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Research Bulletin

OF THE

National Education Association

Can the Nation Afford To Educate Its Children?

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FOREWORD

THE war taught us the tragic wastefulness of poor schools and of no schools at all. It gave us a better realization of the value of good schools. Profiting from these lessons the nation set out to provide adequate educational facilities both as to quantity and quality for all children. Marked progress has been made. The schools are more effective than ever before. But the work is not yet complete. We have made but part of the journey from schools as they were before the war toward schools as they should be. It is of utmost importance to the nation that we should complete that journey.

But there are those who say it cannot be done. And on what basis do they raise objections? On the basis that school costs are larger than the nation's resources will permit. On the basis that we are expending more for education than can be justified under a policy of economy and efficiency in public expenditures.

These objections should be squarely faced. Education or no other public service should receive more financial support than can be justified by its importance to the general welfare. The amount expended should be no more than is necessary to secure the benefit desired.

On the other hand, if the cost of education can be justified when considered in the light of its importance to the general welfare, of the nation's ability to pay, and of a policy of constructive economy in public outlays, then these facts should be known.

Figures necessary to an intelligent consideration of the economic effect and cost of education are given in this issue of the Bulletin for the nation as a whole. A later issue will present facts for individual states. These figures are particularly timely now that a number of the state legislatures are about to convene. The facts presented deserve the thoughtful consideration of school people, of legislators and of public spirited citizens throughout the country.

J. W. CRABTREE, *Secretary,*
National Education Association.

The Educational Lesson of the War and How We are Profiting Therefrom

THE war gave great impetus to the development of public education. From this conflict we learned two things. First, the utter impotence of an illiterate, untrained man in any great, cooperative enterprise. We half consciously realized this before the war, but it took this terrific conflict involving the cooperation of the whole nation in one common enterprise to bring the realization over the threshold into full consciousness.

One million three hundred thousand men of less than six million examined were found so lacking in that first essential to full participation in any important project—sound physique, abundant health—that they were rejected for military service. Concerning the causes of rejection medical opinion concluded:

An analysis in detail of the causes of rejection clearly indicates the preventable nature of these impairments, and also clearly points the way to remedial and preventive work.¹

Others were lacking in another essential—facility in reading and writing. One man in every four called in the draft was inadequately equipped in ability to read and write. They were unprepared for maximum service either in peace time or in war time.

Thousands rejected because of physical defects of a preventable nature; other thousands sent home because of lack of education and intelligence. Thus the war brought home to the American people the tragic wastefulness of poor schools, and of no schools at all.

And at the same time, the power of an educated man was more fully realized. Young men little more than out of high school quickly grasped the knowledge essential to promotion into positions of responsibility in both the land and sea service. After a few months' training they met every demand, whether of steadfast devotion or technical knowledge.

And in the shops and munition factories a similar lesson was being learned. Manpower

was no longer easily obtained. Five million men flocking to the colors had resulted in a shortage of men. Great machines came into use. And once again the need for the intelligent man. The illiterate man makes a poor engineer, either to operate or to keep in repair one of the modern mechanical contrivances whereby one man performs the work of ten, fifty, or a hundred.

And thus we had the double lesson, first the helplessness of the untrained man in any great, cooperative undertaking, and second the potency of the educated man in such an undertaking.

What was the response of the American people? First, came the full realization that education had been far undervalued in this country. The evidence was clear. Millions were illiterate—the majority of them native born. Other millions were far below par physically. Many schools closed for lack of teachers and proper financial support. There was no lack of evidence on this side!

And on the other side was the lesson so clear that anyone might read—that education pays, that only with a complete education may the ordinary man strive in a country such as ours other than at a cruel disadvantage.

Having learned these lessons the nation set out to profit from them. It resolved to remove the deficiencies which the neglect of public schools in many communities had brought about, and to realize the solid returns which come from wise investment in first-rate public schools.

Five Phases of Educational Improvement

Schooling for all.—First, came the task of reducing the number of children not in school. The 1920 census had enumerated a million and a half children from seven to thirteen years of age as not attending "any kind of educational institution."

¹ Eugene Lyman Fisk, M. D. "Some Lessons From the Draft Examination." *Journal of the American Medical Association*, February 2, 1918.

Progress has been made in achieving this goal. School attendance as measured by the aggregate days of attendance in all public elementary and secondary schools was forty-one percent greater in 1926 than 1915. During the same period the number of children of school age increased but fourteen percent, or about one third as fast. Real progress has been made toward getting all children in school.

Nor are we longer willing to accept a few short years of schooling as an adequate foundation for intelligent participation in the life of a democracy. We are rapidly approaching the time when an acceptable minimum amount of education for an American citizen will be high school graduation. While the period 1915 to 1926 saw a general population increase of seventeen percent, and an increase in children of school age of fourteen percent, high school enrolment increased one hundred and forty-one percent.

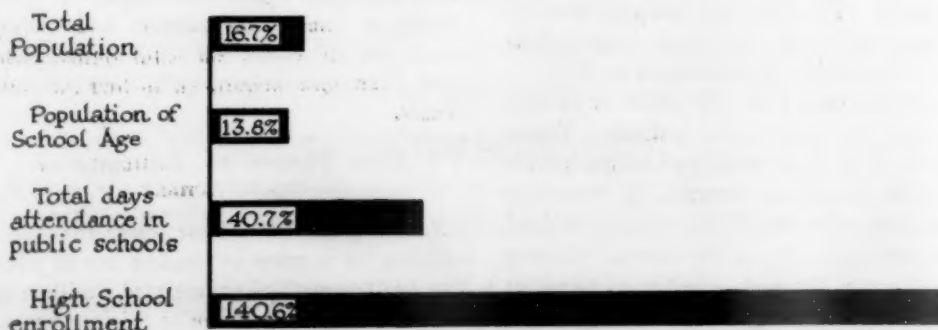
It may be that high school graduation will come to mean quite a different thing for many children than it now means. High school education of the traditional, academic type is unsuited for some children. Some development of the part-time school idea, whereby school training is given concurrently with limited par-

ticipation in industry may be the answer to this problem. But whatever the answer may be in its details, in its essentials it will amount to guaranteeing every child substantial school guidance until the eighteenth birthday is reached. Some states have already done this. They have recognized that it is the sheerest folly abruptly to dis sever immature youngsters of fifteen, sixteen and seventeen years of age from the one institution whose sole objective is education and guidance—the school—and to cast them into modern industrial and social life, with its many pitfalls, to be exploited by industrial and recreational influences, the principal objective of which is the winning of money profits.

Adequate and healthful school plants.—Second, the nation, profiting from the lessons of the war, resolved that when the children arrived at school they should be housed in modern school plants. Abundant health cannot be expected if children sit in cramped seats in poorly lighted, heated, and ventilated buildings. Strong physiques cannot be developed on two by four playgrounds. The American people realized that the first step in removing the physical deficiencies revealed by the war should be the provision of modern school plants.

CHART I

PERCENT INCREASE IN TOTAL POPULATION SCHOOL POPULATION AND SCHOOL ATTENDANCE 1915 to 1926



Research Division, National Education Ass'n.

Calculations based on figures of U. S. Bureau of Education.

So the last decade has been one marked by a general remodeling of our school buildings. After proper allowance is made for the lowered purchasing power of the dollar, more money was expended for school buildings and sites in the five years 1921 to 1926 than in the whole thirteen years preceding this period. Many communities have almost completely rebuilt their schools. Well lighted, well heated, well ventilated buildings have replaced jail-like structures. School grounds have been enlarged. Whereas an acre or two was frequently the allotment for an elementary school before the war, not less than five acres is coming to be the minimum in many cities, while sites for junior and senior high schools are several times five acres in many communities. Gymnasiums and athletic fields are a recognized part of modern school plants.

Properly qualified and adequately paid teachers.—And third, the intelligent citizenry of the nation resolved that its classrooms should not only be supplied with teachers, but with teachers properly prepared for their important work. Many of the deficiencies re-

vealed by the war could be directly traced to the fact that in some communities no teachers of any kind were employed, while in others the teachers had little if any preparation for their work.

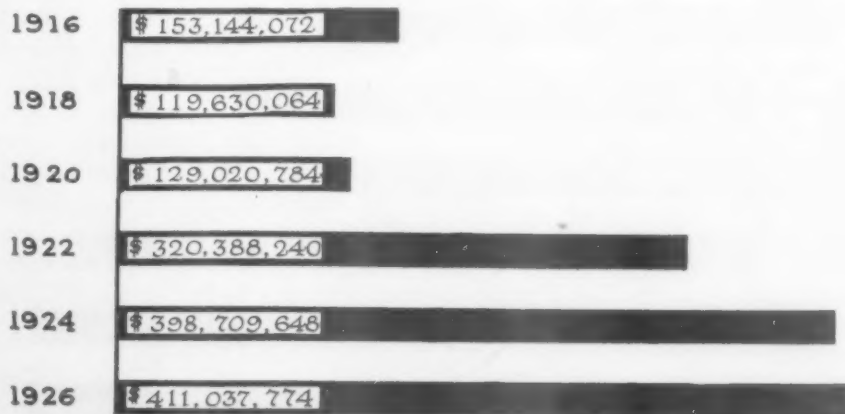
Under prewar conditions it was useless to expect that trained teachers would be found in most schools. The average yearly salary of all teachers in public elementary schools in 1915 was \$543. This was too little to encourage any large number of young people to undergo the expense of preparing for teaching service. Prewar standards for admission to teacher service were generally low. A coaching course of a few weeks, following the completion of the eighth grade, was the requirement in thousands of communities.

Some progress has been made in correcting these conditions. The teachers' average salary increased from \$543 to \$1277 between 1915 and 1926. Part of this increase was fictitious, but after correction is made for the loss in purchasing power of the dollar, there is still some real gain. The 1926 salary purchased 41 percent more than that of 1915. During

CHART II

EXPENDITURES FOR PUBLIC SCHOOL BUILDINGS, SITES AND EQUIPMENT

(In Dollars of 1926 Purchasing Power)



Research Division, National Education Ass'n.

Calculations based on figures of U.S. Bureau of Education and National Industrial Conference Board.

this same period the average income of all gainfully employed persons increased from \$861 to \$2010. The latter figure represents a gain in purchasing power of 33 percent over that for 1915. So, whereas teaching still struggles under an economic disadvantage, it is a lessening one. Most encouraging is the fact that teachers in some communities, for the first time in our history, are receiving a professional wage.

A number of the states and most large cities have organized retirement plans similar to those in effect in progressive industrial concerns. These plans, jointly paid for by the teachers and the community, offer a business-like method whereby those rendered incompetent by advanced age or mental and physical disability, may be retired and the efficiency of the schools and the welfare of the children protected.

One community after another is coming to look upon the recruiting and maintenance under effective working conditions of a capable teaching personnel, as an issue of first impor-

tance, which if neglected, brings a train of evils which no locality can afford to face.

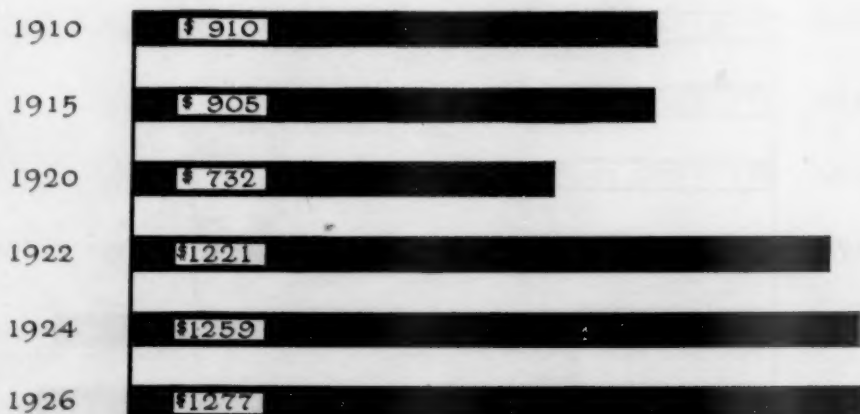
An appropriate lifting of the qualifications for admission to teaching is being made. Few but backward communities appoint new teachers with less than two years of professional training beyond high-school graduation. Many communities now employ only those with preparation for teaching equivalent to college graduation. Most of the states have adopted state wide regulations which protect children from teachers whose preparation is below some defined standard, in many cases, normal school graduation.

Broader school aims and better means of achieving them.—A fourth factor making for school betterment has been working with much potency since the war. This is the better definition of the aims of the public school, and the development of a modern curriculum through which to realize these aims. Perhaps the best known statement of the aims of the modern public school is that of a commission of the National Education Association. This

CHART III

AVERAGE SALARY OF PUBLIC SCHOOL TEACHERS IN THE UNITED STATES

(In Dollars of 1926 Purchasing Power)



Research Division, National Education Ass'n.

Calculations based on figures of U.S. Bureau of Education and National Industrial Conference Board.

committee stated these to be the desirable outcomes of attendance in public schools:

1. *Sound health.*—Without sound health, one's effectiveness in any direction is seriously limited. Good health may be had by all but a few. The price is knowledge of the laws of health and practise in healthful living. These the modern schools seek to provide through its work in health and physical training.

2. *Worthy home membership.*—The school can lay a foundation in the lives of children for successful home life. The skills and the attitudes can be given which will do much to preserve the influence and integrity of the home. These the modern school seeks to give through such courses as those in household and manual arts.

3. *Mastery of the three R's.*—Mastery of the basic tools of learning—reading, writing and arithmetic—must always be one of the outcomes of school attendance. One half or more of school time is given to this objective. Better teaching methods and the longer school year make it possible to give proper attention to the three R's and to have time left for other important school aims. It is probable that a larger percent of the population has a high degree of mastery of the three R's than ever before. In addition, millions of the less talented, formerly eliminated at an early age, are being given reasonable facility in these skills. It is the aim of the modern school to bring an increasing proportion of our population to a high degree of mastery of the three R's.

4. *Good citizenship.*—The new school aims to give children not only knowledge concerning our government, but practise in good citizenship. More people voted in the 1928 election than ever voted before at one election in the world's history. It is doubtful whether in any other major country as large a percent of the people ever voted with as full understanding of the major issues of a political cam-

paign. Those who voted came from many nations of widely different social, educational, religious, and political backgrounds. The campaign was vigorously contested. Yet no disorders occurred on election day or thereafter. No appeal from ballots to bullets was suggested. To make possible such exhibitions of wholesale good citizenship is one of the aims of the modern public school.

5. *Vocational efficiency.*—Ability to make a living is essential to complete living in the United States. Our leisure class is small. Time was when a stigma was attached to those who worked. Now a stigma is attached to those who do not work.

The school, as in the past, continues to give a foundation training to the relatively small percent of our population which enters the professions. In addition, the modern school seeks to give the rank and file of our population the preliminary training needed by those who would work with success in the new occupations which a changing industrial order is ushering in.

6. *Wise use of leisure.*—One's leisure can be used in activities which either energize or enervate. Which will it be? As the amount of leisure increases it is more and more important that the school lay the foundation for whole-hearted participation in leisure time pursuits which tend to elevate the character of the nation's citizenry. This the modern school aims to do.

7. *Training in good character.*—Modern schools have a better understanding of how the foundations of sound character are built than the school of any former time. The application of this knowledge is the principal and all inclusive school aim to which all other purposes are subsidiary. The number of influences outside the school which tend to undermine character has increased. The modern school seeks to offset these by increasing the emphasis upon, and by improving the methods used in building sound, ethical character.

HERE IS A populous nation of continental extent and a hundred racial derivations which is practically one in its economic and social philosophy—a philosophy that is all but entirely devoid of the destructive and subversive schisms that divert the energy of other nations from material achievement to futile factional wrangling over theoretical abstractions. There is nothing like it elsewhere in the world.—Theodore M. Knappen and Robert E. Stanlaws, *The Magazine of Wall Street*, November 17, 1928, p. 101.

Hundreds of school systems throughout the country are at work selecting the subject-matter and developing the school activities which experience and research indicate will be most effective in realizing the foregoing purposes of the public school.¹ The teaching profession through such organizations as the National Education Association and the National Society for the Study of Education has expended hundreds of thousands of dollars in time and energy on this problem.² Committees representing all sections of the country and varying viewpoints have met and tentatively stated general principles to guide those active in reconstructing the schools' courses. The purposes of education as a whole are being reexamined. The function of the various school units, elementary, secondary, and collegiate are being restated and efforts are being made better to coordinate the whole educational system so that waste, lost effort, and overlapping will be eliminated and the progress of a child from grade to grade and from each school to the next higher one will be as rapid and purposeful as his talents permit.

Mistakes have been and will be made. New trails are being blazed. It requires time for experience and research to select the particular subject-matter and school activities which are most effective in achieving the desired ends. But who can doubt that from this work by thousands of teachers, backed by the interest and guidance of thousands of school board members and other intelligent laymen, a better public school will develop—one which will remove the war-revealed deficiencies and which will better equip the nation's citizenry for successful living.

Reorganization of school financing.—Following the war the people of the United States made a fifth resolve. This was to provide sufficient financial support so that it would be economically practical to develop better schools. The nation realized that in education as in other things it would get no more than it paid for. Cheap schools before the war brought poor results. Better results could be expected only if more money was voted for school support.

In carrying out this resolve the nation increased its school expenditures from a half billion to two billions between 1914 and 1926. Most of this increase was needed to offset the loss in purchasing power of the dollar and to take care of the rapid increase in school population. But after these had been taken care of some money remained for increasing the quality of school work. Stated in cents of 1926 purchasing power, the cost of educating a child in school for one day increased from 41.8 cents in 1914 to 60.3 cents in 1926, or 44 percent. There has been an average annual increase of less than two percent in the amount of school money available for improving the quality of school work.

This improvement has not been uniform, however. Some communities are supporting education much more adequately than before the war, others are providing less support per child in attendance than before the war. In short, whereas most children are receiving better educational opportunities than before the war, the disparity between the opportunities offered children in favored and unfavored communities are probably greater than before the war. To correct this situation, which exists to some extent in practically all sections, the states are working along several lines.

First, it is necessary, in most states, radically to revise the methods through which money is obtained for school support. Most school money is obtained through real and personal property taxes. Property valuation, however, is no longer indicative of total tax-paying ability. Many people enjoy large incomes, but own little property. The property tax frequently violates some of the cardinal principles which experts have set up as distinguishing equitable from inequitable forms of taxation. Taxation authorities are in general agreement that the percent of tax money from property taxes should be decreased, and that the newer forms of wealth, such as personal and business income, should bear a larger share of the cost of public expenditures. The experience of the federal government and of a few states offer support to this theory. In short, if the

¹ See: "Keeping Pace With The Advancing Curriculum," and "Creating a Curriculum for Adolescent Youth," *Research Bulletin* of the National Education Association, vol. III, nos. 4 and 5, and vol. VI, no. 1.

² See recent Yearbooks of the Department of Superintendence of the National Education Association, and of the National Society for the Study of Education.

schools are to be supported properly a decreasing percent of school money should come from the property tax, and an increasing percent should come from the important new forms of income and wealth which modern economic organization has created.

Not only does most school support come from the property tax, but usually from such a tax levied by a small local governmental unit. This fact is of increasing significance since present day industrial organization tends to concentrate wealth and income, or tax-paying ability, in comparatively small geographic areas. Within one school district may be concentrated several important industrial concerns distributing products throughout a state or the whole nation. Such a district can support first rate schools on a low tax. Other districts have comparatively little tax-paying ability and many children. A high tax raises too little to support good schools.

Such situations have been partly corrected in some states by reducing the portion of school money collected by the school district, township, or other local unit, and by establishing a county school tax. California, for example, since the war, has put into effect a county school tax which raises thirty dollars for every pupil in average daily attendance. A county tax, however, at best but partly meets the difficulty. Counties differ tremendously in ability to support schools. Consequently, there has been a movement to increase the amount of school money collected through state-wide taxes. Such taxes are most equitable from the taxpayer's point of view, in that an equal burden is borne by all, and at the same time make it possible to guarantee all children a reasonable educational opportunity.

Most states have also recently revised or are working on the revision of the methods whereby

the school money provided by the state government is distributed to the local school districts. It should be apportioned in a manner which will make it possible for all local school districts, poor as well as rich, to provide all children with an acceptable educational opportunity, without levying an unduly burdensome local tax. As apportioned before the war, the school money coming from the state often tended to accentuate inequalities in ability to support schools.

The progress made since the war in dealing with school finance problems promises much for future school advance. The realization of the ideal of a fair educational opportunity for all children for the first time appears to be attainable in practise.

Shall We Finish The Task?

The war taught us the tragic wastefulness of poor schools and of no schools at all. We are profiting from that lesson. This section has listed some of the important items of educational reconstruction.

First, we have reduced the number of children not in school, and have extended the period of schooling given every child toward the minimum desirable for potential citizens of a democracy.

Second, we have made excellent progress toward providing healthful school buildings and adequate school playgrounds.

Third, we have raised the qualifications for admission to teaching service and have made some progress in guaranteeing a professional wage to those who prepare for this service.

Fourth, progress has been made in redefining the purposes of the public school and in selecting the subject-matter and pupil activities to be used in achieving the schools' broader aims.

WITHIN THE BORDERS of a state, even within the limits of a single county, there are to be found districts which, with all the goodwill in the world, are financially unable to supply even the barest minimum of education to their children, whereas there are other more fortunate districts, which can build and maintain the most up-to-date schools and hardly feel the resulting tax burden. It has come to be realized that the providing of adequate educational opportunities is a general social function as well as a local obligation. An increasing number of states are making provision for state school funds to be distributed among the counties and districts so as to equalize educational opportunities. This project of equalization is not new, but only in recent years has it gained much headway.—*Cost of Government in the United States, 1925-26, p. 168-9. National Industrial Conference Board, New York.*

Fifth, we have made some progress in securing adequate state school funds through just and equitable methods of taxation, and have learned much as to how these funds may be distributed so as to achieve equality of educational opportunity.

But while significant advance has been made in all of these directions the goal has been reached in none. There are still places where children are given the most meager of educational opportunities—in more than a fourth of the states children on the average attend school less than six years. This means that thousands of children go no farther than the third or fourth grade. In only one state in four is the average length of schooling per child as much as eight years. We still have far to go before we will be giving all children a complete schooling.

There are children still attending school in poorly lighted, improperly ventilated, and in many cases, unhygienic buildings, situated on wholly inadequate sites and lacking equipment essential to a modern program in health and physical education.

Thousands of communities still employ teachers with practically no preparation beyond elementary school graduation. Three teaching positions in every ten offer yearly salaries of less than \$1000, and over 100,000 positions pay less than \$600 a year. We still have a considerable distance to go before none but trained persons will be allowed to teach, and when all teaching positions will offer a professional wage.

There are still thousands of schools so limited in aim and so antiquated as to curriculum that they are as obsolete, compared with what a modern school should be, as is the oxcart in the age of the automobile and airplane. These schools still have far to go before they will be ready to achieve the purposes for which modern schools strive.

The adequate financing of public education has as yet been achieved in but a few states. The amount raised is still insufficient to maintain first-rate schools in many communities. The taxation machinery through which school money is obtained needs radical revision in the majority of states and the money provided by the state is frequently distributed among the local school systems in a manner which

increases rather than decreases educational inequalities.

Substantial progress has been made. Much remains to be done before the educational improvements suggested by the lessons of the war will have been completed.

With the record so clear, it might be expected that the road to continued educational advance would be easy, that there would be no thought but to continue the period of educational rehabilitation until our schools are as effective as human knowledge can make them. But such is not the case. Although the rank and file of the American people are as anxious as they were ten years ago to bring school facilities to the highest possible point of efficiency, there exists a small but vociferous minority who would do otherwise. They would undermine one of the foundation stones upon which school progress has been based during the last decade, and upon which further progress must be based—adequate financial support.

On what grounds is based the opposition to adequate financial support for the schools? We are told that too large a part of our wealth and income is invested in the schools; that more money is expended for education than its importance justifies; that the amount of public expenditures of which school costs are an important item is larger than the nation can afford; that public expenditures and school costs in particular are absorbing a rapidly increasing portion of the national income, and that we have already or will shortly reach the limit which we can safely expend for public education.

To what extent are these fears and forebodings justified? Do present school expenditures or the trend of school expenditures indicate that we have reached or are closely approaching the limit which we can wisely spend for the correction of the defects in our educational system which the war revealed? Or does it appear that we may safely continue to increase the amounts invested in the schools so long as sound educational progress is dependent upon such increases? In short, can we afford to complete the reconstruction of our educational system which we started immediately following the war? To answer these questions is the purpose of the next sections of this bulletin.

Wealth, Income, and School Support

How much of our income do we spend for education?—This question can be answered by comparing the nation's yearly income with its expenditures for schools. The incomes of all the people of the United States added together amounted to \$84,150,000,000 in 1926, the last year for which we have figures. In the same year, we expended \$2,255,251,327 for public schools¹ of elementary, secondary, and collegiate grade. Of this sum, \$2,026,308,190, or 90 percent, was for public

elementary and high schools and the remainder for public colleges. Since we had an income of \$84,150,000,000 and expended \$2,255,251,327² for public schools, 2.68 percent of our income goes for their support.

Table 1 gives the percent of the nation's yearly income expended for schools of various grades, both public and private. This table indicates that a minor part of what we have to spend is expended for schools. From each dollar of yearly income we allot 2.41 cents

¹ In this bulletin public schools are defined as tax-supported schools, all others are designated as private schools.
² This figure omits expenditures for public institutions for the blind, deaf, feeble-minded and delinquent. The estimated cost of these institutions both public and private in 1926 was \$52,631,239.

TABLE 1.—YEARLY INCOME AND SCHOOL COSTS IN THE UNITED STATES IN 1926

Item	Amount	Percent of Income
Total National Income.....	\$84,150,000,000	100.00
Cost of Public Schools:		
Elementary and Secondary.....	2,026,308,190	2.41
Colleges and Universities.....	228,943,137	.27
Total (Public).....	2,255,251,327	2.68
Cost of Private Schools:		
Elementary and Secondary.....	190,589,049	.23
Colleges and Universities.....	240,268,068	.28
Total (Private).....	430,857,117	.51

Sources: School Costs calculated from figures of the United States Bureau of Education; income figure is an average of the estimate of the National Bureau of Economic Research and the National Industrial Conference Board.

CHART IV

INCOME and SCHOOL SUPPORT in the UNITED STATES

Estimated current income
 \$ 84,150,000,000

Expenditures for public
 schools—Elementary,
 secondary and collegiate
 \$ 2,255,251,327

Research Division, National Education Ass'n.

Sources of data: Income figure is an average of the estimates of the National Industrial Conference Board and National Bureau of Economic Research. School costs calculated from figures of the U.S. Bureau of Education.

for public elementary and secondary schools. Tax supported colleges and universities take an additional .27 cents. Public schools of all types require 2.68 cents of each dollar of income.

What part of our wealth is invested in school property?—This question can be answered by comparing the nation's total wealth and the value of its school property. The total wealth of the United States in 1926, that is the value of all forms of tangible property, such as lands, buildings, and equipment, is estimated at \$375,000,000,000. In the same year the value of the property of public schools of all classes was \$5,391,127,353. The investment in public school plants, therefore, is 1.44 percent of our total property or wealth.

Table 2 shows the percent of our total wealth represented by the value of the property of public and private schools. This table indicates that a minor fraction of the nation's tangible wealth is invested in school plants. For every \$100 of wealth possessed, \$1.25 is invested in the buildings, grounds and equipment of public elementary and secondary schools. An additional 19 cents is invested in the plants of colleges and universities. The property of public schools of all types accounts for \$1.44 of each \$100 of the nation's wealth.

Savings deposits and value of school property.—In 1927, 48,354,784 savings accounts were reported by the banks and trust companies of the United States. This figure did not include reports from a few banks in some

of the states. Had complete figures been available, the number would have been above 50,000,000. Ordinary commercial checking accounts are also excluded from consideration. The figure given refers only to savings accounts which draw interest. Some savings depositors have more than one account, but after this fact is properly discounted, the existence of over 50,000,000 savings accounts in a nation with but 45,000,000 gainfully occupied persons is a remarkable showing.

In every year since 1920 the increase of the amount in savings accounts in the United States has been more than a billion dollars, and in some years more than two billion dollars. The total in these accounts in 1927 was \$26,090,907,000. This is nearly five times as much as the value of all public school property. Twenty-one cents out of each dollar on deposit in the nation's savings accounts would provide a sum equal to the value of the property of all public schools—elementary, secondary, and collegiate. For every dollar of capital invested in public school plants, we have \$4.84 in savings accounts.

The tremendous sum in the nation's savings accounts is the more remarkable since available information indicates that these accounts are of decreasing importance relatively as a means of saving and investing money. The report of the American Bankers Association states:¹

... every indication points to the fact that banks are being used more and more simply as

¹ American Bankers Association, *Savings Deposits and Depositors* 1912, 1917, 1922, 1927.

TABLE 2.—WEALTH AND VALUE OF SCHOOL PROPERTY IN THE UNITED STATES IN 1926

Item	Amount	Percent of Wealth
Wealth (value of all tangible property).....	\$375,000,000,000	100.00
Value of property of public schools:		
Elementary and Secondary.....	4,676,603,539	1.25
Colleges and Universities.....	714,523,814 ¹	.19
Total (Public).....	5,391,127,353	1.44
Value of property of private schools:		
Elementary and Secondary.....	911,544,000	.24
Colleges and Universities.....	1,822,414,119 ¹	.49
Total (Private).....	2,733,958,119	.73

Sources: Value of school property calculated from figures of the United States Bureau of Education; wealth estimate based on figures of United States Department of Commerce.

¹ Includes endowments and similar productive funds.

reservoirs for the deposit of funds until such time as the depositors have amassed sufficient to enable them to purchase investments.

When withdrawn the money is reinvested, according to the American Bankers Association, for such purposes as life insurance, stocks and bonds, and homes.

A minor fraction for schools.—From whatever angle the question is studied, it is clear that but a minor fraction of our economic power and capital is invested in public schools.

Is the education of the nation's children an interest of sufficient importance to justify allotting to public schools the small parts of income and wealth now devoted to this purpose? Providing it is necessary, in order to give every child an equal opportunity and a fair start in the race of life, would it not be wise to expend for public education as much as five cents out of every \$1 which we have to spend, and to invest in school buildings and equipment as much as three cents out of every \$1 of wealth?

School Costs and Certain Other National Expenditures

How does our public school bill compare with that paid for certain other items? This question can be answered by comparing the nation's school bill with those it pays for certain other purposes.

¹ *Commerce Yearbook, 1928.* U. S. Department of Commerce.

Life Insurance.—The nation's bill for life insurance in 1926 was \$2,624,000,000.¹

This figure may be compared with \$2,255,251,327, expended for public schools of all types—elementary, secondary, and collegiate.

The nation's annual bill for life insurance is, therefore, slightly larger than that paid for public education. Out of every \$100 which we have to spend, we pay \$2.68 for public schools and \$3.12 for life insurance premiums.

In making this comparison there is no thought of depreciating the importance of life insurance. Through life insurance we purchase a form of protection which is indispensable to millions of families. It constitutes one of the important forms of saving and investment which many people make. The fact that there were 25,501,000 ordinary life and 76,404,000 industrial life insurance policies in force in 1926, and that these policies protected the lives of the nation's people to the amount of \$78,492,000,000 calls for optimism. These figures indicate both general prosperity and commendable thrift on the part of the nation's citizenry.

But, however highly we may rate the service rendered to the nation by the life insurance business, the question may be raised whether it is any more important than that rendered by the service of public education. Yet we are

CHART V

WEALTH and SCHOOL PROPERTY IN THE UNITED STATES

Estimated value of all tangible
property—\$375,000,000,000.

Value of all property used for
public school purposes—
\$ 5,391,127,353

Research Division, National Education Ass'n.

Sources of data: Estimated value of wealth based on figures of U.S. Department of Commerce; value of public school property calculated from figures of the U.S. Bureau of Education.

spending more for life insurance than for public schools of all types. For every \$1 expended for public schools we are spending \$1.16 for life insurance. Does this fact indicate that the public schools require a larger share of the nation's income than their importance justifies?

Building Construction.—The nation's bill for buildings, homes, and other structures in 1927 was \$6,787,000,000.¹ This amount is three times the \$2,255,251,327 expended for public education in 1926.

Payments for building construction constitute an investment of first importance. A home or building once completed is serviceable for many years and expenditures for such structures constitute an important form of national savings.

But important as it is to replace worn-out structures, or to replace those which are out of date with more modern ones, who would contend that this is more important to the nation's welfare than the education of its children? Yet for every \$1 which we spend for public schools we expend \$3.01 for new buildings. Does this fact indicate that public school costs are greater than we are able to afford?

Passenger Automobiles.—Some would class the automobile among the necessities of life, others look upon it as a luxury. Both viewpoints are justified in some instances. An automobile may be a necessary part of the working equipment of a business man or doctor. On the other hand, some automobile mileage deserves to be classed as a luxury expenditure. When one uses a machine for ordinary pleasure driving, or to go to work in the morning when the trip can be made nearly as quickly and much more cheaply by other means, it is certainly not a necessity.

Rationalize as we may, there is little justification for placing our automobile expense in the class with such necessities as food or clothing. Denied the use of all passenger automobiles, we would be greatly inconvenienced to be sure, but we would make the adjustment

and the world would soon go on as if nothing had happened. How different would be our status if such necessities as food and clothing were denied us?

But whatever allocation we may make of automobile expenses under the heads of necessities or luxuries, who would say that it is more important to make full provision for our passenger automobile needs than for our educational needs? Yet we are spending several times more each year for automobiles than for all public schools.

In 1927 there were 20,230,429 passenger automobiles in operation in the United States. We own 78 percent of all the automobiles of the world. Excluding motor trucks from consideration we expended in 1927 approximately \$11,955,907,443² for the purchase, operation, and upkeep of passenger automobiles? The public school bill requires \$2.68 out of each \$100 of income; the passenger automobile bill requires \$14.21 out of each \$100 of income. Do these facts indicate that public school expenditures represent an over-valuation of the importance of education?

Luxuries.—Another major national bill is that annually paid for luxuries. Following are the approximate expenditures of the nation for four groups of articles, all of which are in the luxury class. Although these items do not include all articles in the luxury class, the bill is a sizeable one.

Tobacco	\$2,087,110,000
Soft drinks, ice cream, candy, and chewing gum	1,803,480,000
Theaters, movies, and similar amusements.....	1,055,420,000
Jewelry, perfumes, and cosmetics	806,820,000
Sporting goods, toys, etc...	487,030,000

Total \$6,239,860,000³

In giving these figures, it is not intended to imply that one should limit himself wholly to the necessities of life. Modern economic organization makes it possible to produce not only the necessities of life but also many non-essentials. Only the most austere would decry

¹ This figure is based on estimates of the F. W. Dodge Corporation and the United States Department of Commerce. It includes expenditures for school buildings.

² This estimate is arrived at independently, using data of the U. S. Automobile Chamber of Commerce and the American Automobile Association.

³ These estimates are arrived at independently. They are based principally upon data of the U. S. Treasury Department.

the consumption of a reasonable amount of non-essentials.

Acknowledgment of these facts is quite a different matter, however, from being willing to give luxuries preference over essentials in the spending of our income. Who would call it wise to limit the provision made for the education of children in order that we might keep unimpaired our ability to purchase candy, chewing gum, tobacco, and to attend the theater?

Our luxury bill far exceeds that for all public schools. If we had the total bill for all articles and amusements in the luxury class, it would probably be not less than four or five times what we expend for public schools. For the articles and amusements listed above we expend \$6,239,860,000 each year, while all public schools are allotted \$2,255,251,327. For every dollar spent for schools, \$2.77 is spent for candy, chewing gum, tobacco, the theater, and the other articles listed. Do these facts indicate that we over-value education—

that we are spending more for the education of our children than we can afford?

Summary.—This section has presented figures as to the nation's wealth and income, and as to its expenditures for public schools. Facts are also given concerning bills which the nation annually meets for certain other important services. These figures justify two conclusions:

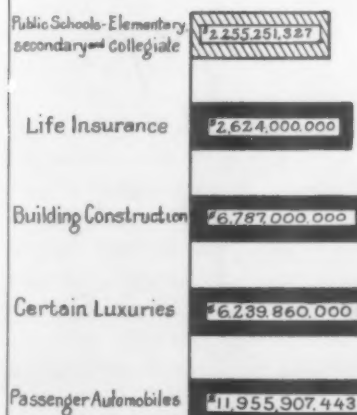
First, a minor fraction of the nation's economic power and capital is invested in public schools.

Second, the nation expends annually for each of a number of items considerably more than it expends for public education. It is doubtful if any of these items are of greater significance to the general welfare than is public education.

With these facts before us, does it appear that there is justification for the contention that too large a part of our wealth and income is invested in the schools, and that more money is expended for education than its importance justifies?

CHART VI

IMPORTANT BILLS PAID ANNUALLY IN THE UNITED STATES



Research Division, National Education Ass'n

Calculations based on the following sources; U.S. Bureau of Education for school costs; the Spectator Co. for life insurance; F.W. Dodge Corporation for building construction; U.S. Treasury Department for luxuries; and National Automobile Chamber of Commerce and American Automobile Association for passenger automobiles.

Income, Tax Collections, and School Costs In The United States

The preceding section presented facts indicating that school support requires a minor fraction of the nation's wealth and income, and that the annual expenditure of the nation for each of a number of other items, probably no more important to the nation's well-being than education, is more than the schools cost.

These facts are rather generally accepted by obstructionists to school advance. They point out, however, that the considerations dealt with in the preceding sections are not the whole story. They state that school costs are but part of a large tax bill and contend that this bill is too large. Continuing from this conclusion, they state that all public services must be reduced in cost, education among them. They go on to point out that public expenditures in general and school costs in particular have increased, and that we have already reached or will soon reach the limit of what the nation can afford. Are such fears justified? Let us look at some of the facts. What is our tax bill, and how does it compare with that of other major countries?

What part of the nation's income is devoted to the payment of taxes?—According to Table 4, the total tax collections in the United States in 1926, the last year for which complete figures are available, was \$8,555,078,840.¹ Of this sum, the federal government collected \$3,207,000,000, or 37.5 percent; the state governments, \$1,264,285,840, or 14.8 percent; and the municipal, county, and various other local governments, \$4,083,793,000, or 47.7 percent.

The nation's yearly income was \$84,150,000,000 in 1926. Federal tax collections in this year, therefore, constituted 3.8 percent; state tax collections, 1.5 percent; and local tax

collections, 4.9 percent of our income. A combining of these percents indicates that 10.2 percent of our national income was expended for public purposes in 1926.¹

How does the burden of public expenditures in the United States compare with that in other countries?—Not a major country in the civilized world is paying as small a percent of its income for taxes as is the United States. The principal countries of the world on the average expend 18.6 percent of their total income for taxes. The northern and western European nations spend close to 20 percent of their income for public purposes. In the United States, the corresponding percent is but 10.2. Figures for each nation are given in Chart VII.

The disparity between the effort required by the United States and by other countries to support their public services is greater than the chart indicates. A man with a yearly income of five thousand dollars is able to pay five percent of his income in taxes with less effort than a man with an income of one thousand dollars. In the first case, the tax payment probably involves little personal sacrifice, that is, reduction in the consumption of necessary food, clothing, and shelter. The payment of such a tax by the man of small income may involve such sacrifice, since his income is close to the level of subsistence.

The United States is in the position of the first man. Our yearly per capita income and our accumulated wealth per capita outclass that of any other country. The yearly income per person is 1.7 times that of Great Britain, which ranks second. The income per capita in the United States is more than three and a half times that of such countries as France and Germany. The per capita wealth, that is,

¹ Tax collections and public expenditures are used synonymously in this Bulletin. It should be held in mind, however, that the amount collected in taxes in a given year may differ from the amount expended for public purposes in the same year. This may be due to the fact that more or less money is collected than is expended in the year concerned. It is a frequent practice in calculating public expenditures to give gross figures, which results in counting some public expenditures twice, in that expenditures financed by borrowing are charged when they are made and also when the bonds or loans are redeemed. For this reason, tax collections are preferred to gross expenditures as an indication of the cost of government. During the war period, the large amount of borrowing made gross governmental expenditures far exceed tax collections. The two are now approaching equivalence. In 1926, gross governmental expenditures by federal, state, and local governments was \$11,134,100,000, including \$1,019,100,000 for debt redemption and \$1,463,300,000 for interest. If these latter items are omitted, the net expenditures for all public purposes is reduced to \$8,651,700,000, which approximates the total tax collections of the same year, which amounted to \$8,555,078,840.

the value of all tangible property in the United States, is more than three times that of any nation in the world except Great Britain. Table 3 and Charts VIII and IX give figures for the principal countries.

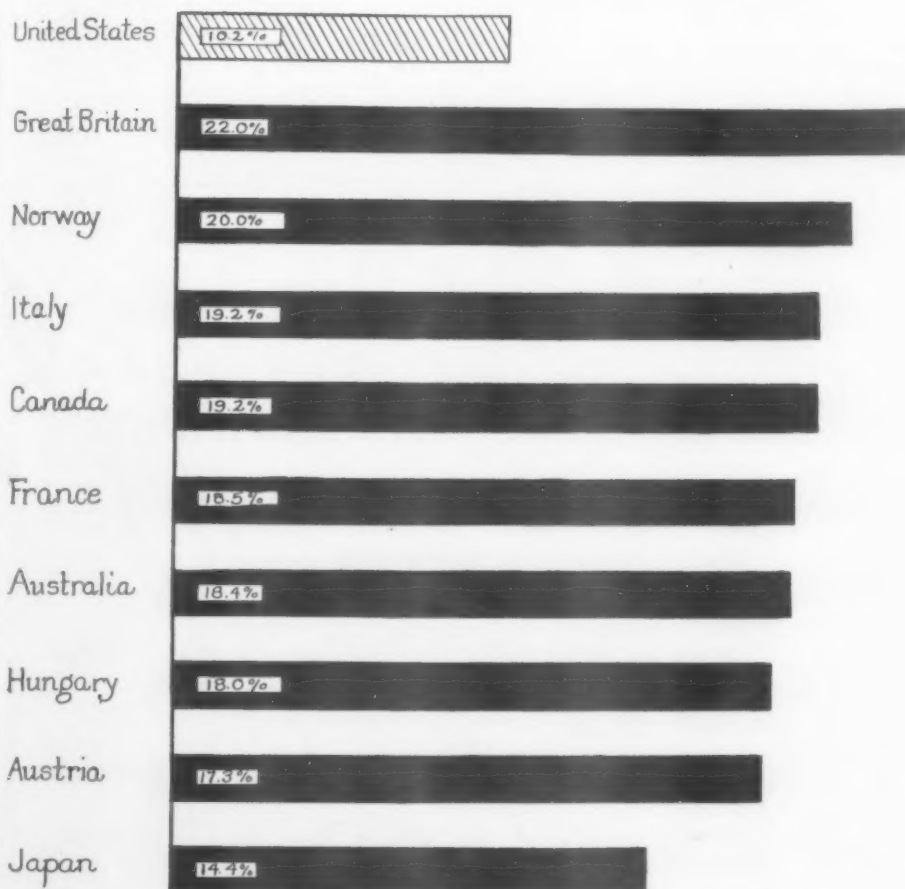
What part of the nation's taxes are expended for public school support?—The figures of Table 4, indicate for 1926, the last year for

which figures are available, the place of school costs in our total tax bill. In this table, the taxes collected by the federal, state, and local governments, the latter designated as municipalities, counties, districts, and by other titles, are totaled and compared with the expenditures for public education.

In 1926 tax collections by all governmental

CHART VII

PERCENT^{OF} NATIONAL INCOME EXPENDED FOR ALL PUBLIC PURPOSES



Research Division National Education Assn.

Calculations for foreign countries based on figures from the *Annals of the American Academy of Political and Social Science*, November, 1927, p. 40; those for United States based on figures of National Industrial Conference Board and National Bureau of Economic Research

units were \$8,555,078,840. Expenditures for public schools required \$2,255,251,327 of this tax bill. The schools, therefore, require 26.4 percent of our expenditures for public purposes. For every dollar expended for public education we expend nearly three dollars for other public purposes.

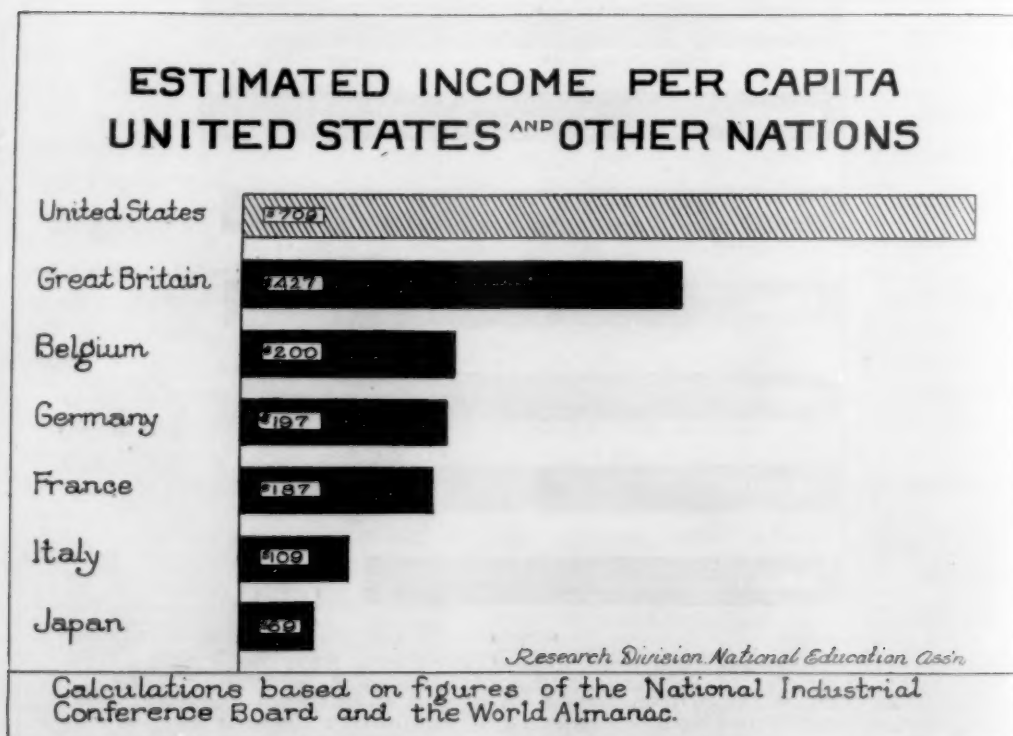
Confusion often arises as to the proportion of tax money expended for public education. This comes from the fact that three types of governmental units, federal, state, and local, collect taxes. The mistake is sometimes made of comparing all school costs with the taxes collected by one or at most two of these three

TABLE 3.—ESTIMATED PER CAPITA WEALTH AND INCOME—UNITED STATES AND OTHER NATIONS COMPARED

Nation	Estimated per capita yearly income	Estimated per capita wealth	Estimated yearly income ¹	Estimated wealth ¹	Population ²
1	2	3	4	5	6
Great Britain.....	\$427	\$2,806	\$18,250,000,000	\$120,000,000,000	(1921) 42,767,530
France.....	187	1,560	7,600,000,000	63,363,000,000	(1926) 40,617,360
Germany.....	197	1,067	12,304,000,000	66,512,000,000	(1925) 62,348,782
Italy.....	109	641	4,427,000,000	25,973,000,000	(1926) 40,548,666
Belgium.....	200	1,245	1,575,000,000	9,803,000,000	(1926) 7,874,601
Japan.....	69	891	4,120,000,000	53,207,000,000	(1925) 59,736,704
United States.....	709	3,161	84,150,000,000	375,000,000,000	(1927) 118,628,000

Source: Figures of this table derived from these sources:
¹ The Conference Board Bulletin, No. 5, May, 1927.
² The World Almanac, 1928.

CHART VIII



governmental units, with resulting exaggeration of the proportion of tax money going to the schools. In a given local community, local governmental expenditures for various purposes, such as roads, may be divided between the local government, the state, and the federal government, while schools may be almost wholly supported by the local tax. Approximately eighty percent of school revenue comes from taxes levied in local jurisdictions.

According to the figures of Table 4, school costs in 1926 were 26.4 percent of all tax collections, 42.2 percent of the amount collected by both state and local governments, and 55.2 percent of the amount collected by local governments.

TABLE 4.—TAX COLLECTIONS¹ AND SCHOOL COSTS, 1926

Taxes collected by federal government.....	\$3,207,000,000
Taxes collected by state governments.....	1,264,285,840
Taxes collected by local governments.....	4,083,793,000
Total tax collections.....	\$8,555,078,840
Expended for public schools (elementary, secondary, collegiate).....	\$2,255,251,327

¹ *Op. cit.*, footnote 1, page 274.

Trend of Tax Collections and School Costs

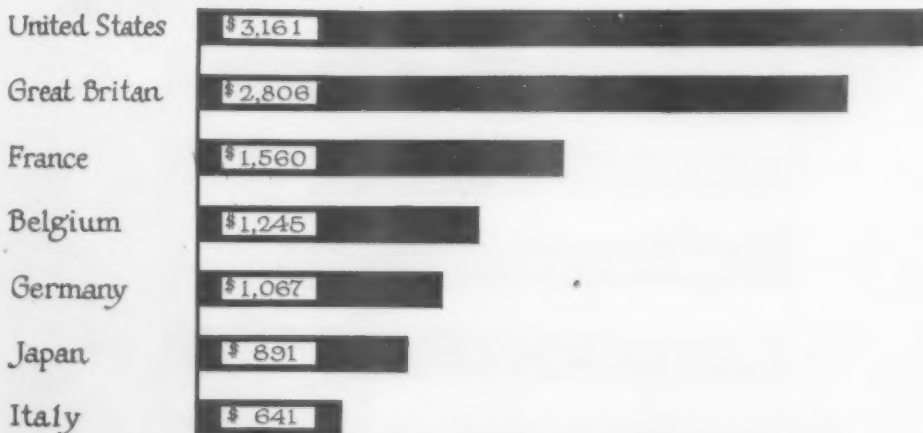
What is the trend as to the percent of our income paid for all taxes?—This question can be answered by comparing the nation's tax collections with its total income.

Table 5 gives the figures whereby this may be done. This table reveals that a larger percent of our income has been collected by taxation in the years since the war than was collected before the war. The total volume of taxation was approximately seven percent of the national income in 1913. Since the war it has been approximately ten percent. This increase is the result of war costs, which are still being paid, and the extension of the services paid for at public expense.

The table reveals, however, that the percent of income expended for public purposes has not increased since the war. A smaller percent of the nation's income was expended for public purposes in each of the years 1923 to 1926 inclusive, than was expended in either 1921 or 1922.

CHART IX

ESTIMATED WEALTH PER CAPITA UNITED STATES and OTHER NATIONS



Research Division, National Education Ass'n.

Calculations based on figures of the National Industrial Conference Board and the World Almanac.

TABLE 5.—INCOME, TAX COLLECTIONS, AND SCHOOL EXPENDITURES, 1913 TO 1926

Year	National income as estimated by		Average of columns 2 and 3	Total tax collections in United States ¹	Expenditures for public, elementary, and secondary schools ²	Percent tax collections is of national income as given in column 4	Percent public school expenditures is of national income as given in column 4	Percent school expenditures is of tax collections
	National Industrial Conference Board	National Bureau of Economic Research						
1	2	3	4	5	6	7	8	9
1913	34,400,000,000	32,000,000,000	33,200,000,000	2,194,000,000	521,546,375	6.61	1.57	23.77
1919	68,300,000,000	67,300,000,000	67,800,000,000	7,465,000,000	899,914,649*	11.01	1.33	12.06
1921	55,600,000,000	62,700,000,000	59,150,000,000	8,838,000,000	1,308,411,253*	14.94	2.21	14.80
1922	61,600,000,000	65,600,000,000	63,600,000,000	7,502,000,000	1,580,671,296	11.80	2.49	21.07
1923	71,600,000,000	76,800,000,000	74,200,000,000	7,234,000,000	1,700,707,616*	9.75	2.29	23.51
1924	70,800,000,000	79,400,000,000	75,100,000,000	7,821,000,000	1,820,743,936	10.41	2.42	23.28
1925	77,300,000,000	86,500,000,000	81,900,000,000	7,891,000,000	1,946,096,912	9.63	2.38	24.66
1926	78,600,000,000	89,700,000,000	84,150,000,000	8,555,000,000	2,026,308,190	10.17	2.41	23.69

* Estimated.

¹ Figures of column 5 from *Cost of Government in the United States, 1926*, National Industrial Conference Board.

² Figures of column 6 are from U. S. Bureau of Education.

CHART X

PERCENT OF NATIONAL INCOME PAID FOR TAXES



Research Division, National Education Assn

Based on figures of National Industrial Conference Board and National Bureau of Economic Research

What is the trend as to the percent of income expended for public schools?—This question can be answered by comparing the nation's total expenditures for public schools¹ with its total tax collections.

Table 5 gives the figures whereby this may be done. This table reveals that the percent of income expended in post-war years is larger than it was in the pre-war years. Approximately 1.6 percent of the nation's income was expended for public elementary and secondary schools in the years just before the war. In the post-war years it has been approximately 2.4 percent.

¹In indicating trends, figures as to the cost of public elementary and secondary schools are used, since they are available in comparable form over a period of years. Public elementary and secondary school costs constitute approximately 90 percent of all tax-supported schools.

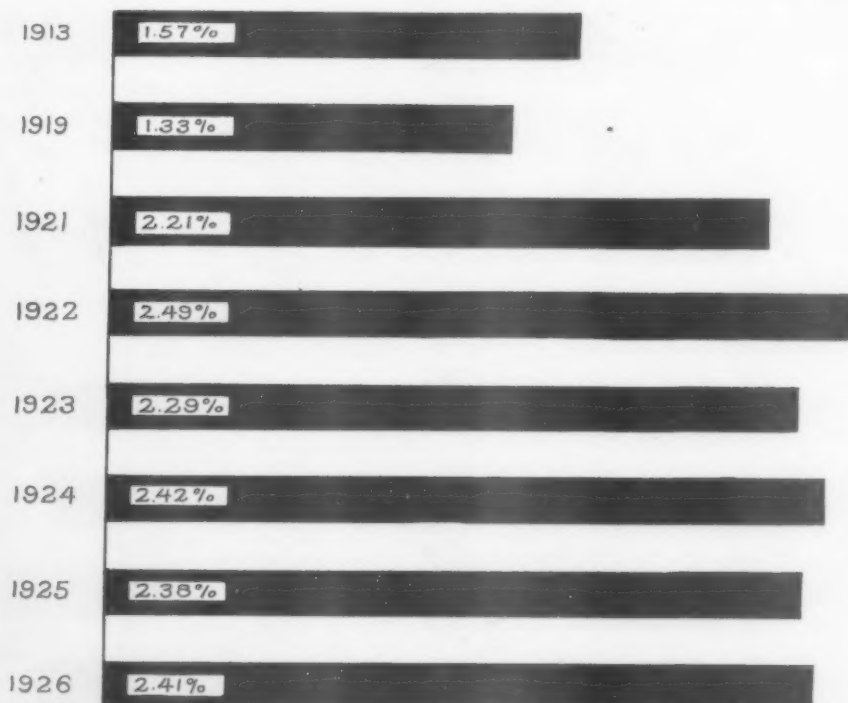
This table, however, reveals no tendency for the percent of income expended for schools to increase in recent years. In the four years, 1923 to 1926, the percent of income expended for public education was less in each year than in 1922.

Neither tax collections in general, nor expenditures for public schools, have increased more rapidly than the nation's income in the years since the war.

How does the trend of public school costs compare with that of other public expenditures?—This question can be answered by comparing public school costs with total tax col-

CHART XI

PERCENT OF NATIONAL INCOME EXPENDED FOR PUBLIC, ELEMENTARY AND SECONDARY SCHOOLS



Research Division National Education Ass'n

Based on figures of U.S. Bureau of Education, National Industrial Conference Board and National Bureau of Economic Research.

lections. Table 5 gives the figures so that this may be done. The percent of tax money expended for public schools was 23.77 in 1913 and 23.69 in 1926. School expenditures required a smaller percent of all taxes collected in 1926 than in 1913. From 1923 to 1926 the percent of the nation's tax bill allotted to public school support has remained practically stationary, never dropping as low as 23 percent nor rising as high as 25 percent.

Taxes, school costs, and prosperity.—Since 1922 we have each year allotted approximately the same percent of our income for the payment of taxes. And throughout this period approximately one-fourth of our tax bill has gone for school support. Does the trend of the nation's economic development during that

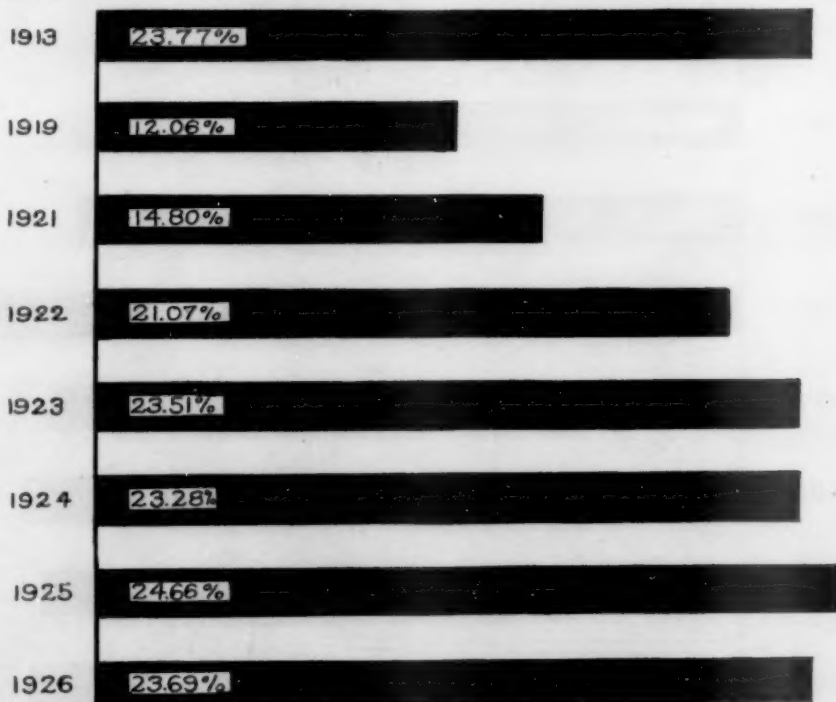
time indicate that our tax bill and our school bill have been more than we can afford? The opposite is the case. Per capita income has rapidly increased both as to amount received and purchasing power.

Leonard Ayres recently summed up the situation:

It now appears probable that a good many new high records will be established in 1928. The production of automobiles, the output of steel, and the volume of building construction are now almost certain to be greater in 1928 than ever before. Almost all stock market records have already been shattered. It is entirely probable that the largest holiday trade in our experience lies just ahead. So one might go on to enumerate more of the business records that bid fair to be lifted to new and higher levels by the time 1928 ends. The most important

CHART XII

PERCENTAGE OF ALL TAX COLLECTIONS IN THE UNITED STATES EXPENDED FOR PUBLIC ELEMENTARY AND SECONDARY SCHOOLS



Calculations based on figures of the U.S. Bureau of Education and the National Industrial Conference Board.

among them is that the aggregate of industrial profits for 1928 will probably prove to be larger than that for any previous year.¹

The recently issued report of the American Bankers Association on savings deposits opens with this paragraph:

The year closing June 30, 1928, registered over the previous year the largest gain in savings deposits in banks and trust companies of continental United States ever recorded in the history of this country. This result indicates that prosperity was more general during that year than at any time since the business depression of 1920, there being only three states which failed to show a gain. On that date the volume of savings stood at \$28,412,961,000, which is a gain of \$2,327,059,000 over the previous year and of \$53,391,000 over the increase made above 1919 by the year closing June 30, 1920.²

The 1928 report of the Secretary of Commerce states:

The fiscal year 1927-28 witnessed a continuance of the heavy volume of building and other construction work which has characterized recent years and which has been a major factor in maintaining the general activity of industry. During the past seven or eight years the amount of construction in the United States has been unparalleled in the history of this or any other important country.³

Concerning the isolated industries which have not enjoyed the expansion in recent years which is generally characteristic of economic development in the United States, factors other than taxation and the cost of schools are accepted as the cause of their lack of rapid progress.

A recent issue of the *Magazine of Wall Street* sums up the situation by stating:

Prosperity has become general enough in this country to be accepted as a fact. Indeed it has become a commonplace, and business has come to plan for the future accordingly.⁴

The foregoing statements are the latest available concerning the nation's economic condition. They bring up to date the figures given earlier in this bulletin as to our economic well-being.

There is not the slightest evidence to support the contention that the tax bill which the nation has paid for schools and other public purposes has prevented or even retarded the economic development of this period, for it has

generally been one of unusual prosperity and unparalleled economic growth.

Some Conclusions and Principles

The figures presented in this section justify these conclusions:

First, the nation's tax bill requires a smaller portion of income than is required in any other important country for which figures are available. At the same time our ability to provide a given percent of income is greater than that of any other nation, due to our far greater wealth and income per capita.

Second, public school costs constitute approximately one-fourth of our total tax bill, federal, state, and local.

Third, the percent of income allotted to public expenditures is approximately 43 percent greater than before the war, but there has been no increase in this percent in recent years. It has remained practically the same for the last five years, and throughout that period was lower than in either 1921 or 1922.

Fourth, the percent of total income expended for education is larger than before the war, but there has been no increase in this percent in recent years. It has remained approximately the same for the last five years, and lower than it was in 1922.

Fifth, the percent of our total tax bill required by public school expenditures is practically the same now as before the war, and has been approximately the same for the last five years.

Sixth, there is no evidence to support the idea that the nation's tax bill is hindering its economic development. The last half decade has generally been one of unusual prosperity and unparalleled industrial expansion.

An impartial evaluation of the foregoing facts does not offer a basis for alarm either as to the burden of taxation for public purposes in general or for public schools in particular. More money is being expended for public purposes including the schools than before the war. This in itself, however, calls for no misgivings. A recent issue of the *Bulletin of the National Industrial Conference Board*, supported by a

¹ Leonard P. Ayres, Advance Release, *The Cleveland Trust Company Business Bulletin*, November 15, 1928.

² *Savings Deposits and Depositors*, 1928. American Bankers Association, p. 3.

³ *Annual Report of the Secretary of Commerce*, 1928.

⁴ *The Magazine of Wall Street*, October, 1928, p. 1077.

number of the largest industrial interests in the United States, states:

If the world stood still, and if its activities did not change, we might expect public expenditure to remain stationary, except for such a gradual increase as would naturally follow from the growth of population. But the world has a habit of moving forward, of changing and multiplying its activities, and with these changes come constantly new demands upon the activity of the government.

The problems of government in both state and city become more complex from year to year. Changes in economic and social conditions create demands for new and extended activities of government from which there is no escape.¹

Further assurance may be taken from the fact that during the last decade neither public expenditures in general nor public school costs in particular have increased more rapidly than our ability to pay. The percents of income allotted to these services have remained practically stationary.

These facts offer assurance to those who would take a constructive attitude toward those great public services, such as public education, upon which so much of our present happiness and future welfare depend. We are not spending more for public purposes than we can afford. The burden of public expenditures is not increasing.

We may confidently set to work, therefore, to see that money is expended only for public purposes which promise a valuable

return to the public—to see that every dollar expended publicly brings the maximum possible return. We may reject the false doctrine of certain discredited agencies which would have us adopt the stupid slogan “the only real tax reform—spend less” and replace it by the sensible guide: “Spend no public money for anything which is not worth while—make every publicly-expended dollar bring a maximum return.” This attitude is supported by the nation’s largest industrial concerns and tax-payers, if we may accept a statement appearing in a recent publication of the National Industrial Conference Board, which reads:

With the expansion of popular government, public activities have multiplied both intensively and extensively. New functions have constantly been added, while many old ones have been improved in quality and extended to embrace a larger and larger field. Although public expenditures have increased faster than population and wealth, as stated in monetary terms, the heart of the question they raise is essentially whether the welfare of the nation, as reflected in the satisfactions of life, has kept pace with this increasing cost. After all, it is not so much the amount of taxes and public expenditure that should command attention as the purposes which public funds serve and the circumstances surrounding their disposition; i. e., whether the object of the expenditure is wise and whether the function has been properly conceived and is being efficiently and economically administered in the interest of the community as a whole.²

¹ *The Conference Board Bulletin*, May 15, 1928, page 137.

² National Industrial Conference Board, *Cost of Government in the United States*, 1926, pp. 14-15.

Additional Light Upon School Costs

The figures of the preceding sections of this Bulletin indicate we are not spending more for public purposes than we can afford. The fact that we can afford to expend for schools and for other public purposes what we are spending, in itself, however, is not sufficient justification for such an expenditure.

The expenditure of public money for any purpose should be based upon the fact that it is a wise expenditure which brings a return to the public sufficient to justify the outlay. Furthermore, the amount of the expenditure should be no more than is necessary in order to secure the benefit the public desires.

No educator of standing has even desired that these criteria should not be applied to school expenditures. Therefore, let us ask two questions: First, is the expenditure for the schools a wise one which brings a return to the public which justifies the outlay, and second, is the amount of the expenditure more than is necessary in order to secure the benefit the public desires?

Are school expenditures a wise investment?

—The verdict of the war upon this question was considered in the first section of this Bulletin. Let us examine the question a little more closely, particularly as to the relation of education to the nation's economic efficiency.

Recent estimates have been made of the amount of wealth and income of the various states. We know that the states which have consistently maintained the better types of schools generally possess more wealth per capita and enjoy substantially larger incomes per capita than the states where the standard of education has been low. A recent study on this subject by the United States Bureau of Education presents statistical information and arrives at this conclusion:

Notwithstanding obvious difficulties of proving such matters statistically, it seems clear that properly applied expenditures for education is profitable to the state, because it tends to increase income and wealth, aids in the decrease of illiteracy, and gives to the individual better opportunities for self-devel-

opment and achievement, as well as a higher standard of living.¹

It cannot be stated with certainty how much the economic superiority of the better educated states is due to superior education and how much to other factors. Few would claim the differences in educational opportunity wholly account for the differences in wealth and income. On the other hand, only those of little vision would deny that superior education plays some part and doubtless an important part in producing economic well-being. Let us suppose that a generous amount of schooling of the right kind given all the citizens of a state raises their earning power on the average 10 percent over what it would have been had they had meager schooling or none at all. Ten percent of our total annual income is nine billion dollars, more than three times as much as we yearly pay for public schools and colleges of all types.

That money invested in education brings handsome economic returns is supported by numerous studies of the relation of schooling to earning power. A recent study by Everett W. Lord is typical.² The schooling and earning power of 7400 people in all walks of life were examined. The average earnings of the college trained people of the group was \$3,400 higher than those of high school training, while the high school graduates earn \$1100 more than those of elementary school training.

This study calculates the probable total lifetime earnings of a typical elementary, high school and college graduate, as indicated by the incomes of those studied, and arrives at these results:

Schooling	Period of Work	Total Earnings
Elementary.	46 years (14 to 60)	\$64,000,000
High school.	42 years (18 to 60)	88,000,000
College.....	38 years (22 to 60)	160,000,000

So far as is known all of the numerous studies of this subject indicate that people with

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the larger amounts of schooling on the average earn substantially larger incomes.

Such investigations have been called "almost worthless."¹ It is believed that this is too strong a term. It is true that improper deductions have been drawn from data as to the relation of schooling to income and earning power of the individual. Some have reasoned: People with superior schooling earn larger incomes, therefore, schooling is the sole key to larger earning power.

Such reasoning fails to evaluate factors such as native talent, the supply and demand for workers in the particular calling one enters, and others which may contribute as much as or more than schooling to a particular person's earning power. It fails to consider that superior schooling and superior earning power as well as having causal relationship may be partly the outgrowth of a common cause, such as superior native ability. The factors concerned in the economic changes caused by education need to be isolated, and to be made the subject of detailed and accurate study before we will approach exact information on this issue.

But these and other considerations do not justify the scrapping of all evidence collected thus far as to the effect of schooling upon earning power. The evidence thus far collected has consistently indicated that people with larger amounts of schooling generally earn larger incomes. Also, it is difficult to imagine any logical consideration of this whole issue, having in mind the conditions obtaining in the United States, which would not conclude that schooling does have some influence, and indeed, considerable influence, in increasing an individual's and a state's economic productivity.

Correlation between two variables, such as schooling and earning power, does not of itself imply causal relationship. Such relationship must be deduced from non-statistical considerations, namely, sound logical analysis. In this problem we have both positive correlation, and the logic of the situation suggesting that schooling does operate in the direction of increasing the earning power of the person possessing it.

These considerations suggest the following hypotheses, namely: Schooling does have

the effect of increasing the earning power of individuals and of communities and states; whereas the degree to which schooling increases earning capacity cannot as yet be stated with precision, it appears likely that it is sufficient to more than pay for the cost of that schooling; and money expended for schools should therefore be looked upon as an investment which increases rather than decreases the economic strength of a community.

The prediction is ventured that the scientific investigations which will doubtless be made in the next few decades on this question, and which all intelligent educators should encourage, will produce results tending to clarify and to confirm, rather than to disprove, the hypotheses suggested above.

Turning from statistical evidence to opinion, men of wide economic vision assert that schooling makes an important contribution to the nation's economic productivity.

Herbert Hoover in the 1928 *Commerce Yearbook* lists education and scientific research as the first of five principal factors which are responsible for the nation's paramount economic position. President-elect Hoover, then Secretary of Commerce, stated:

The fact that national output per capita has long been greater in the United States than in most other countries is in some measure owing to the abundance of agricultural land in proportion to the population, and the abundance and variety of mineral resources. During the earlier history of the country its progress was in considerable part owing to the opening up of new resources. The increase in output during recent decades, however, can not be attributed to this cause. There have been some new discoveries of minerals, notably of petroleum, but these contributions have been offset by the partial using up of other resources and by the necessity, with the growth of population, of extending cultivation to somewhat inferior lands. The principal factors in the recent increase in productivity are, therefore, human as distinguished from natural factors.

Among these factors is the advance in education and scientific research. Taking account both of the proportion of the children in school and of the average duration of attendance, the amount of elementary and secondary instruction given in 1926, per person of school age, was 151 percent greater than in 1870, and 90 percent greater than in 1890. In 1890 about 5½ percent of the children between

¹ Clark, Harold F. *The Economic Effects on Education*, Bulletin of the School of Education, Indiana University, Bloomington, Indiana, Vol. IV., No. 5, page 6.

the ages of 14 and 17 years were in high schools and academies; in 1926 over 38½ percent. Of persons 18 to 21 years of age about 1½ percent were in colleges and universities in 1890, and nearly 9 percent in 1924. Meantime instruction has become much better in quality and especially more practical and more conducive to thinking power and to productive capacity.¹

In a statement widely circulated by Universal Service, Charles M. Schwab recently analysed the factors which are at the foundation of our economic prosperity as follows:

Foreign business men have had a tendency to scan tables and charts giving a balance sheet on America in terms of coal and iron and oil, of cotton and basic foodstuffs, and then to conclude that there lies the secret of our phenomenal growth.

Or, unconvinced, they come here and make exhaustive surveys, then return home to declare that we win through to leadership because of labor-saving machinery. If not raw materials, then superior mechanism must be the foundation of our success, they conclude.

A not so very different point of view is shown in some of the "annual business reviews" which appear in newspapers and periodicals at about this time of year. But the true reasons for American prosperity cannot be revealed in columns of summarizing figures. Nor are such figures infallible guides for prophecy regarding what is just around the corner.

The national assets which I believe insure for us continued prosperity are in a sense imponderables.

That is to say, I cannot put a value upon them, or record them in terms of dollars or barrels or tons. Some of our chief "prosperity assets" are:

1. The highest real wages in history—wages high not only in cash value, but in buying power

2. A growth of understanding, of recognition of mutual interests, and of actual and practical co-operation in the business world, as between labor, management, and capital

3. Improved industrial management and merchandising, gearing production more carefully to consumption, so that operation of the "national industrial plant" is steadied and periods of unemployment decreased

4. The widest ownership of things ever known; and this applies not only to automobiles, radio sets and homes, but to stocks, bonds, life insurance policies and bank balances as well

5. The most extensive free school system in the world, and the most general desire for education.

I have said that these national resources cannot be measured by ordinary bookkeeping methods; but certainly any one of them would have to be estimated as worth several billions of dollars.²

In further developing the fifth imponderable, Mr. Schwab concludes:

General education—the last of the "assets" as listed earlier—gave us a public which could recognize and help make effective the new economic code; and it is from the ranks of the millions educated in our public schools that the future leadership must be drawn.

And while the training of scientists able to help manage a highly technical civilization is important, mere mechanical technique is not enough—as the Germans discovered. They confirmed for us our belief in the value of technical education; but they also convinced us that we are correct in stressing general education in the liberal arts.³

The evidence was never stronger than it is today that expenditures for good schools constitute a wise investment which brings to the public a return many times the value of their cost.

¹ U. S. Dept. of Commerce, *Commerce Yearbook*, 1928.

² The *San Francisco Examiner*, Sunday, December 2, 1928, p. 1.

³ *Ibid.*, p. 23.

AT NO TIME have we had more able leaders in economic life than today. At no time have we been more certain that the fibre and intelligence of our people furnishes a vast reservoir of such leadership adequate to the future. But able administrators, skilled workers, professional and moral leaders cannot be made by birth or money. They cannot be selected by divine right or through bureaucracy. Nor can their ranks be filled from a limited class. Our leadership can be found and it will be sympathetic to our ideals if we maintain the decency and dignity of family life through a stable economic system; if we maintain free and universal education and thus provide them the open stair to leadership; if we maintain for every individual an equality of opportunity to attain that position in the community to which his character and his ability entitle him. Then our supply of leadership will stream forward of its own impulse. It is in this insistence upon an equal chance and a free road to rise in leadership that our great American experiment has departed from those of history. It is our sure guarantee of the future. In its vast possibilities is the hope of every mother for her boys and her girls.—Herbert Hoover.

Is the cost of the schools greater than is necessary for their effective operation?—When one contemplates the unusually rapid increases in the number of dollars spent for education the inclination is to answer this question in the affirmative. The expenditures for public elementary schools increased from a little over half a billion in 1914 to slightly over two billions in 1926 according to Table 6.

An increase in twelve years of 265 percent in the number of dollars expended for education seems large. But let us analyze the causes of this increase.

The principal factors contributing to the rapid growth of school costs since 1914 are:

1. The rapid increase in school attendance, particularly in the upper and more expensive grades.

2. The depreciation in the purchasing power of the dollar.

3. The increase in the amount, the kinds, and the quality of service demanded by society.

It is possible to measure the influence of these three factors in bringing about the growth in school costs. Consider the increase in the cost of public elementary and secondary schools, which constitute approximately 90 percent of the expenditures for all public schools. Public elementary and secondary school expenditures mounted from \$555,-

077,146 in 1914 to \$2,026,308,000 in 1926, or an increase of \$1,471,231,000.¹ How much of this increase is chargeable to each of the factors enumerated above?

Cost of Increased Attendance.—Between 1914 and 1926 the total number of days' schooling provided in public elementary schools increased from 2,112,197,000 to 2,850,327,458, while the days' schooling provided in public high schools increased from 143,460,000 to 510,907,752. The growth in attendance was over seven times as rapid in high as in elementary schools.

This fact has an important effect on the burden placed upon the schools by increasing attendance. Every additional day's attendance in high schools costs approximately two and one-half times as much as an additional day's attendance in elementary schools.² Therefore, in arriving at a true indication of the financial burden placed upon the schools by attendance, a day's schooling provided in high school should count two and one-half times as much as one in elementary school.

When this principle is accepted, and the calculations are made, one obtains the number of *weighted days' attendance* in the public schools over a series of years. The figures as to weighted days' attendance are the same as days' attendance, as ordinarily understood, ex-

¹ Figures from U. S. Bureau of Education.

² Swift, Fletcher Harper. *Biennial Survey of Public School Finance in the United States*. 1920-22. Washington, D. C. U. S. Bureau of Education, 1923, p. 5. (Bulletin 1923. No. 47.)

TABLE 6.—ANALYSIS OF FACTORS CAUSING INCREASE IN PUBLIC SCHOOL COSTS, 1914 TO 1926

Year	Cost of public education—elementary and high schools	Increase over 1914	Amount of increase chargeable to		
			Increased attendance	Depreciation of the dollar	Other factors
1	2	3	4	5	6
1914.....	\$ 555,077,000	\$.....	\$.....	\$.....	\$.....
1926.....	2,026,308,000	1,471,231,000	371,901,590	697,087,900	402,241,510

1. Increased attendance—\$371,901,590. Attendance increased 67 percent from 1914 to 1926. An increase of 67 percent over the cost of education in 1914 (\$555,077,000) is \$371,901,590.

2. Depreciation of the dollar—\$697,087,900. Growing attendance justified an increase to \$926,978,590 (\$555,077,000 plus \$371,901,590). In 1926, \$175.20 purchased the same amount as \$100.00 in 1914. Increasing \$926,978,590 by 75.2 percent gives \$697,087,900.

3. Other factors—\$402,241,510. Increased attendance and depreciation of the \$1.00 added \$1,068,989,490, making a total of \$1,624,066,490. The difference between this amount and \$2,026,308,000 actually spent in 1926 for public elementary and high schools, or \$402,241,510, is chargeable to other factors.

cept that a day's schooling provided in high school is given two and one-half times as much weight as one provided in elementary school.

According to Table 7 the number of weighted days' attendance increased from 2,470,847,000 to 4,127,597,000 between 1914 and 1926. This is a 67 percent increase. Growth in attendance, therefore, justified an increase in school costs over this period of 67 percent. Sixty-seven percent of \$555,077,000, the cost of schools in 1914, is \$371,901,590. This is the part of the increase in school costs, between 1914 and 1926, chargeable to growing attendance. If this amount is added to the cost of education in 1914, the resulting sum is \$926,978,590.

Effect of Loss in Purchasing Power of Dollar.—Between 1914 and 1926 the dollar depreciated in purchasing power until it would buy only as much as 59 cents purchased in 1914. In 1926 it required \$175.20 to buy as much as \$100 bought in 1914. Therefore, in the twelve years following 1914, an increase of 75.2 percent in the number of dollars expended for schools was justified because of the depreciation of the dollar in purchasing power. This is in addition to the increase justified by growing attendance. Seventy-five and two-tenths percent of \$926,978,590, the figure given at

the end of the last paragraph, is \$697,087,900. This is the increase in school costs justified by the depreciation of the dollar between 1914 and 1926.

Cost of Increase in Amount and Quality of Service.—Between 1914 and 1926 increased attendance added \$371,901,590, and the depreciation of the dollar added \$697,087,900 to school costs. These sums plus the cost of public education in 1914 give a total of \$1,624,066,490. The difference between this amount and \$2,026,308,000, actually spent in 1926 for public elementary and secondary schools, or \$402,241,510, is chargeable to such factors as the increase in the character and quality of service demanded from the schools. See Chart XIII and Table 6.

It is evident that much of the increase of 265 percent in school costs between 1914 and 1926 is apparent rather than real. School costs increased 265 percent only when measured by the discredited *dollars-spent* method, by which dollars which fluctuate in value are assumed to be stable in value. There is a better method of measuring changes in school costs. By this method, school expenditures in succeeding years are compared as to their *purchasing power per unit of service rendered*.¹ By this method the size of the job which a school system has to

¹ Norton, John K. "Standard of Living and Standard of Education—Have They Kept Pace?" *Journal of Educational Research*, January, 1926.

CHART XIII

ANALYSIS of FACTORS CAUSING INCREASE IN PUBLIC SCHOOL COSTS 1914 to 1926



- Expended for Public Schools in 1914
- ▨ Increase over 1914 chargeable to increased attendance
- ▤ Increase over 1914 chargeable to depreciation in purchasing power of dollar
- Increase over 1914, chargeable to increased efficiency

Research Division National Education Assn.

perform and the purchasing power of the dollars expended are accurately measured and kept on a comparable basis.

It would obviously be ridiculous to compare the expenditures of a school system having 2000 children with one having 4000 children without considering the difference in attendance. A similar thing is done in comparing 1926 school costs with those of 1914 without considering the difference in attendance. It is illogical to compare expenditures stated in dollars with a purchasing power of 100 cents with expenditures stated in dollars with a purchasing power of 59 cents. This is done when 1914 and 1926 school costs are compared without taking into account the depreciation in value of the dollar during this decade.

Errors such as these are avoided when one compares school expenditures in different years according to their purchasing power per unit of service rendered. This method is used in the calculations of Table 7. The last figure of column 9 of this table shows that between 1914 and 1926 school expenditures increased 29 percent in purchasing power per unit of service

rendered. School boards had 29 percent more ability to buy services and materials necessary for the education of each school child in attendance in 1926 than in 1914. This increase of 29 percent is very different from the 265 percent increase indicated in column 8.

In Chart XIV the trend of school costs from 1914 to 1926 is traced. The upper line in this chart shows the trend of these costs by the dollars-spent method, the lower line indicates the trend according to their purchasing power per unit of service rendered.

It will come as a surprise to many that an increase in school expenditures from half a billion dollars in 1914 to over two billion dollars in 1926, a 265 percent increase in the number of dollars spent, has meant an increase of but 29 percent in the economic ability of school boards to provide school facilities for the children in attendance. The apparent large increases indicated by gross school expenditures are largely accounted for by the rapid increase in school attendance, and by the depreciating power of the dollar to command human services and material goods.

TABLE 7.—ANALYSIS OF INCREASES OR DECREASES IN PUBLIC SCHOOL EXPENDITURES PER UNIT OF SERVICE RENDERED 1914 TO 1926

School year	Expended for public elementary and high schools	Aggregate days schooling provided in public elementary and high schools	Weighted aggregate days schooling provided in public schools	Expended for each weighted days' attendance (cents)	Purchasing power of dollar on 1914 base	Purchasing power of expenditures per weighted days' attendance (cents)	Expenditures for public elementary and high school	
							Percent increase following 1914 in amount expended	Percent increase or decrease following 1914 in purchasing power per unit of service rendered
1	2	3	4	5	6	7	8	9
1914...	\$555,077,000	2,255,657,000	2,470,847,000	22.4	100	22.4		
1916...	640,717,000	2,461,407,000	2,725,393,000	23.5	92	21.6	15	4 decrease
1918...	763,678,000	2,498,424,000	2,794,112,000	27.3	63	17.2	38	23 decrease
1920...	1,036,151,000	2,615,161,000	3,014,888,000	34.4	51	17.5	87	22 decrease
1922...	1,580,671,000	3,034,907,000	3,597,579,000	44.0	64	28.2	185	26 increase
1924...	1,820,744,000	3,219,093,000	3,895,103,000	46.7	61	28.5	228	27 increase
1926...	2,026,308,000	3,361,235,000	4,127,597,000	49.1	59	29.0	265	29 increase

Read table as follows: In 1916 \$640,717,000 was expended for public elementary and high schools (Column 2). The aggregate days' schooling provided in this year in public elementary and high schools was 2,461,407,000 (Column 3). The weighted aggregate days' schooling provided was 2,725,393,000 (Column 4). This figure is the same as that in Column 3, except that the number of days schooling provided in high schools is given two and one half times as much value as the days schooling provided in elementary schools. The percent of aggregate days attended by all pupils which was high school attendance, is estimated on the basis of the enrolment figures since attendance figures segregated for elementary and high schools are not available. There was 23.5 cents expended in 1916 for each weighted days' attendance (column 5). The dollar in 1916 purchased the same as 92 cents purchased in 1914. When this factor is taken into consideration the purchasing power of expenditures per weighted days' attendance is 92 percent of 23.5 cents or 21.6 cents (Column 7). From 1914 to 1916 school expenditures stated in dollars increased 15 percent. Over this same period the purchasing power per unit of service decreased 4 percent (Column 9). Similarly read data for other years.

Calculations based on figures of U. S. Bureau of Education and the National Industrial Conference Board.

Ability to Buy Versus Dollars Spent.— School efficiency is largely dependent upon the ability of school boards to purchase the things necessary to school maintenance. The number of children to be educated and the purchasing power of the tax money appropriated should both be considered in comparing the sums expended by school officials. School boards have no power to reduce school attendance. When children report at a school door in America, state law requires their admittance. School boards have no power to restore to the 1926 dollar its pre-war purchasing power. They must go into the open market and bid against other well-financed interests in purchasing the essentials for school maintenance.

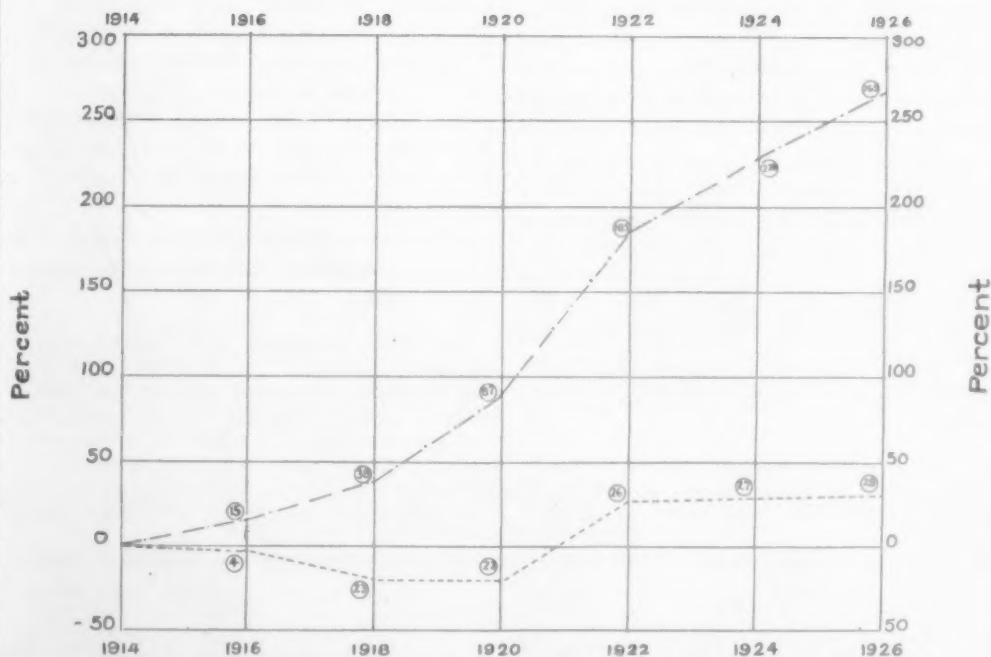
An intelligent comparison of the school expenditures of today with those of preceding periods must, therefore, be based upon a measurement of the economic power of these expenditures to purchase in the open market those things essential to school maintenance.

When such a measurement is made we see that the economic ability of school boards to maintain school facilities of a given quality was 29 percent higher in 1926 than in 1914.

This is an increase of approximately two percent each year over the preceding year, during the period 1914 to 1926, in the economic ability of school boards to improve the schools. Considering the shortcomings of the schools revealed by the war this appears to be a reasonable increase. A similar conclusion

CHART XIV

TREND of PUBLIC SCHOOL COSTS in the UNITED STATES



— — — — — Percentage increase following 1914 of numbers of dollars expended for public, elementary and high schools.
 - - - - - Percentage increase or decrease, following 1914 of purchasing power of expenditures per unit of service rendered.

Read chart as follows: the number of dollars expended for schools was 15% greater in 1916 than in 1914, 39% greater in 1918 than in 1914, etc. The purchasing power of school expenditures per unit of service rendered was 4% less in 1916 than in 1914, 23% less in 1918 than in 1914, etc. Data calculated from figures of U.S. Bureau of Education, and of the National Industrial Conference Board.

Research Division, National Education Assn

was reached in a previous Research Bulletin which analysed the increase in school costs from 1914 to 1924.¹ These findings are supported by a recent publication of the National Industrial Conference Board, an organization supported by some of the largest industrial interests in the country for the purpose of conducting scientific investigations on matters affecting industrial development. In its recent study of the cost of government in the United States this agency states, in the chapter on educational costs:

The "true" expenditure per child per school day attended in 1890 was \$0.166. In 1910, it was \$0.205, and in 1925, \$0.281. The increase of school expenditures thus measured in relation to school needs has not been excessive. During the twenty years 1890 to 1910, the increase was 23.5 percent and between 1910 and 1925 it was 37.1 percent. The annual increase during the thirty-five year period under consideration was less than 2 percent.²

Economy in Federal Expenditures and School Costs

Since the war there has been a rapid reduction in the expenditures of the federal government. Some have demanded similar decreases in school expenditures. It has been contended that since the President's economy campaign has resulted in reductions in federal expenditures, school expenditures should be reduced.

This attitude assumes that the only way to exercise economy is to reduce expenditures. This assumption is shortsighted. Increases rather than decreases in some instances are the wisest sort of economy. This was pointed out by President Coolidge in an address to the Business Organization of the Federal Government when he said:

... the greatest emphasis should be placed on constructive economy. Merely to reduce the expenses of the Government might not in itself

be beneficial. Such action might be only the discontinuance of a wholly necessary activity. No civilized community would close its schools, abolish its courts, disband its police force, or discontinue its fire department. Such action could not be counted as gain, but as irreparable loss. The underlying spirit of economy is to secure better education, wider administration of justice, more public order, and greater security of conflagration, all through a superior organization which will decrease the unit of cost.

The spirit of this statement offers little support for the penny-wise and pound-foolish attitude of those who have insisted that absolute reductions in total school expenditures and economy are synonymous. Such reductions in many communities would result in seriously crippling the schools—wastefulness of the worst order.

Comparison of Effect of War on National and School Expenditures

There has been a reduction in federal expenditures since the war. It is natural to ask why school expenditures cannot be similarly reduced. The answer is that during the war period the expenditures of the national government were necessarily far in excess of ordinary peace time demands. The opposite was true of school costs. Federal expenditures have been reduced principally by eliminating war activities. The schools have had no war costs to eliminate.

This fact is recognized in the National Industrial Conference Board's study cited above, which states:

During the war years, school expenditures, like all other state and local governmental functions not immediately connected with the war, were cut to the irreducible minimum. In this period, teachers' salaries lagged far behind the soaring cost of living, with the result that many members of the profession were drawn into other more lucrative activities. The construction of urgently needed

¹ "Major Issues in School Finance," Part I. *Research Bulletin of the National Education Association*. November, 1926, p. 249.

² *Cost of Government in the United States, 1925-1926*, p. 152. National Industrial Conference Board, New York.

IN GENERAL, the expansion of the school system is something more than a heaping up of costs. It is a growth at once in extension and intensity. The numbers reached at are much larger than before; the quality of what is offered them has greatly improved. These factors go far to explain why the public pays for its schools so much more than it did thirty-five years ago.—*The Conference Board Bulletin*, September, 1927, p. 71.

school buildings was postponed until part-time sessions became the rule rather than the exception in most of the larger cities.

By 1920, there had developed a marked decrease in educational efficiency that was evident to laymen as well as to educators. The heavy increase of school expenditures since 1920 has represented, in large part, a regaining of the ground lost during the half-decade 1915 to 1920.¹

The total expenditures of the federal government chargeable against ordinary receipts jumped from \$735,081,431 in 1914 to \$18,952,141,180 in 1919.² This was a 2478 percent increase in four years. Such an increase was unprecedented, but necessary if the war was to be successfully prosecuted.

As soon as the war was over federal expenditures were rapidly reduced from \$18,952,141,180 in 1919 to \$3,404,295,067 in 1924.²

Since that time federal expenditures have increased. They rose to \$3,518,000,000 in 1926 and have increased since that time.

The effect of the war on school costs was very different. During the war period school expenditures were considerably less than they would have been had peace prevailed. In 1918 and the years following, thousands of children attended school on half-time, the number of children per teacher was increased beyond the desirable maximum, and school building programs were reduced to the lowest possible minimum.

Expenditures were reduced until school efficiency was seriously threatened.³ Hundreds of schools actually closed their doors because no teachers were obtainable.

In the case of the federal government it was constructive economy between 1919 and 1924 to reduce expenditures rapidly by eliminating war activities. This phase of the federal government's fiscal policy had been completed by 1924. Since that time federal expenditures have increased in response to the growth of the country and the desire by the people for the support of important activities and projects. In the case of the schools it was constructive economy to increase costs so pre-war standards of efficiency could be restored and improvements could be made.

Table 8 gives data as to total ordinary expenditures of the federal government in 1914 and 1926. The sums given do not include payments on the public debt.

School costs were 3.65 times as great in 1926 as in 1914. The ordinary expenditures of the federal government were 4.79 times as great in 1926 as in 1914. This indicates that, if economy has marked the control of federal expenditures since the war, it has also been a characteristic of school expenditures.

The decrease in federal expenditures, for which the elimination of war activities has been principally responsible, releases large resources which may now be used for school support and other productive enterprises. In 1919 the federal government expended nearly nineteen billion dollars, largely for war purposes. These expenditures were paid for by the same people who support the schools in state and local communities. It should not be

¹ *Cost of Government in the United States, 1925-1926*, p. 148. National Industrial Conference Board, New York.

² Figures from U. S. Treasury Department.

³ Norton, John K. "Standard of Living and Standard of Education—Have They Kept Pace?" *Journal of Educational Research*, January, 1926, p. 28.

TABLE 8.—INCREASE IN ORDINARY EXPENDITURES OF FEDERAL GOVERNMENT AND SCHOOL COSTS, 1914 TO 1926

Item	1914	1926	Percentage increase
1	2	3	4
Expenditures of Federal Government.....	\$735,081,431	\$3,518,000,000	379
Public Elementary and High School Expenditures....	555,077,146	2,026,308,000	265

Expenditures of Federal Government are total expenditures of Federal Government chargeable against ordinary receipts. Figures are those of the U. S. Treasury Department, and are exclusive of expenditures to retire the public debt. Figures for expenditures for education are from U. S. Bureau of Education and include costs for current expense and capital outlay, but exclude payments for debt service.

difficult for a people capable of spending such a tremendous sum for war to provide slightly over two billion dollars for education.

The facts presented in this section indicate: First, the money devoted to the support of

education is a wise investment for a purpose which justifies the outlay made; and second, the cost of the schools at the present time are not greater than they should be considering legitimate educational needs.

THERE HAS BEEN a definite improvement in the quality of education supplied, although this cannot be measured in quantitative terms. This better education necessarily costs more. The last few years have seen a marked raising of the standards of teacher training. To an increasing extent, college preparation, as well as normal school training, is required for all grades of teachers. Higher salaries must be paid to those better equipped teachers. New courses and new curricula, particularly those of a vocational nature, are being added to the school schedule. Summer courses and evening classes are being constantly expanded.—*Cost of Government in the United States, 1925-1926, p. 152-4. National Industrial Conference Board, New York.*



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