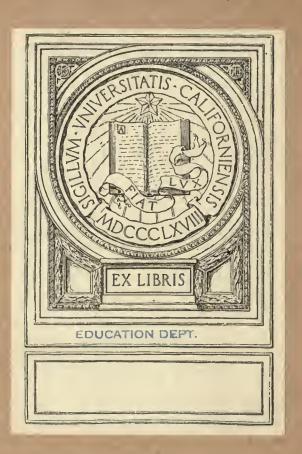


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Unitary vs. multiple control of large city school systems of the United States

By

John Benair World

A.B. (University of Utah) 1916

THESIS

Submitted in partial satisfaction of the requirements for the degree of

MASTER OF ARTS

in

Education

in the

GRADUATE DIVISION

of the

UNIVERSITY OF CALIFORNIA

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TABLE OF CONTENTS.

		PORT AND TO AND DESCRIPTION OF PERSONS ASSESSED.	PAGE
I.	INTRO	DUCTION	4
	8.	The issue	4
	ъ.	Definition of terms	4
	c.	Purpose of the study	4
	d.	Mothod of procedure	4
II.	FINA	ICIAL DIEFERENCES	10
	a.	A comparison of the cost of maintenance per pupil enrolled under Multiple Executive Con-	
		trol and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921 with figures for the individual cities	13
	ъ.	A comparison of the cost of maintenance per pupil in Average Daily Attendance under Mul- tiple Executive Control and under Unitary Executive Control in cities of the United	
		States of 100,000 population and over for the school year 1920 - 1921, with figures for the individual cities	14
	c.	A comparison of the cost for outlay per pup- il enrolled under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921, with	
		figures for the individual cities	15
	d.	A comparison of the cost for Outlayper pup- il in Average Daily Attendance Under Multiple Executive Control and Under Unitary Executive	6
		Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921, with figures for the in-	
		dividual cities	16
		The - The live of	

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			PAGE
	e.	A comparison of the cost of education on a per pupil basis under Multiple Executive	2 850/20
		Control and Under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921	17
	f.	A comparison of the cost of education on a per pupil basis under Multiple Executive Control and Under Unitary Executive Control in cities of the United States of	
		100,000 population and over for the school year 1920 - 1921	18
	g•	a per pupil basis under Multiple Executive Control and under Unitary Executive Con- trol in cities of the United States with	
4		from 25,000 to 100,000 population for the school year 1920 - 1921	19
	h.	A comparison of the mean costs of education per pupil in Average Daily Attendance under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1917 - 1918	20
III.	MEASI	URES OF QUALITY	
	a.	A comparison of the percent of attendance under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921, with percentages for the individual cities	22
	ъ.	A comparison of the percent of attendance under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921	23
	G.	A comparison of the percent of attendance under Multiple Executive Control and un- der Unitary Executive Control in cities of the United States with from 25,000 to 100,000 population for the school year	
		1920 - 1921	24

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đ.	A comparison of the holding power of the high schools under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921, with figures for the individual cities	PAGE 25
€.	A comparison of the holding power of the high schools under Multiple Executive Control and under Unitary Executive Control in cities of the United States of 100,000 population and over for the school year 1920 - 1921.	26
IV. COMO	LUSION	27
V. BIBL	IOGRAPHY	I

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CHAPTER I.

INTRODUCTION.

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The question of efficiency in school administration as determined by the type of executive control has often been discussed but seldom studied scinetifically. Whether multiple cotrol is more efficient, as good as, or inferior to unitary executive control has not received the study its importance justifies.

finitrmg

Unitary executive control is one man control where there is a single executive head of the entire school system. Multiple executive control implies two or more executive heads.

rpose

The purpose of this study has been to find out whether the cost of education is greater in cities having one kind of executive control than in cities having the other. Are business or other departments better able to save money or to spend more wisely when not under the control of the superintendent? Is the cost of education greater in cities having multiple executive control or in cities having unitary executive control?

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In an attempt to answer these questions a questionnaire ocedure (see following page) was sent out to the superintendents of all cities of one hundred thousand population or more. The

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UNIVERSITY OF CALIFORNIA Department of Education BERKELEY

February 23, 1922.

TO THE SUPERINTENDENTS OF ALL CITIES OF 100,000 POPULATION OR MORE.

My dear Superintendent:

Please supply me with the information called for on the bottom of this page. To be of service it must be returned within ten days. For your cooperation I will send you a summary of the report within a month.

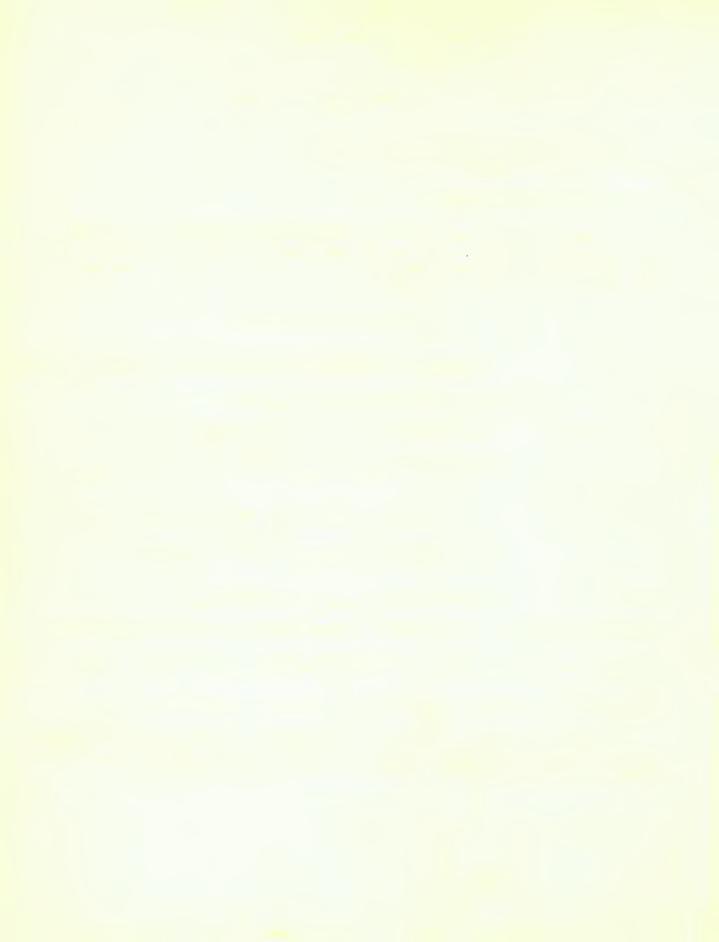
Vory sincerely yours,

Associate Professor in Education Administration.

FOR THE SCHOOL YEAR 1920 - 1921.

ENROLLMENT:	Kindergarten	Elementary			
	High School (9 to 12)	Total			
AVERAGE DAILY ATTENDANCE:	Kindergarten	Elementary (1 to 8)			
	High school (9 to 12)	Total			
COST:	Maintenance	Outlay			
Are all executiv	ve departments subord:	inate to the Superintendent_			
If not what departments report directly to the Board of Educat-					
ion					
Dianea mani	2 ma a a a a a a a a a a a a a a a a a a	1			

Please send me a copy of the rules of your Board of Education, your last annual report, statistical and financial report of the auditor or clerk and your last salary schedule.



returns were separated into two groups on the basis of their answers to the questions: "Are all executive departments subordinate to the Superintendent?" and "If not what departments report directly to the Board of Education"? The figures on enrollment, average daily attendance and cost were then tabulated and checked by reference to the printed reports called for. When we could not check, a second letter was sent defining just what was meant. A copy of this second letter is given on the following page. In some cases it was necessary to send several letters to get returns.

Per pupil costs were then figured for each city—
regular maintenance or running expenses per pupil, and
outlay per pupil. These were figured both on enrollment
and on average daily attendance. Outlay is the amount
invested during the year in permanent school facilities
such as sites, buildings, improvements, fixtures and equip—
ment. Maintenance includes all other expense of the school
system, administration, supervision, instruction, heating,
lighting, and janitor services, etc.

These per pupil costs were ranked for each group of cities, for those having multiple executive control and for those having unitary executive control, and the medians and means found for each. These median and mean costs were

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UNIVERSITY OF CALIFORNIA Department of Education BERKELEY

March 15, 1922.

Superintendent of Schools, Kansas City, Kansas.

My dear Sir:

I wish to thank you for your very prompt attention to the request for costs and enrollment data in my recent letter, a copy of which is attached. There is, however, one point upon which we did not get a uniform interpretation, namely, "outlay" and "maintenance."

By "OUTLAY" we wish to secure the amount invested during the year 1920-21 in permanent school facilities such as sites, buildings, improvements, fixtures and equipment.

Under "MAINTENANCE" we wish classified all other expense of the school system including administration, supervision, instruction, heating, lighting and janitor service, etc. Will you be kind enough to give us a re-statement of these two items?

We have thus far had more than 40 returns from the cities of 100,000 or more. The tabulation of the returns received is tending to show a very pronounced advantage in unified control as opposed to multiple control.

Very sincerely yours,

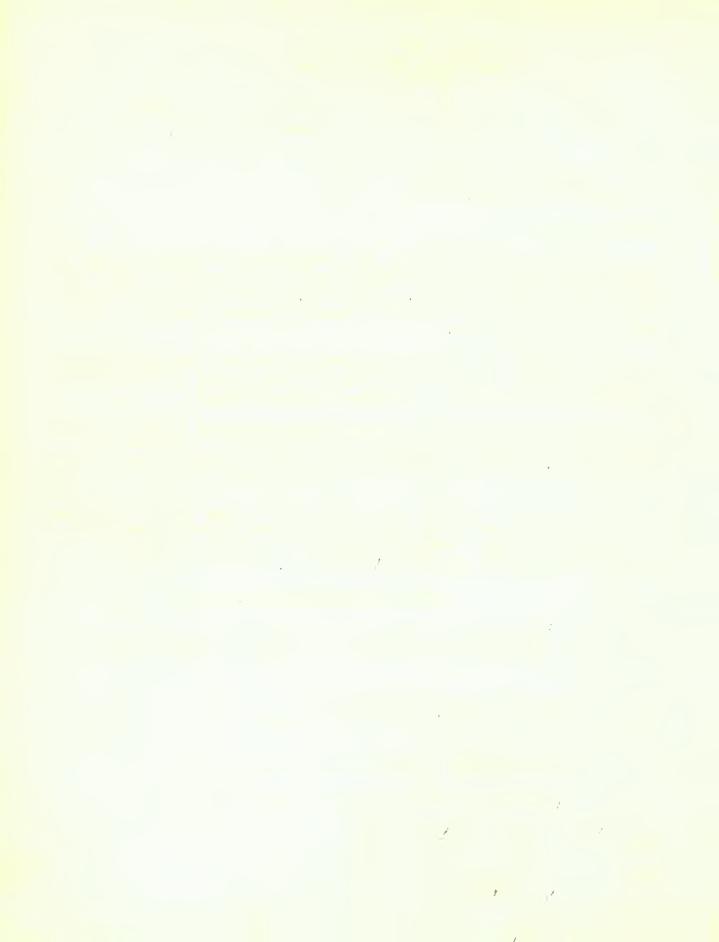
Associate Professer in Educational Administration.

KANSAS CITY; KANSAS 1920-21.

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figured at three different times, each time using all the returns then in; and each time the results were substantially the same. Therefore it is quite certain that the figures in the tables give a very true picture of the situation.

Later a similar questionnaire was sent to the superintendents of all cities having a population between twentyfive thousand and one hundred thousand. The returns
were treated in much the same manner except that per pupil
costs were not figured for each city but for each group of
cities; that is, for those under multiple executive control
and for those under unitary executive control.

As a further check per pupil costs of education under multiple executive control and under unitary executive control were figured for the school year 1917 - 1918. This was figured from data made available in the United States Bureau of Education's Bulletin entitled "Statistics of City School Systems", published in 1920.

also possible to figure the percent of attendance and the holding power of the high school for each city and for each group of cities. The percent of attendance was found by dividing the total average daily attendance by the total enrollment. The holding power of the high school was found by

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dividing the average daily attendance of the high school by the total average daily attendance, that is, by the average daily attendance of the kindergarten, elementary and high school combined. This was done for each city in the group of the larger cities or those over one hundred thousand population, but not for those in the group of smaller cities. In the latter case the cities were not treated, individually.

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CHAPTER II.

FINANCIAL DIFFERENCES.

It is readily seen from the tables that follow (pages 13 to 26) that the cost of education under multiple executive control is uniformly greater than the cost under unitary executive control.

Table V. page 17 . gives in summary form the mean and median costs of tables I to IV inclusive, together with figures on total cost of education per pupil with differences between the unitary and the multiple groups for the school year 1920-21. Thus it is seen that the mean total cost of education per pupil entolled is eightythree dollars and fifty-five cents (\$83.55) for that group of cities having unitary control, and ninety-four dollars and sixteen cents (\$94.16) for the group having multiple control. That is, the mean cost of education per pupil enrolled is ten dollars and sixty-one cents (\$10.61) more in those cities having multiple control than in those having unitary control. When figured on average daily attendance the mean total cost of education is one hundred one dollars and thirty-one cents (\$101.31) per pupil in those cities having unitary control, and one hundred fifteen dollars and sixty-one cents (\$115.61) per pupil in

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those cities having multiple control. That is, it costs fourteen dollars and thirty cents (\$14.30) more per pupil in the cities having multiple control than in these with unitary control.

The median costs per pupil show even more striking differences. The median total cost of education per pupil enrolled is for those cities having unitary control seventy-three dollars and seventy-nine cents (\$73.79). and for those having multiple control eighty-seven dollars and forty-five cents (\$27.45). The median cost per pupil enrolled is seen to be thirteen dollars and sixty-six cents (\$13.66) greater in cities having multiple control of their school systems than in those cities having unitary control. Figured on average daily attendance the median total cost of education per pupil is ninetyone dollars and forty-two cents (\$91.42) for those cities having unitary control, and one hundred six dollars and fortyfive cents (\$106.45) for cities with multiple control. Or. the total cost of education per pupil in average daily attondance is over fifteen dollars greater in cities having multiple control than it is in these cities having unitary control of their school systems.

From Table VI, page 18, it is seen that in the group of smaller cities the mean cost per pupil enrolled for maintenance is four dollars and sixty-seven cents (\$4.67) high-

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or in those cities having multiple executive control.

The cost for outlay in those cities is seen to be one dollar and thirty-eight cents (\$1.38) higher. The mean cost per pupil in average daily attendance is seen to be ten dollars and seventeen cents (\$10.17) higher in the cities having multiple control. For outlay it is two dollars and ninety-two cents (\$2.92) more. The total cost of education per pupil enrolled is seen to be six dollars and five cents (\$6.05) more, and the total cost of education per pupil in average daily attendance, thirteen dollars and nine cents (\$13.09) more in those cities having multiple executive control.

In table VII, page 20, it is seen that the same thing held trué during 1917 - 1918. The mean cost of education per pupil in average daily attendance was nine dollars and twenty-five cents (\$9.25) higher in cities having multiple executive control.

TABLE I.

A COMPARISON OF THE COST OF MAINTENANCE PER PUPIL ENROLLED UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES OF THE UNITED STATES
OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR
1920 - 1921, WITH FIGURES FOR THE INDIVIDUAL CITIES.

HULTIPLE COM	PROL	UNITARY CONTRO	It .
Indianapolis Seattle Cleveland Portland Grand Rapids Philadelphia Boston Toledo St. Louis New Orleans Spokane Worcester San Francisco Newark Chicago Youngstown Scranton Milwaukee Providence Dayton Los Angeles Bridgeport Louisville San Antonio	\$105.08 99.40 92.06 90.22 89.31 88.05 87.59 87.34 78.42 75.37 74.96 74.85 73.61 69.60 68.63 68.49 65.25 64.06 63.57 61.37 60.55 58.95 57.77 40.56	Buffalo Columbus Oakland Des Moines Yonkers Detroit Washington -Hinneapolis Jersey City Fall River Lowell Denver -Hew Bedford Salt Lake City Trenton Paterson Cambridge -Horfolk Kansas City, Kan. Baltimore Reading Richmond Birmingham Atlanta Nashville	\$98.53 94.95 93.81 88.83 87.98 82.98 81.51 77.68 75.27 73.67 70.60 70.02 67.10 66.96 66.89 66.89 66.87 64.58 59.60 59.19 58.06 54.51 46.24 40.76 40.60 27.29
Mean	74.79	Mean	68.579
Median	74.23	Median	67.10
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TABLE II.

A COMPARISON OF THE COST OF MAINTENANCE PER PUPIL IN AVERAGE DAILY ATTENDANCE UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES OF THE UNITED STATES OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR 1920 - 1921, WITH FIGURES FOR THE INDIVIDUAL CITIES.

MULTIPLE CONTR	OL	UNITARY CONTROL	<u> </u>
Seattle Indianapolis Portland Toledo Los Angeles Boston San Francisco Grand Rapids Cleveland Philadelphia Spokane Mewark Worcester Youngstown St. Louis Mew Orleans Chicago Scranton Milwaukee Providence Louisville Dayton Bridgeport San Antonio	\$122.14 118.39 116.13 116.10 107.08 106.41 105.96 105.15 99.98 98.85 94.68 94.23 87.47 86.98 86.83 85.47 84.16 77.40 77.05 75.77 74.29 71.62 69.02 50.07	Buffalo Oakland Columbus Detroit Des Moines Yonkers Washington Minneapolis Denver Jersey City Paterson Lowell Trenton Fall River Salt Lake City Cambridge New Bedford Kansas City, Kan. Baltimore Norfolk Richmond Reading Birmingham Atlanta Nashville	\$122.59 110.98 107.83 107.55 106.27 104.53 100.92 95.13 92.65 91.04 85.32 83.11 80.79 79.44 74.35 74.16 72.99 71.24 66.54 60.31 55.94 47.69 43.16 35.30
			00.00
Mean	92.134	Mean	82.41
Median	90.85	Modian	83.11

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TABLE III.

A COMPARISON OF THE COST FOR OUTLAY PER PUPIL ENROL-LED UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNIT-ARY EXECUTIVE CONTROL IN CITIES OF THE UNITED STATES OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR 1920 - 1921, WITH FIGURES FOR THE INDIVIDUAL CITIES.

MULTIPLE	CONTROL	UNITARY CONTROL	
Indianapolis Dayton Grand Rapids Toledo Cleveland Youngstown Chicago Mewark Los Angeles Portland Scranton Boston Milwaukee New Orleans Worcester Spokane Bridgeport St. Louis Seattle Philadelphia Providence Louisville San Antonia	\$80.75 72.54 30.70 30.68 30.09 27.21 18.28 18.02 16.43 13.79 13.22 12.95 12.95 12.95 12.97 10.13 9.84 9.51 8.64 5.76	Detroit Baltimore Salt Lake City Denver Jersey City Paterson Yonkers Minneapolis Morfolk New Bedford Des Moines Washington Trenton Kansas City, Kan. Fall River Oakland Reading Omaha Richmond Nashville Cambridge Atlanta Columbus Lowell Birminghum	\$63.84 45.91 40.34 33.34 32.86 31.94 28.47 23.82 17.88 11.72 8.72 8.72 8.73 5.57 5.57 5.51 4.49 3.00 2.39 2.28 2.06 1.76 68 58
Median	19.366	Mean	14.989
Median	13.22	Median	6.69

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TABLE IV.

A COMPARISON OF THE COST FOR OUTLAY PER PUPIL IN AVERAGE DAILY ATTENDANCE UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES.

OF THE UNITED STATES OF 100,000 POPULATION AND OVER
FOR THE SCHOOL YEAR 1920 - 1921, WITH FIGURES FOR THE
INDIVIDUAL CITIES.

MULTIPLE	CONTROL	UNITARY CONTROL	4
Indianapolis Dayton Toledo Grand Rapids Youngstown Cleveland Los Angeles Newark Chicago Portland Boston Scranton Milwaukee New Orleans Spokane Worcester Bridgeport St. Louis Seattle Philadelphia Providence Louisville San Antonio	\$90.98 84.66 40.78 36.15 34.56 32.68 29.05 24.39 22.41 17.75 15.73 15.60 15.54 14.49 12.52 11.84 11.13 9.56 7.07	Detroit Baltimore Salt Lake City Denver Paterson Jersey City Yonkers Minneapolis Morfolk Mew Bedford Des Moines Washington Trenton Kansas City, Kan. Oakland Fall River Reading Omaha Richmond Atlanta Mashville Cambridge Columbus Lowell Birmingham	\$82.74 56.35 47.86 44.12 40.94 39.74 33.83 29.17 19.96 12.95 10.44 10.02 8.31 7.06 6.52 6.11 4.61 3.63 3.12 3.03 2.79 2.36 2.00 83 68
Hean	23.483	llean	19.166
Modian	15.60	Median	8.33

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TABLE V'a.

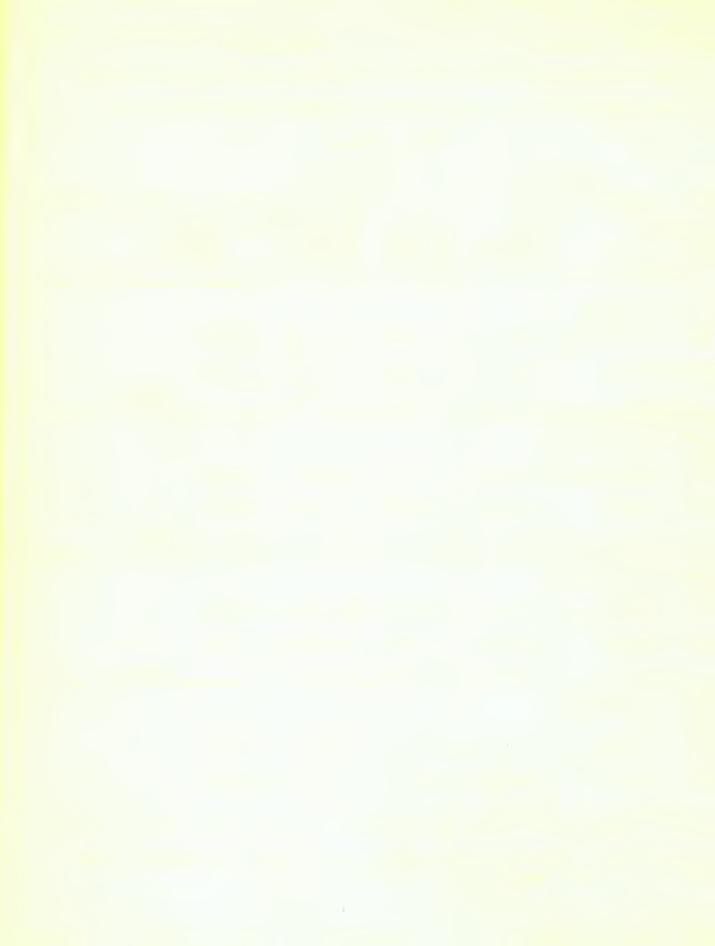
A COMPARISON OF THE COT OF EDUCATION ON A FER PUPIL BASIS UNDER MUL-TIPLE COMERCI. AND UNITER UNITERY CONTROL IN CITIES OF THE UNIT-ED STATES OF 100,000 DOPULATION AND OVER FOR THE SCHOOL YEAR

1920 - 1921.*

PER PUPIL COSTS OF EDUCATION.

MEASUR'S A'D BASIS OF CAL- CULATION.	Under Tultiple Control	Under Unitary Control	DUFFURDACE Multiple Control	Unitary Control
Mean Cost Figur- ed on Enrollment a. For Maintenance	\$ 74.79	\$ 68.56	\$ 00.00	6.23
b. For Outley	19.37	14.99	00.00	4.38
Total	\$ 94.16	\$ 83.55	\$ 00.00	\$10.51
Mean Cost Figured on Av. Daily Attendance. a. For Maintenance		\$ 82.14	\$ 00.00	9.99
b. For Outlay	23.48	19.17	00.00	4.51
Total	\$115.61	\$101.31	\$ 00.00	\$14.30
Median Oost Figured On Anrollment a. For Maintename	74.23	67.10	\$ 00.00	7.13
b. For Outley	13.22	6.69	00.00	6.53
Total	87.45	73.79	00.00	\$13. 66
Median Cost Figures on Av. Daily Attent anco.				
a. For Maintenance	90.85	\$ 83.11	\$ 00.00	B7.74
b. For Outley	15.60	8.31	00.00	7.29
To tal	106.45	91.42	₿ 00.00.	\$15.03

^{*} Seventy-five percent of the cities sent complete replies; eleven percent sent incomplete, and fourteen percent none.



A COMPARISON OF THE COST OF EDUCATION ON A PIR PUPIL BASIS UNDER MULTIPLE CONTROL AND UNDER UNITARY

CONTROL IN CITIES OF THE UNITED STATES OF

100,000 POPULATION AND OVER FOR THE SCHOOL

YEAR 1920 - 1921.*

PER PUPIL COSTS OF EDUCATION.

MEASURE AND BASIS OF CALCULATION	Uncor Multiple Control	Under Unibery Control	Difference initiple Control	
Mean Cost Figur- ed On Enrollment a. For Maintenance	\$ 74.77	\$ 68.82	\$ 00.00	\$ 5.95
b. For Outlay	18.97 \$ 93.74	14.59 \$ 83.41	\$ 00.00	4.38 \$10.33
Total	9 900 12	9 000-5%	9 00000	
Mean Cost Figur- ed On Av. Daily Attendence		Property designation of the Control		definition of the state of the
a. For Maintnance	\$ 91193 -	\$ 82.03	\$ 00.00	\$ 9.90
b. For Outlay	83.88	18.42	00.00	4.46
	\$114.81	\$2.00.45	14 00 00	\$14.36

Based upon enswers from eighty-four percent of the cities of the United States of 100,000 population and over. Fifty-seven of the sixty-eight cities are included, twenty-six having multiple and thirty-one having unitary executive control.

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TABLE VI.

A COMPARISON OF THE COST OF EDUCATION UPON A PER PUPIL BASIS UNDER MULTIPLE CONTROL AND UNDER UNITARY COMEROL IN CITIES OF THE UNITED STATES WITH FROM
25,000 TO 100,000 POPULATION FOR THE
SCHOOL YEAR 1920 - 1921.**

PER PUPIL COSTS OF EDUCATION.

HEASURE AND BASIS OF CAL- OLIAPPOH.	Under Hultiple Control	Under Unitary Control	Difference Maltiple Control	os in favor of Unitary Control
Hean Cost Fig- ured on Enrol- lment a. For Heintenance b. For Cutley	\$ 72.45 19.99 \$ 92.44	\$67.78 18.61 86.39	\$ 00.00 00.00	\$ 4.67 1.38 \$ 6.05
Hean Cost Fig- ured on Aver. Daily Attendance. a. For Haintenance b. For Outlay	\$ 91.29 25.19 \$116.48	\$ 81.12 22.27 \$103.59	\$ 00.00 00.00 \$ 00.00	\$10.17 2.92 \$13.09

^{*} Based upon eighty-nine roplies to our questionnaire.

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TABLE VII.

A COMPARISON OF THE MEAN COSTS OF EDUCATION PER PUPIL
IN AVERAGE DAILY ATTENDNACE UNDER MULTIPLE EXECUTIVE
CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES
OF THE UNITED STATES OF 100,000 POPULATION AND OVER
FOR THE SCHOOL YEAR 1917 - 1918.*

WANTED IN	Unitary	Multiple	Difference
Outlay	\$ 6.88	\$ 9.88	\$3.00
General Control	1.65	2.50	•85
Instruction	39.22	42.07	2.85
Operation of Plant	6.52	6.68	.16
Maintenance	2.25	2.78	.53
Int. on Debt, etc.	2.69	4.22	1.53
Auxiliary Agencies	.99	1.32	<u>.33</u>
To tals	\$60.20	\$69 .45	\$9.25

^{*} Based upon data from Bonner, H. R., "Statistics of City School Systems". U. S. Bureau of Education, Bulletin 1920, Number 24.

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CHAPTER III.

MEASURES OF QUALITY.

The measurement of quality in the school systems studied has necessarily been very limited. Only a complete
survey could do justice to the individual cities. But
percent of attendance and holding power may give us an idea
of the quality.

With this in mind tables VIII to XII, pages 22 to 26 were compiled from the data furnished by the questionnaires. Tables VIII, IX, and X give the percent of attendnace for the two groups of cities, the multiple and the unitary.

Tables XI and XII give the holding power of the high school.

It is seen from these tables that in both the mean and the median percents, the cities having unitary executive control have somewhat better attendance. Likewise it is seen that in both the mean percent and the median percent the cities having unitary control have a little better holding power. This is more evident in the median percents, the median percent being fourteen and forty hundredths (14.40%) for the group having unitary control, and thirteen and fourteen hundredths (13.14%) for the group having multiple control.

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TABLE VIII.

A COMPARISON OF THE PERCENT OF ATTENDANCE UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES OF THE UNITED STATES OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR 1920 - 1921. WITH PERCENTAGES FOR THE INDIVIDUAL CITIES.

MULTIPLE CONTROL		UNITARY CONTROL		
Cleveland St. Louis Philadelphia Indianapolis New Orleans Dayton Worcester Bridgeport Grand Rapids Scranton Providence Milwaukee Boston Chicago San Antonio Spokane Youngstown Louisville Portland Toledo Newark San Francisco Los Angeles	92.08% 90.32 89.07 88.76 88.17 85.68 85.58 85.44 84.91 84.72 83.91 83.14 82.31 81.55 80.79 79.17 78.73 77.76 77.68 75.23 73.86 69.47 56.55	Wilmington Reading Akron Atlanta Fall River New Bedford Norfolk Columbus Cambridge Birmingham Oakland Salt Lake City Yonkers Des Moines Rochester Washington Lowell Jersey City Omaha Nashville Minnoapolis Baltimore Kansas City, Kan. Trenton Buffalo Paterson	98.04% 97.43 95.95 94.06 91.18 90.48 89.57 88.05 86.87 84.53 84.29 84.16 83.58 82.89 82.21 82.75 82.68 82.61 81.95 81.66 81.49 81.10 80.49 80.37 78.02	
		Detroit Richmond	78.02 77.16 76.66	
9.0.		Denver Fort Worth	75.57 75.45	
Mean	81.51	Mean	84.58	
Median	82.73	Modian	82.85	

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TABLE IX.

A COMPARISON OF THE PERCENT OF ATTENDANCE UNDER MILTIPLE CONTROL AND UNDER UNITARY CONTROL IN CITIES OF
THE UNITED STATES OF 100,000 POPULATION AND OVER
FOR THE SCHOOL YEAR 1920 - 1921.*

PERCENT TOTAL AVELAGE DAILY ATTENDANCE IS OF TOTAL ENROLLHEIT.

DEASURE OF RENOEME OF ATTHEORY	Under Italtiple Control	Under Unitary Control	Difference Instiple Control	es in favor of Unitary Control
Hean Percent	81.51	84.58	00.00	3.07
liedian Percent	82.73	82.85	00.00	.12

^{*} Based upon data from eighty percent of the cities of the United States having 100,000 population or over.

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TABLE X.

A COMPARISON OF THE PERCENT OF ATTEMPT CR UNDER MULTIPLE CONTROL AND UNDER UNITARY CONTROL
IN CITIES OF THE UNITED STATES WITH FROM
25,000 TO 100,000 POPULATION FOR THE
SCHOOL YEAR 1920 - 1921.**

PERCENT OF ATTENDANCE.

Under Eviliple Control	Under Unitery Control	Difference in Fever of Lultiple Unitary Control Control		
79.36%	83.55%	0.00%	4.19%	

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Based apon eighty-nine replies to our questionnaire.

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TABLE XI.

A COMPARISON OF THE HOLDING POWER OF THE HIGH SCHOOL UNDER MULTIPLE EXECUTIVE CONTROL AND UNDER UNITARY EXECUTIVE CONTROL IN CITIES OF THE UNITED STATES OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR 1920 - 1921, "ITH FIGURES FOR THE INDIVIDUAL CITIES.

MULTIPLE CO	HTROL	UNITARY CONTROL			
Spokane Seattle Portland Grand Rapids Los Angeles San Antonio Indianapolis Day ton Boston San Francisco Worcester Louisville Toledo Milwaukee Youngstown Bridgeport Cleveland Providence St. Louis Scranton Philadelphia Newark Chicago New Orleans	20.57% 20.24 20.01 19.19 18.35 17.08 16.05 15.33 14.98 14.56 14.38 14.00 12.28 11.78 11.36 11.12 11.07 10.89 10.76 10.45 9.45 8.95 8.56 6.10	Des Moines Minneapolis Fort Worth Paterson Columbus Cambridge Denver Omaha Oakland Washington Akron Atlanta Birmingham Wilmington Salt Lake City Lowell Norfolk Buffalo Reading Detroit Kansas City, Kan. Yonkers Mashville Fall River Rochester	21.37% 18.65 18.03 18.02 17.31 16.86 16.67 15.80 15.38 15.29 16.05 14.48 14.48 14.48 14.59 12.59 12.54 11.67 11.55 11.05 10.01 9.31 8.98		
		Rochester Baltimore New Bedford Trenton	8.98 8.17 6.10 6.06		
Mean	13.644	Hean	13.764		
Median	13.14	Median	14.400		

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TABLE XII.

A COMPARISON OF THE HOLDING PO'ER OF THE HICH SCHOOL UNDER MULTIPLE CONTROL AND UNDER UNITARY CONTROL IN CITIES OF THE UNITED STATES OF 100,000 POPULATION AND OVER FOR THE SCHOOL YEAR 1920 - 1921.*

PERCENT AVERAGE DAILY ATTENDANCE OF THE HIGH SCHOOL IS OF THE TOTAL AVERAGE DAILY ATTENDANCE.

MEASURE OF HOLDING POWER	Under Ableiple Control	Under Unitary Control	Difference Eultiple Control	os in favor of Unitery Control
llean Percent	13.64	13.76	00.00	.12
Median Percent	13.14	14.40	00.00	1.26

^{*} Based upon data from eighty percent of the cities of the United States of 100,000 population and over.

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CHAPTER IV.

CONCLUSION.

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There can be little doubt that the cost of education under multiple executive control is greater than that under unitary executive control. In not one instance was there a penny in favor of the multiple group no matter what the year or what the size of the group. The year 1917 - 1918 gave results similar to the year 1920 - 1921. The cities between twenty-five thousand and one hundred thousand population gave results similar to those for the larger cities.

ARMED SHE VEGS COM-

Even in the few measures of quality that it was possible to get, the cities having unitary executive control in every case surpassed the cities having multiple executive control.

The great cost of multiple control is better understood if per pupil costs are translated into total amounts spent. There are close to ten million boys and girls in the city schools in our country. (In 1917 there were over eight and one half million pupils enrolled in the city public schools.) For the fiscal year ending 1921 the cost per pupil enrolled was over ten dollars greater in cities having multiple control than in those having unitary control. (\$10.61, mean; \$13.66 median; table V, page 17.) If all cities were to have multiple or divided executive control of their school systems, it would

Statistical Division, Bureau of Education, Statistics of City School Systems 1917-18, Gov't. Print. Office, Washington, 1920, page 17.

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seem that the additional cost would run into hundreds of millions.

The cities having multiple control are violating the best principles of educational administration laid down by our most outstanding educators. They are violating the principles of efficient business administration and the best principles of public administration. Yet from a careful study of the facts herein prosented no justification for such violation can be found. Multiple executive control of school systems seems to be expensive and inefficient. It certainly is not justified by any of the facts brought out.

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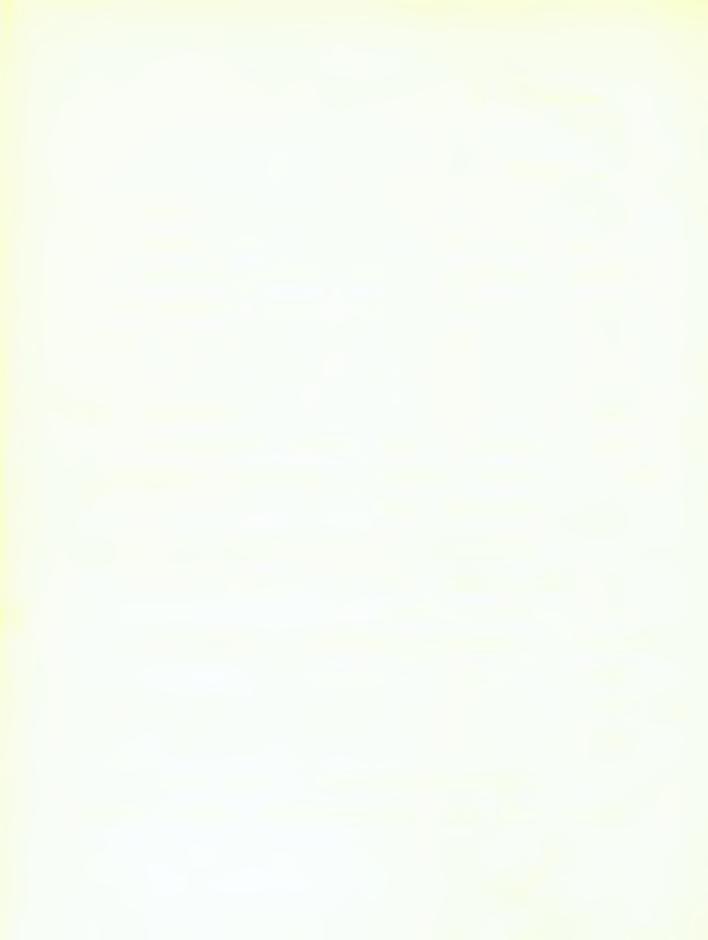


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 Minneapolis, Montclair, Newburgh, New York City, Oakland,
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