternative but to charge up loss of time and money and credit experience. It is a rule of life that mistakes are expensive, and securing an education is no exception."

The number of pupils who complete commercial courses and then go to college are few. In the past ten years 2,157 boys and girls graduated from Longwood Commerce High School of Cleveland, 139 of whom entered twenty-five colleges, twenty-one going to colleges with courses of less than four years. Twenty have graduated, twelve of them from less than four-year courses and eight from full-time colleges. Of the forty-nine who left, forty-seven were in the four-year courses. Less than four per cent of the graduates of that school, which takes pride in the advantages it offers pupils who desire to combine college preparatory and business, have graduated from college or are still attending.

The 1926 annual report on statistics of labor of the Commonwealth of Massachusetts presents a most complete and illuminative exhibit. The following general statement, table and chart are taken from the part representing Boston, by consent of the Department of Labor and Industries.

> Quite naturally, wherever any kind of business is transacted, office workers of some description will be found. This survey, however, was confined to those cities or districts in which a relatively large number of persons were engaged at such employment. In Boston, the leading business center of the State, are found offices of nearly every description, "home offices" of various types of establishments, headquarters for nearly everything bought and sold, not only in Boston but in New England, many very important manufacturing establishments within its immediate confines, and public services and utilities necessary to the proper functioning of a city of such size and importance.

Thousands of those who find regular employment in Boston reside outside of the city limits. The cost of commuting, the code of the business world requiring more attention to personal appearance, the generally higher standard of living, etc., in a large city, are reflected in higher wages and salaries paid those employed therein. Of the 1,075 establishments reporting, 480 were in Boston and represented 14,146 office workers, of whom 5,366 were males and 8,780 were females. The returns from these establishments in Boston may be considered fully representative of office employment in that city, as they include in addition to 152 miscellaneous offices employing 2,252 persons, average 15, the following relatively important groups: 199 dealers and sales agencies, employing 3,037 employees, average 16; nine public service corporations, employing 2,993, average 333; 10 banks and trust companies, 2,473, average 247; 87 manufacturing establishments, 1,940, average 22; and 23 insurance companies, 1,441, average 63.

It was found advisable to group together those occupations quite generally of a similar character, and accordingly four office "Sections" were decided upon, as follows: "Clerical"; "Stenographic"; "Accounting and Bookkeeping"; and "Office Appliance"; the latter section including those employees engaged solely or largely in operating office appliances commonly used throughout offices, but not identified with any one branch or office section. At the end of Table I, Boston, are summarized the complete returns from 480 establishments in Boston employing office workers, showing the data by office sections and sex thereunder, and segregated by the number receiving salaries classified in twelve salary groups, as follows: "Less than $14," then by two-dollar salary groups to $22, "$22 but less than $25," by five-dollar salary groups to $50, and then the "$50 or over" group. In addition to the actual numbers, percentages have been computed so as to show the representation by employees in each salary group.

The summary data for the complete returns as given in Table I are presented in graphic form in the chart. Plate A is based upon the actual data, by

sex, so as to better illustrate the relative number of males and females employed as office workers and the number of each sex coming within each of the stated salary groups; thus, a picture of office employment is presented by this chart. Each bar represents a salary group, and the variation in spacing between the bars is intended to show that the class intervals are not equal. The group including those receiving "$50 and over," while not directly comparable with the others, is shown in order to complete the chart. Plate B shows the percentage representation of males and females respectively, in each salary group, as compared with the total males and females, respectively, and illustrates the relative grouping of men and women, in so far as salaries are concerned.

It is immediately apparent from a study of Table I and Chart I, that many more women than men were employed as office workers, and also that a large majority of the women so engaged received salaries of less than $30 per week. In the lower salary groups the females greatly outnumbered the males; for instance, about six times as many females as males were included in the groups "$16 but less than $18" and "$20 but less than $22." In the "$25 but less than $30" salary group, the females outnumbered the males more than two to one. Although the complete returns indicated a ratio of five females to three males employed as office workers, beginning with the "$30 but less than $33" salary group, the males were found to outnumber the females, more particularly so as the salary ratings became higher, until, in the "$50 and over" group, the males outnumbered the females seventeen to one.

Plate B, although somewhat similar in general outline to Plate A, illustrates another phase of office employment. It will be noted that in each of the seven lower salary groups the percentage of the total number of females was greater than the percentage of the total males, but that, beginning with the group representing salaries of $30 or more, the reverse was true. In the group "$25 but less than $30" the percentage of females was only a little greater than the percentage of males.

TABLE I.— BOSTON (480 Reports, Representing 14,146 Office Employees).

Occupations, by Sex (By Office Sections).	Number of Office Employees Receiving, per Week —												
	Less Than $14.	$14 But Less Than $16.	$16 But Less Than $18.	$18 But Less Than $20.	$20 But Less Than $22.	$22 But Less Than $25.	$25 But Less Than $30.	$30 But Less Than $35.	$35 But Less Than $40.	$40 But Less Than $45.	$45 But Less Than $50.	$50 or Over.	Totals, All Wage Groups.
Clerical Section.													
Officer managers:													
Males	—	—	—	—	—	—	2	4	2	16	33	244	301
Females	—	—	—	—	—	1	5	13	14	11	4	15	63
Assistant office managers:													
Males	—	—	—	—	—	2	6	8	14	9	15	100	154
Females	—	—	—	1	1	1	4	8	7	—	2	2	26
Chief clerks:													
Males	—	—	—	—	1	—	2	9	22	34	33	152	253
Females	—	—	—	1	3	6	15	14	10	6	3	2	60
Senior clerks:													
Males	—	—	—	—	7	18	50	84	89	74	71	117	510
Females	—	—	1	2	9	30	78	46	18	16	4	4	208
Junior clerks:													
Males	56	66	43	74	48	80	62	54	16	9	9	7	524
Females	23	38	54	76	53	41	14	9	—	—	—	—	308
Correspondence clerks:													
Males	—	—	4	—	3	5	10	10	5	5	8	4	54
Females	—	6	5	6	6	2	7	1	2	—	—	2	37
Filing clerks:													
Males	9	17	8	5	4	4	9	1	—	—	—	—	57
Females	92	108	75	67	62	36	26	6	2	—	—	—	474

General clerks:													
Males	22	55	47	69	84	122	372	412	202	79	47	43	1,554
Females	50	198	282	273	224	320	345	49	9	6	4	2	1,762
Mailing clerks:													
Males	34	25	9	6	8	13	18	7	2	2	—	—	124
Females	26	16	22	34	29	22	7	—	—	—	—	—	156
Shipping clerks:													
Males	10	5	6	17	18	21	41	45	16	9	6	5	199
Females	—	—	2	—	1	1	2	2	—	—	—	—	8
Statistical clerks:													
Males	2	3	3	7	5	6	21	29	15	11	2	16	120
Females	2	25	28	24	30	26	28	12	4	1	—	—	180
Telephone and mail order clerks:													
Males	3	1	2	9	7	—	15	11	3	5	4	5	65
Females	—	8	14	8	10	13	2	2	—	—	—	—	57
Telephone operators:													
Males	—	1	—	2	7	6	8	3	1	—	—	—	28
Females	2	14	18	56	61	70	58	11	4	—	1	—	295
Totals, all occupations:													
Males	136	173	122	189	192	277	616	677	387	253	228	693	3,943
Females	195	413	501	548	489	569	591	173	70	40	18	27	3,634
Both sexes combined	331	586	623	737	681	846	1,207	850	457	293	246	720	7,577
STENOGRAPHIC SECTION.													
Private secretaries:													
Males	—	—	—	—	—	—	—	1	2	6	2	10	21
Females	—	—	—	—	4	7	26	33	20	10	8	6	114
Secretarial stenographers:													
Males	—	—	—	—	—	1	2	4	3	—	2	2	14
Females	—	—	—	5	9	16	88	57	25	7	4	5	216
Senior stenographers:													
Males	—	—	—	—	—	—	5	12	8	2	—	1	23
Females	—	—	1	2	13	51	196	69	29	4	2	—	367

TABLE I.— BOSTON (480 Reports, Representing 14,146 Office Employees).— Continued.

Occupations, by Sex (By Office Sections).	Number of Office Employees Receiving, per Week —												
	Less Than $14.	$14 But Less Than $16.	$16 But Less Than $18.	$18 But Less Than $20.	$20 But Less Than $22.	$22 But Less Than $25.	$25 But Less Than $30.	$30 But Less Than $35.	$35 But Less Than $40.	$40 But Less Than $45.	$45 But Less Than $50.	$50 or Over.	Totals, All Wage Groups.
Junior stenographers:													
Males	—	2	—	1	—	1	1	—	—	—	—	—	5
Females	3	15	19	48	78	119	79	12	6	—	—	—	379
Stenographer-bookkeepers:													
Males	—	—	—	—	—	—	1	—	1	—	—	—	2
Females	1	1	11	24	15	33	33	12	4	1	1	1	137
Stenographer-clerks:													
Males	—	1	1	3	—	6	7	5	3	—	—	—	26
Females	8	17	34	54	78	112	97	23	3	1	—	—	427
Stenographer-typists:													
Males	—	1	1	1	2	—	2	—	—	—	—	—	7
Females	18	27	42	97	98	127	132	27	2	1	1	—	572
Dictating machine operators:													
Males	—	—	—	1	—	—	—	—	—	—	—	—	1
Females	—	7	7	12	23	32	46	7	1	—	—	—	135
Typists (regular):													
Males	1	4	4	2	1	1	1	—	—	—	—	—	14
Females	50	85	73	134	104	75	73	5	—	—	—	—	599
Totals, all occupations:													
Males	1	8	6	8	3	9	19	22	12	8	4	13	113
Females	80	152	187	376	422	572	770	245	90	24	16	12	2,946
Both sexes combined	81	160	193	384	425	581	789	267	102	32	20	25	3,059

ACCOUNTING AND BOOKKEEPING SECTION.													
Senior accountants:													
Males	—	—	—	—	1	3	1	5	8	9	6	62	95
Females	—	—	—	—	—	—	4	2	2	3	—	1	12
Junior accountants:													
Males	—	—	—	—	4	4	8	9	3	4	1	4	37
Females	—	—	—	—	—	1	2	2	—	—	—	—	5
Accountants:													
Males	—	1	2	1	3	1	14	23	13	27	8	41	134
Females	—	3	—	2	2	1	3	5	6	2	3	1	28
Head bookkeepers or head cashiers:													
Males	—	—	—	—	—	—	2	8	10	19	10	63	112
Females	—	—	—	—	—	3	18	23	29	8	7	8	96
Bookkeepers or cashiers:													
Males	2	2	3	2	7	18	48	93	78	45	36	36	370
Females	6	33	23	32	48	84	140	59	26	10	4	5	470
Ledger clerks:													
Males	1	2	5	4	14	10	58	77	57	8	8	2	246
Females	1	10	13	14	47	55	53	8	12	—	1	—	214
Pay roll clerks:													
Males	1	—	1	3	1	15	17	21	9	4	—	3	75
Females	2	4	9	20	35	33	67	11	2	1	1	1	186
Billing machine operators:													
Males	—	1	1	—	1	6	3	6	3	—	—	4	25
Females	3	19	40	50	49	49	27	5	1	1	—	—	244
Bookkeeping machine operators:													
Males	—	1	—	—	3	1	5	3	2	1	—	—	16
Females	—	10	11	24	37	88	59	11	2	—	—	—	242
Calculating machine operators:													
Males	—	—	—	—	—	1	4	—	—	1	—	—	6
Females	—	17	38	45	33	80	72	5	—	—	—	—	290
Totals, all occupations:													
Males	4	7	12	10	34	59	160	245	183	118	69	215	1,116
Females	12	96	134	187	251	394	445	131	80	25	16	16	1,787
Both sexes combined	16	103	146	197	285	453	605	376	263	143	85	231	2,903

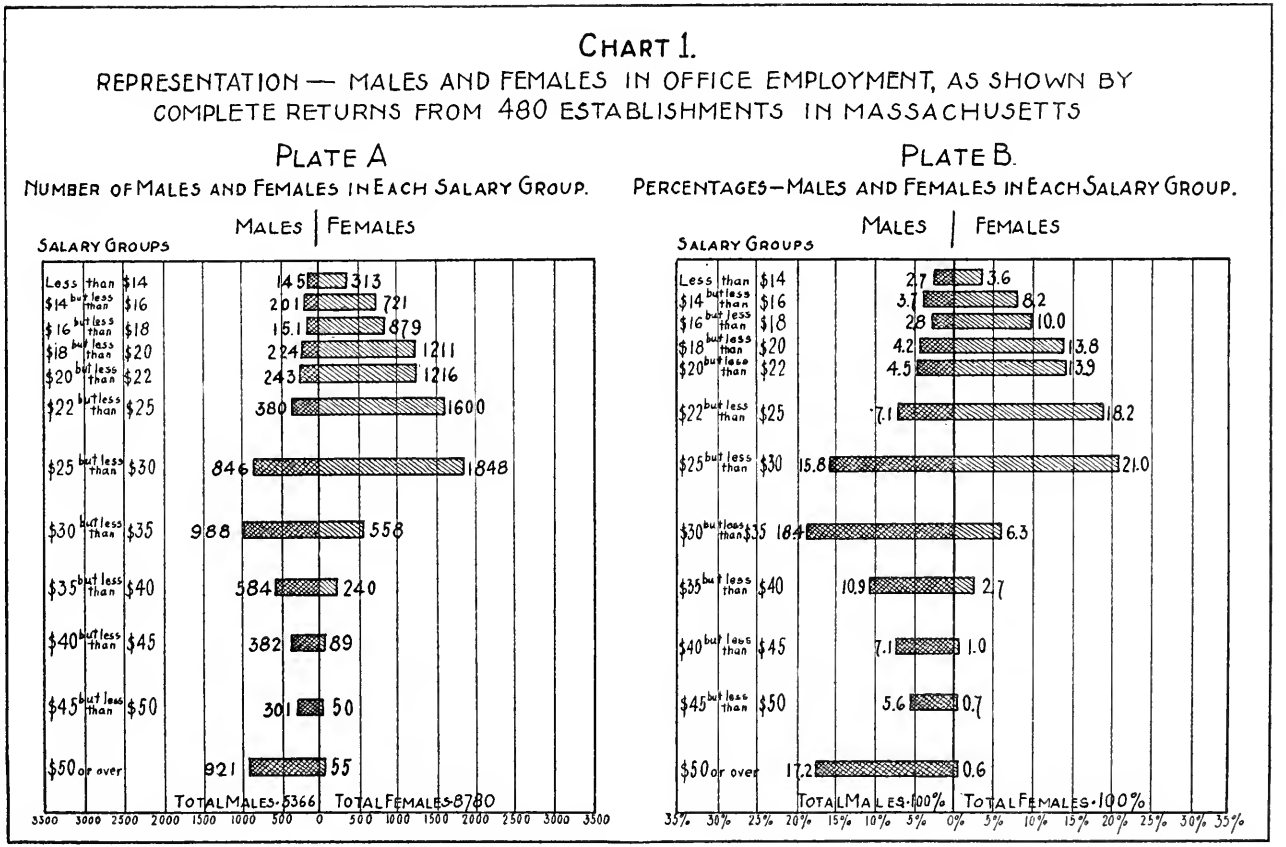
TABLE I.— BOSTON (480 Reports, Representing 14,146 Office Employees).— Concluded.

Occupations, by Sex (By Office Sections).	Number of Office Employees Receiving, per Week —												
	Less Than $14.	$14 But Less Than $16.	$16 But Less Than $18.	$18 But Less Than $20.	$20 But Less Than $22.	$22 But Less Than $25.	$25 But Less Than $30.	$30 But Less Than $35.	$35 But Less Than $40.	$40 But Less Than $45.	$45 But Less Than $50.	$50 or Over.	Totals, All Wage Groups.
Office Appliance Section.													
Adding machine operators:													
Males	—	9	10	15	12	28	43	41	—	1	—	—	159
Females	16	21	27	49	18	42	7	—	—	—	—	—	180
Addressing machine operators:													
Males	1	1	—	—	—	—	1	—	—	1	—	—	4
Females	2	9	11	17	15	11	10	2	—	—	—	—	77
Duplicating machine operators:													
Males	1	1	—	—	1	3	—	—	—	—	—	—	6
Females	—	4	1	9	3	1	—	1	—	—	—	—	19
Multigraph operators:													
Males	1	1	—	—	1	—	1	1	1	—	—	—	6
Females	2	8	4	7	10	7	4	5	—	—	—	—	47
Perforating machine operators:													
Males	—	—	—	—	—	—	1	1	—	—	—	—	2
Females	—	4	4	2	2	3	15	—	—	—	—	—	30
Tabulating machine operators:													
Males	1	1	1	2	—	4	5	1	1	1	—	—	17
Females	6	14	10	16	6	1	6	1	—	—	—	—	60
Totals, all occupations:													
Males	4	13	11	17	14	35	51	44	2	3	—	—	194
Females	26	60	57	100	54	65	42	9	—	—	—	—	413
Both sexes combined	30	73	68	117	68	100	93	53	2	3	—	—	607

Summary — All Sections.													
Clerical Section:													
Males	136	173	122	189	192	277	616	677	387	253	228	693	3,943
Females	195	413	501	548	489	569	591	173	70	40	18	27	3,634
Both sexes combined	331	586	623	737	681	846	1,207	850	457	293	246	720	7,577
Stenographic Section:													
Males	1	8	6	8	3	9	19	22	12	8	4	13	113
Females	80	152	187	376	422	572	770	245	90	24	16	12	2,946
Both sexes combined	81	160	193	384	425	581	789	267	102	32	20	25	3,059
Accounting and Bookkeeping Section:													
Males	4	7	12	10	34	59	160	245	183	118	69	215	1,116
Females	12	96	134	187	251	394	445	131	80	25	16	16	1,787
Both sexes combined	16	103	146	197	285	453	605	376	263	143	85	231	2,903
Office Appliance Section:													
Males	4	13	11	17	14	35	51	44	2	3	—	—	194
Females	26	60	57	100	54	65	42	9	—	—	—	—	413
Both sexes combined	30	73	68	117	68	100	93	53	2	3	—	—	607
Totals, all sections:													
Males	145	201	151	224	243	380	846	988	584	382	301	921	5,366
Females	313	721	879	1,211	1,216	1,600	1,848	558	240	89	50	55	8,780
Both sexes combined	458	922	1,030	1,435	1,459	1,980	2,694	1,546	824	471	351	976	14,146

CHART 1.

REPRESENTATION — MALES AND FEMALES IN OFFICE EMPLOYMENT, AS SHOWN BY COMPLETE RETURNS FROM 480 ESTABLISHMENTS IN MASSACHUSETTS



Nine-tenths of the total reported on, that is, 12,716 of these workers are performing services for which the bookkeeping or stenographic courses prepare wholly or in a large measure. Of the remaining 1,430, less than 500 are engaged in operating special types of machines which are not in the equipment of our high schools.

Reference has been made to the criticism of teaching bookkeeping to so many when so few are employed under the name of bookkeeping. The January, 1928, number of "Spotlights on Commercial Education" contained the following:

SHOULD BOOKKEEPING CONSTITUTE THE BACKBONE OF COMMERCIAL COURSES IN HIGH SCHOOLS?

The answer is Yes, because:

1. Bookkeeping gives, as does no other subject, a *complete* view of business activities. Every penny of income and expense must be recorded in the books; and all activities of the business, from those of the president to those of the office boy, are reflected in the books.

2. Good bookkeeping consists not in making a mere mechanical record of these transactions, but in making an *intelligent* record of them,— one which will clearly analyze and display the facts and their significance.

3. When bookkeeping is thus well done, it becomes an aid to the management in all departments, so that a man entering any line of business — manufacturing, selling, finance, or any other branch — is likely to have occasion to use figures prepared from the books. He should be able to judge whether the information has been correctly prepared and also what it signifies.

4. An increasing number of people are investing in business securities; it is essential that they be able to read and understand the published statements of business corporations if they are to make such investments intelligently.

5. Many men who do not earn their living as bookkeepers are called upon to keep records in connection with their social or other community activities.

6. Bookkeeping is a subject which, while acquainting the student with business practices, is capable of being developed in an orderly, logical way, so as to form a structure of consecutive reasoning.

7. In learning to analyze the results of business activities the student's attention is directed to the causes of success or failure in business; he is led to examine the reasons for the conduct of the various business heads, and connect those reasons with the results which follow. This is likely to stimulate his ambition and constructive imagination.

8. The study of bookkeeping inculcates habits of neat, orderly and careful work.

While other commercial subjects in the high school curriculum offer some of these advantages, there is no other subject that offers all of them.

Teachers of bookkeeping maintain that, in addition to the education it gives to bookkeepers, it provides the most available and satisfactory means for the development and training of those characteristics that are required in clerical and business occupations.

In securing material for the preparation of Harvard Bulletins No. XII, the questionnaires sent to fifty-four business organizations contained the request that the business managers state by name what, in their opinion, were the special requirements of twenty-one office positions. Four outstanding characteristics for each trade were selected from the replies, which are here listed according to their frequency: Accuracy, 20; Systematic habits, 15; Concentration, 13; Manual dexterity, 12; Co-operation, 10; Mental alertness, 7; Courtesy, 4, Willingness to assume responsibility, 2, Judgment, 1, Total, 84.

Accuracy, which is needed in twenty of the positions, is an outstanding aim in the teaching of bookkeeping. The pupil from the start is required to perform correct arithmetical computations, to make rulings of precise length, often exactly on a line already on the paper, to rule true vertical and horizontal lines, to write numerals of proper size in careful columnar arrangement, and to state concisely, yet definitely, the narrative of transactions. A small error in judgment or in figures, or a slight carelessness anywhere in the work, may not become evident until near the end of a set of books on which the pupil

may have spent several weeks. When it does come to the surface, as it is certain to do, its correction imposes a salutary penalty. The pupil early realizes that these difficulties can be avoided by resolute concentration. He forms systematic habits by keeping a well-sharpened pencil, by having at hand a good pen and holder, by taking home and bringing to class the necessary text, blanks, and supplies, and by performing a definite task for each lesson, which can be checked up readily by the instructor.

The manual dexterity wanted by office managers is the ability to write longhand well and make figures distinctly and rapidly, to strike the keys of typewriters and other key machines accurately and with relative speed, to have aptitude in operating and the making of simple adjustments of office instruments, and to possess dexterity in handling and sorting various card and paper record forms. Training and practice in all these desired characteristics are afforded in varying proportions by the various business studies, and it is believed that the results of them do carry over into the performance of office work.

> The basis of the transfer or spread of improved efficiency is found in this law of dissociation or generalization. Just as a knowledge of sixness is acquired from experiencing its manifestation in six apples, six marbles, six men, etc., just as a knowledge of whiteness is acquired from experiencing its manifestation in white paper, white paint, white snow, white cats, etc., just as the meaning of number is acquired from experiencing its various manifestations in two objects, ten objects, etc., just as a concept of honesty is acquired from its manifestation in divers forms; just as a general principle of grammar, of mathematics, of science, of economics, is acquired by experiencing its manifestation in varying circumstances,— just so an idea of accuracy, and ideal of thoroughness, a concept of method, a habit of work, or the like, may be abstracted from its manifestation in varied fields and may be generalized on the basis of differing specific experiences. In all these cases the fundamental process is the same and the method of transfer or spread of improved efficiency is nothing more, nothing less, than the ordinary process of dissociation or generalization. — Inglis.

The Committee on Clerical Salaries of the Boston Chamber of Commerce prepared, under the title "A Workable Classification of Office Jobs," a nomenclature of office workers with the clerical and personal qualification required for each job. A study of this material would be useful to many teachers and to all young people expecting to undertake office work. It is of particular interest in connection with this report for it determines how nearly the commercial course of our schools meets the requirements of Boston offices. Only the title is given of those jobs that are manifestly outside the scope of our aims.

CLASS I — STENOGRAPHERS, DICTAPHONE OPERATORS, TYPISTS.

CLASS 1A. Secretarial Stenographers

Handles executive correspondence by dictation but often on own responsibility — carries on detail of administration work — makes effective the policies of the executive. Administrative ability required.

CLASS 1B. Expert Stenographers

Expert knowledge of shorthand. Able to report meetings and conferences and write technical dictation. A limited knowledge of the company's business routine required — ability to type with speed and accuracy.

CLASS 1C. Regular Stenographers, 1st Class

Good command of shorthand for every-day correspondence. Handles executive correspondence as dictated — ability to type with speed and accuracy — commercial or high school education preferred.

CLASS 1D. Regular Stenographers, 2d Class

Fair command of shorthand for every-day correspondence. Ability to type with medium speed and a tolerable degree of accuracy.

CLASS 1E. Dictaphone Typists

Able to transcribe dictation with speed and accuracy from dictaphone — no shorthand required. High School education or its equivalent required.

CLASS 1F. Expert Typists

Clerks with ability to typewrite with high degree of accuracy and speed — or to do copy work of an involved and technical character with speed and accuracy — able to handle difficult tabulations and statistical work. High School education preferred.

CLASS 1G. Regular Typists

Clerks with ability to typewrite the simplest forms of copy work with mechanical skill and accuracy — order writers — form letter writers, etc. Beginners' knowledge of typewriting required.

CLASS II — BOOKKEEPERS, LEDGER CLERKS; ACCOUNTANTS, STATISTICAL; COST FIGURING, PAYROLL FIGURING.

CLASS 2A. Bookkeepers, Senior

Clerks with knowledge of double entry bookkeeping and ability to keep general ledgers and controlling accounts; to prepare balance sheets and special reports involving current financial transactions; to keep intricate financial records. Special training and usually extensive experience required.

CLASS 2B. Bookkeepers, Junior

Clerks with ability to make simple entries of accounting information from one book or record to another; to balance and adjust accounts; take trial balance, make journal entries, prepare statements and bills and to compute, post, tabulate and compile data in connection with bookkeeping procedure. Must have knowledge of double entry bookkeeping and exercise limited degree of continuing judgment.

CLASS 2C. Ledger Clerks

Clerks with ability to post financial records from journals to ledgers; draw off trial balances; prove their postings and analyze simple accounts. Knowledge of double entry bookkeeping not essential but high degree of accuracy required.

CLASS 2D. Statistical Clerks

Clerks with ability, under supervision, to search out and draw off from journals, ledgers, etc., accounting information; to prepare statistical reports and tabulate statistical information. High degree of mathematical accuracy and limited degree of judgment required.

CLASS 2E. Senior Accountants

Clerks with ability to analyze and interpret evidence of financial transactions; to analyze and classify accounts and expenditures. High degree of judgment and expert accounting knowledge gained by special training or experience required.

CLASS 2F. Junior Accountants

Under supervision or direction, to analyze, interpret and report upon financial data; to decide and report on the accu-

racy of and significance of financial records and accounts. Limited judgment and accounting training and experience required.

Class 2G. Cost Figuring Clerks

Clerks with ability, under supervision or direction, to draw off from current accounting records statistical information relating to costs; to analyze and report upon such figures and prepare accurate and dependable cost figures upon which to base current prices. Limited judgment but high degree of accuracy required.

Class 2H. Payroll Clerks

Clerks with ability, under supervision or direction, to interpret and analyze time cards and other supporting records, to tabulate and prepare payroll sheets and post them in journals and on ledgers. High degree of mathematical accuracy required.

Class 2I. Bookkeeping Machine Operators

Class 2J. Ledger Clerks (Machine Operators)

Class 2K. Figure Machine Operators

Clerks with ability to operate with speed and accuracy an adding machine, calculating machine, comptometer or other mechanical device designed for mathematical calculation in connection with statistical, cost figuring, payroll and general accounting work.

Class III — Correspondents, Order Clerks.

Class 3A. Senior Correspondents

Clerks with ability independently to dictate letters and conduct correspondence with customers on subjects relating to quotations, sales, shipments, claims, and adjustments, credit and collections; thorough knowledge of products, company policies and procedure, and a high degree of judgment required.

Class 3B. Junior Correspondents

Clerks with ability to dictate letters and conduct correspondence with customers on subjects relating to quotations, sales, shipments, claims and adjustments, credit and collections under supervision and control of superior; limited knowledge of products, company policies and procedure and limited degree of judgment required.

Class 3C. Senior Order Clerks

Clerks with ability independently to interpret and "dress" orders and route them through factory, office or store; exten-

sive knowledge of company's products, procedure and policies, gained through experience, required.

Class 3D. Junior Order Clerks

Clerks with ability to interpret and "dress" orders and route them through factory, office or store, under supervision or direction of superior. They are beginners, with limited knowledge of product, procedure and policies, gained through experience.

Class IV — Telephone and Telegraph Operators, Information Clerks.

Class 4A. Senior Telephone Operators

Class 4B. Junior Telephone Operators

Class 4C. Telegraph Operators

Class 4D. Information Clerks

Clerks with thorough knowledge of company's organization and procedure who are able to greet and direct visitors and answer questions. Courtesy, tact and good appearance essential.

Class V — Machine Operators Except Bookkeeping, Adding — Statistical or Dictaphone Machine.

Class 5A. Addressograph Machine Operators

Clerks with ability to operate an addressograph machine with expertness and to do clerical work incidental thereto.

Class 5B. Multigraph Machine Operators

Class 5C. Photostat Machine Operators

Class 5D. Blue Print Machine Operators

Class 5E. Statler Coin Machine Operators

Class 5F. Telautograph Machine Operators

Class 5G. Perforating Machine Operators

Class VI — Mail Clerks, Messengers.

Class 6A. Mail Clerks, Senior

Clerks with ability to sort and route the delivery of mail through factory, office or store, to supervise weighing, addressing and dispatching of mail to post office; sealing of envelopes, stamping of parcels and letters; receipting of special delivery and registered mail and other clerical work incidental thereto.

Class 6B. Mail Clerks, Junior

Clerks with ability, under supervision, to sort and route delivery of mail through factory, office or store; to weigh and address mail, seal and stamp envelopes and parcels; operate sealing and opening machines and to do other clerical work incidental to the handling of mail.

Class 6C. Messengers

Clerks with ability to deliver mail through an office, factory or store; to run errands and do clerical work of the simplest nature.

Class VII — General Clerks, File Clerks.

Class 7A. Clerical Assistant

Capable of relieving the office manager, handling general and special clerical matters as they come up and serving as a general all around office man.

Class 7B. Clerks

Clerks with ability to do routine or specialized clerical work not included in other groups, such as checking, maintaining balance of stores.

The Department of Vocational Guidance of the Boston School Committee has compiled much valuable information pertaining to the activities of all the departments of our school system. Nowhere have I found available so much pertinent material. In some cities one may secure facts concerning groups of pupils, but it is only when the entire unit of a kind has been exhaustively followed up, analyzed, and classified that it is safe to establish conclusions. The Boston department has made a practice each spring of finding, through correspondence or personal interview, as far as has been possible, what each member of the graduating classes of all the high schools of the previous year was doing. About ninety-eight per cent of all graduates are reported on, the remainder consisting of those who have moved and those from whom no response could be secured through reasonable effort.

The class of 1926 is the latest for which the study has been completed at the time of this writing. One fact in the following form that deserves attention is that only seventy-one of the 3,083, or 2.3%, are without work. It is encouraging to apprehend with what readiness and with what degree of completeness the business and industrial life of this community absorbs the product of our high schools.

OCCUPATIONS OF GRADUATES FROM BOSTON HIGH SCHOOLS, JUNE, 1926.
FROM STATISTICS COLLECTED BETWEEN JANUARY AND APRIL, 1927.

Schools.	Total Graduates.		Taking Further Studies, Days.						At Work.				Not Otherwise Classified.	
			Total.		[1] Colleges.		Other Schools.		Total.		Working and taking evening courses.			
	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.	Number.	Per Cent.
Boys	1,370	100	466	34.0	*308*	*22.4*	*158*	*11.5*	789	57.6	*202*	*14.0*	[2] 115	8.4
Girls	1,713	100	633	37.0	*156*	*9.1*	*477*	*27.8*	935	54.6	*184*	*10.7*	[3] 145	8.4
Total	3,083	100	1,099	35.6	*464*	*15.1*	*635*	*20.6*	1,724	56.0	*386*	*12.5*	260	8.4

[1] Degree giving institutions.
[2] At home, 7; moved, 30; no response, 12; wanting work, 25; industrial diplomas not followed up, 40; deceased, 1.
[3] At home, 50; moved, 16; no response, 15; wanting work, 46; convent, 2; married, 15; deceased, 1.

The following table is supplementary to the one shown on page 87 and separates the girls that were working into various occupations. It was not compiled on the same day as the other, which accounts for the slight difference in the number at work.

POSITIONS HELD AT TIME OF REPORT IN 1927 BY GIRLS WHO GRADUATED FROM HIGH SCHOOLS IN 1926.

	Total of Class.	Stenography.	Stenography and Bookkeeping.	Bookkeeping.	Typing.	Clerical.	Filing.	Cashier.	Office Machines.	Total Office.	Store.	Other Work.	Total at Work.
	1,713	252	63	77	147	191	33	20	43	826	68	44	938
Per Cents of Office Workers	.....	30.5	7.6	9.3	17.8	23.1	4.0	2.4	5.2	100.0			
Per Cents of All at Work	.....	26.9	6.7	8.2	15.7	20.4	3.5	2.1	4.6	88.1	7.2	4.7	100.0
Per Cent of Class in Offices	48.3												
Per Cent of Class at Work	54.8												

Eighty-eight per cent of all girls who went to work found employment in offices, and their number is nearly half of all the girls who graduated that year. Of the 477 who are not working but are taking further studies during the day, though not attending degree-giving colleges, the paramount group of 204, or 43%, are attending schools that will fit them for business. While some of these have had part or complete business courses in high school, more than half of them have taken college or normal-preparatory training. The remainder of those attending "Other Schools" are thus classified:

Public normal	112	Private normal	43
Art	36	Nursing	20
Preparatory	11	Post graduate	47
Miscellaneous	4		

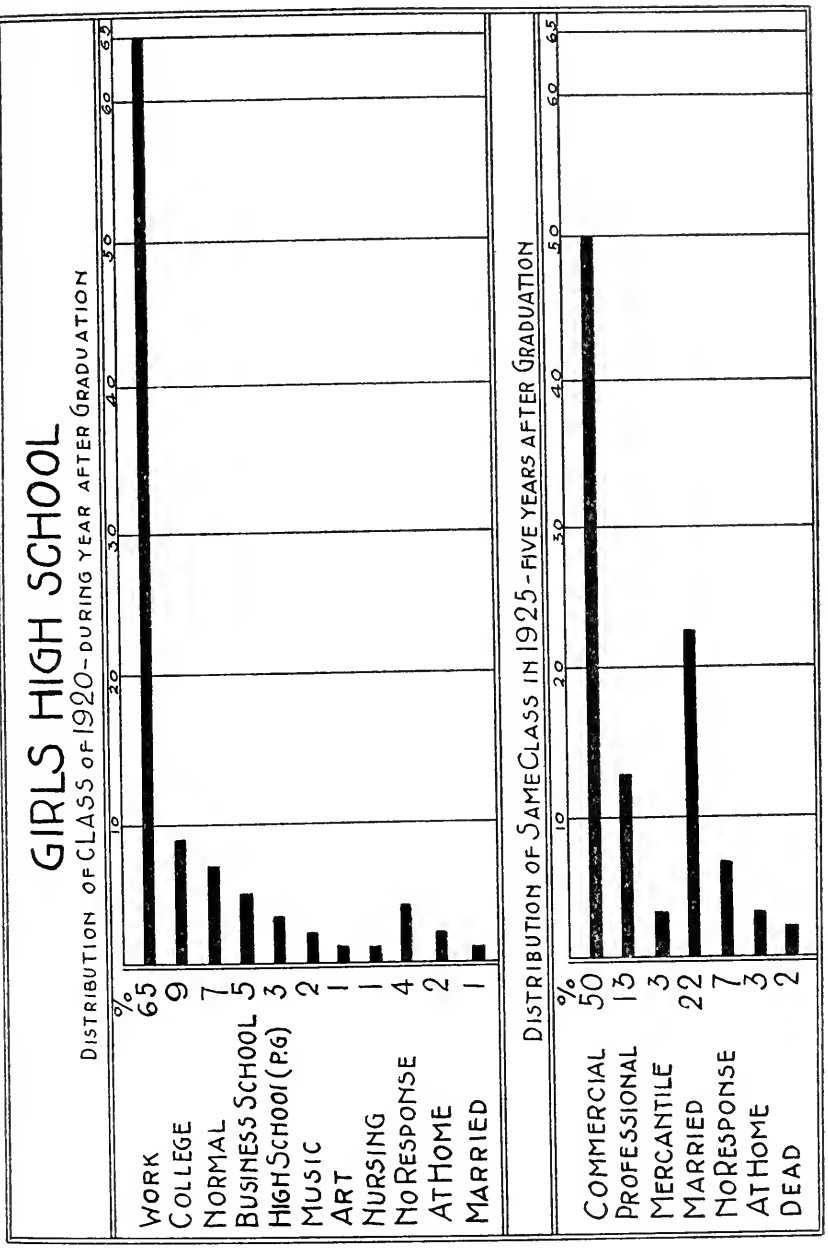
The Secretary of the Commercial Council supplies the information that the high school commercial pupils of the class of 1928 were pursuing vocational subjects as follows:

	Per Cent.		Per Cent.
Shorthand	24.4	Secretaryship	1.5
Bookkeeping	10.1	Merchandising	14.0
Typewriting	27.9	Civil Service	1.4
Office Practice	19.3	Banking and Finance	1.4

Of nearly three thousand calls from employers received by the Department of Vocational Guidance in the year ended September 30, 1927, nearly one-half were for office help. These calls included boys and girls who had passed their fourteenth birthday. There is no place in the office for youngsters. A certain amount of maturity, poise, and judgment is required even for the less important jobs; therefore it is probable that the average age of those called for and placed in offices was considerably above that of those that went to work in other occupations. The line of advancement in offices is more attractive and the help turnover is doubtless smaller than in the other occupations, and there is less probability that the calls for office help were repeat-calls for the same job.

PLACEMENT CALLS OF THE DEPARTMENT OF VOCATIONAL GUIDANCE YEAR ENDED SEPTEMBER 30, 1927.

	Stenographers.	Stenography and Bookkeeping.	Bookkeeping.	Typing.	Clerical.	Cashiers.	Office Machines.	Total Office.	Mercantile and Trade.	Manufacturing, Mechanical.	Professional.	Domestic and Personal.	Transportation and Trucking.	All Others.	Total Calls.
Boys	14	3	7	29	121	1	1	176	427	182	22	.....	11	.....	877
Girls	223	50	53	312	577	18	23	1,256	372	.....	.....	59	.....	431	2,059
Total	237	53	60	341	698	19	24	1,432	799	182	22	59	11	431	2,936
Per Cent of Office Workers	16.6	3.7	4.2	23.8	48.7	1.3	1.7	100.0							


GIRLS HIGH SCHOOL
DISTRIBUTION OF CLASS OF 1920 - DURING YEAR AFTER GRADUATION
%
WORK 65
COLLEGE 9
NORMAL 7
BUSINESS SCHOOL 5
HIGH SCHOOL (P.G) 3
MUSIC 2
ART 1
NURSING 1
NO RESPONSE 4
AT HOME 2
MARRIED 1
10 20 30 40 50 60 65
DISTRIBUTION OF SAME CLASS IN 1925 - FIVE YEARS AFTER GRADUATION
%
COMMERCIAL 50
PROFESSIONAL 13
MERCANTILE 3
MARRIED 22
NO RESPONSE 7
AT HOME 3
DEAD 2
10 20 30 40 50 60 65

While interest and value may be derived from a study of what happens to a group of graduates during the following year the real measure of what the school system does for its graduates must be learned from a study covering a longer period of time, during which a settling-down process has a chance to come into effect.

The graph on page 91 represents a study of the class of 1920 of the Girls' High School of Boston, and is probably typical of what happened to graduates of the other high schools. The upper portion broadly shows the distribution of the class in the early part of 1921. The lower section discloses the activities of the same young women in 1925.

There are no data in my hands that tell whether any of those that married remained at work, but it is presumable that the inquiry concerning them ceased at that point. It seems a reasonable guess that most of the marriages were from the "Work" group. The thirteen per cent of "Professional" was formed from the twenty-three per cent of College, Normal, Post Graduate, Music, Nursing, and Art students.

Of those who took Shorthand 66 per cent are now in that line.

Of those who took Bookkeeping 65 per cent are now in that line.

Of those who took Shorthand and Bookkeeping 61 per cent are now using the combination.

Of those who planned to teach 79 per cent are now teaching.

Of those who planned to go to college 83 per cent went to college.

Altogether 62 per cent are following the vocations which they elected and for which they studied in high school.

It is gratifying to note that only two per cent of this large class died during five years. This proves that the instruction in health and the practice in physical maintenance given through all grades are effective, and meet the requirements of the first objective of the "Seven Cardinal Principles of Secondary Education."

A "follow-up" of 554 boy graduates of 1920 from eight high schools also was made, the following being extracts from a report on it made by the Department.

METHOD PURSUED.

Personal interviews were secured with as many of the boys as possible who were employed in Boston and vicinity. This

was accomplished by requests to the boys to call at the Central Office while on their lunch hour, or during the evening office hour, and by visits of the vocational instructors to places of employment and homes of the boys. To others, questionnaires were sent. The college bureaus assisted by supplying information regarding boys who had continued their education.

The total represents 95 per cent of all boys graduated from the above schools for the year 1920. (No Co-operative Industrial Course Graduates are included in the study.)

RELATIONSHIP AMONG FATHER'S OCCUPATION, PUPIL'S VOCATIONAL INTEREST AND PRESENT OCCUPATION OF MALE GRADUATES OF 1920.

	Father's Occupation.	Pupil's Vocational Interest, 1920.	Pupil's Present Occupation. 1927.
1. Unskilled labor	18	0	0
2. Semi-skilled labor	60	0	3
3. Skilled labor	192	34	64
4. Agriculture	0	4	1
5. Office, clerical	24	81	112
6. Retail sales people	1	0	25
7. Wholesale sales people	187 17	256 28	293 48
8. Junior business executives	25	141	67
9. Proprietors of small businesses	120	6	41
10. Professional	35	219	186
	Deceased 62	Undecided 41	Unemployed 7
Totals	554	554	554

The above table should be read thus: 219 boys expressed as their vocational interest, in 1920, while in high school, as professional. Only 35 fathers were engaged in occupations included in this group. Five years after graduation, 186 boys were found engaged in occupations included in the professional group.

RELATION BETWEEN COURSE PURSUED IN HIGH SCHOOL AND AFTER SCHOOL EMPLOYMENT.

Graduates of the *College* course in high school do, in the great majority of cases, go to college.

Graduates of the *Business* course enter into and remain in one of the five fields of business activity.

Graduates of the *General* course in high school enter chiefly into some form of business life.

Graduates of the *Technical Preparatory* course in high school are about evenly distributed in after high-school life between professional life and business activities.

MISCELLANEOUS.

There is considerable evidence that the boys who continue their education do so immediately after high school, although a few postponed it until two or three years.

Higher education is functioning in the occupational life of the graduates who took it.

Thirty-three per cent of the boys who took no further education have held one position for five years.

Twenty-eight per cent have held two positions, and two per cent have held as many as five different positions.

About eighty-five per cent of all these boys did some work for wages while attending high school. There is no definite evidence that this work was a factor in their choice of a vocation.

At the request of mercantile associations, and on the advice of students of business conditions, salesmanship was introduced into the high schools about fifteen years ago. It has received much encouragement from school authorities and, beyond all doubt, the instruction has been on a par with that of any other business subject. The pupils in salesmanship have steadily increased in numbers, but at no time has the subject occupied the place it was believed it should take.

A study of the data herein presented and interviews with office managers and thoughtful commercial educators leads to the belief that the purchase of a modest but carefully chosen equipment of office machines is a wise investment. There does not appear to be a need of such a degree of skill in any of them at all comparable with that required in typewriting. Much of the multiplication in an office can be performed mentally or it can be taken from convenient tables. Division and subtraction are not frequent, but addition is most often employed. However, the sums are usually short, and are done more quickly without resorting to a machine. While the small non-listing adding machines are useful, and are found in many offices, there does not seem to be justification in the installation of batteries of them, nor to devoting to them the amount of time some teachers wish to give.

Nothing appears to warrant the purchase of bookkeeping machines, the cost of each being about a thousand dollars. They are found only in large offices. Their successful operation is predicated on a knowledge of bookkeeping and of skill in pressing keys. The latter may be gained on the machines already in the schools, so an ambitious clerk with a knowledge of bookkeeping can learn to use this machine at odd times, with a little instruction from an experienced operator.

School authorities should recognize the possibility that the introduction of machines into our schools may reach such an extent that the educating of mental faculties may be displaced by a training on mechanical devices. Girls, as well as boys, enjoy running machines that relieve their minds from work and responsibility, and this is evident from the way the fundamental subjects are avoided, and the machine subjects are taken up. The mental faculties used in studying through a business proposition and arriving at a correct judgment cannot be trained through the operation of a machine. Successful business people have become so through the use of their minds instead of their fingers. If our aim is to have our young people become successful business men and women instead of competent and satisfactory clerks we need to undertake some curriculum reconstruction.

The most pronounced need is that the quality of the classroom instruction be improved in the commercial subjects that are now being taught. Methods of business and office technique are far from static. The teacher who depends on what she learned from a teacher who was up-to-date in practical matters a very few years ago is decidedly unprogressive. The business office is *the* laboratory where new ideas are being developed and tried out, and when teachers fail to call upon that laboratory they are falling short of doing that which should be expected of them.

In recognition of the fact that many young commercial teachers were entering Boston schools who had had no business or office experience and who were showing no inclination to secure either, in 1925 Assistant Superintendent Rafter requested the Commercial Council to consider a plan for "permitting commercial teachers to offer as units for credit toward their promotional examinations, experience gained as the result of work done in actual business establishments." The Council devoted the greater part of two meetings to the question and submitted the following recommendations:

1. In the opinion of this Council such practical experience for commercial teachers *should be required* for one of the two promotional examinations; unless the Board of Superintendents is satisfied that sufficient business experience has already been obtained.

2. That such work be wholly without restriction as to compensation received by a teacher offering such work for credit; and that rating be given purely on the basis of suitable business experience gained.

3. That at least six weeks of full time employment be taken as the equivalent of one thirty-hour course, or two fifteen-hour courses, for credit.

4. That not more than one of these thirty-hour credits be allowed on any one promotional examination.

Mr. Rafter, to whom had been referred on May 7, 1925, the question as to allowance of promotional rating credit for teachers of commercial subjects for actual experience in business houses, submitted the following plan which had been approved by the Commercial Council:

1. That the business house selected by the teacher be approved by the Board of Superintendents.

2. That the work done in the mercantile establishment be closely related to the school work of the teacher.

3. That at least six weeks of full time employment, or the equivalent, be taken as the equivalent of one thirty-hour course, or of two fifteen-hour courses.

4. That not more than one of these thirty-hour credits be allowed toward any one promotional examination.

5. That at the expiration of the business employment the teacher submit to the Board of Superintendents a detailed statement of at least one thousand words setting forth the definite, specific value of the business experience in connection with the work of the school room.

This recommendation was approved by the Board of Superintendents and put into effect November 19, 1925. Beyond all doubt this has resulted in a benefit to the commercial teachers.

The city of Des Moines recognizing the value of experience, believes no one should teach a commercial subject in which she cannot do and has not done in actual business the things she is attempting to teach, and has prepared definite requirements of the actual experience that must be obtained before a teacher will be employed, and that which must be secured coincident with her service as a teacher. Some such plan might well be used here.

THE THREE R'S.

For several years, in every school system in the country, much attention has been directed to the problems of secondary education, Grades VII to XII, inclusive. The coming of the intermediate or junior high school was preceded by enthusiastic and effective advocacy of the advantages to be gained by the establishment of such a unit of instruction. This agitation produced a disturbing upheaval in a cherished traditional organization. The administrative reorganization and the reconstruction of curricula incident to the establishment of intermediate or junior high schools well nigh exhausted the time, thought and energy of school officials and administrators. For years the intermediate or junior high school became the chief topic of discussion at conventions and meetings of educators. Coincidentally the growth in attendance upon high schools advanced beyond all expectations. The problem of assimilating heterogeneous groups of pupils, of readjusting administrative machinery, of introducing new courses of instruction and of securing or preparing suitable teachers for the same — all these were considerations urgently demanding solution.

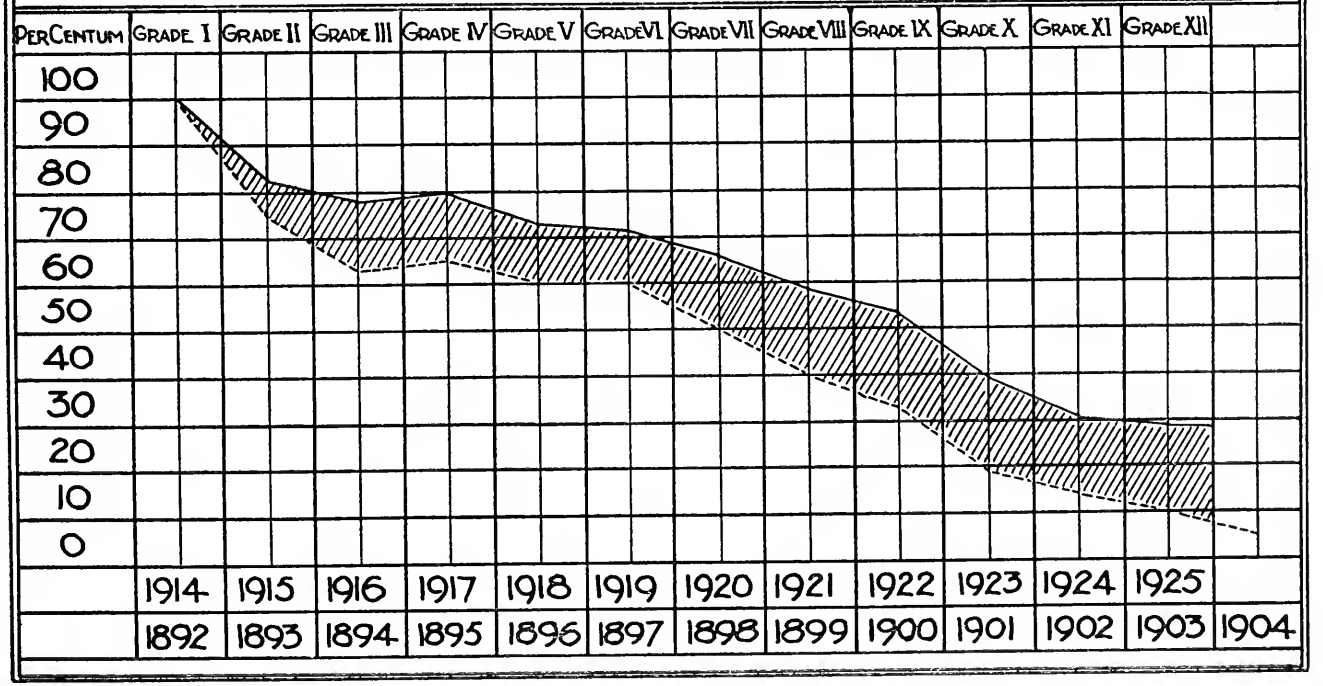
Since it was the central theme for discussion, secondary education seemed to overshadow elementary. It is not surprising therefore that a suspicion has arisen that the elementary school has been neglected, in comparison with the secondary.

Unfortunately, our earnestness in making humane, effective and scientific the work of pupils in Grades VII, VIII and IX has tended to produce a challenge concerning our devotion to the grades below.

As a matter of fact, the administration of our schools has been consistent. We have repeatedly reaffirmed that under no circumstances whatever should the emphasis upon secondary education be permitted to injuriously affect the work of elementary schools. The importance of the elementary schools must never be minimized. Though not so spectacular or dramatic, perhaps, as the grades above, they are nevertheless the fountain source of our entire system. Unless the elementary schools are maintained at the highest possible plane of efficiency, the grades following are sure to suffer irreparably.

Chart Showing Increased Retention in a Class Passing Through All Grades of the Boston Public Schools

1892~1904 ------ 1914~1925 ——



In the year 1920, in the very throes of the agitation for intermediate schools, the rank of Primary Supervisor was created, and two especially gifted women were selected for these important positions. The leadership of our primary supervisors has been potent and stimulating, guiding our teachers along the most progressive line of thought and action. It is now proposed to give Grades IV, V and VI the same type of supervision that obtains in Grades I, II and III. Thus we shall provide skillful and scientific supervision continuously from the kindergarten, through the elementary schools to the intermediate. At the same time we are urging teachers of Grades VI and VII to so harmonize their work that there will be no interruption of classroom work between the two types of schools, intermediate and elementary.

A very slight acquaintance with our school system convinces one that the three R's are not overlooked or overshadowed. Instruction in reading, writing, arithmetic, and the fundamental subjects, is of a higher quality today than ever before. In penmanship there is a uniform system taught throughout all the grades. Teachers are required to prepare especially for this work, and as a result thereof over twenty-four hundred teachers have qualified and have been certified in teaching ability. All new teachers must receive training in penmanship and qualify within two years after appointment.

During the past year there was on exhibition at the Administration Building, the handwriting of all pupils in all grades of instruction. It is doubtful if ever before, in Boston or elsewhere, was there presented handwriting, by large groups of pupils, that excelled in legibility and general excellence this product of our children's pens.

In arithmetic the excellence of our work is universally recognized. Under the direction of the Department of Educational Investigation and Measurement, various standard tests in arithmetic, extending over a series of years, have proved that we are maintaining the highest standards of attainment. Compared with the norm of the larger cities throughout the country, Boston is equalled only by Detroit in the high standard secured by our pupils. Moreover, the requirements established by the school systems of Detroit and Boston are considered adequate by research students of education. These tests include accuracy and speed on the part of the pupils.

It follows, from the above, that not only are we leading all the cities except Detroit, but that we are maintaining the very maximum of attainment. The Department of Educational Investigation and Measurement is now including problem work, supplementary to the tests in accuracy and speed. A problem book has been authorized for this purpose and placed in the hands of fourth grade pupils. Problem books for the pupils of Grades V and VI are in process of preparation. So far as we know, Boston alone, of the cities of the country, is using such problem books.

The Department of Educational Investigation and Measurement, furthermore, has given standardized tests in reading to the pupils in our grades. Here again the tests show that the grade average for our schools, in each case, is from one half a year to nearly a full year above the norm established by the test range. The tests show, also, that there is a gradual increase in the average, from grade to grade. That is, the eighth grade is farther above the norm than the fourth grade. Furthermore, the increase during the year was approximately normal for each grade, a fact which demonstrates the uniformity of the excellence of our teaching in the grades.

As regards spelling I quote from one of our principals:

"In no field is the work of the public school today more practical than in spelling. Many extensive studies of words needed and used in daily life have been made, and the Boston Word List is based on a comparison of the best of these. The children keep lists of their own misspelled words; the teachers are provided with means of finding just what words their own classes most need to study; city-wide tests are given on words that give general difficulty in all schools; pupils work together to improve their spelling ability; and the whole subject is made more practical and interesting than ever before. The Boston Plan for Teaching Spelling is carefully worked out in detail and places a distinct emphasis upon the responsibility of each individual for learning to spell words actually needed in school and in the ordinary uses of life."

The notable contribution made by principals and teachers to the whole problem of spelling in our elementary schools is praiseworthy and deserving of permanent record. I am, therefore, embodying the story of our accomplishments as presented by the Principal of the Model School, Mr. Charles M. Lamprey.

Teaching Spelling in the Boston Public Schools.

By Charles M. Lamprey, Principal, Martin School.

In 1915 a list of words was prepared at the Boston Model School and published under the title, "An Experimental Method of Teaching Spelling." This method was used in the school for eight years and after some modifications was copyrighted by the School Committee and an edition of 125,000 copies was printed for use in the Public Schools of Boston under the title, "The Boston Word List" (School Document 22, 1923). Accompanying this list was a pamphlet for the use of teachers, entitled "New Boston Spelling List," which later was revised, improved and entitled, "New Boston Spelling List (Revised)," School Document 11, 1926.

These two books, one for pupils and one for the convenience of teachers, furnish the basis for the study of spelling in the public schools of Boston.

During the past five years the Boston Plan for Teaching Spelling has been developed and a large amount of valuable work has been done by teachers in determining relative word difficulties. This work culminated in 1928 in the giving of the third of a series of Cooperative Review Tests in all Boston Schools. The results of these tests are described in the final part of this report under the heading "Cooperative Review Tests."

The way in which the two books were made and their respective purposes are described in the Preface of School Document 11, 1926. The Revised Plan for Teaching Spelling is contained in the same document. This Preface with some alterations for the sake of clearness, and a synopsis of the Revised Plan, are given below as follows:

I. Preface. (School Document 11, 1926.)

1. New Boston Spelling List.

The work done in Boston during the last eight years in selecting words and evaluating spelling difficulties forms the best available basis for a permanent spelling list for use in Boston Schools.

In selecting words for the New Boston Spelling List the committee has retained nearly all the words of the Boston Minimum Lists and added enough words, after an analysis of

other spelling investigations, to make up a total of 2,116 words. It is recommended that the teaching of these 2,116 words be required in the grades indicated.

In the New Boston Spelling List (Revised) these words are separated by grades and printed in syllabicated form for the use of teachers.

2. Boston Word List.

No list or spelling book can be regarded as final. New words are constantly coming into use. The degree of accuracy with which familiar words are spelled will change as a result of consistent drill in spelling. The frequency with which many of these words are used may be increased by instruction aimed to enrich and improve the vocabulary of pupils. The committee therefore offers a Vocabulary List of words and has combined the two groups of words to form the Boston Word List. The Vocabulary List is not to be printed separately.

Some general suggestions are offered below in the hope and expectation that teachers and pupils will find here a basis for effective work together. It is possible to carry through a city-wide experiment in educational procedure that will have high value.

3. Vocabulary List.

(*a*) The vocabulary of individuals varies to such an extent even among young children that it is believed to be desirable to put before pupils a much larger number of words than they are required to learn. Many words creep into the child's consciousness from reading and conversation and need only the stimulus of a convenient opportunity to take their place in his written language. Reference to the vocabulary words in the Word List will furnish an incentive for this extension of the child's vocabulary in accordance with his natural impulses.

(*b*) There is another reason for including these additional words. In the discussion on spelling that must go on continually it is desirable that teachers have before them a large number of words that may be used in school work more commonly than we suspect. As this larger list is used for reference and occasional discussion it cannot fail to be of service in enabling teachers to give valuable suggestions as to the inclusion of debatable words in the regular spelling list and to advise as to the grades where these words may best be taught.

4. Selection of Words.

(*a*) The words in the Boston Word List were selected after a careful analysis of the following sources:

Ayres: A Measuring Scale for Spelling.

Boston Model School: An Experimental Method of Teaching Spelling.

City of Boston: Minimum and Supplementary Spelling Lists.

City of Chicago: Spelling in the Elementary Schools.

Jones: Concrete Investigation of the Material of English Spelling.

Kelley: A List of Words Misspelled in the Diaries of Third Grade Children.

Nicholson: A Speller for the Use of the Teachers of California.

Thorndike: The Teacher's Word Book. (First 5,000 words in order of frequency.)

(*b*) The Vocabulary List consists of words originally included in the Model School List and the Boston Supplementary Lists, after eliminating most of the simple "ed" and "ing" forms and some words that seemed to have no support in Thorndike's "The Teacher's Word Book."

5. Arrangement of Words.

To put before a child only those words assigned to be studied in one particular grade is to limit his facility in the general study of spelling. For the purpose of encouraging the abler pupils to acquire new words outside of the required list for the grade, and children of poor spelling ability to review words forgotten or never learned in earlier grades, the Word List is arranged in alphabetical order with the grade in which each word is to be taught indicated at the left.

Experience with this arrangement in the Boston Model School has shown not only that it is not confusing, but that it stimulates and helps the pupil to acquire early the very important power of finding words which he desires to learn. Furthermore, it gives to the teacher an opportunity she has never had before to judge as to the rejection of undesirable words and the selection of new ones.

6. Use of the Word List.

This list will be used in Grades IV to VIII, inclusive, and the book will become the permanent property of the pupil after five years of use. It will serve for the study of words in preparation of the lesson and in review; for the checking of words misspelled and needed by individual pupils in varying degree; and for convenient reference by the pupil while writing — a use that cannot be made of any spelling list or spelling book published for school use at the present time. The pupil can thus be stimulated not only to study carefully and intelligently such words as he needs to study, but to watch the growth of his written vocabulary and take an interest in adding new words. When the pupil has occasion to use a word that he is not familiar with and that he does not find in the list, he can write it in the blank space provided in the book and thus have a constructive interest in developing a final list. This method of procedure has been used in the third grade of the Farragut School with marked success. The "Finding List for the Third Grade" contains all the words used by third grade pupils in writing diaries over a period of several years. It takes the place of the Boston Word List in Grade III. It is believed that the method suggested is sound in form, stimulating in actual use, constructive in character, and likely to produce definite satisfaction through aroused interest among the pupils.

7. Review and Testing.

Lists of words found difficult in earlier grades will be sent to teachers for dictation at the beginning of each year. The tabulation of results of tests on these words will give information of increasing value in regard to their spelling difficulty. These difficult words should be dictated at the beginning of each year before the new words for the grade are taken up.

8. Additional Words.

A blank space is left at the bottom of each page for such words as it may be desirable to add to the printed list. It probably will be found helpful to use this space for local names, for words used largely in school studies but not commonly used after leaving school, and for new words coming into more frequent use through progress in science and invention.

9. Project Method.

It is believed by a majority of members of the Committee that the use of this Spelling and Vocabulary list (Boston Word List) in the manner suggested will do much to make spelling interesting to pupils and teachers and will encourage the use of the project idea in handling this subject.

II. THE REVISED PLAN FOR TEACHING SPELLING.

The Revised Plan for Teaching Spelling was devised to promote the study of words from the standpoint of their relative difficulty (1) for the individual pupil, (2) for the class group, (3) for the pupils throughout the city as a whole.

The first of these aims is accomplished by having pupils check each word in their copies of the Boston Word List and make a copy of their misspelled words at the end of the year. This list should be the basis of study for the individual pupil. To facilitate this kind of study pupils are arranged in pairs for cooperative work.

The second and third aims are realized through the use of Percentage Tables and Spelling Report Slips in the hands of teachers. By means of the percentage tables teachers may readily find the per cent of pupils in the class that misspell each word. This per cent is first recorded on the Spelling Report Slip in column A. Only the harder words are reviewed, and the per cent recorded in column B; and again the hardest of these words are taken and the results recorded in column C. Column D is for a final record on all hard words, without study, at the end of the year, and column E for a review of these words in the next grade at the opening of school in September.

A sample column of the percentage table for a class of 37 pupils, and a sample of the spelling report slip for the third grade are given on page 107.

The use and meaning of words are taken care of by oral and written sentence work. Pupils are encouraged to write sentences for home work which are supposed to be exchanged, discussed and corrected by pupils working together in pairs.

1. This plan is susceptible of wide variation as to detail in writing, reading, discussing, careful study, and sentence drill on words. Teachers choosing to follow it should preserve the essential purpose, which is to stimulate a variety of in-

Percentage Table

37

1....03
2....05
3....08
4....11
5....14
6....16
7....19
8....22
9....24
10....27
11....30
12....32
13....35
14....38
15....41
16....43
17....46
18....49
19....51
20....54
21....57
22....59
23....62
24....65
25....68
26....70
27....73
28....76
29....78
30....81
31....84
32....86
33....89
34....92
35....95
36....97
37...100

SPELLING REPORT SLIP - BOSTON PUBLIC SCHOOLS

GRADE III. ROOM.....

.....SCHOOL

.....TEACHER

The per cent of correct spelling may be obtained from percentage tables furnished for this purpose.

		TESTS				
		A	B	C	D	E
261.	par lor					
262.	part					
263.	pear					
264.	peo ple					
265.	pi an o					
266.	pic ture					
267.	piece					
268.	pitch er					
269.	plant					
270.	pleas ant					
271.	point					
272.	po lite					
273.	po ta to					
274.	pound					
275.	pres ent					
276.	pri ma ry					
277.	prove					
278.	pu pil					
279.	push					
280.	quart					

The class per cent for each word should be recorded in column A as a result of the first testing. Columns B, C, D and E are for class per cents on the more difficult of these words when given in later tests after intensive study.

teresting and attentive efforts, and above all, to require the looking up of words in the Word List by pupils and a written record of each individual's misspelled words made by the pupil.

2. The teacher may pronounce words or may ask pupils to find the next starred word for the grade. In either case attention is insured, effort is stimulated, satisfaction results, keenness, quickness and accuracy are definitely developed. Good habits of response and co-operation are formed. Each word is seen in printed form, pronounced orally and spelled orally.

3. Oral sentence and written sentence work are both essentially English exercises, but writing the word in a sentence is good application or spelling practice.

4. The written spelling or test lesson follows the conventional method. Use of the Spelling Report Slip is of value in emphasizing and comparing individual results, determining hard words, stimulating effort and developing class pride. Children like to participate in definite measuring exercises.

5. Making a list of misspelled words and pairing of pupils for mutual help involve recognition of errors, prompt correction, cooperative effort, relief from fixed position and formal class management; and provide means for intelligent review study.

6. The time required for using the Percentage Table and recording results on the Spelling Report Slips is believed to be amply justified by increased efficiency of instruction resulting from reviewing only words that present real spelling difficulty, and also by the training given to pupils in participation in accurate record taking.

Cooperative Review Tests.

As a result of the efficient cooperation of teachers throughout the city, especially in the use of percentage tables and spelling report slips, it has been possible to give three sets of Cooperative Review Tests, each having greater value and significance than the preceding one. These were given in October, 1925, January, 1927, and April–May, 1928.

As a matter of record there seems to be no better way of showing the increasing purpose and value of these tests than to print the three circulars issued by the Board of Superintendents in connection with the respective tests. These circulars, I, II and III, with minor alterations for the sake of clearness, are given below as follows:

I. BOARD OF SUPERINTENDENTS' CIRCULAR NO. 15, 1926–27.

On October 7, 1925, Cooperative Review Tests in Spelling were given in Grades III to IX in Boston Public Schools. The tests consisted of the forty hardest words for each grade, determined by reports made by numerous teachers based on their class records for the preceding year. The tests on words selected in each grade were given to pupils in the next higher grade without previous study. That is, fifth grade pupils were tested on fourth grade words and so on for all grades.

In marking these tests teachers recorded the "Per Cent Wrong" for each word.

An examination of these records clearly indicates that, while nearly all these words were "hard words" for a great majority of pupils, there was little uniformity in the per cent of error in different classes. The records of "per cent wrong" on any individual word generally cover a range of 50 per cent; that is, the record in one class may be 10 per cent wrong and in another 60 per cent wrong for the same word. It is also true that the relative apparent difficulty of the words, based on per cent wrong, varies widely in the different rooms. This supports the opinion that any attempt to evaluate the spelling difficulty of words in general is not likely to solve the spelling problem satisfactorily for the individual teacher.

In June, 1926, 524 teachers reported the 40 hardest words for their respective classes. The basis for these reports was not the per cent wrong on a single test but the actual per cent of error that persisted after the harder words for the grade had been reviewed and retested.

These reports have been tabulated and new tests made out comprising the 40 words reported by the greatest number of teachers (20 words in Grade II).

The degree of agreement between the 1925 and 1926 selections is shown in Table A, as follows:

Table A. ("Grade" means the grade in which the words were selected.)

Grade II.— Of 20 words in 1925 test 12 appear in 1926.
Grade III.— Of 40 words in 1925 test 25 appear in 1926.
Grade IV.— Of 40 words in 1925 test 24 appear in 1926.
Grade V.— Of 40 words in 1925 test 25 appear in 1926.
Grade VI.— Of 40 words in 1925 test 23 appear in 1926.
Grade VII.— Of 40 words in 1925 test 28 appear in 1926.
Grade VIII.— Of 40 words in 1925 test 30 appear in 1926.

The following table shows:

1. Total number of reports for each grade.
2. Number of words on which reports were unanimous.
3. Largest number of reports agreeing on any selected word.
4. Smallest number of reports agreeing on any selected word.
5. Whole number of words in Boston lists, by grades.
6. Total number of words reported one or more times.

Table B. ("Grade" means the grade in which the words were selected.)

	Grade.						
	II.	III.	IV.	V.	VI.	VII.	VIII.
1.....	61	59	86	85	94	43	41
2.....	0	0	0	0	0	0	0
3.....	52	47	78	73	76	42	38
4.....	28	19	32	30	36	16	16
5.....	257	410	396	304	251	228	185
6.....	192	244	236	216	182	141	126

For example, in Grade V —

1. 85 teachers made reports.
2. There was no one word on which all of them agreed.
3. 73 of the reports agreed on the most frequently reported word (separate).
4. 30 of the reports agreed on the least frequently reported of the 40 selected words (tobacco).
5. There are 304 words in the Boston List for Grade V.
6. Of these 304 words 216 were included one or more times by teachers in their report of 40 hardest words.

Consideration of this table in connection with Table A only serves to emphasize the fact that the spelling problem for each teacher may be stated best in terms of the performance of her own class, just as the problem for each pupil must be stated in terms of his own achievement.

The Boston Plan for Teaching Spelling enables the teacher to realize both these ideals by the following means:

1. Percentage Tables.
2. Spelling Report Slips.
3. Directions concerning individual pupil lists of misspelled words.
4. Cooperative study and recitation by pupils in pairs.

It seems logical to suppose that the spelling problem will be more nearly solved when this plan is carried out in all schools, and review tests are prepared for each class and review study encouraged for each pupil on the basis of demonstrated needs.

Assuming, however, that the plan is not completely carried out in all schools and by all teachers at the present time, it is felt that the Cooperative Review Tests will be welcomed as a valuable aid.

The purpose of these tests is threefold:

1. To give the teacher some idea of the spelling needs of her pupils with reference to their work of the previous year.

2. To emphasize the paramount necessity of a definite review of the harder words of the preceding grade at the beginning of each year.

3. To enable the Spelling Committee to make a list of a comparatively small number of the hardest words in all grades to which teachers may refer in reviewing their classes on certain words of preceding grades. While these tests are of the greatest value if given at the beginning of the year they cannot fail to be helpful at any time in testing the retention by pupils of the spelling work of the previous year.

The general adoption of the Boston Plan for Teaching Spelling in Grades IV to VIII has resulted in laying the foundation for certain habits of thought and effort on the part of teachers and pupils that are fundamental requisites for the study and teaching of the subject.

Habit Forming Results.

Pupils have formed habits of —

1. Looking up words in their alphabetical order and thus thinking of them and comparing them in their spelling relation.

2. Identifying, rewriting and intensively studying their own misspelled words, thus making their chief effort along lines determined by their own previous achievement.

3. Making accurate reports on their work each day, resulting in recognition of the effect of their individual efforts on the class record.

4. Working together and helping each other to improve, thus satisfying a natural social instinct and developing the habit of cooperation.

Teachers who have followed the Plan have certainly begun

to lay the foundation for a study of the spelling needs of their particular groups of children. It is not to be expected that great progress can be made in a short time since general acceptance of and familiarity with a new set of ideas can hardly be gained in less than two or three years.

It is expected that very many teachers will find the Spelling Report Slips and the Percentage Tables valuable aids in the teaching of spelling; but it is not desired to make the use of these forms obligatory. It is possible to secure many of the desired results of the Boston Plan for Teaching Spelling by the use of the Boston Word List in accordance with the plan outlined, without keeping the percentage records.

II. BOARD OF SUPERINTENDENTS' CIRCULAR NO. 22, 1927-28.

The results of investigations made and records kept by teachers in 1925 and 1926 in the subject of Spelling were embodied in Cooperative Review Tests which were given in all grades above the second in October, 1925, and January, 1927.

The Cooperative Review Tests for 1928 include all the different words selected for the other two tests. It is proposed that these words be given first in the grade in which they are originally studied, and that each test also be given in every grade above the one where the words are originally studied.

In this way we shall discover what words persist in being difficult words from grade to grade, and, in general, about where certain words cease to be difficult for a great majority of children.

(1.) The information obtained from tests given in this way is valuable first of all to the individual pupil, because it enables him to gauge his spelling ability.

(2.) Next in importance is its value to the teacher, because she can review the particular words that her pupils most need to study; and we know that there is considerable variety to these words even in different rooms in the same grade in any school.

(3.) Last of all, but still important in promoting good spelling, is the value of these records to the Committee on Spelling and to teachers as a whole, because from the reports submitted a composite review list will be prepared that will enable teachers to review, each year, the words most likely to retain their difficulty from grade to grade.

III. BOARD OF SUPERINTENDENTS' CIRCULAR NO. 14, 1928–29.

General Introduction.

The immediate aim of the Cooperative Review Test in Spelling given recently in the Boston Public Schools was to discover what words, required to be taught in Grades III to VIII according to the Boston Word List, are the hardest for pupils in:

(*a.*) each grade where the words are taught, and,

(*b.*) subsequent grades where the words are supposed to be known because of previous teaching.

To fully discuss the value of these tests and their relation to the Boston Plan for Teaching Spelling would require a much longer report than seems desirable at the present time, but a few comments on some aspects of the tests as related to improvement in teaching are necessary to make it clear that they have a considerably broader aim than merely the compilation of a list of the "hardest words."

1. If the directions in the Boston Plan have been followed and applied to the Tests, each pupil will have made a list of all the words he has misspelled in these tests, in addition to his list of words misspelled in regular lessons during the year. This in itself is the foundation upon which the pupil's study of review spelling should rest, and if properly handled furnishes a most useful basis for individual work at the opening of school in September.

2. If the suggestion in the circular accompanying the Tests was followed (see Board of Superintendents' Circular No. 22, 1927–28) each teacher will have recorded in her copy of the New Boston Spelling List the per cent of error for each word in all the tests given, both those for her own grade and those of all grades below her own. This information will enable teachers, by an exchange of records, to make the spelling review with which each year's work should begin a much more personal and interesting exercise than a review of any city-wide list could be. In value this information is second only to the pupils' list of his own misspelled words, and it correlates with the teacher's percentage records of the class performance in daily tests throughout the year.

3. In addition to the individual and class records that may have been made as indicated in 1 and 2 above there has been prepared a list of all the words given in the various tests with a record after each word showing its relative difficulty in the respective grades. No general list of "hard words" can take the place of the lists referred to in 1 and 2 above. Such general lists usually lack the element of satisfying a felt or recognized need. Frequently the words are not derived from the experience of pupils and teachers who are to use them, and to a large, though variable, extent they may not be in accordance with such experience.

In the present instance, however, it was possible to prepare a general list which, although not as valuable as the specific lists kept by pupils and teachers, still must possess an element of personal interest because of the participation of the parties concerned.

It is of slight consequence to know merely what words are hardest in each grade for pupils who have just finished an intensive review of these words after more or less study through the year; but it is of great value in the general teaching of spelling to know whether these same words persist in difficulty from grade to grade as pupils continue to use them in their daily work.

In making the general spelling list of "hard words" for the City of Boston it was decided to pursue a course that would result in a list of permanent value, through the participation of pupils and teachers in Grades III to VIII, inclusive.

Method of Procedure.

A test for each of these six grades was prepared, consisting of fifty or more words previously reported by teachers as being the hardest words in the regular grade assignments from the Boston Word List. (See Board of Superintendents' Circular No. 22, 1927–28.)

The third grade test was given in Grades III, IV, V, VI, VII and VIII, the fourth grade test in Grades IV, V, VI, VII and VIII, and so on, the eighth grade test being given only in Grade VIII.

Instead of averaging the percentage records of wrong spell-

ings for each word in all the grades and rooms, it was decided to rate the relative difficulty of each word on the basis of the number of teachers who included it among the twenty hardest words out of the fifty or more words in the respective tests. This method determined the words that were hardest for the greatest number of classes, and if there were any difference between it and a method based on per cent of error, the method of selection chosen would undoubtedly be the more valuable of the two and would probably yield substantially the same result.

Teachers were instructed to check the twenty hardest words in each test, and the results of this checking were tabulated in each school on special report sheets by means of which the record could be made for each test in a grade in about two minutes' time.

The records thus made were transcribed and added by one hundred third-year students in Teachers College, and the results thus obtained were copied, added and checked.

The final result shows the number of teachers who reported each word as among the twenty hardest. The words in the third grade test were reported on by teachers in Grade III and five higher grades, the words in the fourth grade test by the teachers in Grade IV and four higher grades, and so on.

Reports were submitted in proper form on or before May 10 from sixty-six school districts representing the following number of teachers (and classes) by grades:

VIII.	178 teachers.	V.	236 teachers.
VII.	183 teachers.	IV.	236 teachers.
VI.	240 teachers.	III.	219 teachers.

Assuming an average of forty pupils to a teacher:

Grade VIII.	178 x 40 pupils took 6 tests	42,720 pupil tests.
Grade VII.	183 x 40 pupils took 5 tests	36,600 pupil tests.
Grade VI.	240 x 40 pupils took 4 tests	38,400 pupil tests.
Grade V.	236 x 40 pupils took 3 tests	28,320 pupil tests.
Grade IV.	236 x 40 pupils took 2 tests	18,880 pupil tests.
Grade III.	219 x 40 pupils took 1 test	8,760 pupil tests.
		173,680

Each test contained about fifty-five words, so that approximately nine and one-half million records were examined by pupils and teachers, of which twenty out of fifty-five or nearly three and one-half million were checked and results tabulated in

the schools. The number of records actually transcribed and added was 61,500 in the first grouping and 4,620 in the second. The final totals were recorded and other records checked for reasonable accuracy in the office of the Model School. This final summary resulted in 1,155 items showing the total number of teachers reporting certain words as among the twenty hardest in some grade, and it is believed that the results are substantially correct.

It is interesting to note that a wide variation in "hardest words" occurs in these reports from school districts. A similar variation was found in the reports of individual teachers on their grade lists as a result of the year's work. (See Board of Superintendents' Circular No. 15, 1926–27.)

The only words in all the tests that are not included by one or more districts as among the twenty hardest are two words in the seventh grade test given in Grade VII, the same two words and three others in the seventh grade test given in Grade VIII, and seven words in the eighth grade test given in Grade VIII.

The following lists contain all words given in the Cooperative Review Tests for 1928. The figures opposite each word represent the per cent of teachers in the grade who reported the word as being among the twenty hardest words in that particular test. A star in addition to the number indicates that the word is one of the twenty hardest, taking all reports into consideration.*

It should be borne in mind that the term "hardest" means "most frequently reported as misspelled." It may be that some words not so reported are intrinsically "harder," but that normal teaching, review and use have fixed the spelling more firmly in the minds of pupils.

* In some cases twenty-one or twenty-two words have been starred.

Grade III.	III.	IV.	V.	VI.	VII.	VIII.
1. afraid	6	1	3	7	11	21
2. answer	17	8	9	5	14	18
3. August	22	27	24	*41	35	38
4. autumn	*43	*80	*71	*89	*86	*82
5. breakfast	10	3	8	12	13	11
6. bridge	31	22	6	6	2	2
7. busy	9	4	12	11	30	29

Grade III.	III.	IV.	V.	VI.	VII.	VIII.
8. carried	31	8	16	12	10	8
9. caught	21	9	10	10	8	10
10. Christmas	41	*42	40	30	*44	*49
11. circus	*45	29	39	38	17	16
12. clothes	29	20	24	36	*57	*56
13. couldn't	*54	41	*49	*58	*63	*57
14. country	23	5	2	3	1	1
15. cousin	*43	12	14	7	8	11
16. doesn't	*61	*76	*75	*81	*83	*84
17. eight	6	2	2	3	5	8
18. February	*60	*64	*63	*81	*83	*87
19. field	33	19	25	*47	24	*40
20. friend	*49	25	29	*43	23	25
21. fruit	8	3	3	2	1	1
22. guess	23	32	32	21	27	36
23. instead	23	12	8	5	7	7
24. knives	26	35	*42	39	*41	*44
25. laughed	*56	*64	*80	*80	*77	*83
26. listen	20	15	37	27	37	33
27. minute	*51	*71	*72	*64	*66	*60
28. naughty	39	37	*43	*42	30	31
29. neither	*72	*83	*88	*88	*93	*81
30. October	13	3	2	5	7	9
31. people	24	3	3	0	1	2
32. piano	36	*42	*58	37	39	38
33. picture	*42	21	5	3	3	9
34. piece	41	35	*62	*69	*59	*62
35. pitcher	*64	*81	*91	*90	*94	*92
36. pleasant	*59	*82	*88	*84	*86	*73
37. primary	36	*79	*73	*66	*72	*57
38. question	*44	*79	27	9	7	8
39. quiet	27	*53	*44	*56	*62	*60
40. Saturday	31	37	30	*41	*59	*67
41. squirrel	*67	*90	*96	*93	*94	*88
42. sugar	14	5	2	4	3	7
43. their	*53	*59	*49	40	*48	*40
44. thought	16	5	4	5	4	4
45. through	*62	*42	30	27	24	30
46. toward	30	*51	*42	37	23	30

Grade III.	III.	IV.	V.	VI.	VII.	VIII.
47. trouble	*42	17	37	23	26	22
48. Tuesday	22	17	16	14	26	34
49. Wednesday	*47	*65	*64	*79	*81	*73
50. which	35	*52	*55	23	15	13
51. whistle	*63	*87	*81	*70	*60	*58
52. whole	19	24	10	7	9	0
53. whose	27	14	*42	38	30	24
54. writing	24	31	15	12	24	29
55. wrong	14	2	2	5	1	1

Grade IV.	IV.	V.	VI.	VII.	VIII.
1. against	3	1	1	0	2
2. answered	7	3	3	4	2
3. beautiful	12	8	3	2	2
4. beginning	29	46	40	36	*57
5. behave	1	1	0	1	1
6. believe	16	15	*48	16	34
7. biscuit	32	29	32	*54	*48
8. busily	47	*61	*46	*76	*72
9. business	*74	*85	*78	*79	*71
10. carriage	*49	38	*52	39	*59
11. certain	23	11	12	5	7
12. cough	3	3	2	4	7
13. dessert	*57	*79	*86	*91	*92
14. difficult	30	11	13	22	8
15. drowned	26	7	18	24	30
16. earliest	*54	*67	*48	*47	30
17. eighth	33	20	33	36	40
18. enough	11	2	1	4	2
19. envelope	25	22	*46	*50	13
20. fierce	*75	*53	*73	36	*53
21. furniture	33	15	13	12	10
22. geography	17	5	5	1	3
23. groceries	*55	35	38	*46	42
24. guard	39	30	38	34	21
25. handkerchief	21	18	27	*52	*70
26. journey	*49	41	42	27	12

Grade IV.	IV.	V.	VI.	VII.	VIII.
27. language	42	41	48	14	12
28. Massachusetts	46	*62	*68	*61	*79
29. muscle	*50	*64	*54	42	37
30. neighbor	46	*62	40	28	20
31. nephew	20	16	25	23	21
32. niece	*53	*71	*74	*80	*82
33. ninety	*47	*59	*114	*64	*65
34. ninth	15	22	42	*51	*61
35. obedient	*59	*74	18	36	31
36. parade	12	4	2	2	7
37. period	*64	46	13	3	12
38. piazza	*49	*63	*68	*74	*68
39. pigeon	*56	*51	*76	*86	*87
40. quarrel	23	22	13	11	25
41. receive	*78	*81	39	*74	*65
42. recite	8	6	9	9	17
43. scissors	*69	*86	*90	*91	*87
44. shoulders	9	2	3	4	17
45. sleigh	*48	*51	*50	*50	*58
46. soldier	45	44	21	12	22
47. straight	*58	37	23	15	20
48. surprise	39	37	30	34	34
49. though	10	3	3	4	18
50. tongue	42	*62	*52	*63	30
51. used to	45	*69	*72	*79	*69
52. vegetable	*48	*50	*51	42	*56
53. weather	10	2	5	3	12
54. weigh	32	5	8	3	12
55. whether	*71	*73	*79	*89	*62

Grade V.	V.	VI.	VII.	VIII.
1. aeroplane	15	21	34	48
2. agriculture	5	3	2	0
3. aisle	24	9	*53	*71
4. bicycle	34	*63	*77	*96
5. bouquet	30	43	*55	*68
6. bruise	8	11	13	10
7. bureau	*64	*77	*76	*79

Grade V.	V.	VI.	VII.	VIII.
8. calendar	10	12	33	*58
9. ceiling	11	3	11	17
10. celebrate	7	2	0	0
11. college	20	14	16	8
12. column	34	31	33	*49
13. courage	7	3	3	1
14. eightieth	*61	38	*79	*84
15. exercise	*61	*63	*66	*61
16. favorite	27	9	24	17
17. fertile	25	3	7	4
18. finally	*42	21	21	13
19. fragrant	8	8	28	11
20. funeral	16	4	5	2
21. governor	29	13	17	21
22. hygiene	*61	*68	43	28
23. invitation	*54	*46	33	14
24. knuckle	16	27	18	43
25. library	20	14	8	4
26. luncheon	12	7	3	2
27. manufacture	4	1	2	1
28. medicine	*42	25	31	31
29. molasses	*47	42	*50	*59
30. museum	*51	*48	*58	38
31. national	23	8	3	0
32. opposite	35	13	5	3
33. passenger	10	6	3	2
34. phonograph	37	14	23	11
35. practice	*43	*48	*61	*56
36. prairie	*78	*88	*96	*96
37. principal	*58	*44	*48	*53
38. really	15	8	14	13
39. respectfully	34	22	20	8
40. scenery	*56	*48	38	24
41. separate	10	*45	*55	*71
42. several	8	3	1	2
43. shepherd	29	*74	*81	*88
44. signature	35	39	21	22
45. sincerely	*73	*59	*67	*78
46. source	*43	33	15	8

Grade V.	V.	VI.	VII.	VIII.
47. sympathy	*64	*82	*74	*61
48. temperature	*67	*73	*50	40
49. thermometer	*64	*82	27	*78
50. tobacco	39	25	14	21
51. toboggan	*74	*84	*88	*92
52. twelfth	*52	*78	*91	*109
53. vinegar	*42	*63	*49	48
54. wholly	40	*72	*62	*65
55. wrestle	35	33	25	32

Grade VI.	VI.	VII.	VIII.
1. absence	6	2	9
2. advertisement	13	14	12
3. affectionately	25	33	37
4. alphabet	9	5	7
5. apostrophe	23	*52	*60
6. appetite	*54	31	14
7. athletic	12	7	14
8. canceled	29	*72	*77
9. cemetery	30	*60	*74
10. certificate	13	6	4
11. conquer	8	8	10
12. cordially	*47	41	37
13. courtesy	*51	28	41
14. deceive	37	*63	*57
15. describe	14	7	3
16. description	26	21	19
17. electricity	12	3	5
18. especially	*60	27	12
19. expense	22	5	3
20. familiar	26	30	*47
21. foreign	*49	40	13
22. foreigner	*58	*58	29
23. freight	8	6	2
24. government	6	1	1
25. gradually	10	3	0
26. horizontal	8	8	10
27. immediately	*66	*47	*53

Grade VI.	VI.	VII.	VIII.
28. immense	*70	18	9
29. initial	38	26	13
30. kerosene	21	17	28
31. kneads	20	*46	*63
32. machinery	3	1	2
33. mischief	4	7	11
34. monarchy	26	*52	43
35. mosquito	12	30	20
36. musician	*41	21	16
37. necessary	*80	*83	*63
38. nonsense	*45	37	*53
39. obedience	15	5	14
40. occasion	37	40	*51
41. orchestra	30	*55	38
42. pamphlet	36	*46	*51
43. particular	15	7	5
44. peculiar	*62	*58	*54
45. persuade	32	20	40
46. preparation	*41	34	*47
47. pursue	*80	*84	*67
48. receipt	*80	*96	*91
49. recipe	*43	*71	*80
50. recognize	37	*50	39
51. referred	*68	*80	*89
52. restaurant	*65	*93	*91
53. skillful	12	1	8
54. stomach	7	10	12
55. syllable	*63	*77	*88
56. thorough	*67	*89	*83
57. yacht	38	*57	*65

Grade VII.	VII.	VIII.	Grade VII.	VII.	VIII.
1. acquaintance	23	5	7. circumference	25	3
2. ambitious	8	2	8. cologne	27	13
3. appreciate	8	0	9. colonel	23	20
4. artificial	4	0	10. confectionery	*52	*79
5. barely	8	2	11. convenience	*70	34
6. cinnamon	40	*61	12. courteous	*49	44

Grade VII.	VII.	VIII.	Grade VII.	VII.	VIII.
13. disappear	14	9	33. parliament	*63	*70
14. disappearance	42	28	34. physician	*51	*60
15. disappoint	20	16	35. pneumonia	*65	*60
16. formerly	37	45	36. precede	*50	*52
17. gymnasium	28	23	37. prejudice	*78	*93
18. gymnastics	11	5	38. principal	*58	*51
19. independence	4	8	39. privilege	*72	*87
20. judgment	38	*58	40. recommendation	*61	*74
21. knowledge	5	2	41. reservoir	*78	*84
22. legislature	5	5	42. rheumatism	*81	*85
23. leisure	26	16	43. secretary	31	14
24. license	35	32	44. seize	42	32
25. mischievous	*70	*85	45. siege	*57	*80
26. modern	9	4	46. sieve	*50	*78
27. mortgage	44	41	47. specimen	25	18
28. mysterious	25	14	48. stationary	11	27
29. naphtha	*68	*74	49. stationery	17	38
30. nuisance	*59	*68	50. successful	30	30
31. opportunity	34	17	51. superintendent	*53	*77
32. parallel	*76	*81			

Grade VIII.	VIII.	Grade VIII.	VIII.
1. accommodate	37	16. convenient	37
2. allegiance	*63	17. correspondence	20
3. amateur	*47	18. counterfeit	36
4. ammunition	20	19. courageous	39
5. anxiety	9	20. criticise	*81
6. apologize	28	21. cylinder	12
7. bachelor	13	22. decision	*54
8. benefited	41	23. democracy	4
9. campaign	9	24. descendant	*84
10. catalogue	31	25. diphtheria	*61
11. chauffeur	*60	26. discipline	*76
12. conscience	*48	27. economical	27
13. conscientious	*83	28. elaborate	4
14. conscious	*57	29. guardian	13
15. contagious	22	30. hygienic	25

Grade VIII.	VIII.	Grade VIII.	VIII.
31. imaginary	*47	41. punctuality	37
32. immigrant	*68	42. pursuit	12
33. lieutenant	*68	43. representative	27
34. majority	7	44. responsible	4
35. necessity	*59	45. satisfactory	3
36. neutrality	10	46. similar	42
37. occasionally	*82	47. sovereign	*76
38. occurrence	*84	48. sufficient	37
39. politician	*47	49. surgeon	18
40. possession	43	50. villain	*82

The results of these tests, and the careful and conscientious study made by hundreds of teachers over a period of several years in Boston, have given us a knowledge of word difficulties and spelling needs that should be of the greatest value in all grades. Except where principals and teachers desire to continue the percentage records on all words from day to day as part of the regular teaching program there is no reason why the percentage tables should be used any longer in every lesson.

It is hoped, and it seems reasonable to believe, that the method for determining word difficulties set forth in the Boston Plan for Teaching Spelling, and the general principles of procedure outlined for using the Boston Word List have made an appeal to teachers that will endure, and that there will be a constant and voluntary growth in individual practice based upon the Boston Plan, supplemented by the teacher's own interpretation.

Respectfully submitted,

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