A FINANCIAL SURVEY OF YUMA COUNTY

by

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A Thesis

submitted to the faculty of the

Department of Education

in partial fulfillment of

the requirements for the degree of

Master of Arts

in the Graduate College

University of Arizona

1 9 3 7

Approved: Emil L. Larson 8/6/37

Adviser Date

ACKNOWLEDGEMENT

The writer wishes to express his appreciation to the various County Officials who have given assistance in securing the data necessary for making this survey. He also wishes to express his deep gratitude to Dr. Emil L. Larson of the University of Arizona for the helpful criticism and advice given during the writing of this report.

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CHAPTER I

INTRODUCTION

The purpose of this study has been to determine the truth concerning the educational conditions in Yuma County. One of the most outstanding problems in the field of education is that of providing an efficient and substantial means of financing our educational program. During the past economic crisis there was much discussion and criticism in Yuma County in regard to the financial status of our educational system. A thorough analysis of the various phases of school support should aid in clarifying the situation.

The Problem

The problem of this study is to determine the financial situation with respect to educational finance in Yuma County and to make recommendations based on these findings. This study is concerned with schools, with the financing of education in the county, and with the relation of school finance to the other expenditures of the county.

Source of Data

The data for this study consist of valuations of

various types of properties, sources of governmental revenue in Yuma County, and distribution of public expenditures of all kinds in Yuma County. These data were secured from the biennial reports of the State Superintendent of Public Instruction, the annual reports of the State Board of Equalization, and the biennial reports of the Arizona Tax Commission. Also the offices of the County School Superintendent, the County Treasurer, the County Recorder, the County Tax Assessor, and the County Board of Supervisors were visited and their records examined.

Organization of Data

In order to explain and interpret more clearly the situation in Yuma County, the data have been organized into charts and tables. Throughout the body of this thesis these tables and charts will be fully explained. The conclusions and recommendations will be arrived at by using as a basis these charts and tables. Assuming that the records and reports from which the data were secured are accurate, the statements made herein are accurate.

Limitations of Problem

Since this problem has such a large scope, it has been limited to the study of schools in Yuma County. This includes all districts of the county. Only the

problems that concern the entire county or of several districts within the county have been considered. These problems have been analyzed in regard to those phases of school finance that concern the entire county or portions thereof. The period to be studied includes the years between 1919 and 1936.

Related Studies

Many related investigations have been undertaken in Arizona. In 1923 Elsie Toles, Superintendent of Public Instruction, made a survey in the general field, entitled Survey of Financial Administration of the Public Schools of Arizona. Following this in 1925, C. Ralph Tupper, under the authority of the State Department of Education, conducted a Survey of the Arizona School System. The educational staff of the University of Arizona have conducted general survey investigations of the following school systems: Pima County; Payson; Patagonia; and Roosevelt School of Phoenix, Arizona.

At the present time financial surveys in Arizona are more limited. Probably the best financial survey in the State to-date is the one by Larson, of the University of Arizona faculty, on School Finance and Related Problems, Social Science Bulletin No. I, Volume IV. Three other financial studies have been made in the last three years. In 1934, Lewis Monical of Globe, Arizona, completed a

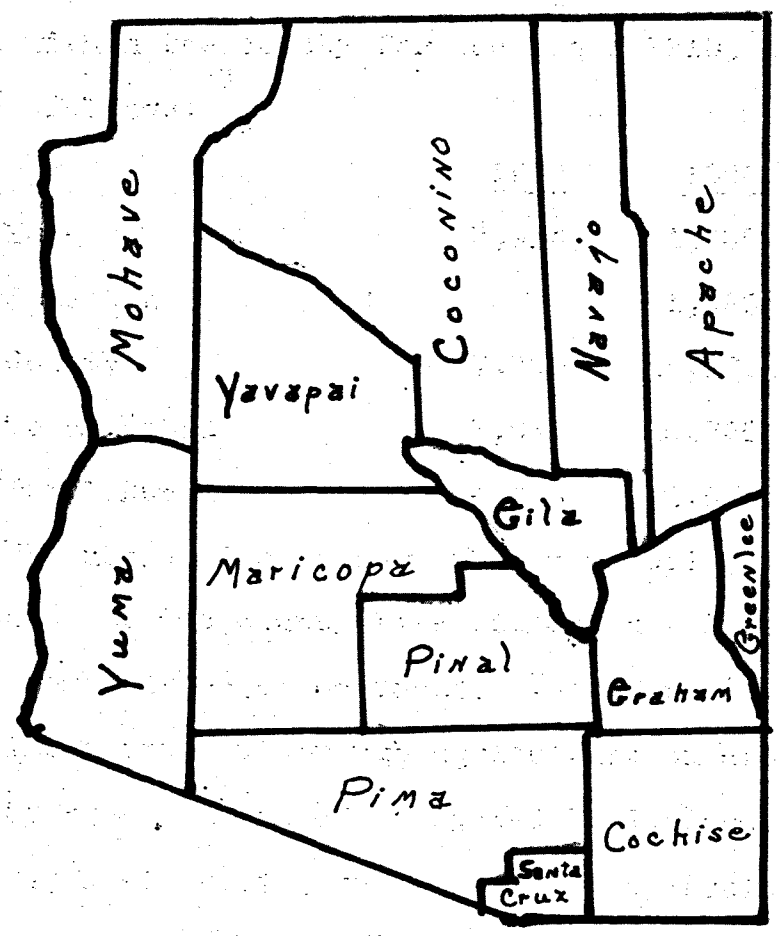
financial survey of Gila County. J.B. Booth of Winslow, Arizona, made a study of financial conditions in Navajo County in 1936. During the same year Francis Vihel of Tempe, Arizona, made a similar survey of Maricopa County.

Description of Yuma County

Yuma County is located in the extreme southwestern part of the State of Arizona. It contains 9,987 square miles. It is bordered on the north by Mohave County, on the east by the counties of Yavapai, Maricopa, and Pima, on the south by Mexico, and on the west by the State of California. Since the county is located in the southwestern part of the State, it is evident that winters will be mild and the summers hot. The location and comparative area of the county are shown more clearly on the map on page 6.

The State of Arizona is divided into fourteen counties. Yuma County with its 9, 987 square miles ranks fourth in size. However, it is below average in population, the 1930 census showing a population of 17,816 or slightly less than two persons per square mile. There are only two incorporated towns in the county. Yuma, located in the southwestern part of the county, is the only town of any importance. It is the county seat and an important division point on the Southern Pacific Railroad. Yuma is also the center of a great farming district.

Somerton, a small farming town of 2,790 population, is also located in the southwestern part of the county.



Map 1. State of Arizona Showing The Location and Comparative Areas of the Fourteen Counties, (square miles)

1. Apache	11,379	8. Mohave	13,390
2. Cochise	6,170	9. Navajo	9,899
3. Coconino	18,623	10. Pima	9,505
4. Gila	4,699	11. Pinal	5,380
5. Graham	4,630	12. Santa Cruz	1,229
6. Greenlee	1,878	13. Yavapai	8,150
7. Maricopa	8,891	14. Yuma	9,987
		Total	113,810

The population of the county and of the incorporated towns within the county for the years 1910, 1920, and 1930 are as follows:[1]

	1910	1920	1930
Yuma	2,914	4,237	4,892
Somerton		1,993	2,790
County	7,733	14,904	17,816
Total Urban	2,914	6,230	7,682
Total Rural	4,819	8,674	10,134

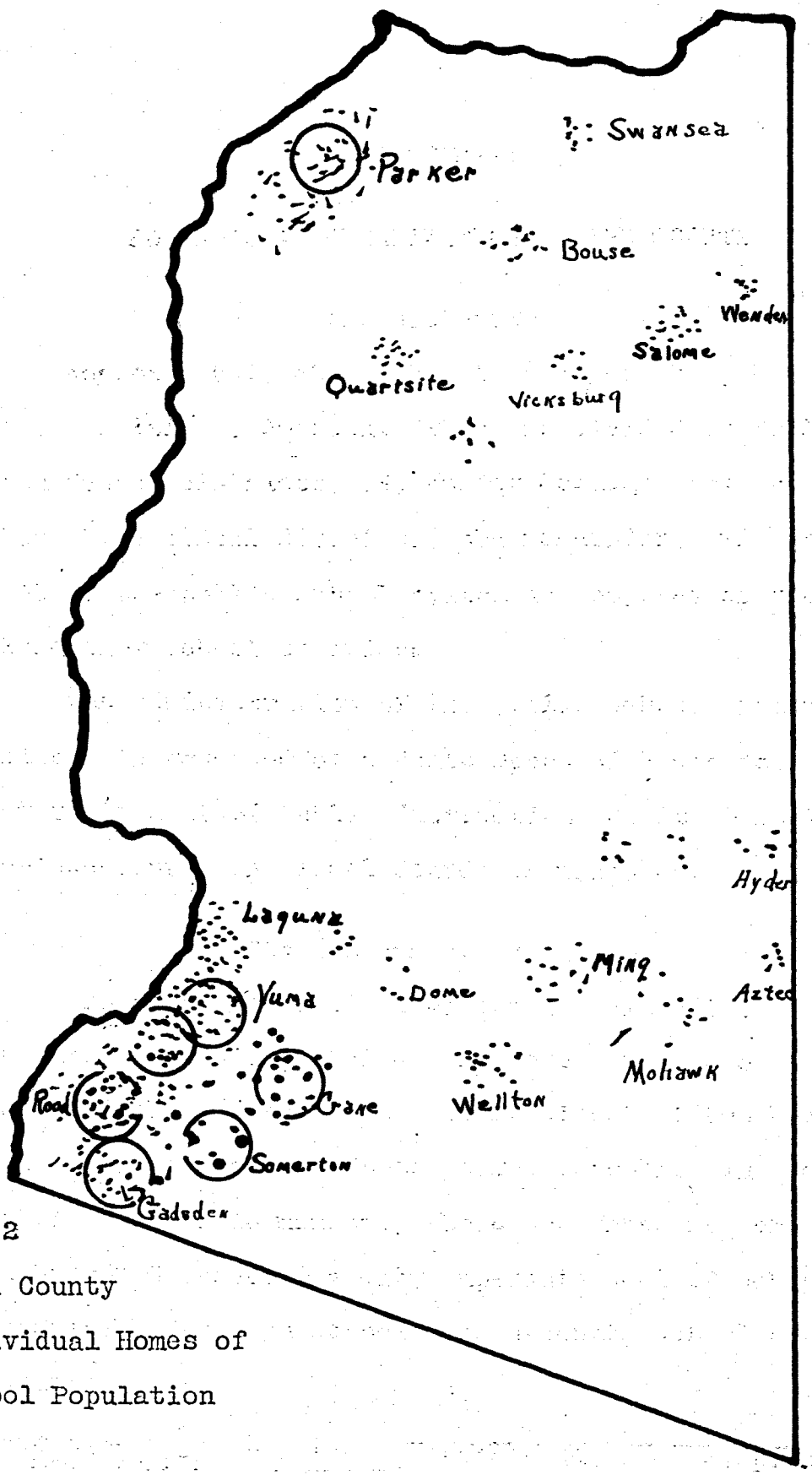
The above figures show that a majority of the inhabitants of the county live either in small unincorporated communities or on farms. These people gain their livelihood chiefly through agriculture on approximately seventy square miles of irrigated land, producing cotton, alfalfa, small grain, truck crops, grapefruit, and pecans. Map No. 2 shows the population sections of Yuma County.

Over one-half of the county is under the control of the Federal Government. Most of the government land is in the form of Public Domain, Indian Reservations, and Military Reservations. The areas of the publicly controlled lands and the percents they are of the total area of the county are as follows:[2]

1. Material obtained from the Chamber of Commerce of Yuma, Arizona.
2. Arizona Year Book, p. 309.

	Area in Acres	Per Cent of Total Area
United States Public Domain	3,300,000	51.6
United States Indian Reservations	240,699	3.7
United States Military Reservations	240	.003
Total Land Owned by Federal Government	3,540,939	55.3
Total Land Under Private Control	2,850,741	44.5

Federally owned land comprises over fifty-five per cent of the county area. The Public Domain and Indian Reservations total 3,540,939 acres out of the county which contains 6,391,680 acres.



Map 2

Yuma County

Individual Homes of

School Population

CHAPTER II

EDUCATIONAL ORGANIZATION OF THE COUNTY

Administration

Approximately 434 districts compose the public school system of Arizona. They are divided as follows: High School districts, 59; Junior Colleges, 2; and the elementary school districts, the remainder. The greatest part of the public school system is composed of the elementary school districts.

The administration of the public school system of Arizona is governed by a State Board of Education, State Superintendent of Public Instruction, County School Superintendents, and local Boards of Trustees.

State Board of Education

The State Board of Education is composed of the following ex-officio members: the Governor, the Superintendent of Public Instruction; the President of the University; and Principals of the State Normal Schools. In addition to the ex-officio members, there are three members appointed by the Governor: a city superintendent of schools; a principal of a high school; and a county school superintendent.[3]

3. School Laws of Arizona, Article XI, Sec. 3, p. 21.

The powers and duties of the Board are prescribed by law and are listed and discussed in School Laws of Arizona, Chapter 21, Article 1, Paragraph 989, pages 35-37.[4]

The members of the Board serve without pay, but all their expenses incurred in attending the meetings of the Board and for printing are provided for by law. They hold four regular meetings annually and special meetings are held on the call of the president.[5]

State Superintendent of Public Instruction

The office of the State Superintendent of Public Instruction is elective. The state superintendent is a member and secretary of the State Board of Education. He is ex-officio a member of any other board having control of public instruction in any state institution.[6] His powers and duties are prescribed by law and may be found in School Laws of Arizona, Chapter 21, Article 2, Paragraph 990, (pages 37-39).[7]

County School Superintendent

The county school superintendent is elected to office and the election is held at the same time as for other county offices. His qualifications are as follows:

4. School Laws of Arizona, Chapter 1, Art. I, pp. 35-37.
5. Ibid., Paragraph 988, p. 35.
6. Ibid., Article XI, Sec. 4, p. 22.
7. Ibid., Chapter 21, Art. II, Paragraph 990.

"No person shall be eligible to election as county school superintendent who does not hold a regular certificate to teach in the schools of Arizona."[8] The powers and duties of the County School Superintendent are listed and discussed in School Laws of Arizona.[9]

The classification of the counties according to the assessed valuations of their taxable property determines the salaries of the various county school superintendents. Therefore, their salaries vary accordingly. Yuma County is classified as a second class county. The Yuma County Superintendent's office staff consists of the superintendent and one deputy superintendent.

Boards of Trustees

The unit of organization of schools of Arizona is the district, and the real authority of local school administration is vested in district boards. These trustees, three in number, except in union high school districts where the law requires five, are elected by the popular vote of qualified electors of the districts. The term of office in a single district is three years. In a union high school district, the term of office is five years. The terms are so arranged that one board member is elected each year.[10]

8. School Laws of Arizona, Art. 3, Par. 992, p. 40.
9. Ibid.
10. Ibid., Art. 4, Par. 1003, p. 46.

The powers of the Board of Trustees are divided into four groups.[11] They are as follows: (a) general organization; (b) financial power; (c) powers over instruction; and (d) powers over the pupils. The boards should be legislative, leaving the executive powers to the principal or superintendent. The Trustees should use expert advice in executing the powers vested in them in order to obtain the greatest use of these powers.

The plan of district organization is especially desirable in Yuma County on account of the lack of population in the rural communities and the great distance between settlements. Persons selected and elected as trustees are usually the outstanding people of the district and have the best interests of the community at heart. Often the district school is the center of all district activity and until Yuma County is more densely populated the present plan of organization will probably remain. In some instances, however, districts and schools should be enlarged and the total number reduced.

Districts and Schools

There are twenty-two school districts in Yuma County, two high schools and twenty elementary schools. The two high schools enroll 795 pupils and the twenty

11. Larson, Emil L., A Report of a Survey of Certain Phases of the Pima County, Arizona, School System, 1931, pp. 14-16.

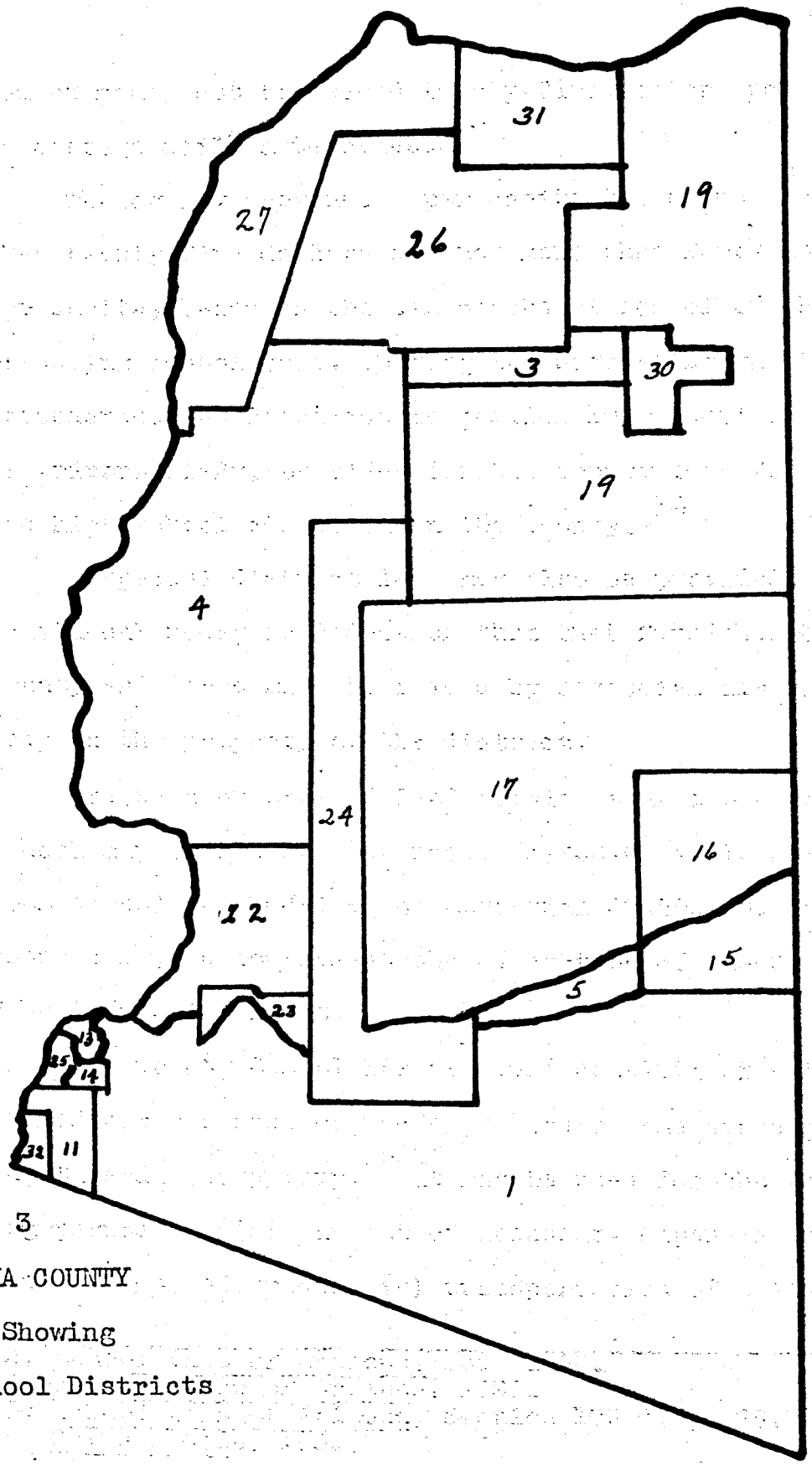
elementary schools enroll 3,631.[12] One high school, Yuma Union High School, is a member of the North Central Association of Colleges and Secondary Schools. The other, Northern Yuma County Union High School located at Parker, Arizona, is classed as a Class B school.

The elementary school districts are, for the most part, composed of one and two teacher schools. Over a period of years several districts have been combined with others. Map 3 on the next page gives a good idea of the size and location of each district. Of the twenty elementary school districts in Yuma County, ten are one teacher schools, one is a two teacher school, and the remaining nine have three or more teachers. Fifty-four per cent of the pupils in the county attend school in the town of Yuma.

Sources of School Revenue

Three main governmental units provide revenue for the support of the schools in Yuma County. They are: the state; the county; and the district. The state provides a per capita appropriation based on the average daily attendance of the pupil. A law passed in 1935 provides a state appropriation for common and high school education in the state, during each fiscal year, of a

12. Thirteenth Biennial Report of the State Superintendent of Public Instruction, 1934-1936.



Map 3

YUMA COUNTY

Showing

School Districts

sum of money not to exceed twenty-five dollars per pupil in average daily attendance.[13]

The county provides a per capita tax of not less than twenty-five dollars and not more than forty dollars per capita, based on the six months of school of the preceding school year, showing the highest average daily attendance. An amendment to section 1090, Revised Code of Arizona, 1928, provides for the county levy for common and high school education in the county.[14]

A special district levy may also be provided. Any additional money needed other than that furnished by the county and state must be raised by a special district levy on the property of the district.

The Session Laws of 1933 provide that a one room school may obtain not to exceed $1,250.00 while a two room school may receive not more than $2,500.00. These amounts may be lowered at the discretion of the County School Superintendent.

The County School Reserve Fund consists of not to exceed six per cent of the aggregate of the state per capita and county levy.[15] It may be used for the following purposes: (a) payment of necessary expenses in newly formed districts; (b) transportation of children

13. School Laws of Arizona, Sec. 1088.
14. Revised Code of Arizona, 1928.
15. School Laws of Arizona, Section 1094d, p. 25. Revised Code, 1933.

to and from one and two room rural schools; (c) transportation of children from unorganized territory to organized districts; (d) the establishment and maintenance of schools in unorganized territory; (e) the allotment of an additional $250.00 to a one room school and $500.00 to a two room school in districts having little or no assessed valuation.

Teachers

In 1935-1936, Yuma County had a teaching staff of 109 teachers.[16] There were 24 men teaching in the county--12 in the high schools and 12 in the elementary schools. There were 85 women teaching in the county--ten in high schools and 75 in elementary schools. There were 87 teachers in elementary schools and 22 teachers in high school.

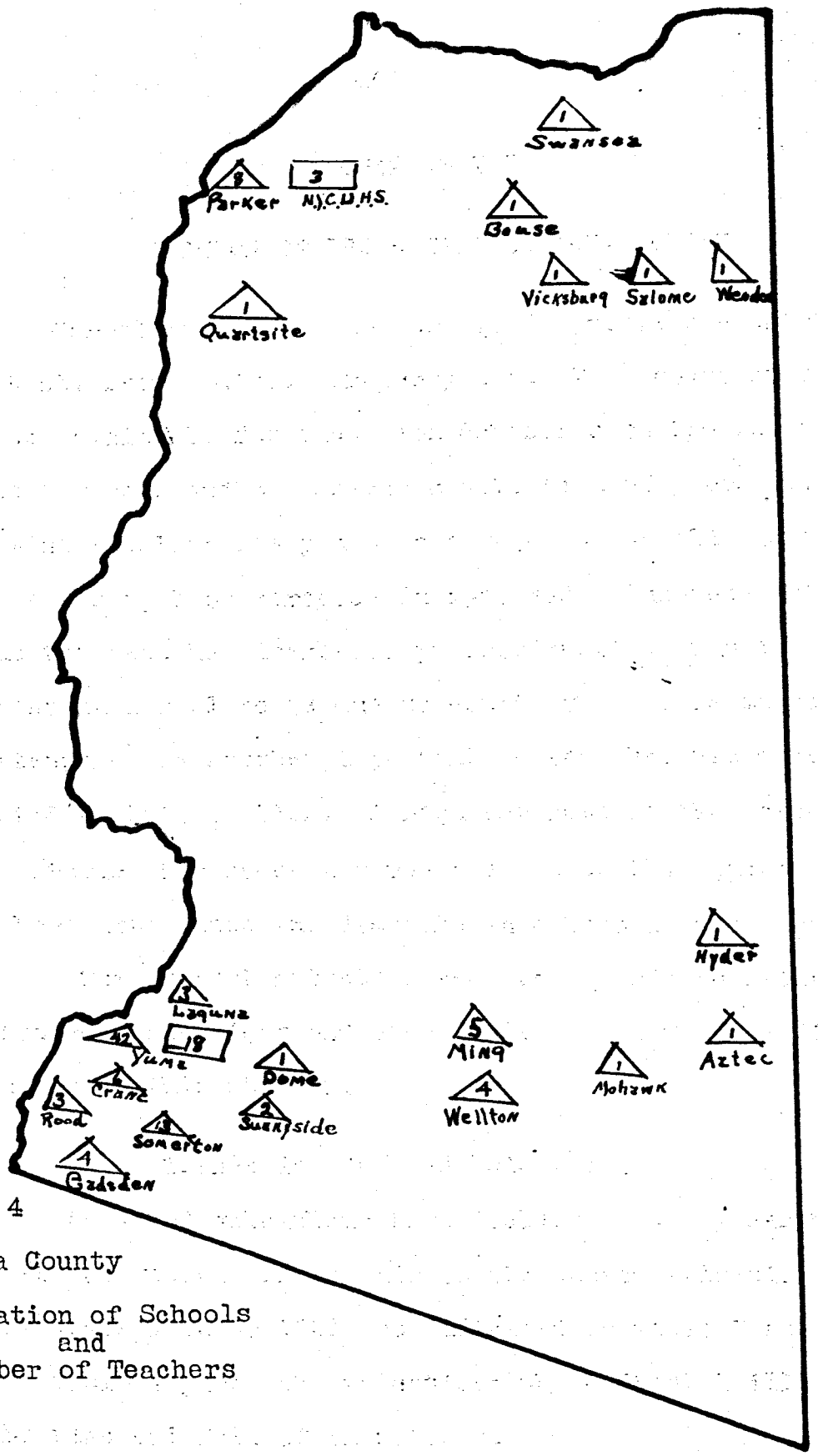
Sixty teachers, or about fifty per cent of those employed in Yuma County, hold college degrees. The elementary schools employ 87 teachers, 44 of whom hold degrees. The two high schools employ 22 teachers, all of whom hold degrees. Slightly less than sixty-one per cent of the teachers in the county have had five years or more of teaching experience, while thirty-nine per cent have been in their present position for five years

16. Thirteenth Biennial Report of the State Superintendent of Public Instruction, 1934-1936.

or more. Map No. 4 on the next page shows the location of the schools of the county and the number of teachers in each school.

Summary

The purpose of this chapter has been to give the reader some idea of the educational organization of the county. It has been attempted to show the district divisions of the county, the sources of school financial support, the qualifications of the teachers, and the county and district administrative organizations.



Map 4

Yuma County

Location of Schools
and
Number of Teachers

CHAPTER III

VALUATION OF PROPERTIES IN YUMA COUNTY

School support in Arizona is derived, to a great extent, from a direct property tax. The amount of revenue available for education depends upon two factors, the tax rate and the assessed valuation of property. During the last few years, the majority of all classes of property has decreased in assessed valuations while the tax rate has increased proportionally. The increasing school costs due to constant increase in daily attendance is another important factor that has contributed to this problem. A high tax rate is thus needed to provide the necessary revenue due to this increase in school attendance and decrease in assessed valuations.

The present situation and past trends as related to assessed valuations and school attendance will be discussed in this chapter.

Trends in Assessed Valuations

Assessed valuations have declined sharply during the past few years. The trends in the county valuations for the years 1920 to 1936 are indicated in Table I and Chart 1. Table I gives the valuations while Chart 1 illustrates the rise and fall of valuations.

TABLE I

FINAL NET VALUATIONS--YUMA COUNTY
1920 - 1936*

Year	Valuations
1920	$22,971,567.00
1921	22,235,520.00
1922	21,070,210.00
1923	21,423,973.00
1924	21,656,030.00
1925	22,706,817.00
1926	23,117,375.00
1927	25,751,296.00
1928	25,969,156.00
1929	26,453,486.00
1930	27,325,272.00
1931	27,501,665.00
1932	21,879,558.00
1933	18,334,789.00
1934	18,086,632.00
1935	18,339,595.00
1936	18,695,661.00

* Material secured from the Office of the County Treasurer, Yuma, Arizona.

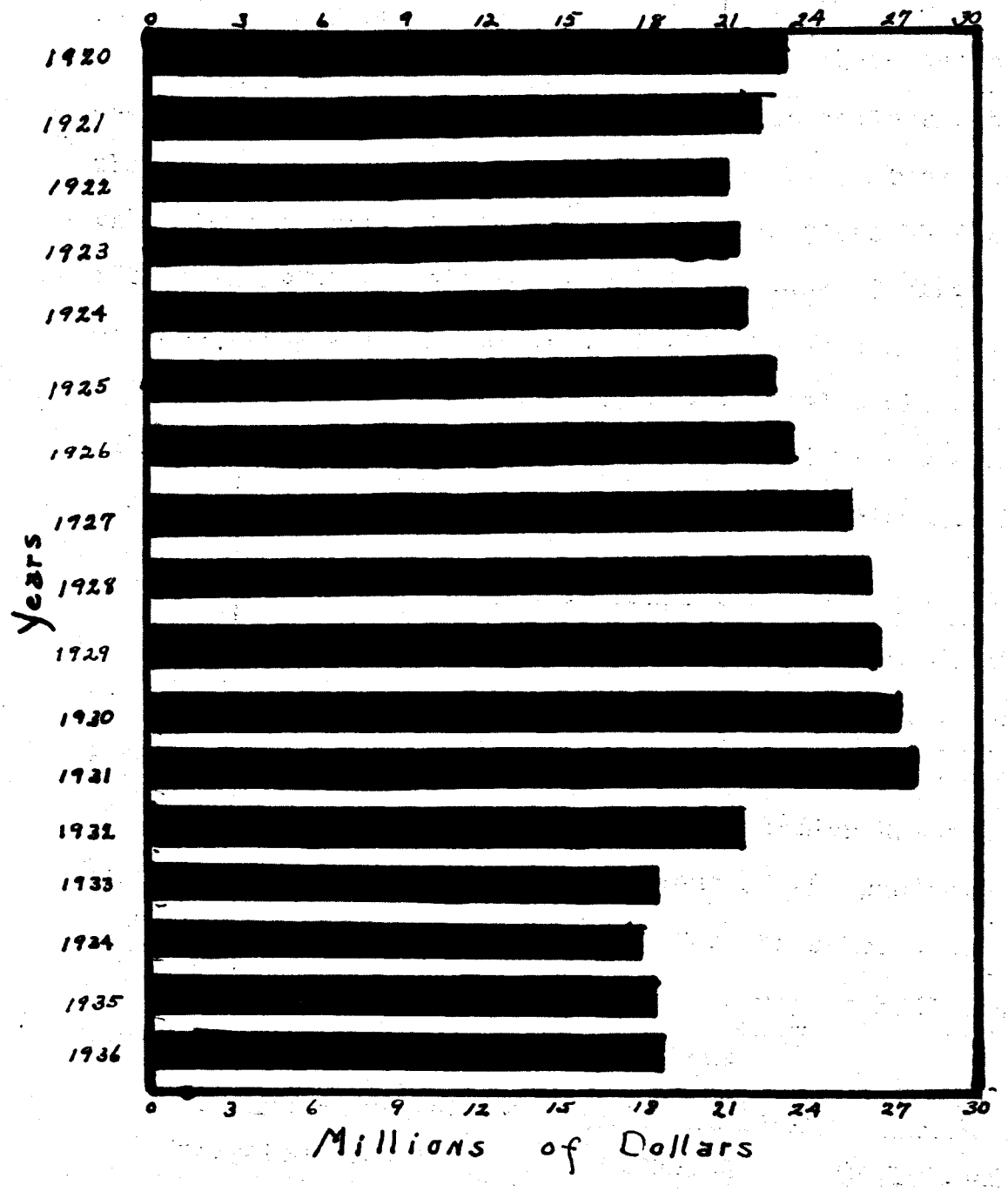


Chart 1:

Trend in Assessed Valuation, Yuma County

1920-1936

From a study of Chart 1, we find that there was a decrease in valuation of about two million dollars between the years 1920 and 1922, while there was an increase in valuations of six million dollars for the years 1922 to 1931. In 1932 and 1933 there was a decrease of nine million dollars in valuations. There was also a small decrease in 1934. From 1935 to 1936 we find a slight gain in valuations. The data for Table I were secured from the County Treasurer's Office in Yuma, Arizona.

Types of Property

Over fifty-five per cent of the area of Yuma County is under public control and is not subject to taxation. A small amount of revenue is derived from the personal property of farmers leasing land on the Indian Reservations, but at least fifty-one per cent of the publicly controlled land provides no income for the schools of the county. The taxable land of the county in 1931 other than city and town lots were as follows:[17]

Description of Property	Number of Acres	Valuation
Irrigated Land	46,989.33	$5,132,840
Dry Farming Land	511,150.45	2,836,390
Railroad Land Grants	28,867.38	12,989
Total	587,007.16	7,982,219

17. Proceedings of the State Board of Equalization, 1931.

It is not at all likely that there will be an appreciable increase in the items listed above. It is apparent that the land of the county can never be expected to bear a much greater portion of the tax burden than it does at the present time. There is one exception to the above statement. If the Colorado River Indian Reservation is ever opened for settlement by white farmers, there will be some 100,000 to 200,000 acres of irrigated land, in addition to the above, that can be taxed.

Valuation of Major Types of Property

The valuations of each of the major types of property in Yuma County from 1919 to 1936 are shown in Table II and Chart 2.

TABLE II

PROPERTY VALUATIONS OF YUMA COUNTY*
1919-1936

Year	Railroads	Public Utilities	City Lots and Imp.	Livestock	All Other Properties	Total Valuations
1919	$6,971,048	$ 292,742	$2,281,736	$672,780	$9,684,141	$19,902,447
1920	8,077,350	303,422	2,673,056	667,572	11,250,169	22,971,567
1921	8,077,350	312,055	2,862,651	555,600	10,427,864	22,235,520
1922	8,077,350	327,731	1,717,575	536,992	10,410,562	21,070,210
1923	8,077,350	345,606	3,766,553	465,395	8,769,069	21,423,973
1924	8,035,150	418,837	3,760,473	463,725	8,977,845	21,656,030
1925	8,035,150	599,981	3,881,714	443,255	10,189,972	22,706,817
1926	8,132,780	593,675	4,273,019	366,265	9,651,536	23,117,375
1927	10,399,560	721,438	4,631,984	344,545	9,653,769	25,751,296
1928	10,399,560	885,992	4,908,327	324,940	9,450,237	25,969,156
1929	10,490,920	1,097,157	6,476,209	297,830	8,091,370	26,453,486
1930	10,490,920	1,239,953	5,715,266	229,905	9,649,218	27,325,272
1931	10,490,920	1,343,728	5,836,060	212,838	9,618,119	27,501,665
1932	9,017,078	1,318,797				21,879,558
1933	8,543,754	1,248,739	3,589,550	120,536	4,832,211	18,334,789
1934	8,487,361	1,222,380				18,086,632
1935	8,487,361	1,217,068	3,618,858	138,047	4,878,261	18,339,595
1936	8,419,690	1,113,520	3,783,530	187,265	5,191,656	18,695,661

* Data secured from the Proceedings of the State Board of Equalization.

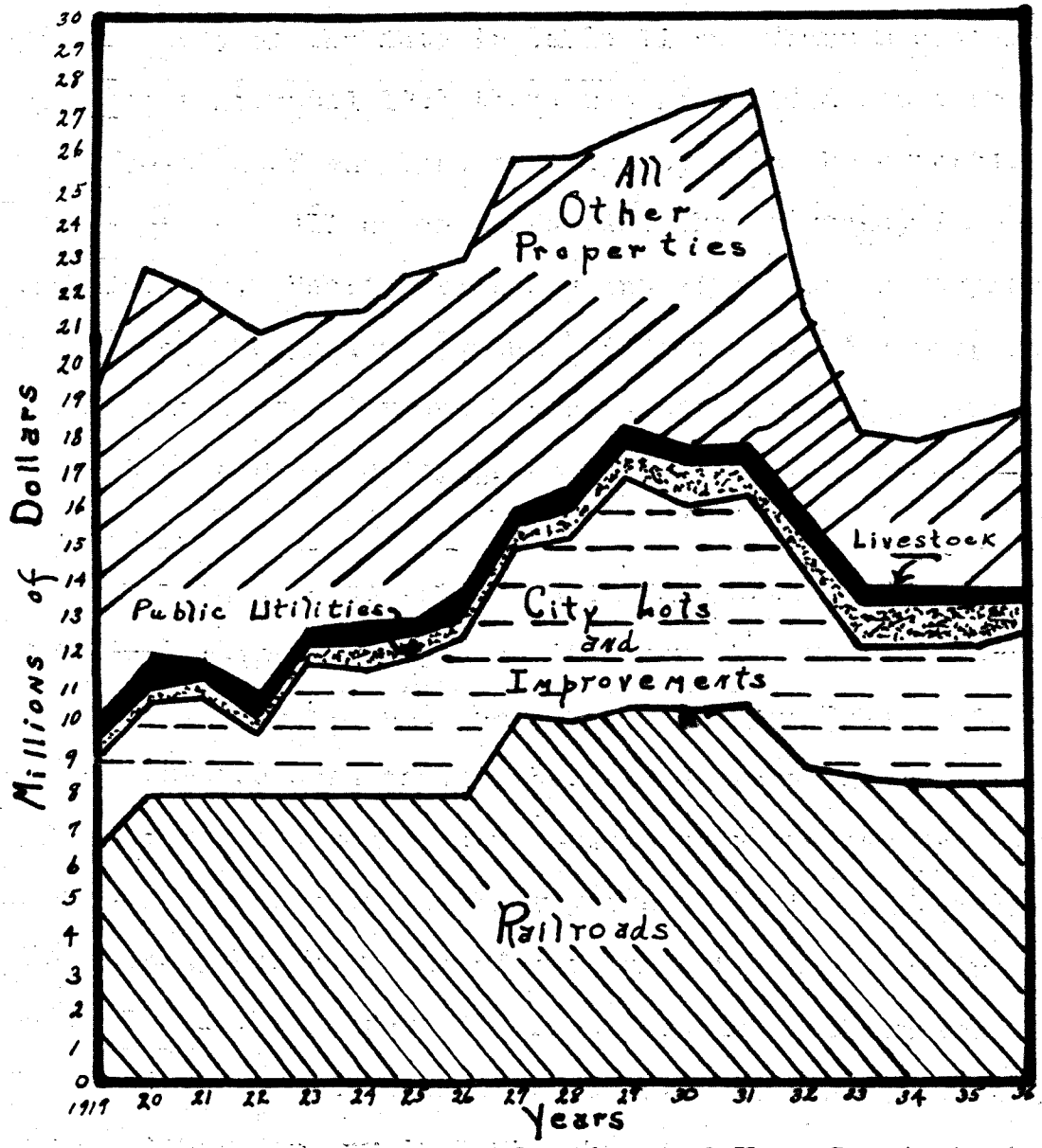


Chart 2: Property Valuations of Yuma County

1919-1936

A study of the data in Table II and Chart 2 reveals the fact that until 1931 there was no decided decrease in the valuation of any type of property with the exception of livestock. All other properties show a steady increase in valuation. Public utilities and city lots and improvements show the greatest amount of increase. All property valuations have undergone a substantial reduction since 1931, the decrease being greatest in city lots and improvements.

There are three railroads in Yuma County, the Southern Pacific Railway Company; the Atchison, Topeka and Santa Fe Railway Company; and the Arizona Swansea Railway Company. The Southern Pacific Railway Company has been the largest property owner, and consequently the largest tax payer, in the county for many years. The Santa Fe Railway Company has been one of the largest tax payers in the county, and the largest tax payer in the northern end of the county since it took over the old California and Arizona Railway Company in 1921. The Arizona Swansea Railway Company has never been important. Its valuation has always been less than $150,000. The combined value of all railroads in Yuma County has represented some thirty-eight per cent of the total valuation for the past eighteen years. A study of Table II and Chart 2 shows that the railroads reached their peak in valuation in 1929 and

stayed there until 1931, when their valuation began to drop. From 1927 to 1931 the valuation of railroads stayed over the ten million dollar mark.

From a study of the "Public Utilities" a regular trend in valuation can be seen. There is a steady increase in valuation up to the peak year of 1931. From 1931 to 1936 we find a slow decrease. The chartering and growth of new utilities such as the Postal Telegraph Company, American Telephone and Telegraph Company, and the Yuma Utilities are the main reasons for this increase in valuation from 1925 to 1931.

Trends in School Attendance

School attendance in Yuma County has increased rapidly. The elementary schools have, over a period of eighteen years, almost doubled their average daily attendance, while the high school attendance has increased seventy per cent. Attendance in high schools increased from 180 in the school year 1918-1919 to 627 in the school year 1935-1936. Table III and Chart 3 show the increase in average daily attendance for the years 1918 to 1936 in the elementary schools, high schools, kindergartens, accomodation schools, and night schools.

TABLE III

AVERAGE DAILY ATTENDANCE IN YUMA COUNTY SCHOOLS: 1918-1936 *

Year	Elementary	High School	Kinder-garten	Accomodation School	Totals
1918-1919	1,523	180			1,703
1919-1920	1,648	160			1,808
1920-1921	1,798	211	36		2,045
1921-1922	1,805	230	33		2,068
1922-1923	1,812	260	40		2,112
1923-1924	1,832	255	43		2,130
1924-1925	2,150	288	36	16	2,490
1925-1926	2,165	298	72	66	2,601
1926-1927	2,223	302	64	75	2,664
1927-1928	2,397	358	97	68	2,920
1928-1929	2,549	385	81	65	3,080
1929-1930	2,666	454	130	89	3,339
1930-1931	2,877	436		112	3,425
1931-1932	2,726	480		50	3,256
1932-1933	2,726	507		52	3,285
1933-1934	2,580	513		29	3,122
1934-1935	2,725	556		21	3,302
1935-1936	2,676	627		26	3,329

* Data secured from the Biennial Reports of the State Superintendent of Public Instruction.

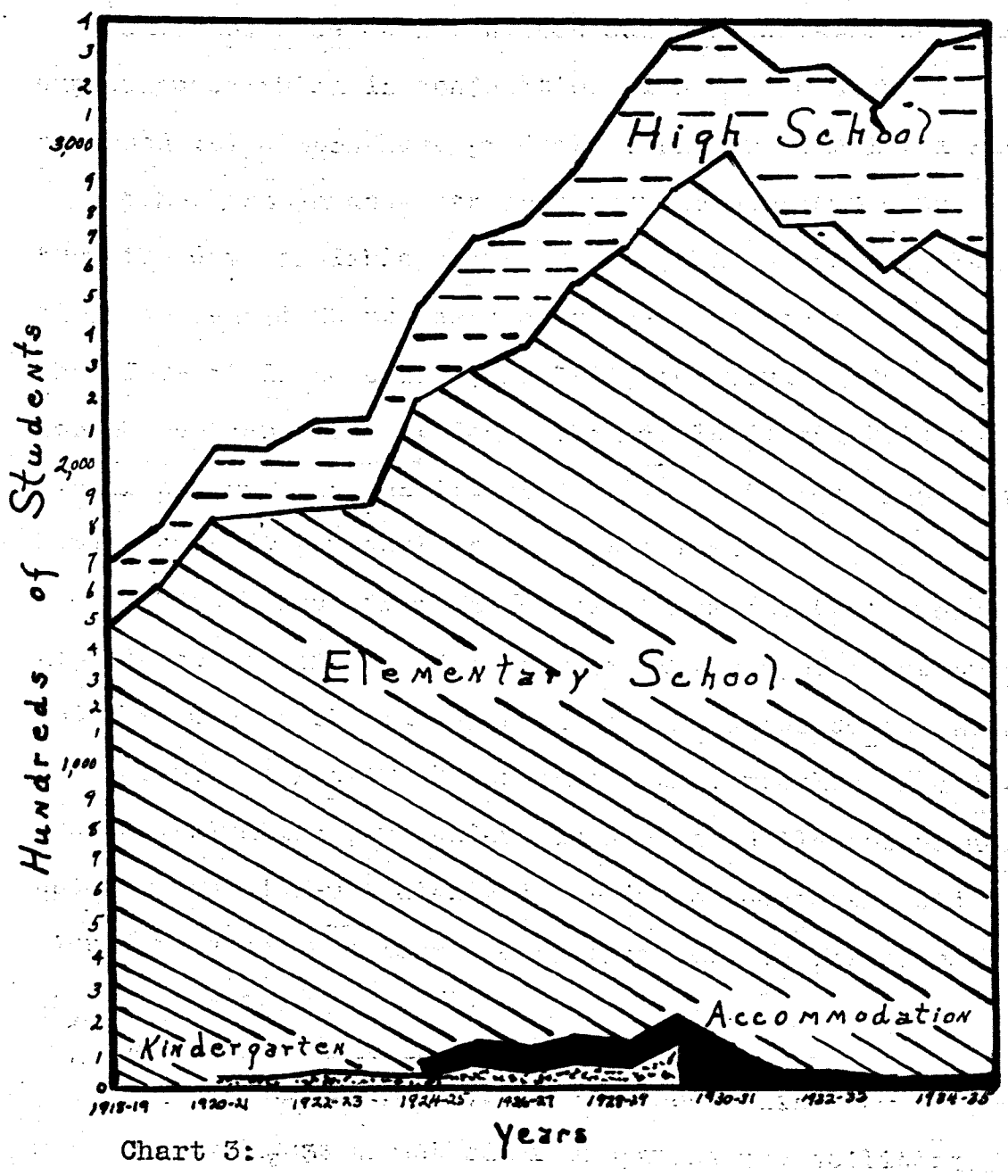


Chart 3:

Average Daily Attendance in Yuma County

1918-1936

* Data from Table III

This increase in attendance has necessitated increased expenditures which in conjunction with a reduction in assessed valuations have produced a higher school tax rate.

School attendance has increased 43 per cent since 1918. From the data in Table I, we learned that assessed valuations decreased 20 per cent over the same period of time. Therefore it is necessary, in 1936, to provide education for 43 per cent more students than in 1918; and this educational program must be financed from the income of property having only 80 per cent as great a value.

It is obvious from the above statements that school attendance has increased nearly fifty per cent since 1918 and that during the same period of time assessed valuations have decreased nearly 25 per cent. This results in a decreased valuation per student in average daily attendance, which means either a higher tax rate to secure the additional revenue or a lower per capita cost in the operation of the schools.

Assessed Valuation Per School Child

The most common method of comparing the abilities of the various governmental units to support education is the wealth per student in average daily attendance. The primary source of all revenue is income. Careful consideration should be given in judging ability to pay taxes. A fair estimate of the expected income is derived from the

assessed valuation of property, and the ability to support schools is determined largely on the basis of the valuation per student in average daily attendance.

The amount of wealth per student varies with the increase in the school attendance and fluctuations in assessed valuations. Therefore, the ability of the community to support education is changeable. The distribution of assessed valuations per school child in average daily attendance for the years 1919 to 1936 is shown in Table IV. This was found by dividing the total assessed valuation for each year by the number of children in average daily attendance for that year. Included in the figures for average daily attendance are pupils in the elementary schools, high schools, kindergartens, night schools, and accomodation schools.

TABLE IV

ASSESSED VALUATIONS PER SCHOOL CHILD*
1919-1936

Year	Valuation	Average Daily Attendance	Valuation Per Child in A.D.A.
1919-1920	$22,971,567	1,808	$12,705.51
1920-1921	22,235,520	2,045	10,873.11
1921-1922	21,070,210	2,068	10,188.68
1922-1923	21,423,973	2,112	10,143.92
1923-1924	21,656,030	2,130	10,167.10
1924-1925	22,706,817	2,500	9,087.72
1925-1926	23,117,375	2,596	8,933.18
1926-1927	25,751,296	2,669	9,651.60
1927-1928	25,969,156	2,920	8,891.14
1928-1929	26,453,486	3,080	8,588.79
1929-1930	27,325,272	3,339	8,183.66
1930-1931	27,501,665	2,425	11,336.76
1931-1932	21,879,558	3,256	6,719.76
1932-1933	18,334,789	3,285	5,581.13
1933-1934	18,086,632	3,122	5,793.28
1934-1935	18,339,595	3,302	5,554.08
1935-1936	18,695,661	3,364	5,557.59

* Data from Biennial Reports of State Superintendent of Public Instruction.

From a study of Table IV we note a steady gain in average daily attendance and a drop in valuation per child. The high point in valuation per child is reached in the school year 1919-1920 with a total of $12,705.51. The high point in average daily attendance is found in the school year 1935-1936 with a total of 3,364 pupils.

Data concerning the effect of these changes on wealth per student in average daily attendance for the years 1919 to 1936 inclusive are shown in Table V and Chart 4.

TABLE V

ASSESSED VALUATIONS PER SCHOOL CHILD THE YEAR 1919-1920 ASSIGNED INDEX NUMBER 100: 1919-1936 *

Year	Valuations	A.D.A.	Valuation Per Child in A.D.A.
1919-1920	100	100	100
1920-1921	96	113	85
1921-1922	91	114	81
1922-1923	93	116	79
1923-1924	94	117	80
1924-1925	98	137	72
1925-1926	106	143	71
1926-1927	112	147	75
1927-1928	113	161	69
1928-1929	115	170	67
1929-1930	118	184	64
1930-1931	119	134	89
1931-1932	95	180	52
1932-1933	79	181	44
1933-1934	70	172	45
1934-1935	79	182	43
1935-1936	81	186	43

* Data from Table IV.

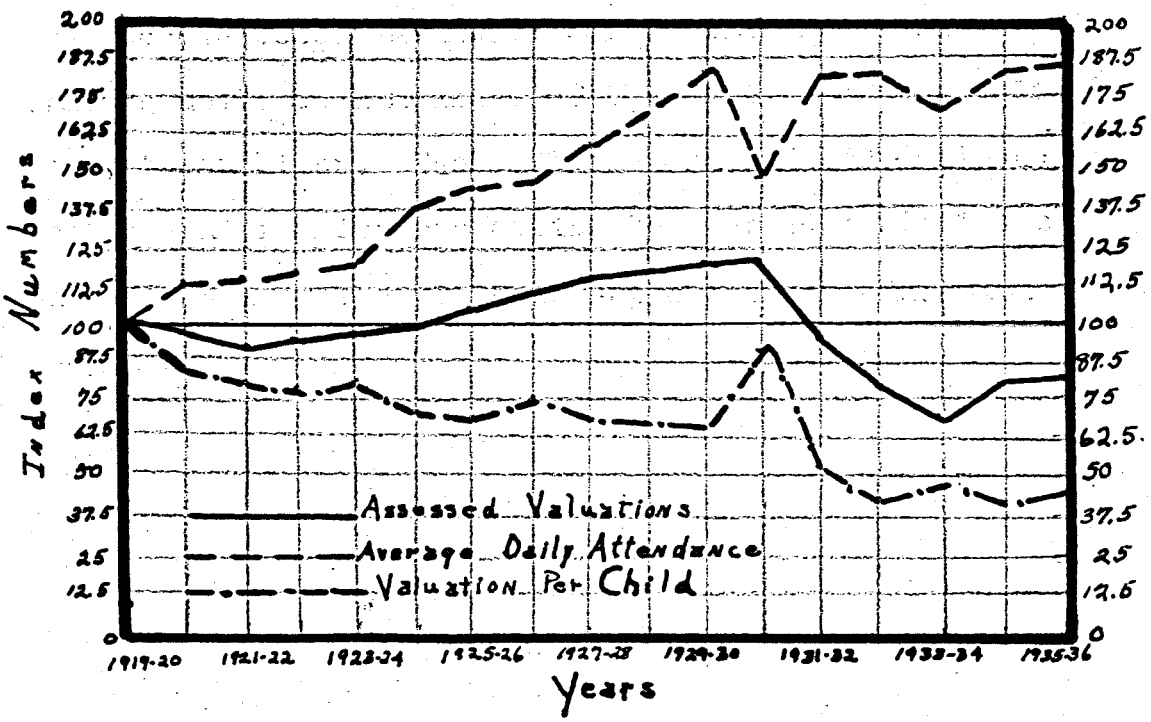


Chart 4. ASSESSED VALUATIONS PER SCHOOL CHILD 1919-1936

Index numbers indicate that the wealth per student in 1935-1936 was only 43 per cent as great as in 1919-1920. Or in other words, the ability to support schools has decreased 57 per cent since 1919-1920.

The chart shows the trends in school attendance, assessed valuations, and wealth per pupil in average daily attendance from 1919-1920 to 1935-1936. The chart indicates more clearly the effect of increasing attendance and decreasing valuations on wealth per pupil in average daily attendance.

Comparison of Ability to Support Schools With Other Counties of the State

The assessed valuation per capita of school administrative units is a measure of the ability of the units to support education. Table VI and Chart 5 are designed to provide information respecting the varied abilities of the counties in the state to support their educational programs.

TABLE VI

VALUATIONS PER PUPIL IN AVERAGE DAILY ATTENDANCE IN VARIOUS COUNTIES OF THE STATE: 1934-1935 and 1935-1936 *

County	1934-1935 Valuation Per Pupil	1935-1936 Valuation Per Pupil
1. Mohave	$11,982	$10,674
2. Yavapai	9,041	8,588
3. Coconino	6,897	7,615
4. Pinal	6,584	5,826
5. Greenlee	5,665	5,549
6. Cochise	5,606	5,976
7. YUMA	5,476	5,822
8. Pima	4,801	4,695
9. Gila	3,982	3,843
10. Apache	3,790	4,220
11. Maricopa	3,230	3,145
12. Navajo	2,980	2,919
13. Santa Cruz	2,910	2,913
14. Graham	2,575	2,308
STATE	4,575	4,501

* Thirteenth Biennial Report of the State Superintendent of Public Instruction.

Assessed valuation is a measure of ability when the assessments are made on a true and accurate estimate of the value of assets involved. It is evident from Table VI that the State of Arizona, as a whole, and many of the counties have declined in ability to support an educational program. Attention is directed to the difference in per capita valuation which exists between counties. The range extends from Mohave County to Graham County. In short, Mohave County has nearly five times the ability to support an educational program that Graham County has. This variation in per capita valuation is influenced not only by the total valuation of the county, but also by the number of children in each county.

During the year 1934-1935, Yuma County ranked seventh in the state in ability to support schools. In valuation per pupil in average daily attendance, Yuma County was one of the five counties to show an increase during the year 1935-1936.

It is obvious from a study of Chart 5 that there is a wide range between the abilities of the various counties to support education.

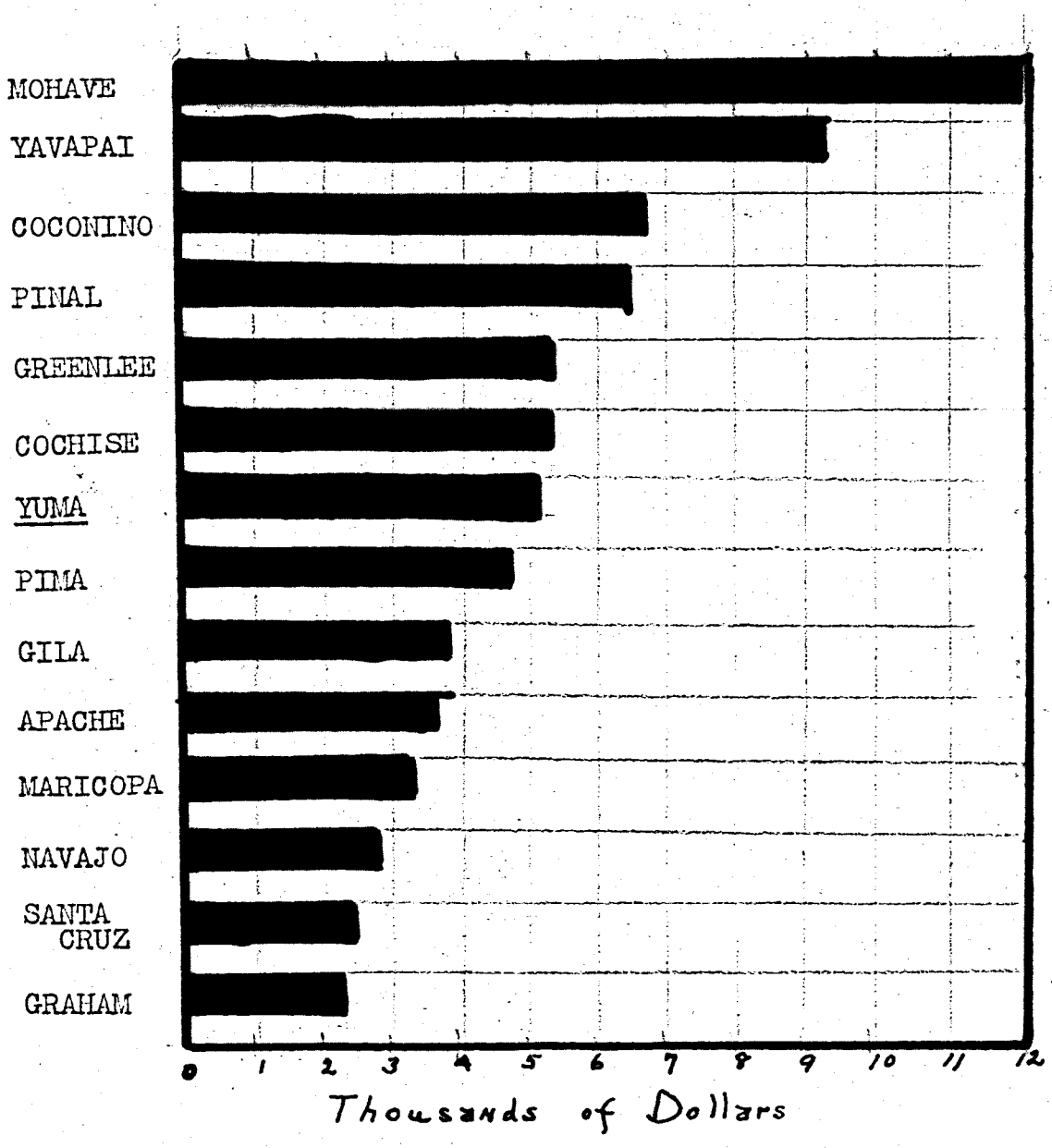


Chart 5: Valuations Per Pupil in Average Daily Attendance in Various Counties of the State: 1934-1935.

Comparison of Ability of Various School Districts of Yuma County to Support Education

A school district's ability to support an educational program is usually based upon its assessed valuation. Table VII is designed to provide information respecting the varied abilities of the districts in the county to support their educational programs.

TABLE VII

ASSESSED VALUATIONS OF VARIOUS SCHOOL DISTRICTS
YUMA COUNTY, 1935-1936 *

District	Valuation
YUMA UNION HIGH	$13,237,511.00
Northern Yuma County High	2,598,872.00
Yuma # 1	7,320,370.00
Wellton # 24	1,651,237.00
Ming # 17	1,371,836.00
Somerton # 11	1,196,699.00
Hyder # 16	959,462.00
Bouse # 26	916,360.00
Aztec #15	902,080.00
Crane # 13	694,471.00
Gadsden # 32	666,215.00
Wenden #19	540,362.00
Rood # 25	449,221.00
Parker # 27	426,654.00
Vicksburg # 3	323,003.00
Sunnyside # 14	314,312.00
Salome # 30	191,700.00
Laguna, # 22	75,320.00
Swansea # 31	50,000.00
Quartsite # 4	35,000.00
Dome # 23	7,500.00
Mohawk # 5	5,000.00

* Data from Yuma County Tax Rolls of 1936.

It is evident from Table VII that there is a great difference in valuations existing between the various school districts of Yuma County. The range extends from Yuma District # 1 to Mohawk District # 5. Yuma District # 1 has almost $7,000,000 more assessed valuation than the Mohawk District. However, based on wealth per pupil in average daily attendance, Yuma District # 1 has only three times the ability to support an educational program as compared to that of the Mohawk District. This variation in per capita valuation is influenced by the number of children in each district.

Conclusions

Yuma County showed a decrease of 20 per cent in assessed valuations since 1919. The greatest decrease has occurred since 1931. Of the major types of property, livestock has undergone the greatest decrease in valuation. An increase in the valuation of all other classes of property is shown up to 1931. City lots and improvements show the greatest increase. Approximately 38 per cent of the total county valuation, over a period of years, has been attributed to railroad property. Total school attendance has doubled over the last seventeen years. The high school has shown the greatest per cent of increase. The changes in valuation and attendance have resulted in a decreased ability to support schools

as determined on the basis of wealth per student in average daily attendance. Yuma County ranked seventh in the state in 1934-1935 on the basis of wealth per student.

CHAPTER IV

SOURCES OF ALL REVENUE FOR SCHOOL PURPOSES IN YUMA COUNTY

A large portion of the expenditures of the county and state goes to the support of the schools. The aim of this chapter is to show the sources from which Yuma County derives its financial support. A comparison of the amount of income for schools in Yuma County with the total revenue in the county can then be made.

In Arizona the greater portion of revenue necessary for the operation of all forms of government comes from a direct property tax. However, a considerable portion of the revenue available for state purposes is derived from the so-called "non-tax" sources such as the gasoline tax, the inheritance tax, the income tax, the sales tax, etc. The public furnishes the support regardless of the source of revenue.

Method of Making Tax Levies

State tax levies are made by the State Tax Commission. All other levies are made by the various County Boards of Supervisors. In order to make a tax levy it is necessary to have itemized statements showing all estimated expenditures and all estimated non-tax receipts for the

coming year. The difference between the estimated non-tax receipts and the estimated expenditures constitutes the tax levy.

The county and each unit of government within the county are required to prepare budgets of estimated expenditures for the coming fiscal year and turn them in to the County Board of Supervisors not later than July first. School district levies are made for four purposes: elementary school maintenance; high school maintenance; bond interest; and bond redemption. If the state and county appropriation will not supply the revenue needed for school maintenance in any individual district, a special district levy is made to cover the difference. To this levy is added the levy for bond interest and redemption, since building costs are borne solely by the district involved. The total district levy is the sum of the levies for maintenance and bond interest and redemption. The state and county appropriation for one and two teacher schools is usually sufficient for the maintenance of those schools so that only the larger schools have special levies for maintenance.

State Appropriation for Schools

The state appropriation for common schools, until 1933, was "not <u>less</u> than $25" per student in average daily attendance. In 1933 the amount was changed to "not more

than $20" per student. In the spring of 1935, the state legislature again changed the amount of the apportionment to "not more than $25" per student in average daily attendance.

The major portion of the revenue necessary for the operation of government in the state comes from the direct property tax. Revenue is also secured from so-called "non-tax" sources. These sources include the gasoline tax, licenses, poll tax, etc. Table VIII gives an analysis of the state common school fund by tax and non-tax sources from 1920 to 1936, inclusive.

TABLE VIII

STATE SCHOOL FUND RECEIPTS BY TAX AND NON-TAX SOURCES, 1920-1936 *

Year	Tax Receipts Amount	Tax Receipts Per Cent	Non-Tax Receipts Amount	Non-Tax Receipts Per Cent	Total
1920-1921	$ 877,500	78.65	$238,217	21.35	$1,115,717
1921-1922	1,254,325	83.15	254,072	16.85	1,508,397
1922-1923	1,253,525	72.02	522,852	27.98	1,869,037
1923-1924	1,375,425	73.40	508,980	26.60	1,915,505
1924-1925	1,366,025	84.96	256,235	15.04	1,703,360
1925-1926	1,460,475	85.97	251,561	14.03	1,793,136
1926-1927	1,529,000	87.92	221,253	12.08	1,831,353
1927-1928	1,644,150	86.19	274,385	13.81	1,986,535
1928-1929	1,774,025	88.08	249,607	11.92	2,093,815
1929-1930	1,836,350	86.26	303,377	13.74	2,207,727
1930-1931	2,034,075	86.83	308,553	13.17	2,342,628
1931-1932	2,024,825	89.92	226,986	10.08	2,251,811
1932-1933	2,076,800	91.63	190,777	8.37	2,267,577
1933-1934	1,527,980	88.18	204,712	11.82	1,732,692
1934-1935	1,520,858	87.94	208,539	12.05	1,739,397
1935-1936	1,976,702	91.44	184,900	8.55	2,161,602

* Data secured from the Biennial Reports of the State Superintendent of Public Instruction.

It is evident from Table VIII that the greater portion of state expenditures for education comes from tax sources. This is especially true during recent years since the depletion of the permanent school fund has reduced this source of income. The data of this table include only receipts for the common school fund. Non-tax receipts for higher education constitute a goodly portion of the total receipts for education.

During the years 1925 to 1931 approximately five-sixths of the educational expenditures of the State of Arizona as a unit have come from tax sources. The expenditures for education during the years 1928-1931 have been about half of the direct property tax collected by the state.[18]

As previously mentioned, the basis of the state apportionment to schools is the number of students in average daily attendance. In thickly populated regions or in communities where the assessed valuations are low, the state appropriation is quite likely to exceed the amount paid into the state school fund by the particular district or community involved.

The following table, Table IX, shows the state apportionments for Yuma County over a number of years.

18. Larson, School Finance and Related Problems in Arizona.

TABLE IX

STATE APPORTIONMENT TO YUMA COUNTY
1919-1936*

Year	Paid Into State Fund	Received From State Fund	Amount Received Over Amt. Paid In	Excess Paid in Over Amt. Received	Amount Paid in per Dollar Received
1919-1920	$ 16,230	$39,529	$23,299		.41
1920-1921	27,440	41,044	13,604		.66
1921-1922	27,440	41,861	14,421		.66
1922-1923	33,486	54,544	21,059		.61
1923-1924	35,335	83,967	38,631		.48
1924-1925	36,022	60,718	24,696		.59
1925-1926	45,953	61,082	15,129		.75
1926-1927	46,893	67,494	20,601		.69
1927-1928	58,536	65,754	7,218		.89
1928-1929	63,344	69,069	5,725		.92
1929-1930	65,093	76,683	11,590		.85
1930-1931	70,738	78,648	7,910		.90
1931-1932	82,208	86,824	4,616		.95
1932-1933	96,156	81,400		$14,756	1.18
1933-1934	72,426	66,684		5,742	1.09
1934-1935	100,194	80,825		19,369	1.24
1935-1936	103,075	78,758		24,325	1.31

* Data from Biennial Reports of the State Tax Commission of the State of Arizona.

During the past seventeen years Yuma County has received $1,134,984.00 from the State School Fund. This is $144,415.00 more than was paid into the fund. During the period 1919-1932 Yuma County received more from the State School Fund than it paid into the fund. During the period 1932-1936 Yuma County paid more into the fund than it received. It will be noted from Table IX that the peak was reached in 1931-1932. From that time on we find a drop in the apportionment.

County Appropriation for Schools

In addition to the state appropriation, each county in the state is required to provide from $25 to $40 per pupil in average daily attendance for the highest six months during the previous year. The county must also levy sufficient revenue to provide "not more than $1,250" per year for each one teacher school and "not more than $2,500" per year for each two teacher school. The levy for the County School Fund is made in conjunction with the general county levy.

The abilities of the various counties to support education are partially equalized by the state appropriation. Likewise the county appropriation tends to equalize educational opportunities among the school districts of the county. The county school fund consists of the revenue received from the county levy and various

non-tax receipts. The first appropriations made from the fund are for one and two teacher schools. The remainder of the fund is allocated to the various districts on the basis of the highest six months attendance for the previous year.

In addition to the school levy the county school fund receives some revenue from non-tax sources. The chief non-tax source of revenue was the poll tax. However, this source of revenue was done away with in the State of Arizona by the Twelfth Session of the State Legislature. Consequently no revenue will be received from this source in the future.

The estimates of non-tax receipts made by the County Boards of Supervisors do not segregate school receipts. Therefore, in order to determine the percentage of county school fund receipts derived from non-tax sources, it is necessary to refer to the Reports of the County Treasurer. Data showing the total school fund receipts for Yuma County are indicated in Table X.

TABLE X

YUMA COUNTY SCHOOL FUND RECEIPTS, 1920-1936*

Year	Total Property Tax Receipts Amount	Per Cent	Non-Tax Receipts Poll Tax	Licenses	Total	Per Cent	Total Receipts
1920-1921	$ 63,620	93.42	$ 3,950	$ 531.	$ 4,481	6.57	$ 68,101
1921-1922	79,739	95.14	4,070		4,070	4.85	83,809
1922-1923	63,308	90.37	5,103	1,639	6,742	9.62	70,050
1923-1924	80,011	92.70	6,300		6,300	7.29	86,311
1924-1925	81,696	93.42	5,855		5,855	6.68	87,551
1925-1926	89,673	89.75	6,395	3,841	10,236	10.24	99,909
1926-1927	114,013	93.36	5,923	32	5,955	4.94	119,968
1927-1928	100,364	94.05	6,108	233	6,341	5.94	106,705
1928-1929	135,373	95.78	5,963		5,963	4.21	141,336
1929-1930	137,094	95.40	6,503	105	6,608	4.59	143,702
1930-1931	130,619	98.75	1,653		1,653	1.24	132,272
1931-1932	104,554	95.90	4,460		4,460	4.09	109,014
1932-1933	97,308	96.17	3,865		3,865	3.82	101,173
1933-1934	98,448	96.65	3,405		3,405	3.34	101,853
1934-1935	118,010	90.56	12,290		12,290	9.43	130,300
1935-1936	130,334	98.70	1,703		1,703	1.29	132,039

* Data from the Reports of the County Treasurer of Yuma County.

The data of Table X show that non-tax receipts in the county school fund have never accounted for a very large percentage of the total receipts. It is evident that unless other sources of non-tax revenue can be provided the county school fund will, in the future, be quite largely dependent upon a direct property tax.

School District Levy

With the exception of certain miscellaneous funds, all of the school district levy comes from a direct property tax. In addition to the state, county, and special district levies the district receives tuition paid by the United States Indian Bureau for Indian pupils attending public schools. All building costs are paid from revenue derived from the school district involved. In addition to levies for bond interest and redemption, some districts have special levies to cover maintenance costs. In 1934-1935 Yuma County had eight school districts with special district levies for elementary school maintenance. The two high school districts also had a special levy for maintenance. The source of all available revenue for Yuma County schools is indicated in Table XI on the next page. Percentages of the total revenue derived from each source are indicated in Table XII.

TABLE XI

TOTAL SCHOOL RECEIPTS FOR YUMA COUNTY,
DEBT SERVICE OMITTED, 1920-1936*

Year	State	Special District Levies	Miscellaneous	County	Total
1920-1921	$41,861.25	$12,056.68		$68,100.49	$122,018.42
1921-1922	54,544.35	27,897.56	$11,081.39	111,707.03	205,230.33
1922-1923	73,966.79	40,111.35	11,703.13	70,048.71	195,839.98
1923-1924	60,717.53	29,525.77		86,310.00	176,553.30
1924-1925	62,868.97	51,279.15		87,551.44	201,699.56
1925-1926	67,493.86	79,731.13	4,500.83	99,909.21	251,635.03
1926-1927	70,854.07	87,486.01		119,967.00	278,307.08
1927-1928	69,068.57	104,820.71	8,832.81	106,705.31	289,427.40
1928-1929	85,082.67	107,159.31	9,574.28	141,315.80	343,132.06
1929-1930	78,648.07	127,690.68	19,375.34	160,306.26	386,020.35
1930-1931	87,643.65	118,315.81	18,406.14	142,545.97	366,911.57
1931-1932	88,567.75	96,955.05	11,799.80	119,013.53	316,336.13
1932-1933	76,678.20	67,046.71	11,600.69	101,172.64	256,498.24
1933-1934	69,514.35	63,460.95	24,477.37	108,137.19	265,589.76
1934-1935	61,849.20	59,896.11	11,700.79	130,299.99	263,746.09
1935-1936	82,279.85	58,673.35	8,037.88	132,036.56	281,027.64

* Data secured from the Biennial Reports of the State Superintendent of Public Instruction.

TABLE XII

PERCENTAGE OF SCHOOL RECEIPTS OF YUMA COUNTY BY STATE, COUNTY, AND SPECIAL DISTRICT WITH DEBT SERVICE OMITTED, 1920-1936*

Year	State	County	Special District	Miscellaneous	Total
1920-1921	34.31	55.81	9.88	...	100.
1921-1922	26.58	54.44	13.59	5.39	100
1922-1923	37.26	36.28	20.48	5.98	100
1923-1924	34.39	48.89	16.72	...	100
1924-1925	31.18	43.39	25.43	...	100
1925-1926	26.83	39.71	31.67	1.79	100
1926-1927	25.46	43.11	31.43	...	100
1927-1928	23.86	36.87	36.22	3.05	100
1928-1929	24.79	41.18	31.23	2.80	100
1929-1930	20.27	41.53	33.10	5.10	100
1930-1931	23.88	38.85	32.25	5.02	100
1931-1932	28.00	37.62	30.65	3.73	100
1932-1933	29.90	39.44	26.14	4.52	100
1933-1934	26.17	40.71	23.90	9.22	100
1934-1935	23.45	49.33	22.79	4.43	100
1935-1936	29.28	46.98	20.88	2.86	100

* Data from Table XI.

The data of Table XII reveal more clearly the portion of the educational burden borne by each unit of government. This is shown in chart form.

SCHOOL RECEIPTS

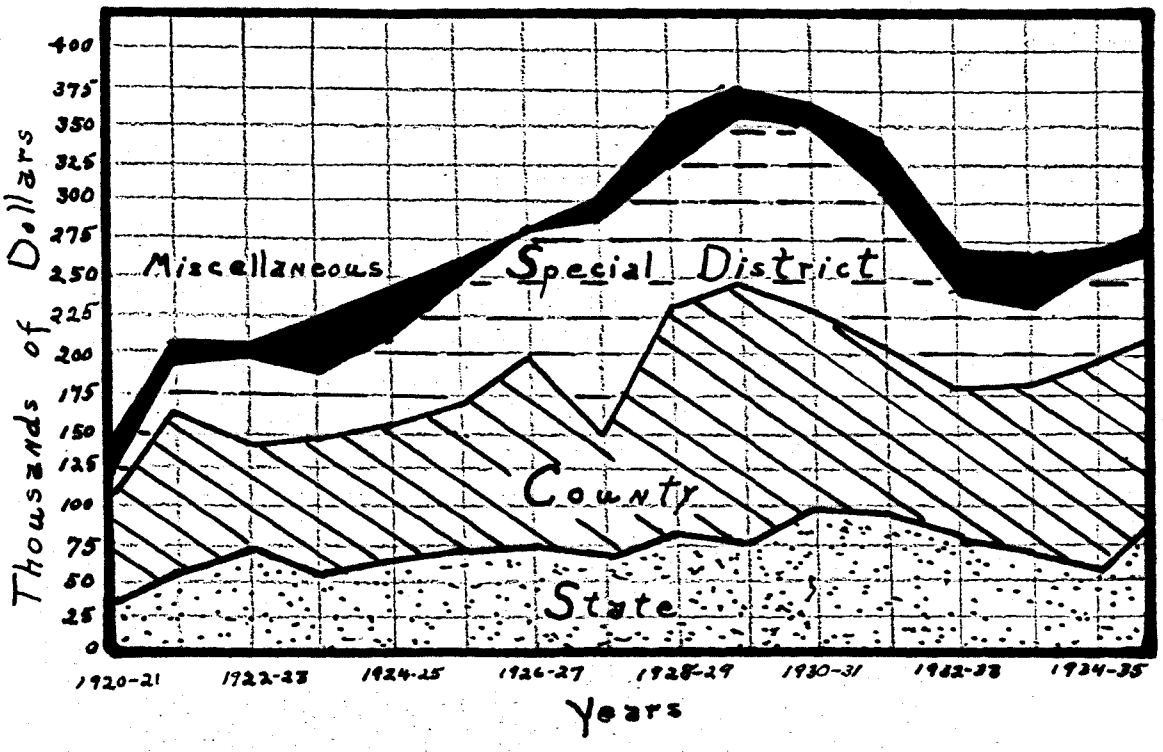


Chart 6. Distribution of Yuma County School Receipts by State, County, Special District, and Miscellaneous Sources, Debt Service Omitted. 1920-1936

The above chart indicates the trends in school receipts for the past sixteen years. During 1927, 1928, and 1929, county and school district receipts show a very decided increase with the greatest receipts being recorded in 1929-1930. Since that time, however, there has been a reduction in the amount of revenue received from all sources.

Comparison of Total Taxpayers and Total Inhabitants

The total taxpayers of Yuma County do not equal the total population of the county. In this comparison total taxpayers are those citizens who actually paid property taxes. The total population, as taken from the United States Census Reports, includes all people in the county. A comparison such as this shows what per cent of the people actually are assessed taxes and are expected to aid in the support of schools.

Three years were selected as examples. They were 1920, 1930, and 1936. This will give us a good check on the per cent of the total population that support the county government divisions by means of tax payments. The data gathered have been set in Table XIII.

TABLE XIII

A COMPARISON OF TOTAL ACTUAL TAXPAYERS AND TOTAL POPULATION - YUMA COUNTY

Year	1. Total Population*	2. Actual Taxpayers**	3. Per Cent of Total Population
1920	14,904	2,993	20.09
1930	17,817	4,766	26.62
1936	20,000***	5,198	25.99

* Data from United States Census Reports
** Data from Tax Rolls of Yuma County
*** Data from Yuma County Chamber of Commerce

Column 1 of the table gives the population of the county as reported in the two census years by the United States Government and the Yuma County Chamber of Commerce.

Column 2 shows the number of people who actually paid taxes in these years. According to the figures in the column, the number of taxpayers has not varied a great deal in the period 1930-1936.

Column 3 shows an important fact. This column states the per cent of the total population that were taxpayers in 1920, 1930, and 1936. From these figures it is reasonable to state that the public schools educate many children whose parents make no contribution toward the support of either these schools or any other governmental agencies.

From Table XIII it is evident that only about one-fourth of the population pay taxes in Yuma County. One of the major problems of the county at the present time is to determine an equitable method of taxation for the support of public schools and other governmental divisions.

A Comparison of School and Total County Taxes

A greater percentage of the county taxes has been attributed to school costs than to any other single item. Table XIV gives a comparison of the total expenditures for educational purposes in the county with the total taxes raised for all purposes.

Included in the total taxes for all purposes are the state, county, special district, and city and town taxes. The total expenditures for education in the county include: elementary and high school current expenses; building and improvement for elementary and high schools; accommodation schools; transportation, etc. from the reserve fund; salary and contingent fund expense; interest on registered warrants; and bond interest and redemption.

The total taxes levied for all purposes in Yuma County for each year from 1919 to 1936 inclusive are listed in Column 1. The data were secured from the Biennial Reports of the State Tax Commission.

The costs of education in the county are dealt with in the remaining six columns. The data for these columns were secured from the Biennial Reports of the State Superintendent of Public Instruction.

The current expenses of the schools of the county are listed for each year in Column 2. Included in these current expenses are general control, instruction, operation of school plant, maintenance of school plant, auxiliary agencies, fixed charges, and capital outlay. A decrease in current expenses during the last few years is shown in this column as a result of reduced budgets.

Column 3 shows the per cent that current expenses are of the total taxes for each year. This was obtained

by dividing the figures in Column 2 by the figures in Column 1.

Column 4 reveals the debt service for each year. Bond interest and bond redemption comprise this debt service. The amount spent each year to pay interest on bonds or to retire them at date of maturity is known as debt service. To a certain extent Column 2 will include part of Column 4. This is due to the fact that the common method of financing building programs is through bond issues. These bond issues are later paid through special taxes for that purpose. Therefore, this will come under the heading of debt service. Expenditures made in the earlier years have been taken care of in the later years by this debt service. Thus, part of the debt service in the later years may include some expenditures listed under current expenses in the earlier years of the period.

Column 5 gives the per cent the debt service for schools is of the total taxes of the county for each year. This is the per cent that was raised each year to pay off the bonded indebtedness or to pay the interest on the bonded indebtedness.

Column 6 shows the total expenditures for schools in the county. This is a total of the current expenses and debt service.

Column 7 gives the per cent that the total school ex-

penditures are of the total taxes of the county. The importance of education is revealed by Column 7. It denotes the per cent school expenditures are of the total taxes.

TABLE XIV

A COMPARISON OF THE COSTS OF EDUCATION IN YUMA COUNTY WITH THE TOTAL TAXES FOR ALL PURPOSES AND THE PER CENT EACH IS OF THE TOTAL TAXES, 1920-1936*

Year	1 Total Taxes for All Purposes	2 Current Expenses for Schools	3 Per Cent of Total	4 Debt Service for Schools	5 Per Cent of Total	6 Total School Expenditures	7 Per Cent of Total
1920-1921	$ 710,472.65	$369,849.11	52.0	$40,500.31	5.70	$410,349.42	57.7
1921-1922	780,404.37	177,368.90	22.7	48,099.63	6.16	225,468.53	28.9
1922-1923	730,119.37	181,162.78	24.8	41,446.81	5.68	222,609.59	30.5
1923-1924	760,807.92	219,777.72	28.8	60,877.59	8.04	280,675.31	36.9
1924-1925	890,138.00	239,709.76	26.9	51,606.92	5.79	291,316.68	32.7
1925-1926	930,352.00	264,600.39	28.4	52,725.67	5.66	317,326.06	34.7
1926-1927	945,337.00	277,225.95	29.3	61,281.73	6.48	338,507.68	35.8
1927-1928	1,116,601.00	331,936.03	29.7	51,851.16	4.64	383,787.19	34.3
1928-1929	1,127,664.00	375,664.72	33.3	78,287.23	6.94	453,951.95	40.2
1929-1930	1,120,323.00	368,597.26	32.9	75,483.03	6.73	444,080.29	39.6
1930-1931	1,057,840.00	327,665.21	30.9	72,236.05	6.83	399,901.26	37.8
1931-1932	992,009.00	289,860.50	29.2	59,203.23	5.96	349,063.73	35.2
1932-1933	864,527.00	265,801.09	30.7	53,712.95	6.21	319,514.04	36.9
1933-1934	866,246.00	226,349.41	26.1	59,134.87	6.80	285,484.28	32.9
1934-1935	791,544.00	241,252.68	30.4	79,917.20	10.10	321,169.88	40.5
1935-1936	793,348.00	287,579.93	36.2	63,453.27	7.99	351,033.20	44.2

* Data from Biennial Reports of the State Tax Commission of Arizona.

The school is the largest public organization in the county and state. The greater amount of finances raised in the county should, therefore, be required by the schools. Highways, which rank next to schools in importance, also require finances for maintenance and construction. However, this department draws a greater portion of its income from non-tax sources than do the schools.

There is often much complaint in regard to the amount of money that is needed for debt service. It should be understood that this is a continuing expense and was assumed a number of years ago by the property holders of the various school districts. It must be remembered that bond issues are always approved by the property tax payers of the district. Tax payers of school districts who seek lower school expense must bear in mind that this phase of school finance is fixed and that any lowering of expenses must come from the current expense portion of the budget. Every person connected with the financing of schools is confronted with the problem of debt service and current expenses of schools.

Bond interest and bond redemption have, over a period of sixteen years, averaged 16.53 per cent of the total expenses for schools.

Trend in Tax Rates

The question of how much money is spent by different departments of the county organization and for what purposes it is spent may be answered by examining the tax rates which constitute a reliable source of information. The tax rate will show what the money is for and how much is required. Each year the tax rate is reported and the proportions for each department such as roads, schools, bond interest, bond redemption, etc., are made known.

Taxes are assessed on each one hundred dollars valuation of taxable property. The tax rates are divided into four divisions: the state, the county, the district, and the city. The state and county rates are the same over the entire county. A special tax may have to be paid by those taxpayers living in school districts levying a special school tax. A city tax may be added to those taxpayers living in a town or city. Thus, a property owner living in an area where the city and school district levies a special tax will have to pay four different taxes.

The greater per cent of the money for carrying out the program of the state government is raised by the state tax rate on property. The greater per cent of the expenses of the county government are defrayed through the county tax rate on property. City and town tax rates have a similar purpose in regard to city and town government.

Special district taxes have been discussed and their purposes noted.

A question as to where and for what purpose the tax money is being used is often raised, due to the fact that some taxpayers have three or four tax rates to pay, while others have only two. The majority of people understand the fact that state, county, and city or town taxes are needed to conduct the various governments. However, they do not understand the reason for the special school taxes. A study of special levies shows the fact that for the last few years the major portion of the levy was for bond redemption and that the instructional phase of school work was being conducted mainly on the state and county apportionments.

Table XV shows the relation of the school tax rates to the state and county rates over a period of years. Data for this table were taken from the Biennial Reports of the State Tax Commission of Arizona.

Column 1 lists the total state tax rate for the years 1919-1936. In this column may be seen a noticeable range in tax rate--from $ .475 in 1920 to $1.20 in 1932.

Column 2 shows the amount of the total state tax rate that is allocated to education. This column shows a range in school rates from $ .689 in 1920 to $ .6677 in 1932.

Column 3 shows the per cent of the total state rate

allocated to education. The per cents were found by dividing the figures in Column 2 by those in Column 1. This column shows a range in per cents from 14.51 per cent in 1920 to 55.65 per cent in 1932.

Column 4 shows the county tax rate from 1919 to 1936. A greater range is found in this column than in Column 1--from $1.225 in 1919 to $2.60 in 1934. Column 5 also shows an irregular trend in the county rate for schools. The range in rate is from $.1550 in 1920 to $.6880 in 1935. This county rate is the source of the county school apportionment.

Column 6 shows the per cent the county school rate is of the total county rate for the years 1919-1936. The range in this column is from 13.74 per cent in 1920 to 32.22 per cent in 1928.

Column 7 shows the ranking of Yuma County with the other counties of the state in regard to the county tax rate. The state rate is the same over the entire state. There have always been at least seven counties with lower county rates. In 1922, Yuma County had the highest county tax rate in the state.

TABLE XV

THE PER CENT THE STATE AND YUMA COUNTY TAX RATES FOR SCHOOLS ARE OF THE TOTAL TAX RATES, 1919-1936*

Year	State Tax Rate			County Tax Rate			
	1. Total	2. School Tax Rate	3. Per Cent School Rate Is of Total (2) ÷ (1)	4. Total	5. County School Tax Rate	6. Per Cent School Tax Rate Is of Total	7. Ranking of County Tax Rate
1919	$ .60	$.099	16.5	$1.225	$.2274	18.56	11
1920	.475	.0689	14.51	1.278	.1550	13.74	9
1921	.73	.3262	44.7	1.60	.4280	26.75	11
1922	.51	.2629	51.56	2.10	.30	14.38	14
1923	.575	.2676	46.55	1.775	.3809	21.46	13
1924	.56	.2959	52.84	1.723	.3876	22.5	11
1925	.78	.4259	54.61	1.74	.47	27.02	10
1926	.67	.3595	53.51	1.82	.5214	28.65	10
1927	.89	.3852	43.29	1.610	.438	27.21	9
1928	.77	.4001	51.97	1.73	.5574	32.22	9
1929	.93	.4486	48.24	1.90	.5691	29.95	10
1930	.80	.4345	54.32	1.90	.5422	28.80	10
1931	.95	.4829	50.88	1.75	.5200	29.72	8
1932	1.20	.6677	55.65	2.13	.5818	27.32	9
1933	1.07	.6154	57.51	2.34	.6564	28.05	9
1934	1.00	.5543	55.43	2.60	.6451	24.81	9
1935	.78	.4421	56.95	2.498	.6880	27.54	8
1936	.50	.2916	58.31	2.48	.6577	26.52	8

* Data from Biennial Reports of the State Tax Commission of Arizona.

The annual trend of the state tax rate is much more regular than that of the county tax rate. The state shows gradual increases and decreases through the years while the county rate shows abrupt increases and decreases. The state tax rate reached the peak in 1932 while the highest county tax rate was in 1934. Part of the reduction in the state rate has been due to a lower state appropriation for schools.

The state school levy shows a more regular trend than does the county levy for schools. Since 1921, the state tax rate for schools has remained between 40 per cent and 55 per cent of the total tax rate.

Since 1925, the county school tax rate has remained between 26 per cent and 30 per cent of the total county tax. A number of the years of the period show a lower percentage in the county rate than does the state rate for the same year.

Table XV indicates a gradual increase in tax rates of the state and county. This increase implies a similar increase in state and county taxes. In order to correct this implication, Table XVI has been prepared. A comparison may then be made between the trends of the tax rates and the total taxes received. Table XVI shows the total state and county taxes levied in Yuma County for each year and the portion of each tax that was allocated for schools.

Column 1 lists the total of the general county taxes. The high point of the total is found in 1930. The lowest is found in 1919.

Column 2 shows the amount of the general county tax that was for the school fund. Neither this column nor Column 1 includes special district taxes. This column represents the amount of money that was allocated to schools.

Column 3 gives the total amount of state taxes that were levied in Yuma County each year. The high point in the total amount is found in 1932. The lowest amount is found in 1936.

Column 4 shows the amount of the total state tax raised in Yuma County that was allocated to education. These amounts were found by using the per cents listed in Column 3 of Table XIV. The figures in Column 3 of Table XIV represent the per cent that the school tax rate for each year is of the total tax rate for that year. The total state tax for each year was multiplied by the per cent for the same year. The product thus found was the amount that was allocated to schools.

TABLE XVI

THE TOTAL STATE AND COUNTY TAXES AND THE AMOUNT OF EACH TAX ALLOCATED TO SCHOOLS YUMA COUNTY, 1919-1936 *

Year	1. Total General County Taxes	2. Amount for County School Fund	3. Total State Taxes for All Purposes	4. Amount For State School Fund
1919	$243,536	$ 45,212	$119,283	$19,681.70
1920	258,686	35,553	108,952	15,798.04
1921	354,509	94,831	161,845	72,290.02
1922	442,541	63,193	107,428	55,432.85
1923	379,593	81,458	122,967	47,302.62
1924	372,036	83,692	120,917	63,844.18
1925	395,099	106,722	177,113	96,703.70
1926	420,775	120,545	154,901	82,861.94
1927	414,584	112,788	229,180	99,234.94
1928	450,810	145,250	200,650	64,609.30
1929	502,982	150,656	246,197	73,859.00
1930	519,138	149,512	218,584	63,389.36
1931	479,890	142,596	260,512	78,153.60
1932	466,870	127,525	263,028	71,017.56
1933	428,901	120,312	186,121	54,913.88
1934	470,164	116,655	180,832	45,208.00
1935	458,123	126,176	143,049	40,338.48
1936	463,642	122,959	93,476	24,771.14

* Data from Biennial Reports of the State Tax Commission of Arizona.

In order to show more clearly the material in Table XVI, the totals of the state and county taxes and the taxes for schools have been found and index numbers assigned. Table XVII and Chart 7 have been formed from this data.

TABLE XVII

THE TOTAL STATE AND COUNTY TAXES AND THE AMOUNT OF EACH ALLOCATED TO SCHOOLS (Data for 1920-1921 Assigned Index Number 100)*

Year	Total State and County Taxes	Index Number	Total Taxes For Schools	Index Number
1920-1921	$516,354	100	$167,121.02	100
1921-1922	549,969	106	116,625.85	69
1922-1923	502,560	97	128,760.65	75
1923-1924	492,953	95	147,536.18	88
1924-1925	572,212	110	203,425.70	121
1925-1926	575,676	111	203,406.94	121
1926-1927	643,764	124	212,077.94	126
1927-1928	651,460	126	209,859.30	125
1928-1929	749,179	145	224,515,00	134
1929-1930	737,722	142	212,901.36	127
1930-1931	740,402	143	220,749.60	131
1931-1932	729,898	141	198,542.56	118
1932-1933	615,102	119	175,225.88	104
1933-1934	656,996	127	161,863.00	96
1934-1935	601,172	116	166,514.48	99
1935-1936	557,118	107	147,730.14	88

* Data from Table XVI.

A comparison of the index numbers will make it more evident that although the state and county tax rates have increased the state and county taxes have not increased in proportion. The same facts may be found in regard to the state and county taxes for schools.

Chart 7 gives graphic picture of Table XVII.

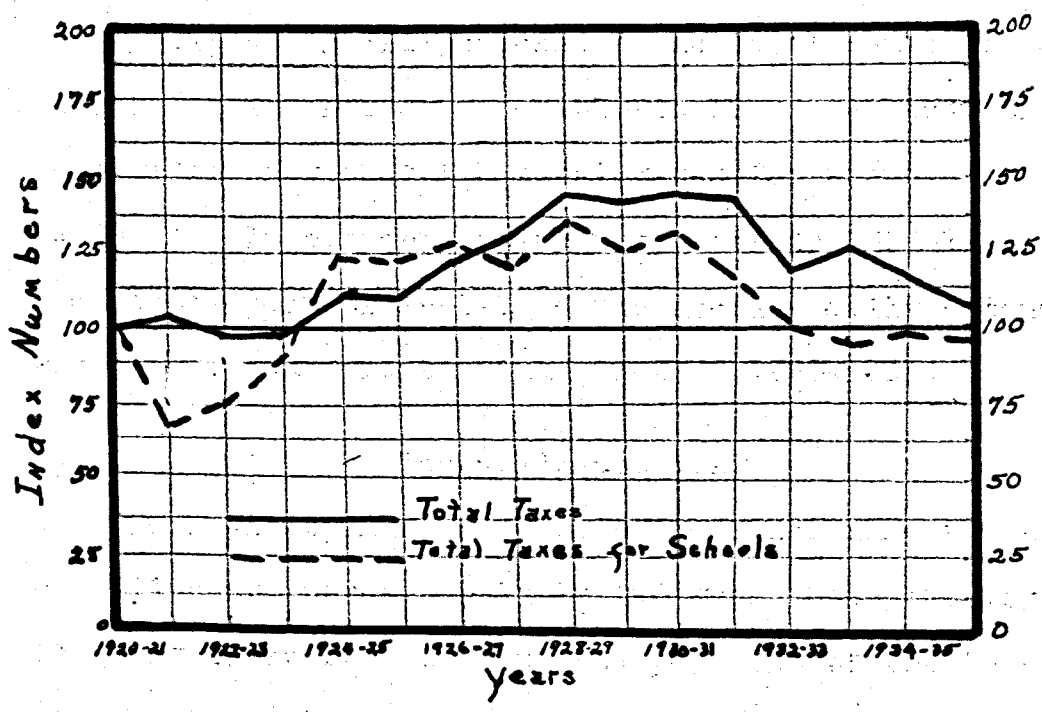


Chart 7. The Total State and County Taxes and The Amount of Each Allocated to Schools, 1920-1936*

* Data from Table XVII.

The total state and county taxes increased 45 per cent from 1920 to 1929. From that time on there has been a gradual decrease. The total state and county taxes for schools have not been as regular as the total state and county taxes. From a study of Chart 7 we find that, during the years 1924 to 1927 inclusive, the total taxes for schools increased more in proportion than did the total state and county taxes for all purposes. The total taxes for schools increased 34 per cent from 1920 to 1929. A study of the chart will show that the total taxes for schools are, in 1935-1936, 12 per cent below the total in 1920-1921. In the school year of 1935-1936 the average daily attendance was 39 per cent greater than that of 1920-1921.

Tax Delinquencies

Yuma County has been fortunate concerning the amount of delinquent taxes. Only in two years have the total delinquent taxes been over twenty per cent of the total taxes. The following table, Table XVIII, shows the trend in delinquencies in the last nine years.

Column 1 lists the total taxes for all purposes levied in Yuma County in each year given.

Column 2 shows the amount of delinquent taxes for each year.

Column 3 indicates the per cent that delinquent taxes were of the total taxes for each of the years.

TABLE XVIII

TREND IN DELINQUENT TAXES IN YUMA COUNTY
1927-1935*

Year	1 Total Taxes For All Purposes	2 Total Delinquent Taxes	3 Per Cent Delinquencies Are of Total Taxes
1927	$ 945,337	$182,781.39	19.33
1928	1,116,601	52,215.34	4.67
1929	1,127,664	87,774.45	7.78
1930	1,120,323	202,561.52	18.08
1931	1,057,840	374,006.58	35.34
1932	992,009	197,611.28	19.91
1933	864,527	154,338.33	17.85
1934	866,246	113,887.45	13.14
1935	791,544	172,186.99	21.62

* Data secured from the Biennial Reports of the State Tax Commission of Arizona.

Tax delinquencies in Yuma County for the past nine years have averaged somewhat more than 17 per cent of the total taxes. While a considerable portion of the delinquent taxes are collected within one or two years, it seems advisable to take delinquencies into consideration in making tax levies.

Tax delinquencies for the entire state are somewhat higher than for Yuma County. In 1934-1935 delinquency on June 30, 1935, was $4,587,852, or 27.67 per cent of the total tax levy. At that time the cumulative delinquency throughout the state had reached the total of $16,251,937.

Summary

This chapter has attempted to show the sources of all revenue for school purposes in Yuma County. The tax and non-tax sources have been shown and discussed. The greater portion of the total receipts of Yuma County were derived from tax sources. The state and county apportionments for schools were shown for the years 1919-1936. The major sources of financial support for the schools of Yuma County are state and county apportionments. Approximately 25 per cent of the total population of Yuma County are taxpayers. This is based upon a comparison of the total number of taxpayers with the total population. Schools, which rank first in importance in the county, receive less income from non-tax sources than do other departments of the county. This is apparent from the comparison of schools and total county taxes. The state tax rate varies less than does the county tax rate. The state tax for schools is a greater per cent of the state tax rate than the county school tax is of the county tax rate. The delinquent taxes have been from 4.67 per cent to 35.34 per cent of the total taxes for all purposes. It is reasonable to state that comparatively few people contribute toward the support of education in Yuma County. Some method should be devised whereby the financial burden would be distributed in a more equitable manner.

CHAPTER V

BONDED INDEBTEDNESS

Because school attendance has shown a remarkable growth in Yuma County during the past sixteen years, building costs are quite likely to represent a major item of school expenditure. Bond issues seem to be the most logical means of raising the large sums necessary for the construction of buildings. Whenever a bond issue is made in a school district, bonded indebtedness results. This particular phase of school expenditure is of great importance.

Purpose of This Chapter

The purpose of this chapter is to show clearly the outstanding bonded indebtedness of the various districts of the county, to indicate the past trends in building costs, and to show what part of the total expenditures have been devoted to the building program. The various types of bonds are discussed and recommendations for future building practices are made.

In many large urban school districts, where there are several schools located in one district, the cost of a new building would not represent any considerable portion of the total tax levy. Consequently, in districts of this

type the cost of the new building is simply added to the tax levy and the building paid for in one year. However, in the smaller districts this plan is not feasible, and the building must be paid for over a period of years. There are two methods of distributing the cost of a building: first, by the creation of a sinking fund or building fund, the building to be constructed when the fund is large enough; and the second, by issuing bonds and then redeeming them over a period of from ten to twenty years.

Present Bonded Indebtedness

There are eleven elementary school districts and two high school districts in Yuma County having outstanding bonded indebtedness. This bonded indebtedness is represented by 23 bond issues. A description of the various bond issues made by the schools of Yuma County is shown in tabular form in Table XIX. Only those issues on which there are outstanding bonds are shown, the bond issues that have been wholly redeemed having been omitted from this table.

TABLE XIX

OUTSTANDING BONDED INDEBTEDNESS OF VARIOUS SCHOOL DISTRICTS OF YUMA COUNTY BY BOND ISSUES, JULY 1, 1937 *

District Number	Amount of Issue	Purpose of Bond Issue	Date of Issue	Maturity Date	Interest Rate	Amount Paid	Balance to Be Paid
Y.U.H.S.	$300,000	Building	5-1-28	5-1-48	4½%	$150,000	$150,000
Y.U.H.S.	100,000	Gymnasium	5-1-28	5-1-48	4½%	50,000	50,000
1	124,000	Building	5-23-19	5-23-39	6%		124,000
1	95,000	Building	2-2-20	2-2-40	6%		95,000
1	7,000	Equipment	5-4-20	5-4-40	6%		7,000
1	90,000	Bldg. & Equip.	12-21-25	12-21-45	5%		90,000
11	25,000	Building	7-26-19	7-26-39	6%	5,000	20,000
11	23,000	Repair. & Site	4-17-22	4-17-42	6%		23,000
11	46,000	Building	12-10-28	12-10-48	5%		46,000
13	20,000	Building	7-15-19	7-15-39	6%		20,000
13	15,000	Building	7-4-20	7-4-40	6%		15,000
14	70,000	Building	10-1-25	10-1-45	6%	49,500	20,500
17	41,500	Bldg. & Equip.	3-1-30	3-1-50	5¼%		41,500
19	5,000	Well & Equip.	11-17-24	11-17-44	6%		5,000
22	4,000	Building	7-7-24	7-7-44	6%		4,000
22	2,500	Equip. & Repair.	4-1-30	4-1-37	5%	1,500	1,000
24	5,000	Building	7-15-19	7-15-39	6%		5,000
24	3,000	Bldg. & Imp.	7-1-21	7-1-41	6%		3,000
24	8,000	Bldg. & Imp.	1-1-27	1-1-47	5%		8,000
25	1,500	Building	1-4-27	1-4-47	5%		1,500
27	30,000	Bldg. & Equip.	3-2-29	3-2-49	5%	28,500	1,500
32	6,000	Building	6-4-19	6-4-39	6%		6,000
N.Y.C.U.H.S.	22,000	Bldg. & Equip.	11-1-35	11-1-55	4%	1,000	21,000
Total	1,043,500					285,500	758,000

* Data from County School Superintendent of Yuma County.

Only seven of the 23 bond issues are of the serial or semi-serial type. The 16 term bonds vary from seven to twenty years in duration. However, there seems to be a tendency toward the longer term bond. An examination of Columns 4 and 5 of Table XIX shows that in all the bond issues there was only one issue under twenty years.

Table XX shows the distribution of the outstanding bonded indebtedness by school districts, the annual interest charge, the amount in the redemption fund, and the net liability as of July 1, 1937.

TABLE XX

OUTSTANDING BONDED INDEBTEDNESS OF THE VARIOUS SCHOOL DISTRICTS OF YUMA COUNTY, SHOWING THE ANNUAL INTEREST CHARGE, AMOUNT IN REDEMPTION FUND, AND THE NET LIABILITY, AS OF JULY 1, 1937*

District Number	Bonded Indebtedness	Interest Charge	Redemption Fund	Net Liability
Y.U.H.S.	$200,000	$9,000	$15,560.03	$184,439.97
N.Y.C.H.S.	21,000	840		21,000.00
1	316,000	22,560	165,973.41	150,026.59
11	89,000	4,880	10,372.34	78,627.66
13	35,000	2,100	34,480.57	519.43
14	20,500	1,230	4,445.66	16,054.34
17	41,500	1,763.75	1,694.57	39,905.43
19	5,000	300	637.15	4,362.85
22	5,000	250	564.95	4,435.05
24	16,000	880	8,225.00	7,775.00
25	1,500	125	745.40	754.60
27	1,500	125	700.69	799.31
32	6,000	360	5,065.69	934.31
TOTAL	$758,000	$44,313.75	$248,465.46	$509,634.54

* Data from Table XIX.

The reader will note that School District Number 1 is responsible for a major portion of the total bonded indebtedness. The total annual interest charge as of July 1, 1927, was $44,313.75, and of this amount $22,560 was charged to School District Number 1. It would seem that this district is quite heavily burdened with indebtedness.

In interpreting the data of Table XIX the reader should keep in mind that the problem of bonded indebtedness is strictly a local one, the burden resting entirely upon the district involved. On July 1, 1934, the bonded indebtedness of the schools of the state was in excess of ten million dollars or 2.87 per cent of the total state assessed valuations.

Past Trends in Building Costs

The problem of financing a building program is not a new one in Arizona. It has been in existence since statehood and will continue to exist as long as school attendance increases. However, the building activities of 1928 and 1929 followed by a period of economic depression have succeeded in magnifying the problem in some school districts until at the present time it has become an acute one.

Building expense is borne solely by the district involved. After a bond issue is made, building expenditures become fixed and cannot be reduced during periods of

economic depression regardless of the tax rate that is necessary to raise the required revenue. Because of a decreased assessed valuation during the past few years, this rate has become extremely high in some of the less wealthy districts.

The building costs in the schools of Yuma County during the past 18 years are shown in Table XXI.

These data were taken from the County Treasurer's Reports of expenditures in the Biennial Reports of the State Superintendent of Public Instruction, and, since they take into consideration only the money actually expended and not the warrants issued, differ from the County Superintendent's reports of expenditures.

TABLE XXI

BUILDING COSTS IN SCHOOLS OF YUMA COUNTY
1920-1936 *

Year	Building and High School	Improvement Elementary	Bond Interest	Redemption	Expenditures	Expenditures with Bldg. and Improvement Omitted
1920-1921		$271,941.65	$26,808.00		$396,663.11	$184,621.65
1921-1922	$ 4,245.50	80,236.70	26,448.00	$15,000.00	291,036.53	206,554.33
1922-1923	9,900.00	44,593.80	22,807.00		271,362.86	216,869.06
1923-1924	3,067.94	5,574.70	28,308.00	21,600.00	253,177.62	244,534.98
1924-1925	7,586.00		28,718.42	8,500.00	266,597.06	259,011.06
1925-1926		13,166.64	28,112.08	6,000.00	301,053.57	287,886.93
1926-1927		142,858.37	34,727.69	9,224.94	464,789.71	321,940.34
1927-1928		3,763.23	32,228.00	6,000.00	399,531.16	395,767.93
1928-1929	90,077.57	33,363.84	39,996.58	28,639.86	527,345.52	403,904.11
1929-1930	126,201.93	53,060.10	44,452.02	7,410.14	608,757.90	429,495.87
1930-1931		50,253.49	41,879.30	7,986.24	484,618.04	434,364.59
1931-1932			47,822.70	27,860.00	412,482.24	412,385.72
1932-1933			34,348.49	25,561.30	289,860.50	289,778.80
1933-1934			40,458.84	21,500.00	339,575.24	339,575.24
1934-1935			32,356.25	23,400.00	299,542.87	299,542.87
1935-1936	22,000.00	195.56	33,890.39	12,460.00	328,003.83	305,807.27

* Data from the Biennial Reports of the State Superintendent of Public Instruction.

These data show the entire cost of the building program from 1920 to 1936 including buildings and improvements, bond interest, and bond redemption. Bond redemption is simply a repayment of borrowed funds that have previously been recorded as an expenditure under buildings and improvements. The items listed under buildings and improvements represent funds that have been received largely through the sale of bonds. These funds are expended during the year indicated to cover the cost of labor, material, and equipment. Later the bonds are redeemed and the same item is listed as an expenditure again, this time under bond redemption. Since funds received through the sale of bonds do not represent an immediate cost to the tax payer, and since the same expenditure is listed again under bond redemption, it seems logical to omit the expenditures under buildings and improvements. This has been done in the last column of Table XXI. It is true that the funds listed under buildings and improvements are not all received through the sale of bonds. A small portion is sometimes derived from the sale of lands, the salvage of old buildings, sale of old equipment, and from insurance. But in any of these cases it represents funds derived from a previous purchase involving an expenditure already recorded. Some authorities advocate omitting bond redemption instead of the expenditures under buildings and improvements in

order to get a true picture of school costs. If the building were constructed from capital created by a building fund, this would be the most logical method, since there would be no expenditures under bond redemption, but when the building is constructed on borrowed capital, it seems more logical to list the expenditures when it is made by the tax payer. When a building is constructed it is supposed to take care of future needs as well as provide for the immediate present. For these reasons building and improvement expenditures have been omitted in determining the percentage of total expenditures devoted to the building program.

Per Cent of Total Expenditures Devoted to Building Program

The percentages of the total school expenditures devoted to building and improvements, bond interest, and bond redemption are indicated in Table XXII. The data listed in Columns 2, 3, and 4 are based on total expenditures including buildings and improvements. Those listed in Column 5 are based on expenditures with buildings and improvements omitted. Since the data of Column 5 are based on the actual cost to the tax payer, they more nearly represent the true situation with respect to building costs than do the data of the other columns.

TABLE XXII

PERCENTAGE OF THE TOTAL SCHOOL EXPENDITURES OF YUMA COUNTY DEVOTED TO BUILDINGS AND IMPROVEMENTS, BOND INTERESTS, AND BOND REDEMPTION,* 1920-1936

1	2	3	4	5
Year	Per Cent Buildings and Improvements Are of Total Expenditures	Per Cent Bond Interest Is of Total Expenditures	Per Cent Bond Redemption Is of Total Expenditure	Per Cent Bond Interest and Redemption Are of Total Expenditures, With Buildings and Improvements Omitted
1920-1921	53.4	6.7	...	14.5
1921-1922	40.8	9.08	5.15	20.06
1922-1923	25.1	8.4	...	10.5
1923-1924	3.5	11.18	8.53	20.4
1924-1925	2.9	10.77	3.18	14.3
1925-1926	4.5	9.33	1.99	11.8
1926-1927	30.5	7.49	1.98	13.6
1927-1928	.94	8.06	1.5	9.6
1928-1929	21.3	7.58	5.43	16.9
1929-1930	31.0	7.32	1.21	12.07
1930-1931	10.3	8.64	1.64	11.2
1931-1932	...	11.58	6.75	18.3
1932-1933	...	11.85	8.81	20.6
1933-1934	...	11.9	6.3	18.2
1934-1935	...	10.8	7.8	18.9
1935-1936	6.7	10.3	3.79	15.1
Average	14.01	10.06	4.26	16.53

* Data from Table XX.

These data indicate that building costs have been responsible for 9.6 per cent to 20.6 per cent of the total cost of education in Yuma County. Building costs for the past sixteen years represent some 16.53 per cent of the total educational costs.

It should be kept in mind that these data apply to the entire county and not to any individual school district. There are 13 school districts in the county that have had expenditures for buildings during the past twenty years.

Building costs in Yuma County have been slightly higher than in the state as a whole. The most recent data for the entire state show that bond interest and bond redemption were responsible for 12.92 per cent of the total expenditures during the ten year period from 1920 to 1930. These figures were based upon total expenditures and if the building and improvement costs were omitted would represent approximately fifteen per cent of the actual cost to the tax payers. During the same period the total amount expended for buildings and debt service was 29.98 per cent of the total expended for public schools.

Types of School Bonds

There are only two main types of school bonds, the term bond and the serial bond. In the term bond no payments are made on the principal until the maturity date,

usually fifteen or twenty years from the date of the issue. Each year a levy is made to cover the interest charges and provide a definite amount to be placed in a sinking fund so that on the maturity date there will be a fund large enough to redeem the bonds. Interest is paid on the entire principal until the date of maturity. The long term bond is the least economical method that could possibly be devised for financing building. If the sinking fund is invested, there is the danger of loss through poor investments. County officials sometimes fail to levy a sufficient amount for the sinking fund and when the bonds mature there is not enough to redeem them. A refunding bond issue then becomes necessary to take care of the previous bond issue.

The serial bond seeks to overcome some of the disadvantages of the long term bond. Usually in a serial bond issue some of the bonds mature each year, beginning either the first or second year, and each succeeding year thereafter until the entire issue is redeemed. Interest is not paid on a bond after it has been redeemed, consequently the interest charges become less each succeeding year. When the issue is made, the maturity dates can be arranged so that the total annual payment, interest charges plus redemption, remain practically constant throughout the entire period of ten to twenty years. Since some of the

bonds become mature each year, it is necessary to make an annual levy for bond redemption. There is no large sinking fund established with the resultant danger of loss through poor investments. If a bonding plan is to be used in the construction of a building, school officials should consider quite carefully the merits of the short term serial bond.

Building Program for The Future

Although it is impossible to foresee clearly the future building needs of any community, a survey of the present housing facilities and of the population of the community in question would throw much light upon the subject. If the most economical method of financing the building program is to be used, now is the time to provide for schools fifteen or twenty years in the future. Those districts that are not largely overburdened with bonded indebtedness would do well to survey their school and community with the purpose of determining the probable future building needs.

If the bonding plan is used, the short term serial bond is strongly recommended, and the shorter the term of the bond the greater the saving. Interest rates should be considered quite carefully in making a bond issue since bond interest represents a considerable portion of the total cost. There are several factors that influence the

interest rate on bonds. Serial bonds usually bear a lower rate than term bonds. If interest is paid semi-annually the interest rate is usually lower. Also, if the issue is made on the first day of a calendar month so that the maturity date and interest payments fall on the first of the month, they are easier to sell to bonding companies and can usually bear a slightly lower rate of interest. All of these factors should be carefully considered before making a bond issue.

The technicalities involved in a bond issue, the printing of the bonds, etc., make it a rather expensive process and it is doubtful if many of the smaller school districts can afford this expense in financing their building construction. Small bond issues usually bear a higher rate of interest than the larger issues and when the expense of making the issue is added to the total cost, the rate for financing becomes too great. Therefore, the smaller schools would do well to consider the depreciation or cash payment plan in financing their buildings. This plan involves the creation and investment of a sinking fund. A certain amount is set aside each year to accumulate interest until needed.

Summary

The net bonded indebtedness of the schools of Yuma County was $509,834.54 on July 1, 1937. Two high schools

and eleven elementary schools have bonded indebtedness. Yuma, School District Number 1, is responsible for $150,026.59 of the total. Yuma Union High School is responsible for $184,439.97 of the net liability.

Building costs have been responsible for approximately 16 per cent of the total cost of education in Yuma County for the past sixteen years. State building costs have been responsible for nearly 15 per cent of the total educational cost during the same period.

All outstanding bond issues are of the term type with tendencies toward long term bonds.

Cash payment and depreciation plan of financing building costs are strongly recommended for future use. The short term serial bond is recommended where bond issues are made. Small school districts are advised against bond issues.

CHAPTER VI

ELEMENTARY SCHOOL COSTS

School expenditures may be divided roughly into three classifications, namely, maintenance costs, buildings and improvements, and debt service. Buildings and improvements and debt service were discussed in a preceeding chapter. In this chapter the writer has endeavored to show the trends in school maintenance costs.

Yuma County is divided into 20 elementary school districts. Naturally these districts vary greatly in size and in order to make comparisons between the various districts it is necessary to take into consideration such factors as size and type of school.

Ten of these elementary school districts are one-teacher schools. This constitutes a special problem when districts are so large and schools so widely separated that consolidation is impractical.

Trends in Elementary School Costs

Increases in school attendance do not necessarily give an accurate estimate of increases of school needs. Any definite increase in attendance requires the addition of more buildings, more equipment, and a wider and more

differentiated curriculum, all of which call for the expenditure of large sums of money that can only be raised by a bond issue. Where maintenance costs are considered, a fairly accurate picture of increases in school needs can be secured by the increase in total attendance.

The following table shows the per capita costs of elementary schools in the various counties of the state from the school year 1920-1921 to the school year 1935-1936.

TABLE XXIII

PER CAPITA COSTS, ARIZONA GRADE SCHOOLS OF VARIOUS COUNTIES
1920-1936 *

Year	Apache	Cochise	Coconino	Gila	Graham	Greenlee	Maricopa	Mohave	Navajo	Pima	Pinal	Santa Cruz	Yavapai	Yuma	Rank
1920-1921	$75	$120	$125	$123	$64	$98	$84	$80	$81	$89	$107	$93	$132	$64	13
1921-1922	87	88	120	101	61	80	84	89	83	81	88	82	118	70	13
1922-1923	71	84	137	105	62	84	76	90	84	94	96	76	113	75	12
1923-1924	62	95	126	124	69	101	80	93	86	81	94	91	132	74	12
1924-1925	68	77	114	111	70	88	81	111	82	76	88	77	119	73	12
1925-1926	66	80	111	114	78	84	81	103	85	76	91	82	115	77	11
1926-1927	67	80	107	103	78	93	85	103	97	80	91	89	117	81	9
1927-1928	71	79	104	106	75	84	81	108	90	82	98	85	116	73	13
1928-1929	70	84	101	104	83	84	83	115	94	85	91	82	108	78	13
1929-1930	69	87	113	103	83	84	87	113	88	84	80	83	109	84	10
1930-1931	80	92	102	107	84	87	86	116	86	89	80	83	112	83	11
1931-1932	73	95	99	108	78	81	78	109	83	83	82	80	104	82	8
1932-1933	64	76	94	94	58	77	67	93	69	78	75	65	87	68	10
1933-1934	58	76	83	81	56	72	60	81	70	63	66	58	81	57	13
1934-1935	64	74	79	84	62	77	63	88	74	67	70	61	74	59	14
1935-1936	74	78	82	87	64	77	66	84	77	68	69	65	78	68	10

* Data from Biennial Reports of State Superintendent of Public Instruction.

Per capita school costs are lower in Yuma County than in the majority of the other counties of the state. However, because of the scarcity of population in this area, it is exceedingly difficult to make valid comparisons which would stress greater economy in the administration of the schools of Yuma County.

It is interesting to note that the average cost per pupil from 1920 to 1936 was nearly $80, while the cost since 1932-1933 has been slightly less than $70.00. This indicates that the school men of Yuma County succeeded in reducing expenditures during the years of the depression. The total maintenance cost of elementary schools in 1935-1936 was only 5.4 per cent greater than that in 1920-1921, although the attendance has increased almost 50 per cent.

Effect of Size of School on Average School Costs

There are several factors to take into consideration in comparing the school costs in the various districts of the county. The size of the school and the number of teachers influence the per capita cost and must be considered in making comparisons.

It is generally conceded that the cost of education in the small one-teacher rural school is greater than in the larger schools in the towns and cities of the state. However, this depends quite largely on the size of the

rural school. Since the appropriation for one-teacher schools has been reduced to not more than $1,250 per year, many of them have been operating on as low per capita costs as the larger schools.

In order to show more clearly the relationship between the size of the school and the cost per student in average daily attendance, the data for various sizes of schools have been segregated.

TABLE XXIV

EFFECT OF SIZE OF SCHOOL ON SCHOOL COSTS*

Number of Teachers	1920-1921 High	1920-1921 Median	1920-1921 Low	1925-1926 High	1925-1926 Median	1925-1926 Low	1930-1931 High	1930-1931 Median	1930-1931 Low	1935-1936 High	1935-1936 Median	1935-1936 Low
1 (9)	$147	$127	$70	$203	$142	$64	$187	$107	$67	$223	$82	$65
2-3 (2) (1)	95		75	90		78	97		76	78		64
4-8 (2) (1) (1) (1)	90	64	63	148	83	80	197	83	67	119	67	56
13-42 (1) (1)	71		52	85		65	89		69	66		59

* Data from Thirteenth Biennial Report of State Superintendent of Public Instruction.

Figures in parentheses indicate number of schools.

These data indicate that there is not as much relationship between the size of the school and the cost per student as is usually conceded. In 1935-1936, the lowest cost was in the 4 to 7 teacher schools of the county and the highest cost was in the one-teacher school. These data do not take educational opportunity into consideration, and it is possible that those students who attend the small rural schools do not have the facilities that are afforded in the larger schools. That is, the approximate equality in costs may be due to inferior educational opportunities afforded the students in the smaller schools. There is little reason to doubt the greater educational efficiency of the larger schools. However, a need for investigation in this field is indicated.

Analysis of School Expenditures

Since the school year 1927-1928, all school expenditures for maintenance purposes have been listed under seven main headings. Each of these main headings is divided into several sub-heads as follows:

General Control: Board of Education - office salaries and supplies; other expense of business control; superintendent's salary, superintendent's office employees' salaries, superintendent's office supplies; compulsory education; and other expenses of educational control.

Cost of Instruction: Supervisors' salaries, other

expenses of supervision; principals' salaries, principals' clerks' salaries, principals' office supplies; teachers' salaries; supplies used in instruction; supplementary text books; other instructional expense.

Operation of School Plant: Wages of janitor, engineers, etc.; fuel, water, light, and power; general care of grounds and buildings; janitors' supplies; other expense of operation.

Maintenance of School Plant: Repair of buildings; up-keep of grounds; repairs and replacements of furniture and equipment; wages of maintenance employees; other maintenance expense.

Auxiliary Agencies: Libraries; salaries and other expense; health service, doctor and dentist, nurse, and other expense; transportation of pupils; other auxiliary agencies expense.

Fixed Charges: Rent; insurance; interest on registered warrants; other fixed charges; contingencies; etc.

Capital Outlay: Grounds and improvements of sites; new buildings in districts having no bond issue or building fund; new furniture and equipment; new library books (not replacements); alterations to old buildings; installation of new lighting, heating, and plumbing system; other capital outlay costs, architects' fees, etc.

Table XXV shows the proportion of current expenditure devoted to the various budgetary items for the year 1935-1936, and the proportions that are advocated by various experts in the field of school finance.

TABLE XXV

PROPORTION OF CURRENT EXPENSE DEVOTED TO VARIOUS BUDGETARY ITEMS: 1935-1936

Budgetary Items	National Average*	Moehlman**	State Average***	Yuma County Average***
General Control	4.3	5.0	3.5	2.7
Cost of Instruction	72.3	75.0	73.5	67.4
Operation of School Plant	9.5	12.0	9.6	10.3
Maintenance of School Plant	3.9	5.0	4.4	9.7
Auxiliary Agencies	5.3	2.0	6.4	7.6
Fixed Charges	4.7	1.0	2.6	2.1

* Research Bulletin, Constructive Economy in Education: 1933.

** Moehlman, Public School Finance.

*** Thirteenth Biennial Report of State Superintendent of Public Instruction.

A study of the data in Table XXV will show that Yuma County is below average in general control, cost of instruction, and fixed charges. However, it is above average in operation of school plant, maintenance of school plant, and auxiliary agencies. This can be explained by the fact that during the years of the depression the school plants were not kept up and now repairs have to be done, thus causing an increase in the expense of operation and maintenance of school plant. Since the school is primarily for the education and benefit of the student, the best teachers available should be secured. In order to provide a more efficient teaching staff the salaries will have to be increased. Necessary equipment and supplies used in instruction should also be adequate to provide the best of teaching facilities. This will cause the expense of cost of instruction to be raised to the average.

Summary

The average per capita cost in elementary schools for the past 16 years has been $80.00. Since 1932 per capita costs have been less than $70.00.

There is not as much relationship between the size of the school and the cost per student as is usually conceded.

Since 1927-1928, all school expenditures for maintenance purposes have been listed under seven main

headings. This system of classifying the various school expenditures has simplified the duties of the school administrators throughout the state of Arizona.

Yuma County is below average in general control, cost of instruction, and fixed charges. In operation of school plant, maintenance of school plant, and auxiliary agencies, Yuma County is above average.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

As a result of this financial survey of Yuma County the following conclusions are drawn:

1. Agriculture is basic in the economy of Yuma County.

2. The State of Arizona is divided into fourteen counties. Yuma County with its 9,987 square miles ranks fourth in size.

3. Over 50 per cent of the area of the county is under the control of the Federal Government.

4. Yuma County has twenty elementary school districts and two high school districts.

5. The teaching staff of the county ranks favorably with that of other counties in regard to qualifications, professional preparation, and remuneration.

6. Assessed valuations in Yuma County have decreased 20 per cent since 1919. During this same period the school population has increased 50 per cent.

7. The ability to support schools in Yuma County as determined on the basis of wealth per student in average daily attendance has decreased 57 per cent.

8. State and county aid tend to equalize educational

opportunity in the counties of the state and in the districts of the various counties. In 1935-1936 the richest county had more than five times as much wealth per student as the poorest county.

9. Railroad property has been responsible for some 40 per cent of the total valuation of the county for the past fifteen years.

10. Approximately 80 per cent of the revenue of the county comes from "tax" sources and the remainder from "non-tax" sources.

11. About 25 per cent of the total population of the county are taxpayers. The use of the property tax has placed the burden of taxation upon too few people.

12. Delinquent taxes have constituted a financial problem in Yuma County. In 1935, 31 per cent of the taxes were delinquent.

13. The total school expenditures have been some 35 per cent of the total taxes for all purposes for the past sixteen years.

14. The annual trend of the state tax rate is much more regular than that of the county tax rate.

15. During the years 1919 to 1932 inclusive, Yuma County received more from the state school fund than was paid in. Since 1932 Yuma County has paid more than it received.

16. The state school fund is derived quite largely from a direct property tax.

17. Bond interest and bond redemption have represented some 16 per cent of the total school expenditures.

18. Building costs have represented some 14 per cent of the total expenditures for schools.

19. The net bonded indebtedness of the schools of Yuma County was $509,834.54 on June 30, 1937.

20. The short term serial bond is recommended where bond issues are made.

Recommendations

1. Economy should continue to be practiced by school officials. However, it should be consistent and obtain efficient results. Improved efficiency gained through the shortening of the school term or the elimination of various curricular and extra-curricular activities, as a means of further reducing the school expenditures, is questionable. A saving and better instructional facilities could be obtained by combining various elementary school districts.

2. Valuation in every county of the state would be increased through the elimination of the state property tax. Each county reduces its valuations in order to compete with corresponding reductions made by other counties. Tax rates would be lower if property were assessed at its true value. It would also encourage property investments

and, in general, foster better business conditions. The burden of any particular type of property would not be increased if the valuations of all types of property were increased in proportion.

3. Cash should be the basis of all school expenditures. The possibility of beginning the fiscal year with a balance sufficiently large enough to cover the costs of operation until the first tax collections are made should be seriously considered by school officials. Interest charges on registered warrants would thus be eliminated. The school budget cannot absorb a large deficit and tax delinquencies cannot always be predicted. This, then, offers a real problem for county and school officials, and one which requires much careful study.

4. The cash depreciation plan of financing future building construction is a policy worthy of consideration. Preparation must be made in advance of actual building needs if this method is to be used. The short term serial bond is advisable where bond issues are made.

5. The greater costs of secondary education are not taken into consideration by the present state appropriation which provides not more than $25 per student in average daily attendance. It is also insufficient for purposes of equalization. It is recommended that this appropriation be increased to $55 per student in average daily attendance

in the high schools and to $35 per student in average daily attendance in the elementary schools. County appropriation of from $20 to $25 per student in the elementary school and from $35 to $50 per student in the high school would thus insure a minimum educational program to all the schools of the state.

6. The direct property tax as a method of securing such a large percentage of the revenue available for school purposes is subject to criticism. Indirect taxation, at the present time, supplies a large amount of revenue for state purposes. Therefore, a larger percentage of the state appropriation for schools should be made from non-tax sources.

7. The school laws of Arizona should be accurately and thoroughly interpreted. This interpretation should be made by the Attorney General of the State and should apply to all counties. It is hoped that this recommendation would aid in doing away with differences of opinion that have existed among the counties in regard to the interpretations placed upon school laws.

BIBLIOGRAPHY

1. Annual Reports of the Clerk of the Board of Supervisors, Yuma County, 1919-1936.

2. Annual Reports of the County Superintendent of Schools. Yuma County, 1919-1936.

3. Annual Reports of the State Board of Equalization. 1919-1936.

4. Assessment and Tax Rolls, Yuma County, 1919-1936.

5. Biennial Reports of the State Superintendent of Public Instruction. 1919-1936.

6. Biennial Reports of the State Tax Commissioner of Arizona. 1919-1936.

7. Booth, R.E.
   School Finance in Navajo County.
   Master's Thesis, University of Arizona, 1936.

8. Howard, J.A.
   A Proposed Plan of School Finance for Arizona.
   Master's Thesis, University of Arizona, 1929.

9. Larson, Emil L.
   A Building Survey of the Roosevelt School District.
   Unpublished Report, University of Arizona, 1932.

10. Larson, Emil L.
    A Report of a Survey of Certain Phases of the Pima County School System.
    Unpublished Report, University of Arizona, 1931.

11. Larson, Emil L.
    School Finance and Related Problems in Arizona.
    Social Science Bulletin No. 1, 1933.

12. Monical, J.L.
    A Financial Survey of Gila County.
    Master's Thesis, University of Arizona, 1934.

13. Stevenson, R.G.
Financial Survey of Public Schools of Coconino County.
Master's Thesis, University of Arizona, 1923.

14. Tupper, C. Ralph
A Survey of the Arizona Public School System.
State of Arizona, 1925.

15. United States Census Reports.
1910-1930

16. Vihel, F.R.
A Financial Survey of Maricopa County.
Master's Thesis, University of Arizona, 1936.

13. Stevenson, J.G.
Financial Survey of Public Schools of Coconino County.
Master's Thesis, University of Arizona, 1923.

14. Tupper, C. Eelon
A Survey of the Arizona Public School System.
State of Arizona, 1926.

15. United States Census Reports.
1920-1930

16. Wilcox, J.R.
A Financial Survey of Yavapaia County.
Master's Thesis, University of Arizona, 1926.