A DISSERTATION

submitted

TO THE GRADUATE SCHOOL OF CREIGHTON UNIVERSITY AS PARTIAL FULFILLMENT OF ITS REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

by

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NINETEEN HUNDRED AND TWENTY SEVEN
CHAPTER I

The necessity of measuring definitely the cost of education —— from the economic, civic, and religious viewpoint.

CHAPTER II

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I

Among the leading problems in the field of education today, the question of school finance is demanding an increased measure of attention. The spirit of investigation and research is growing apace with the needs and difficulties of our school systems. Speaking in general terms, the educator in America finds himself confronted by two main issues in this regard; the one, refers to the educational efficiency of the school, and the other, to its financial cost. We are directly concerned in this study, with the second problem, and with its particular bearings upon the Catholic School. To those responsible for the continuous progress of our Catholic Schools, it is apparent that their duty lies not only in keeping abreast of every improved, scientific method of teaching, but also in the path of more careful inquiry into the full economic charge of supporting this educational work.
How much does it cost to run our schools for a given time? How much does it cost, in comparison, to run the public schools? These questions, or similar ones, have presented themselves to the minds of everyone. They express, however, only in a vague and insufficient manner the common desire for definite, reliable information upon the subject of school costs. Difficult as the answer to the whole question must remain of its nature, much light can be thrown upon its solution by an analysis of the several specific problems involved, and by defining the terms that we use in treating of them. The term, "our schools" will be used to refer to the Catholic system of schools, as a matter of convenience; this usage does not mean to overlook the fact that the same term might also be justly employed to include the tax-supported schools of the State. Similarly, in the course of this discussion, "public schools" and "public education" are used in the popular sense to designate respectively, tax-supported schools and tax-supported education. A further limitation as to what kind or division of our own Catholic Schools is here studied, may be found in the word "diocesan" used often in this paper. By way of further clarification, it should be recalled that the first real

(1) The Education Finance Commission "vol. 1, p. iii" The Commission recognizes the fact that in a real sense all educational institutions are public in that they serve the community, the state and the nation."
Diocesan System of Education in the United States was established in 1879. This was at Fort Wayne, Ind., by the Rt. Rev. Bishop Dwenger, involving supervision and examination of all parish schools by a diocesan school board. This plan was adopted by other bishops, approved by the Fourth Provincial Council of Cincinnati three years later, and became the basis of the school system imposed upon all the dioceses by the Third Plenary Council of Baltimore. Subsequent progress in the growth of this diocesan system reveals a constant effort to perfect the parish school, both elementary and secondary, and the more recent development of the Catholic central high school. As for the other Catholic schools of higher education, colleges, academies, and endowed institutions, it can be readily understood that their financial problems would be somewhat different. At least, these last mentioned schools are sufficiently distinct in title of ownership and other features of administration as to merit a separate consideration.

Now, to return to the question before us, --how much do we know at present about the exact financial burden of

carrying on our parochial grade schools and high schools? It is no longer a question of generalities, being content to find out whether our schools cost more or less this year than last year; more or less, in our estimate than did our neighbor’s school in his opinion. We must seek further for accurate, workable knowledge, for all available items and methods of information, that may virtually constitute a proof of our estimates. It is true that the support of our schools in the past as well as their maintenance in the future must look to the generous response of Catholics to an appeal whose whole merits cannot be measured in dollars and cents. It is also true that the school population, both teaching and learning, as well as the most refined product of our school discipline — the educated catholic youth, all these remain producers and consumers in the matter-of-fact, economic world in which we live. When we say that the catholic school exists "to teach a child how to live, rather than how to make a living," we are obliged to interpret this with reference to relative emphasis and not by way of exclusion. As self-preservation is the first law of nature, the school that subsists must produce a certain valuable product to restore the economic waste and wear. The graduate cannot, of course, refund all tuition charges immediately, nor can the school itself
turn over to the community an absolute guarantee of worth with each commencement certificate; yet, the economic balance must somehow be maintained. We know that if "high living" is expensive, "low thinking" is no less so. The equipment of added knowledge, skill, power of self-government, appreciation and invention, -- call these products, or by-products of education, at any rate, their functioning soon adds to the material resources, and are required in turn to guard the very treasuries upon which they drew. But this valuable personal equipment would decrease largely in one generation, unless provision was made for its extension to others, by means of the costly material and physical equipment of a school. This means buildings, grounds, teaching staff, etc. On this side of the equation, we have the educational factors whose real values are more easily measured, and here we can hope to bring into the service of the school the best modern business methods, derived from the long experience of those whose professed, primary aim is financial efficiency. Every large business and industrial plant now finds that it pays in the long run to maintain a scientific cost-finding agency. Our school systems comprising in all 9783 plants are now maintained at an annual expenditure of money that will run into nine figures. The economic pressure for standard
units of value in every field of human endeavor, the universal, sharp raise in the prices of essential commodities of living, especially effected by the Great War, the eager march of the scientific spirit, and the very expansion of our school program makes the time most opportune for research in the field of catholic school finance.

Several attempts, it is true, have been made to collect and put in form the best available figures that could be gathered from existing sources. The success was limited to the degree of arriving at only rough estimates of the actual costs. The observation made by the Rev. J. A. Burns, C. S. C., writing on "The Economic Side of the School Question" in 1911, described the situation which has continued for the most part to hold true; "No attempt has yet been made to compute accurately the actual cost of the parish schools throughout the whole country. We have not up to the present the necessary data for such an undertaking. It will not be possible, therefore to do more now than to offer a rough estimate of the actual cost."

The reason for not being able to find such desirable data, will appear from a glance into the variety of

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(4) cf. Ecclesiastical Review Vol. 44, May 1911
methods used in supporting the parish school. The Third Plenary Council of Baltimore not only commanded Catholic schools to be built, but urged the pastors to make them free schools. In the early days of our colonial development, it was a question of either denying the blessing of a Christian education to large numbers of children of the faith, or in some way managing to open a church school free of cost to the pupil. The stress of emergency made a compromise usually necessary. In general, one of three traditional plans were followed in raising money to support the parish school; either pupil-tuition fees, parish church treasury, or endowment funds. The last mentioned plan is an ideal arrangement unfortunately too seldom found in the history of our schools. The regular procedure, then, has been to collect funds through tuition fees from the parents and periodical subscriptions from all the parishioners to meet current school expense. The Church treasury was drawn upon to supplement the school account deficit, if indeed, there was any separate school account apart from the general parish treasury. Thus, we can appreciate the reserve of statement with which Dr. Burns had to write of school cost fifteen years ago, -- "The amount cannot be stated with any degree of accuracy. The cost appears to vary within almost as wide limits as the cost of public
school education. There are numerous schools in which the total annual per capita cost of maintenance is not more than $5.00, while in the Archdiocese of New York it is slightly over $11.00. In particular schools in the large cities, the cost runs up to even a much higher figure than this, and in some schools too, the figure is considerably under $5.00. The above figures may be taken as the two extremes. The mean of the range is $8.00 and this may accordingly be taken as the most probably common average of the cost of education per capita in the parish schools." Some further light on the trend of parish school finance is gleaned from the Annual Reports of Diocesan Superintendents.

Referring to representative ones in chronological order, we find in 1909 The Sixth Annual Report of the Rev. Superintendents of the Catholic Schools in the Archdiocese of New York giving $11.13 as the per pupil maintenance cost. This estimate is based upon enrollment and includes expense for salaries, supplies and apparatus, heat, light, repairs, interest and insurance. It is put down as likely applicable to all the schools of the diocese. The same Report publishes the average per pupil value of the Catholic school property as $129.96 in the state of New York.

In the same year 1909, the financial Report of a

(6) America -- Issue of May 29, 1909
large school in St. Louis gives $8.64 as the average cost of educating for a year each of the 1203 pupils in St. Peter and Paul's parish school. The faculty comprised two Brothers of Mary at a salary of $375.00 each and 23 Sisters of Notre Dame at a salary of $300.00.

Here, as in the previous calculation, it will be noticed that per pupil costs were based on the number registered on the books rather than the now accepted standard of comparison,— average daily attendance.

It is obvious that the number enrolled would vary with the time in the school year at which this data was sought.

The 1922 Official Year Book and, School Report for Cleveland diocese asserts, — "The general rise in cost of building has been a serious factor to contend with in the expansion of our school system. The average maintenance cost per child throughout the diocese is $15.00. Here the maintenance cost per child is ascertained from the generally accepted builder's estimate of $12,000.00 per class room designed to accommodate 40 children; then, allowing 5% for a fair average maintenance rate on $300.00 per child, invested in the building.

An interesting account of the financial status of Catholic schools in Philadelphia is found in 1912-13 Report of Parish Schools for that Archdiocese as prepared by its then acting superintendent, the Rt. Rev. Philip R. McDevitt,
now bishop of Harrisburg. Here an investigation is made into the comparative cost of public and parish elementary education in Philadelphia. The method used was first to obtain data from the Philadelphia Board of Education for the public school year as ending Dec. 31, 1912. This showed total disbursements of $4,564,591.00 for the 172,581 children in the public elementary grades; an average of $26.45 per pupil. Then the number of pupils in the parish elementary schools of the city -- 60,903 was multiplied by $8.00. -- using the estimate of Dr. Burns above discussed. This gave $487,224 as the running expenses of these parish schools in 1912.

It was then found out from the church records, the full amount Catholics were contributing annually to the support of their school, as well as the amount they paid in tax to the public grade schools. An outline will show comparison and interpret it:

| Amount Catholics pay for Public Elem. Schools | $1,521,530.45 |
| Their increase in taxation if parish schools closed | $536,961.93 |
| **TOTAL AMOUNT** | **$2,058,491.93** |

| Sum Catholics would pay if no parish schools | $2,058,491.93 |
| Sum they now pay for both combined | $2,008,754.48 |

| **DIFFERENCE** | **$49,737.45** |
The above figures are followed by the conclusion that the Philadelphia Catholic School system instead of being an additional financial burden, really lessened the school taxation for both Catholic and non-Catholics. One third of the population was Catholics. This large proportion of Catholics to the total population would seem to be a necessary condition of securing the peculiar advantage described. Since, in the far greater number of communities, the Catholic population is much smaller in proportion with building programs somewhat less advanced, the financial problems of a diocesan school system would usually center around some other method of calculation.

In the 1932 Report of the Superintendent of the Catholic Schools, Archdiocese of New York, we find some statistics on the valuation of Catholic School property. It states: "The total valuation of property devoted to diocesan schools is $19,048,500.00. The cost of maintenance is $1,448,995.00. It should be noted that the above valuations are not the assessed values; in many particular instances, the appraisal of value is based on the actual cost of the school when built; in other cases, the rating is based upon the cost of the building if erected at the present time when labor and material are only had at soaring prices."

Thus briefly reviewed, the practices of dealing with the financial side of our school work in the past, show along with
commendable progress, a frank desire to arrive at still more specific information as to the actual total cost of carrying on our programs of Catholic Education. Attention also had to be devoted to such other urgent questions as the very right before law of private schools to exist, although their patrons both bore the whole burden of their support, and paid their full share of public school tax. At the present time, a Catholic School survey is being carried on in the Archdiocese of Milwaukee under the joint auspices of the Education Department of the National Catholic Welfare Council and of the Catholic University of America. Meanwhile, let us look for financial data from the public schools.
CHAPTER II

Turning to the vast resources of the public school system and policies of administration, we should hope to find some side lights on data of interest also to the administration of other schools. Here we find at least two decades of more or less intense, critical, scientific, investigation into every field of educational activity. Descriptive of its general dealing in public school finance, are the words of Dr. B. J. Pittenger, School of Education of the University of Texas,—"It is believed by many competent authorities that the schools are face to face with a financial crisis. This belief has stimulated a very active study of the situation. To some this situation seems prophetic of a period of decisive retrenchments, and possibly of an abandonment of the American policy of free public education. To others, it is only a challenge to the schools to improve their management, and to work out a more efficient system of support." (1) Because the tax-supported schools are in direct contact with governmental control, we have the official statistics on the main

(1) "An Introduction to Public School Finance," 1925., (pub. by Haughton Mifflin Co.)
features of their administration. The United States Bureau of Education gives the following summary data for the public elementary and secondary schools combined, for 1924:

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Children 5 to 17 yrs, of age (inclusive)</td>
<td>29,345,911</td>
</tr>
<tr>
<td>Pupils enrolled</td>
<td>24,288,808</td>
</tr>
<tr>
<td>Pupils enrolled in public high schools</td>
<td>3,389,878</td>
</tr>
<tr>
<td>Men teachers</td>
<td>128,731</td>
</tr>
<tr>
<td>Women teachers</td>
<td>632,577</td>
</tr>
<tr>
<td>Number of school houses</td>
<td>263,280</td>
</tr>
<tr>
<td>Value of school property</td>
<td>$3,744,780,714</td>
</tr>
<tr>
<td>Total revenue receipts</td>
<td>1,618,437,825</td>
</tr>
<tr>
<td>Total expenditures</td>
<td>1,820,743,936</td>
</tr>
<tr>
<td>Total expenditures per capita of population</td>
<td>16.25</td>
</tr>
<tr>
<td>Total &quot; per pupil in average attendance</td>
<td>95.17</td>
</tr>
</tbody>
</table>

The same table gives corresponding data and other derived statistics for each five-year period back to 1890 and for years 1880 and 1870. Here one notices as striking trends:

1. A constant advance in school costs in the last fifty-five years and at a constantly accelerating rate from $63,397 with a population one third of what it is now to the present two billions of dollars.

2. The per capita of population expenditures has multiplied ten times and the per pupil cost is over six times greater.

3. The average total expenditure per day for each pupil attending public school during the successive years mentioned increased as follows (cents) 11.8; 9.7; 12.8; 13.2; 14; 16.8; 21.1; 25.4; 39.6; 56.6;

or,

These figures give us an idea, conspectus, of one phase of the

financial situation in public school experience. In the explanation of the different rate of advance in cost as between daily and yearly per pupil cost, it must be said that the school terms increased in length and the average daily attendance in percentage of total enrollment.

However, when we consider the prodigious raise in total expenditures, 92.1 percent of which must come from taxation in a country whose school indebtedness is over six hundred and fifty millions, we can hardly be surprised to find such expressions from leading school men as, "There are signs and not a few that the cost of education is reaching the breaking point; or, former Commissioner Claxton's statement, "We have come to a Crisis in Education in the United States;" or, the observation of Alexander Carter in 1922, "Many city school systems are far behind with their building programs, ---yet, everywhere is an insistent demand for the elimination of costly "frills", Many cities are bonded to the last possible debt limit for school purposes and an alarming number of them are bonding for current expenses."

To meet this alleged 'crisis' more effectively, a considerable number of intensive surveys of the whole field of educational finance have been and are still being carried on to

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(4) U. S. Bureau of Education Bulletin No. 20, 1922, p. 25
(5) Morrison, H. C., "Elementary School Journal" (1919) vol. XX, p. 47
(6) "School and Society," 1922, vol. VI, p. 338
solve its problems, local, state, and national. For our purposes of evaluation in the light of possible assistance to our own problems, we may pass briefly over several of the more significant studies preceding the establishment of the Educational Finance Inquiry Commission in 1921.

1. In 1905, "City School Expenditures," by George D. Strayer represented an early study of comparative school costs and "the distribution of money spent for schools among the various items of the budget." The most noteworthy thing about this early survey based on a questionnaire to fifty-eight different cities is that it did not use the present standardized terms and items pertaining to this subject.

2. E. C. Elliot, also in 1905, published his study of "Fiscal Aspects of Education," discussing the percentages of the total municipal expenditures that went to education and other public uses. Like Strayer, he found a wide range of variety from six to forty-six percent of revenue in different cities being spent for the schools.

3. In 1913, the United States Bureau of Education published H. Updegraff's Study, which is significant, because of its method of classifying data which has since been followed rather closely. It endeavors to find out:

(a) Percentage of total school expenditure to each main budget item and according to groups of cities for comparison.

(b) Average cost per pupil of each of these items of expense.
(c) The total school expenses as compared with population and with other public expenditures.

(d) Average cost per pupil in elementary and secondary schools.

(e) Technical terms: "median" meaning the middle one in a series of things distributed in order of their amounts of value. "Middle fifty percent" - half of the total number nearest the median and equally divided by it.

4. Biennial Reports of the United States Bureau of Education entitled "Statistics of State School Systems." The last of these is quoted from earlier in this chapter: the first was published in 1920 and represents the work of H. C. Bonner compiler and collector of statistics for the Bureau. These records are national in scope and also divided according to states. Table 4, of the 1933-24 School Year Report is given over to data on the enrollment in all private and parochial schools in each State and in Outlying Possessions.

5. Most important and comprehensive, probably of the more recent surveys in public school finance are those carried on by the Educational Finance Inquiry Commission under the auspices of The American Council on Education.

(7) United States Bureau of Education, Bulletins Nos. 11 and 24, (1930) and No. 17, (1922)
Resolutions urging a thorough investigation of the cost of education, and of the public resources available to support it, were passed at the Citizen's Conference on Education, called by the United States Commissioner of Education in May 1920. The same question was resumed the following year at the 1921 meeting of the Department of Superintendence of the N. E. A. and was designated as the most vital problem now confronting school administrators. A committee was appointed to draw up a plan and ask support for such an investigation. This committee met in New York and formulated definite plans for the conduct of the Inquiry. Funds were contributed by the Commonwealth Fund, the General Education Board, the Carnegie Corporation and the Milbank Memorial Fund. The funds were then handed over to the American Council on Education who in turn appointed the personnel of the Commission numbering eleven leading educators, among whom were Dr. Geo. Strayer, of Teachers College, Columbia University; Elwood P. Cubberly, Stanford University; Thomas E. Finnegan, State Superintendent of Public Instruction, Harrisbury, Pennsylvania; Henry C. Morrison Professor of Education, University of Chicago, and others nationally known in school work. Dr. Strayer, assisted by Robert Haig of Columbia University and four co-workers was chosen Director of the Headquarters Staff in New York.

The general scope and nature of the problems attacked
in these surveys may be seen in enumerating the several volumes published by the Inquiry Commission. The first three deal with schools in New York State, one with California, another with Iowa, and four with school conditions in Illinois.

1922-24


Volume II. Elementary School Costs in the State of New York, R. O. Stoops, Director.

Volume III. The cost and Support of Secondary Education in the State of New York, Chas. W. Hunt.


Volume VIII. The Financing of Education in Iowa.

Volumes IX, X, XI, and XII all devote to phases of the school finance problem in Illinois, discussing in turn, the Illinois school system in its make-up, its Political Unit of Support, Extent of Indebtedness, and Trend of School costs.

As for the technique scientifically arrived at in these surveys, we are referred to the Report on the work carried on

in New York State under Dr. Strayer. We are told that it was hoped by an intensive study of one state to perfect a technique applicable to the financial school problems of other states and communities. The underlying purpose in the gathering of evidence upon the basis of which more intelligent economic judgments may be formed with respect to the financing of the public school system.

Now, what methods do we find employed? The study as reported proceeds to:

1. Assemble a body of facts pertinent to the problem.

2. Analyze the main problem into several sub-problems according to objectives:

   A. Total cost of public education in the State.

      kind of school:
      a. Total cost of elementary education in State.
      b. Total cost of secondary

   B. Per Pupil Costs of education in the State

      purpose of:
      a. Current Expenses
      b. Plant Costs
      c. Analysis of same into constituent units

3. Devise helpful Formulae for reaching these objectives as stated and defined.

4. Verify Formulae by comparison of their results with real book-record cases where all facts known.

We are especially interested in these formulae of which the chief ones are given and explained as follows:

Salary - Ratio Formulae.
Salary - Ratio Formulae

(1)

Total current expenses for schools \times \frac{\text{Elementary teachers' salaries}}{\text{Total teachers' salaries}} = \text{Total current expenses for elementary schools}

Explanation:

Formula reads: The total current expenses multiplied by the elementary teachers' salaries divided by Total teachers' salaries equals the total current expenses for elementary schools. The school financial accounts in most communities did not accurately separate the amount of current expenses going to the divisions of the school system, elementary, secondary etc. --except for the item of teachers salaries. Current expenses comprise, control, instruction, operation, maintenance, auxiliary agencies and fixed charges. Having the amount paid for instruction or teachers' salaries in the elementary division, the problem was to find out what other current expense went to elementary school support. The first step was to find some typical school systems whose expenditures for a certain year, 1919-20, in New York State, were known to accurately record the elementary support as separate from other accounts. This was done by a careful study and checking up on the fiscal school records of sixteen cities and two villages out of a large number of such communities in New York State. Similar reliable data were likewise secured from nineteen cities in Pennsylvania.

The next step was to compare the real book-record elementary
current expenditures of each of the thirty-seven systems with the amount of this expense as found by the proposed salary-ratio formula. The differences were so slight and compensating in that number of cases as to prove the formula valid. The total elementary expenses for public elementary schools thus found, minus the total elementary teachers' salaries always recorded, gives the elementary expenditures for other than teachers' salaries.

For problems of per pupil cost, is then derived the corollary formulae:

\[(2)\]
\[
\text{Total elementary current expense} - \text{per pupil cost of total ELEMENTARY AVERAGE ATTENDANCE current expenses.}
\]

\[(3)\]
\[
\text{Total elementary teachers' salaries} = \text{per pupil cost for teachers' salaries.}
\]

\[(4)\]
\[
\text{Total elementary expense other than teachers' salary} - \text{per pupil cost of other ELEMENTARY AVERAGE ATTENDANCE current expenses.}
\]

**Explanation:** Average daily attendance is the accepted unit in comparisons of per pupil cost of education. It is the quotient of the total number of school days actually attended by all pupils, divided by the number of students enrolled.

**Validity illustrated:** In the thirty-seven cities in which formula was applied the results were:
average real per pupil cost $51.44
average formula per pupil cost 51.50
6 cents, or, one
ninth of one percent.

Salary-ratio average cost is too much by 6¢ per pupil or \( \frac{1}{9} \) of 1%. Expressed in terms of statistics their correlation is

(Pearson) \( r = 0.988 = 0.003 \)

In other words, the algebraic sum of the differences for the thirty-seven schools systems between the real costs and the salary ratio costs is $2.03. This is an average difference representing an error of six cents or only one-ninth of one percent of the average cost per pupil.

This result was found to obtain in the thirty-seven cities ranging in population from 7000 to 300,000 in the states of New York and Pennsylvania.

The above formula was adopted also in regard to secondary schools, substituting for elementary the one word, secondary. Its validity tested out there was a difference of three-fifths of one percent.

For computing the total yearly cost of public EDUCATION to a given community the New York Survey follows a method which we may state as Formula (5)
Formula (5)

Annual Total Cost = Annual Cash disbursements plus annual accrued economic costs.

Explanation. Cash disbursements include these three items.

1. Current expenses
2. Capital outlay, for sites, buildings, equipment.
3. Interest payments, i.e. on bonded debt for that year.

The technical term "annual accrued economic charges," has two items:

1. imputed interest, or fair rate of return on capital invested.
2. plant depreciation, in buildings and equipment.

An interesting method is used to translate this last factor of the equation, "economic charge" into dollars and cents. This can be seen more clearly from the tabulated data of the Report. Vol. I. p. 84

**TABLE I**

<table>
<thead>
<tr>
<th>School Buildings</th>
<th>City of New York</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age Group</td>
<td>Construction Period</td>
</tr>
<tr>
<td>Oldest quarter</td>
<td>1800-1883</td>
</tr>
<tr>
<td>Next Oldest</td>
<td>1883-1897</td>
</tr>
<tr>
<td>Third</td>
<td>1897-1906</td>
</tr>
<tr>
<td>Newest</td>
<td>1906-1921</td>
</tr>
</tbody>
</table>

The life of school buildings in New York was estimated to be fairly represented as seventy-five years with annual depreciation of one seventy-fifth of original cost in first year...
and for any succeeding year, the same fraction, one seventy-fifth, or, one and one-third percent of the original cost value is lost. On this assumption, approved by study of the school buildings in New York State, a building whose original cost was $75,000, would at the age of twenty-five years have a value of $50,000 or fifty seventy-fifths, or sixty-six and two thirds\% of the original value. During its twenty-sixth year, it would depreciate fifty-seventy-fifths, minus forty-nine seventy-fifths or, in percentage, sixty-six and two-thirds less sixth-five and one-third equals one and one-third percent of the original value, and one and one-third divided by sixty-five and one third, or, two percent of present value.

To determine a percentage for the depreciation in a given year of all the school buildings of a city or state, group the buildings on the basis of their ages as in Table I above, Add column showing group ages in that year and divide by the number of groups, 4; then, proceed as in the case above for a single building. Working this out in 1921 in the city of New York and separately for the school buildings in the rural districts, resulted in accepting two percent a year as the best average rate of depreciation of the school buildings in the cities of New York State and three percent for the rural school buildings.

"Imputed interest" rate is explained in connection with Table II in the following chapter, where we shall endeavor to apply such elements of the public school formulae as suggest possibility of use in the Catholic School.
CHAPTER III

In the foregoing discussion, we have according to the limitations of this paper briefly referred to some of the major studies which have been made of the problems of public school finance. Individuals beyond number, Commissions of National prestige, teachers' associations and State Universities have devoted years of thought and labor to measuring every phase of the cost of our tax supported schools. Needless to say, they gathered valuable data, discovered problematical facts and defects, formulated helpful techniques as to the financial support of public education. Our Catholic schools also cost money. We have no state treasury appropriations. Our financial problem cannot be relieved, for instance, by the many proposed schemes of controlling and increasing the legal rate of school tax. Yet, our church laws are plain as are the religious school building needs of which they speak. The Divine Law-giver has taught it to be a part of prudence for every builder to carefully compute the cost. "For which of you having a mind to build a tower, doth not first sit down and reckon with the charges that are necessary, whether he have wherewithal to finish it." (1)

(1) Luke XIV, 28
In order to measure the school costs which are not apparent, we must start by building upon facts which are clearly known. The principal sources now available for such financial data on our Catholic schools are the parish books, school accounts, diocesan report lists and personal observations. In the limited time at command, the writer made a canvass of these various sources for data with regard to several representative parish schools. The facts of real cost items are next to be arranged so far as possible in the order of the standard school budget items for application to the formulae being tested. These cost groups are:

Instruction  
Auxiliary agencies  
Operation (of plant)

General Control  
Coordinate Activities  
Maintenance  
Fixed Charges

Major Groups

I

Current Expenses

II

Debt Service

Plant Costs

The parish school data are: (School #1 as in Table II)

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept.</td>
<td>527.75</td>
<td>Feb.</td>
</tr>
<tr>
<td>Oct.</td>
<td>641.73</td>
<td>Mar.</td>
</tr>
<tr>
<td>Nov.</td>
<td>521.40</td>
<td>Apr.</td>
</tr>
<tr>
<td>Dec.</td>
<td>631.33</td>
<td>May.</td>
</tr>
<tr>
<td>Jan.</td>
<td>493.44</td>
<td>June</td>
</tr>
<tr>
<td>Fuel</td>
<td></td>
<td>483.13</td>
</tr>
</tbody>
</table>

Total paid out for current expenses $6,514.27

by checks listed for teachers salaries, light, incidental repairs, janitor's salary and school supplies.

TABLE II

Summary Table showing relation between Cash Expenditure Cost and Total Economic Cost per pupil:

St. Paul's School:
10 Sisters,
330 Pupils,

<table>
<thead>
<tr>
<th>Item</th>
<th>Cash disbursements for current exp.</th>
<th>$ 6514.27</th>
<th>$ 19.75</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Imputed int. on money invested in plant</td>
<td>$ 7814.40</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Estimated depreciation on plant for one year.</td>
<td>$ 2346.66</td>
<td></td>
</tr>
<tr>
<td>A.</td>
<td>Total economic cost</td>
<td>$ 16675.33</td>
<td>$ 50.53</td>
</tr>
<tr>
<td>B.</td>
<td>On basis 1 and 3 above Cost</td>
<td>$ 8860.93</td>
<td>$ 26.85</td>
</tr>
</tbody>
</table>

Explanation of above data:

School built in 1924, at estimate of $176,000.00 (1925) Depreciation for 1 year is 1/75 or 1 1/3% of original cost, leaving __ 2,346.66 Difference gives the present value (1926) $174,653.34

Item 2 above is computed by taking 4.5% of this estimated present value or 4 1/2 x 174,653.34, giving figure 7814.40. In Dr. Strayer's study in New York State, the rate of interest decided upon as a fair rate relative to school plant investment was 4.64 per cent. This was obtained by dividing the
combined amount of interest earned by representative long term school bonds by the capital sum of these bonds, over a period of 12 years. For convenience, the interest rate here used is taken as 4.50 per cent, as being near to that found prevailing in New York State from "Municipal Bond Sales" an annual publication, reporting from cities, towns and villages.

Item 3 on depreciation refers to the wear and tear and general decrease in value of the school plant at percentage rate of 1 1/3% as seen to be derived from the basis of taking 75 years as the life of a school building in the finding of Dr. Strayer's Committee in N. Y. State after collecting the estimates of many expert educators, realtors, and construction engineers.

Item 1, comprising cash disbursements for current expenses includes money paid out for teachers' salaries, light, heat, fuel incidental repairs, janitors' salary and supplies. Of these the largest single element is teachers' salary. This accounts for $3,500.00 being distributed equally among 10 teachers', 7 in elementary grades and 3 in the 9th and 10th grades, all drawing $350.00 a year. While 40 of the total enrollment of 330 pupils are in the 2 high school grades, this does not materially affect the per pupil average cost of the whole school since these in high school courses furnish their own texts, etc. and science laboratories are not yet installed and here the secondary grade teachers draw the same salary as
do the primary or elementary. Since this relation is most common for Sister's salaries in our secondary grades it must be concluded that the salary-ration formula will not apply as a means of measuring the other current expenses in our Catholic schools.

In the group of Plant Costs, however, there is a closer parallel, as shown in the accompanying tables:

**TABLE III**

St. Anthony's School:
4 Sisters,
150 pupils.

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary of Teachers</td>
<td>$1200.00</td>
</tr>
<tr>
<td>Light &amp; heat</td>
<td>800.00</td>
</tr>
<tr>
<td>Insurance, 1 year</td>
<td>80.00</td>
</tr>
<tr>
<td>Repairs</td>
<td>250.00</td>
</tr>
<tr>
<td>Water-grounds</td>
<td>90.00</td>
</tr>
<tr>
<td>Janitor exp. pro-rated</td>
<td>650.00</td>
</tr>
<tr>
<td><strong>TOTAL current expenditures (1935)</strong></td>
<td><strong>$3,070.00</strong></td>
</tr>
</tbody>
</table>

a. Traditional estimate of per pupil cost 20.45 20.45
b. Plus 5% fair int. on present value $52,000.00 2,600.00
c. Plus depreciation of plant 10 years built at 1.5% at Present value 780.00
Total school cost for the year 6,450.00

Total per pupil cost 1/150 43.00
" " " for (a) and (c) 25.66

This parish school is located in the diocese of Omaha, Nebraska. In the same rural town is a public school, 100 pupils, annual real expense 14,000.00

per pupil cost in this public school for 1925 120.00
per pupil cost in high school alone in D. C. 1925 120.00 (3)

(3) Report of District School Board, Frank A. Woodward, Wash, D.C.
per pupil cost in elementary alone in D. C. 1925 $95.00 (4)
per pupil cost in combined elem. & high school in U. S. $95.17

In this particular community of Cedar Rapids, Nebraska, it follows that the Catholics, ever one-half of the population, can both maintain their parish school and pay for the building at one-half of the expense of giving their children elementary education in the public school. Ninety-two percent of all public school revenue is from taxation.

With regard to the Catholic High School, the financial data are more definitely classified as appears in the following tabulation considered typical of our complete high schools. It may be noted that the usually reported annual cash expenditure is increased three-fourths by the addition of total plant charges. A similar comparison is seen to have resulted in practically doubling the reputed cost for the elementary schools studied.

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(4) Bulletin No. 43, 1925. Bureau of Education.
### TABLE IV

Catholic High School. Harrisburg Diocese, 1924-5

<table>
<thead>
<tr>
<th></th>
<th>Boys</th>
<th>Girls</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First Year</strong></td>
<td>25</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td><strong>Second &quot;</strong></td>
<td>14</td>
<td>26</td>
<td>40</td>
</tr>
<tr>
<td><strong>Third &quot;</strong></td>
<td>7</td>
<td>19</td>
<td>26</td>
</tr>
<tr>
<td><strong>Fourth &quot;</strong></td>
<td>8</td>
<td>11</td>
<td>19</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>54</td>
<td>81</td>
<td>135</td>
</tr>
</tbody>
</table>

Teachers, one Priest, six sisters. 7 Total

---

### I. Current Expenditures

<table>
<thead>
<tr>
<th>Item</th>
<th>School</th>
<th>per pupil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teachers' salaries</td>
<td>$2250.00</td>
<td></td>
</tr>
<tr>
<td>Light, heat, water</td>
<td>631.11</td>
<td></td>
</tr>
<tr>
<td>Repairs</td>
<td>885.20</td>
<td></td>
</tr>
<tr>
<td>Janitor services</td>
<td>383.00</td>
<td></td>
</tr>
<tr>
<td>supplies, books etc</td>
<td>953.99</td>
<td></td>
</tr>
<tr>
<td>Library</td>
<td>338.55</td>
<td></td>
</tr>
<tr>
<td>Class Room, Equipment</td>
<td>1458.51</td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6900.56</strong></td>
<td><strong>$51.11</strong></td>
</tr>
</tbody>
</table>

---

### II. Plant Cost

- Building, present value $(70,000.00)
- Depreciation at 2% 1,400.00
- Laboratory & commercial 6,628.25
- Equipment ............
- Depreciation at 5% .... 311.41
- Imputed Interest at 4½% on Capital ............ 3,448.27

Per pupil total economic cost II = $89.59

" " " - imputed int. ............ 61.77
To obtain an idea of prevailing salaries paid to sisters in parish elementary schools, the diocesan school reports of an Eastern diocese were studied. The records of thirty parochial schools available showed $26.61 to be the average salary per school month, or $319.32 per year. The one hundred and eighty-eight teachers had by average a class each of forty-three pupils. The range of salaries was from twelve to fifty-seven dollars per month. An interesting feature was the great variety of amounts received as yearly salary. Of these thirty schools with annual salaries ranging from one hundred twenty dollars to five hundred twenty-seven dollars, twenty of them each paid a salary differing from all the others by more than five dollars. In no instance was exactly the same salary paid by more than two schools.

One reason for this diversity in salary is to be found in the fact that it is not paid to the Sister individually but in a collective sum for all the faculty employed. Again, it is to be remembered that in some cases the parish does not own or maintain the convent whereas both constitute parish expenses separate from salaries in most instances. Then, there are parishes in which the sister in charge of music may be given more or less constant employment with private music lessons each day. On the other hand, the Religious Communities' Mother House, which is virtually a normal school, must receive its support from a portion of the sisters' salary. The
same could be said of provision for retirement. So, in comparison of Catholic School costs with those of the public school, we note the former's greater economy, is due to several things, less expensive buildings and equipment; less general control and supervision costs—the Diocesan superintendent's office, practically the only expense in this line; fewer teachers in proportion to the number of pupils, but above all, the difference is to be found in the Religious teachers comparatively low salary. In this last reason, or rather in the involved self-sacrifice and heroic devotion to the teaching profession for the sake of those taught,—in such an endowment of consecrated lives and talents, lies the past success and much of the future promise of growth for our schools.
CHAPTER IV

In conclusion we must affirm that indications from every side of the school finance question point to the advantages and the need of further scientific study of so vital a problem. The expansion of so marvelous extent in the circles of industry in our Country, has developed with more accurate methods of computing costs and insuring in advance the efficiency of production. Larger volume of production, and area of distribution, has developed hand in hand with finer units of standardization. The public school system has carried through long intensive surveys and formulated methods of more definitely evaluating the merits of the present educational program and the possibility of continuing or improving it. In this way they have succeeded in finding out with more accuracy than otherwise, possible, the total cost of public education for each pupil, school, community or state in terms of the different items that make up their budget. The ratio of adult to school population,—the best plans of raising and controlling school tax are receiving much attention. With us, the problems of school support are naturally much different.

We have not the great general diversity of clearly defined sources of income, the complex problems of tax assessment, control, distribution. Yet we can profit by following
out the principle that it is possible for a methodology of attack to assist much in the solution of school system's financial program. The example of even a necessarily different scientific analysis and its results in actual unit costs of public instruction are valuable to us for means of comparison, and suggestion of our further needs.

In order to arrive at valid formulae for measuring our Catholic Educational costs, we must first have some full sources of data for testing out proposed plans for general application. By way of recommendation, we might then suggest as preliminary aids:

1. A uniform method in parishes and dioceses of tabulating and recording the financial items of school expenditures and receipts.

2. For the individual school, the yearly preparation in advance of a budget of probable needs according to divisions of the permanent record whose terms are to be defined.

3. The inclusion of cash disbursements of every kind, including interest on plant debt of school, in the computing of per pupil costs by average daily attendance.

4. A separate account of the economic burden of our schools from non-earning investment and depreciation as a guide for wiser future policies.

5. The welcoming through cooperation and study of any modern business methods, of courses in school administration, of cost comparison with our public schools to lighten
the problems of the Catholic school administrators—bishop, pastor, and diocesan supervisor.

These suggestions may serve to open up the Catholic field of study into measuring the financial integrity of our school systems. Continuity of policy so indispensable to the best interest of the school, should not be secured only by the willing burden of sacrifice on the part of our Religious teachers. For both elementary and high school progress, we need cooperative reasearch into the natural and supernatural resources which are on hand and which are still wanting to finish the larger task of reaching our goal------

"A place in a Catholic school for every Catholic Child."
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