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PROGRAM FOR TAX STUDY CLUBS

IX. WHERE THE TAXPAYER'S MONEY GOES

A. Outline

- Schools:
 - Administration.
 - Teachers' salaries.
 - Payment on buildings.
 - Transportation.
 - Fuel and janitor service.
 - Supplies.
- Roads:
 - Construction of new roads.
 - Maintenance.
 - Interest and payment on indebtedness.
 - Construction of bridges.
 - New equipment.
- Courts:
- Prisoners:
 - Are they in idleness?
 - Can they be made self-supporting?
 - Is there a convict camp? Does it pay?
- Health Work:
 - Its results can not be calculated in dollars.
 - Study effect on schools, on crime, on poverty.
- Welfare Work:
 - Results intangible.
 - Administration of poor relief.
 - Child labor.
 - County home. Compare inmate cost with that in other counties.
- Elections:
 - Is there unnecessary expense?
- Printing and supplies:
 - Compare printing charges with those in other counties.
 - Compare prices charged the county with prices charged individuals.
 - Are supplies wasted?
- Salaries:
 - Is each officer busy?
 - Is he fitted for the work he is attempting to do?
- Miscellaneous:
 - Examine miscellaneous expenditures.
 - Is anything concealed therein?

B. Explanation

State taxes in North Carolina amount to about 14 million dollars a year, county and school taxes to 34 million dollars, city and town taxes to something over 20 million dollars. The personal income taxes paid to the federal government amount to five-and-a-half million dollars. The people of the state are therefore paying around 74 million dollars a year in direct taxes, or an average of \$138 per family. If we add to this the indirect taxes paid the federal government in customs and excise duties and the income taxes paid by corporations the total would be much greater.

Of course, this tax burden is not evenly distributed. Less than one percent of the people of the state pay a federal income tax, and the percentage which pays a state income tax is about the same. In other words, only one family in twenty pays either a state or federal income tax, and this family is usually an urban family. The rank and file of the people, especially those who live in the country, contribute nothing toward the support of the state government except what they pay in automobile and gasoline taxes, all of which goes into the highway fund. It is impossible to determine how much an individual pays in federal taxes, but if he uses tobacco he pays considerably more than he otherwise would.

The bulk of the taxes paid by the average taxpayer are locally levied and locally expended. If the taxes are burdensome it cannot be charged to national or state extravagance. The people are voting taxes on themselves for strictly local purposes and they see the money expended before their eyes. That is an encouraging fact, for responsibility and control thus rest with the local community. If taxes are to be materially lowered in North Carolina, it is in these local units, closest home to the taxpayer, that the lowering must be done, and it must be done by or through the direct influence of the taxpayer.

High taxes are not necessarily an

evil. Taxes applied to the construction of good highways or the erection of modern school buildings enhance the value of real estate and are therefore in the nature of an investment. Taxes spent for police protection, education, public health, and poor relief make life pleasanter and safer for the whole community and probably reduce one's private expenses by at least the amount of his tax. Most of the causes clamoring for support through taxation are legitimate and worthy, but, even so, there is a limit to the taxpaying capacity of a community and it cannot safely be exceeded.

The accompanying outline suggests some of the major expenditures of local government. It would be well to ascertain and show graphically just what portion of the taxpayer's dollar goes for each purpose. It may be found that some departments are yielding far more return in service for each dollar expended than other departments. It must be remembered, however, that the results of education, welfare work, health work and other social activities are less tangible than roads, bridges, and buildings and must not be underestimated for that reason.

C. Questions

Does your county publish an annual financial exhibit?

Is it really an "exhibit" or only a conglomeration of figures?

Are the items so arranged and classified that one exhibit can be compared with another?

A few counties print the exhibit in booklet form. Does yours?

What proportion of the total tax levy goes to the schools? For roads and bridges? For interest? To apply on indebtedness? For all other purposes?

What services of county government could be dispensed with with the least injury?

If you were delegated to prepare a budget for your county how would you proceed?

How much does your county pay into the state treasury? How much does it receive from it?

Do fines and forfeitures defray court costs?

Would it be profitable to have more frequent sessions of criminal court?

D. Sources of Information

J. C. Armson, Where Taxes are Highest, The Country Gentleman, June 27, 1925.

University News Letter, March 18, 1925.

The last two financial exhibits of your county.

The Guilford County Exhibit, 1924.

The New Hanover County Exhibit, 1924.

A PRAYER

God give us men who boast of the money they spend for education. Give us men who are unashamed to be proud of vast amounts spent in the transmission to the youth our culture, institutions, and things we hold dear to the human spirit. Give us men who do not quail before the unthinking clamor of greed couched in the man-pleasers' appeal to the selfishness of the crowd. Give us men whose courage does not fail and whose hearts do not flinch before the assault of the self-seekers who prey on the future generations. Give us men who will not meet the eager enthusiasm of our children with niggard penury. Give us men whose answer to the cry of youth is not empty-handedness. Give us men whose philosophy of education is something else than economy. God give us men who are unafraid to spend public money for the children of the race. Give us men who dare to refuse to crucify childhood on the cross of poverty. Oh, God, give us men who believe that the highest function of the wealth of society is its dedication to the upbringing of the children of men. God give us men who believe in the race to be.—Nebraska School Journal.

BIGGER EDUCATION PAYS

The United States Bureau of Education brings out some statistics to bolster up the self-respect of that much derided thing, the college diploma. It points out that although less than 1 percent of all Americans are college graduates, this 1 percent has furnished 55 percent of the presidents, 36 percent of the members of congress, 47 percent of the speakers of the house, 54 percent of the vice presidents, 62 percent of the secretaries of state, 50 percent of the secretaries of the treasury, 67 percent of the attor-

KNOW NORTH CAROLINA Educational Progress

In 1900 all public school property in North Carolina was valued at \$1,097,564. In 1924 public school property was valued at nearly sixty million dollars. In 1899-1900 we spent all told on public education \$1,062,303. In 1923-24 we spent \$29,747,075. Of the total expenditure \$57,400 went for outlay purposes in 1899-1900, while in 1923-24 we spent for outlay purposes \$10,668,419.

Twenty-five years ago the average schoolhouse in North Carolina was worth \$158.65. The average schoolhouse is now worth more than eight thousand dollars. In 1900 there were more than five thousand white one-teacher schools in North Carolina. In 1924 there were 1,633.

In 1899-1900 the average length of the school term was 70.8 days, against 143.4 days in 1923-24.

Four hundred thousand children were enrolled in school in 1900, against nearly eight hundred thousand in 1924. Only half of those enrolled were in average daily attendance in 1899-1900, against 72 percent for 1923-24.

In 1900 there were only 30 public high schools in the state with a total enrollment estimated at 2,000. In 1923-24 there were 738 public high schools with an enrollment of 63,875 pupils. In this particular the bulk of the growth has taken place since 1919. As late as 1916 our high schools graduated only 1,061 students, while in 1924 our high schools graduated 6,900 students. Our educational system has been functioning long enough for the high schools to begin to show real results. The increasing number of high-school graduates within very recent years is the most amazing fact in the educational progress of the State. Our schools have finally begun to bear large crops of fruit.

neys-general and 69 percent of the justices of the supreme court. As it figures it, the college man's chance for eminence is 870 to 1 against the non-college man. Even more surprising is its showing that 277 times as many college men had amassed wealth as had non-college men. This proportion is expected to grow sharply in the next fifty years, for the colleges are now turning their attention largely to preparation for success in business careers.—Kansas Teacher.

RURAL VS. URBAN SCHOOLS

Volume one, number 22, of State School Facts gives an interesting and valuable summary of educational progress in North Carolina since 1900, along with a summary of school facts for the year 1923-24. Urban and rural schools have made remarkable progress, but they are far apart in attainment. North Carolina is predominantly rural. A large majority of the future citizens of the state are being trained in rural schools. But the school facilities for such children are far behind those enjoyed by children who attend urban schools. Witness the following facts.

In the rural schools there were 2,229 white teachers, or nearly 18 percent of them all, who have never finished high school. In the city schools there were just 52 white teachers whose training was below high-school graduation, or 1.31 percent of the white teachers in urban schools.

The average rural white teacher in the state had four years at high school and three-fourths of a year at college. The average urban white teacher had four years at high school and nearly three years at college.

In the elementary rural schools 71.4 percent of the enrolled children were in average daily attendance, while in the city elementary schools 79.9 percent of the enrolled children were in average daily attendance.

The average annual salary paid white teachers in the 24 largest city schools was \$1,300.86, while the average salary paid rural white teachers was \$663.18, or only about one-half as much.

RURAL ELECTRIC POWER

VIII. INTERNAL COMBUSTION ENGINES

In the article of last week the production of power from fuel was considered, first in a general way and then more particularly in connection with the use of steam engines and turbines. Internal combustion engines will now be considered.

In the internal combustion engine the fuel, gas or some form of oil, must be vaporized and mixed with the proper amount of air to insure an explosive mixture, which is admitted into the cylinder and ignited. The combustion of the fuel results in producing a gas under high pressure, which does work directly against the piston, an action similar to that of steam in the reciprocating steam engine. Thus the fuel is burned directly in the cylinder of the engine, instead of in a separate apparatus, as in the case of boiler and steam engine. Compared with the steam plant, the internal combustion engine eliminates several steps in the process of transforming heat energy into work. That is the reason it has a higher efficiency, which means that it converts a greater proportion of heat energy in the fuel into work.

Internal combustion engines may be classified into three types, Otto cycle, Diesel cycle, and mixed cycle engines.

In engines operating on the Otto cycle the fuel and air are thoroughly mixed before they are admitted to the cylinder, where the mixture is compressed to a moderate pressure, and burns explosively upon ignition. This type is the ordinary gas engine used in automobiles and airplanes. Small stationary engines, also, are usually of this type. Such engines use easily vaporized liquid fuels, the most common being gasoline and kerosene. Artificial and natural gas are also used in stationary engines.

Otto cycle engines are low in first cost and easy to operate; they are relatively simple and of small weight per horsepower. However, they are

not as efficient as the other two types and the cheap fuel oils cannot be used. The high cost of the fuel they use precludes their adoption in plants of any appreciable size, unless it be where natural gas is available.

Diesel cycle engines use the heavier liquid fuels, which are difficult to vaporize and relatively cheap. They are built in medium and very large sizes, from 20 to 4,000 horsepower. In these engines air only is compressed to a very high pressure, about 600 pounds per square inch. The fuel is then injected into the cylinder, where it burns upon contact with the air, the temperature of which is sufficient to cause ignition because of its high compression. This burning continues during the stroke as long as fuel is injected.

The principal advantages of Diesel engines are high efficiency and capability of utilizing the poorest grades of liquid fuels. They are not as simple in construction or operation as the Otto engine and their first cost is high.

Engines operating on the mixed cycle include semi-Diesel and oil engines. They are built in sizes from 10 to 100 horsepower. They burn fuel oils, ranging from kerosene to crude oil. In this type of engine air alone is compressed to a moderate pressure, 100 to 350 pounds per square inch, and the fuel injected into the cylinder as in the Diesel engine. To assist in vaporizing and igniting the fuel, a bulb or plate in the combustion space retains sufficient heat for the purpose.

Compared with Diesel engines, semi-Diesel and oil engines are simpler and lighter, their first cost is less, and operating expenses are lower. Compared with Otto cycle engines, they can utilize cheaper fuel oils and are more efficient.

Next week steam and internal combustion engines will be compared.—E. G. Hoefler.

The cost of instruction per white child enrolled in the 24 largest cities was \$40.91, against an average of \$20.07 per rural white child enrolled.

The urban white schools were operating an average of 176.9 days. The length of term in the rural white schools averaged 136 days.

The average rural white schoolhouse in North Carolina is worth \$5,726,

against the city average of \$78,704.

The investment in school property averages \$201.91 per white child in the urban schools, against \$63.92 per white child in rural schools, or three to one in favor of the urban child. It is interesting to note that more money is invested in school property per colored urban child than is invested per white rural child—\$68.78 against \$63.92.

EDUCATIONAL PROGRESS, 1900 to 1924

The following table, based on State School Facts, Volume 1, Number 22, shows the educational progress made by North Carolina between 1900 and 1924.

ITEMS	1899-1900	1923-1924
1. Total school expenditures	\$1,062,303.71	\$29,747,075.84
2. Expenditure current expense	1,004,903.09	19,078,656.87
3. Expenditure capital outlay	57,400.62	10,668,418.97
4. Value of school property	1,097,564.00	59,768,006.00
5. Average value per schoolhouse	158.65	8,222.03
6. Number of log houses	1,190	53
7. Number of white one-teacher schools	5,047	1,633
8. Number of teachers	8,320	21,403
a. White	5,753	16,283
b. Colored	2,567	5,120
9. Average monthly salary paid each teacher	23.46	99.93
a. White	24.79	110.06
b. Colored	20.48	64.83
10. Average term in days	70.8	143.4
a. White schools	73.3	146.2
b. Colored schools	65.3	134.6
11. Average number days in school		103.3
a. White pupils		109.3
b. Colored pupils		89.1
12. Total school population	657,949	921,315
a. White	439,431	628,132
b. Colored	218,518	293,183
13. Total school enrollment	400,452	793,046
14. Total average daily attendance	206,918	671,359
15. Percent of population enrolled	60.9	86.1
16. Percent of enrollment in average attend.	51.7	72.0
17. Number of public high schools	30	738
18. Enrollment in public high schools	2,000	63,875
19. Number State-aided rural libraries		5,070
20. Educational appropriations:		
a. Public schools, maintenance	\$ 100,000.00	\$ 1,678,750.00
(Improvements)		\$2,219,000.00
b. Normal schools		
Maintenance	16,000.00	393,000.00
(Improvements)	12,500.00	4,756,000.00
c. Higher institutions	65,000.00	1,425,000.00
21. Percent illiteracy 10 years and over.	28.6	13.1
a. White	19.6	8.2
b. Colored	47.6	24.5

¹ Estimated. ² Two years. ³ Only four are white. ⁴ Based on Census Report.

⁵ 1920.