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A Choice of a New Funding Formula

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October, 2008

Abstract

This report examines the fiscal neutrality of three funding formulas that have been proposed to replace of the current funding formula for Oklahoma's common schools in an attempt to have greater equity in the distribution of funds to the various districts. Using data from SY-03 to SY-07, calculations of state aid for the 540- districts and fiscal neutrality were made for the three proposed formulas and the current funding formula excluding transportation dollars in all scenarios based on the actual tax collections for each district and repeated calculations based upon the potential of each formula. The results indicated that while one formula consistently outperformed the other formulas, there was not an important difference in the ability of any of the formulas.

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Introduction

In the wake of a lawsuit filed against the State of Oklahoma by the OEA to have adequate funding in Oklahoma's common schools, the state legislature passed and the governor signed SB-925 during the 2007 legislative session. This bill created a task force to take a look at the present Oklahoma funding formula for public schools. This committee is comprised of eight members including educators and business people appointed by the governor and legislative leaders.

The lawsuit in 2007 by the OEA and three (3) school districts was the latest effort by part of the school community to get the needed funding for the school children in Oklahoma. Oklahoma ranks at or near the bottom in per pupil funding due to several acts by the state legislature that have reduced taxes in a low tax state and because of state constitutional provisions that limit the rise of property taxes and the ability of the state legislature to raise taxes (Neal, 2007).

A study was conducted by Augenblick, Palaich and Associates (2005), an education consulting firm in Denver, at the request of the Oklahoma Legislature during the 2004-05 legislative session. The results indicated that the Oklahoma public school system was underfunded by about $1 billion. Yet, the legislative agenda to cut taxes continued (Greiner & Monk, 2006) At present, the reduction in taxes that has taken place is estimated to be around $700 million.

In times of short money supplies, the need for equity in the distribution of funds becomes evident. Each district has needs. Each district wants as much money as possible so the district can provide the educational services to their patrons that are necessary and required. With the limitations placed on the manipulation of taxes and the unwillingness of state legislators to raise the necessary taxes to adequately fund the public schools, the only avenue left for the legislature is to see if the limited funds are being distributed as equally as possible. Thus, one procedure that will address the funding issue is to create a committee to look at how the state distributes the money to the various school districts.

Definition of Terms

***Fiscal neutrality*:** The wealth of the state, as a whole, must be behind every student (Monk, 1990). Such a situation occurs when there is little or no correlation between the ability of a district to raise revenue for education and the total amount of revenue raised from all sources. For this study, two measures of fiscal neutrality will be used.

First, fiscal neutrality will be defined as an inverse relationship between district wealth and the amount of money that can be appropriated by the state to fund a district's educational program. A perfect inverse relationship would be a correlation of a negative one (–1) which means that the state sends more money to the poorer districts than the rich districts based upon the ability of a district to support its public schools.

Second, fiscal neutrality will be defined as the difference in total generated dollar amounts per pupil between the highest and lowest funded districts after the top 10% and the bottom 10%

of the districts have been removed from a rank ordered list of districts based on dollar amounts per pupil.

***Per-pupil revenue*:** The total dollars available divided by the Weighted Average Daily Attendance of a school district.

***ADA* or *Average Daily Attendance*:** The total number of days attended by all students divided by the number of school days in a year.

***WADM* or *Weighted Average Daily Membership*:** Weights given to students whose special circumstances require greater number of dollars to educate as well as weights given to districts based on specific criteria which requires a district to expend more money to operate its educational program.

***District Wealth*:** The product of the total net assessed valuation of a school district time 35 mills plus a district's total State Dedicated funds per WADM.

***Recapture*:** A method used in school funding formulas that creates negative state aid (Monk, 1990, p. 199). This provision requires districts whose local revenue is more than necessary to send the excess to the state for redistribution to other districts; otherwise, the district receives no state aid and keeps the excess for their own district.

Current Situation

Lloyd Snow, Superintendent of Sand Springs Public Schools (Personal Communication, November 26, 2007) indicated that the committee to look at the state funding formula formed, met and was instructed on how the funding formula works and on the weights given to the various student groupings and other aspects of school districts including the experience and educational level of the teachers as well as the size and/or isolation of a school district. Two items of interest were provided to the committee. One was the expansion of the teacher weights from 16 to 26 levels of experience. The other was the introduction of three simplified choices of the basic funding formula.

Shawn Hime, the then Assistant State Superintendent for the Oklahoma State Department of Education, provided the three choices for a new basic funding formula. (Copies of the three (3) proposed formulas are attached. See attachments C, D, and E) A mathematical analysis of the three new options and the present formula were performed.

The result of this analysis (Attachment A) provided two actual choices among the four formulas. Option A and Option B are equivalent formulas and Option C and the present formula are equivalent formulas.

In a past study of the Oklahoma funding formula, it was discovered that if all the available dollars were placed in only one section of the present funding formula, the Foundation Aid section has the potential to provide the greater equity in the Restricted Range statistic while The Incentive Aid section has the potential to provide the greater correlation coefficient. (Hancock, 2006) The greater correlation by the Incentive Aid section had more to do with the definition of District Wealth. Since the major area of concern with school districts is a dollar amount and the Foundation Aid section seems to provide the greater equity in actual dollars, thus the District

Wealth for this study is being defined more in line with the criteria of the ability of a district to support itself as calculated in the Foundation Aid section.

One of the concerns of the present formula has been with the Incentive Aid section. As mentioned, the weak link of the present funding formula as far as the distribution of actual dollars has been found in this section of the formula. This section has seemed to only equalize one mill instead of the 20 mills that it shows in the formula because of the subtraction of only one mill from the guaranteed amount of dollars times WADM.

The methodology of determining factors for each section of the funding formula was to calculate the section's formula backwards to arrive at the section's factor for use in the guaranteed portion. With the re-arranging of the formula as shown in Option C and calculating the formula backwards with the same amount of money provide in the present formula, the result of the factor for Option C is always 20 times the amount of the present formula. Then when applying the statistical measures to determine equity, both Option C and the current formula produce identical results. The chart below demonstrates these findings.

Chart 1: Comparison of Option C and Current Formula Selected Statistics

Current Formula	**2003**	**2004**	**2005**	**2006**	**2007**
Foundation Aid Factor =	1290.00	1354.00	1365.00	1463.00	1501.00
Incentive Aid Factor =	60.02	63.42	63.74	70.06	70.93
r =	-0.931	-0.927	-0.893	-0.879	-0.872
N =	541	541	540	540	539
Fisher's Z =	-1.665	-1.639	-1.435	-1.372	-1.34
t =	-59.13	-57.54	-45.95	-42.81	-41.24
Restricted Range =	207	202	242	289	276
Option C					
Foundation Aid Factor =	1290.00	1354.00	1365.00	1463.00	1501.00
Incentive Aid Factor =	1200.40	1268.40	1274.20	1401.20	1418.60
r =	-0.931	-0.927	-0.893	-0.879	-0.872
Fisher's Z =	-1.665	-1.639	-1.435	-1.372	-1.34
t =	-59.13	-57.54	-45.95	-42.81	-41.24
Restricted Range =	207	202	242	289	276

Problem Statement

There are two problems that face the state of Oklahoma in the area of a school funding formula. The first problem is finding a funding formula that will provide total equity for all the students. The second problem is determining which of these formulas can provide the greater level of equity. This study should add to the search for the "prefect" formula. However, this study is not designed to accomplish that task per se. This study is designed to look at the best possible equalizing formula that has been presented to this task force.

In light of that challenge, this study will look at two options. Since Option A and Option B are equivalent, these options will be labeled Formula One. Since Option C and the current formula are equivalent, these options will be labeled Formula 2.

Thus, the question becomes which of the two formulas can provide the greater equity?

Hypotheses

Due to the structure of the formulas and in light of the research and theories of equalizing formulas, it is concluded that 1) both formulas are fiscally neutral, and that 2) while there is not much difference in the ability of either formula to provide fiscal neutrality that 3) Formula 1 should outperform Formula 2. Thus:

Ho1: There is no relationship between district wealth per pupil and simulated state appropriated funds per pupil provided by either of the proposed formulas.

Ho1.1: $r_{F1\text{-}03} = 0$ Ho1.6: $r_{F2\text{-}03} = 0$
Ho1.2: $r_{F1\text{-}04} = 0$ Ho1.7: $r_{F2\text{-}04} = 0$
Ho1.3: $r_{F1\text{-}05} = 0$ Ho1.8: $r_{F2\text{-}05} = 0$
Ho1.4: $r_{F1\text{-}06} = 0$ Ho1.9: $r_{F2\text{-}06} = 0$
Ho1.5: $r_{F1\text{-}07} = 0$ Ho1.10: $r_{F2\text{-}07} = 0$

Ho2: There is no difference in the level of equity produced by Formula 1 and what was produced by Formula during the five (5) years of this study.

Ho 2.1: $r_{F1\text{-}03} = r_{F2\text{-}03}$
Ho 2.2: $r_{F1\text{-}04} = r_{F2\text{-}04}$
Ho 2.3: $r_{F1\text{-}05} = r_{F2\text{-}05}$
Ho 2.4: $r_{F1\text{-}06} = r_{F2\text{-}06}$
Ho 2.5: $r_{F1\text{-}07} = r_{F2\text{-}07}$

The Oklahoma Formula

The formula that is being used today, with a few minor adjustments, was adopted by the state legislature in 1981 in HB 1236. It is divided into two main sections: Foundation Aid and Salary Incentive Aid. The third portion of the formula deals with transportation and is thought to be equitable to the districts based upon a districts obligation with regards to the number of students being transported and the area of a district's transportation boundary.

The intent of the legislature in 1981 was "to provide an equitable funding formula [that would] guarantee an adequate and equitable educational program" (p. 1233) for the children in Oklahoma while the Oklahoma Constitution only requires the legislature to "establish and maintain a system of free public schools wherein all the children of the State may be educated." (Section XIII-1)

In a 1980 preview study of this funding formula, Owens concluded that the basic formula that is used today would provide greater equity than the previous formula.

In 1983, the state legislature requested a study to be done by Augenblick and McGuire to assess and suggest modifications for the state school finance system as established in HB 1236. They assumed that revenue per-weighted-pupil should be similar across districts and the relationship between district wealth and per-pupil revenue should be low. They concluded that the new system was an improvement over the previous formula.

In 1990, another study was done to measure the equity of the present system over an eight (8) year period (Hancock). Prior to HB 1017, many school districts were petitioning the legislature for a more equitable funding mechanism and one group brought suit against the state for inequitable treatment. According to Hancock, a more equitable manner of funding would be to

eliminate the Salary Incentive Aid section and only use the Foundation Aid section. However, with the passage of HB 1017, more than $200 million dollars were added to fund the public schools of Oklahoma. With the new money and the legislature putting most of the common school allotment into the formula, the formula was allowed to work and provided greater equity. Thus, the lawsuit was dropped and the urgent need for a change in the formula was satisfied.

In an on-going process of keeping track of the fiscal neutrality of Oklahoma, Hancock has continued to collect data from the state and to calculate the level of equity that the state of Oklahoma provides to the common schools. The following chart shows the results of these studies for the last decade.

Chart 2: Levels of Equity for the Past 10 Years

SY	Restricted Range	r	z*	Standard Error
98	248	-0.676	-0.822	0.043
99	298	-0.737	-0.944	0.043
00	296	-0.786	-1.061	0.043
01	364	-0.869	-1.329	0.043
02	306	-0.869	-1.329	0.043
03	343	-0.812	-1.133	0.043
04	267	-0.792	-1.077	0.043
05	318	-0.793	-1.079	0.043
06	347	-0.812	-1.133	0.043
07	366	-0.763	-1.003	0.043

The fiscal neutrality in each of these years is importantly greater than zero (0), and thus, there is an important relationship between district wealth and state aid, when measured at the .01 level. Thus, in each of these years, the funding formula was distributing state aid in an equitable manner.

In 2006, a study was done (Hancock) in which all of the available money was placed in the various sections of the funding formula to determine which section or if the whole formula would provide the greatest equity. It was determined that the entire formula outperformed both of the two sections when measuring the actual equity in dollar amounts per WADM distributed to the districts.

Methodology

This study is a simulation to determine which of the proposed funding formulas can provide the greater equity or fiscal neutrality in the distribution of funds to the school districts in Oklahoma. This study was divided into three (3) parts. The first part was a mathematical assessment of the formulas to determine congruence. The second part looked at and compared the ability of the formulas to produce equity. The third part looked at the potential of the formulas to provide fiscal neutrality.

Data Collections

The data used for this simulation are from the Annual Report published by the Oklahoma State Department of Education for SY-1999. The data collected were 1) Total Net Valuation, 2) ADA, 3) WADM, and 4) State dedicated funds.

Other data needed for the simulation included: district wealth per pupil, 4 mill county levy, state appropriated aid for district, state appropriated aid per pupil, the Foundation Aid Factor, and the Incentive Aid Guarantee.

The district wealth per pupil was determined by dividing the WADM of a district into the total dollars that could be generated by the 35 mills of a district's total net assessed valuation plus the dollars gained from the State Dedicated funds.

The 4 mill county levy was a simulation calculation. A calculation of the possible levy was made following the same rules that govern the 4 mill county levy. This levy is a flat grant awarded to each district in a county. It is determined by dividing the sum of the 4 mill tax on the total net valuation of a county by the sum of the county's ADA times the ADA of a district. This calculation was made for each district in the state.

A simulated state appropriated aid was calculated for each district in the state. The procedure followed the rules of the state aid formula and the various options.

The state appropriated aid per pupil for each district was determined by dividing the simulated state aid for a district by the WADM of that district.

For the present funding mechanism, the factors used for the Foundation Aid and Incentive Aid sections were the ones stated in the Annual Report for each of the years of the study.

For funding mechanism labeled Option C, the following formula was followed to determine the Foundation Aid Factor (FF) and the Incentive Aid factor (IF):

$$FF = [(AV * 0.015) + (4ML * .75) + SD + SA] / WADM$$

$$IF = [SA + (AV * .020)] / WADM$$

For funding mechanism labeled Option A, the following formula was followed to determine the Foundation Aid Factor (FL):

$$FF = [SA + (AV * 0.035) + SD + (4ML + 0.75)] / WADM$$

For funding mechanism labeled Option B, the following formula was followed to determine the Foundation Aid Factor (FL):

$$FF = [SA + (AV * 0.015) + SD + (4ML + 0.75) + (AV * 0.020] / WADM$$

Where AV = Ad Valorum
4ML = 4 Mill County Levy
SD = State Dedicated Funds
SA = State Appropriated Funds*
WADM = Weighted Average Daily Attendance

* To determine the total state aid and the amounts placed in each of the sections of the formula for the various options and years in the study, the yearly factors for the formulas were used in the calculations. In addition, only the amounts generated by the included districts were used in the calculations.

Assumptions and Limitations

The intent of this study was to look at the *theoretical* ability of the state funding formula under the various proposals. The mere fact that it is a "theoretical" look provides the basic limitation of the study. In practice, there are many circumstances that come into play as to how the formula and fiscal neutrality will be affected. In the first part of this study, the actual local collections of each of the districts were used so as to give a more realist view of what would have occurred during the five (5) years of the study. The second part of the study looked strictly at the possibility of the formulas in a very controlled environment if all taxes were collected for each year and no other income was being included. This simulation provides a better picture of the potential of each of the formulas.

A causal look at the levels of equity reveals that the theoretical outperformed the actual. This action provides the conclusion that the actual level of equity will be lower. Reality will be present when any system might be in place. However, the assumption is that the study does provide insight into how the formula works regardless of the data that is provided from any of the proposed formulas.

Statistical Methods

Two statistical views of fiscal neutrality were used in this study: a Pearson r correlation between district wealth and simulated state appropriations and a restricted range measure of the middle 80% of the school districts as to their simulated state appropriation per pupil. Both of these are acceptable equitable measures (Berne and Stiefel, 1984).

A t-test was calculated to determine if there was an important relationship between district wealth and the simulation of state aid per pupil at the .01 level. The following formula (Horowitz, 1974) was used: $t = (r * SQRT[N– 2]) / SQRT(1 – N^2)$

Further, the r_{xy}, correlation coefficient, was changed to a Fisher's z (z*) statistic using the formula $Z = ½ [\log e (1+r) – \log e(1-r)]$ (Edwards, 1954). This change was made to prepare data for a test of importance of r's at the .01 level of importance.

A test of significance is not required for this study. According to Horowitz (1974), a test of significance is used with samples as a means of drawing inferences about the total population. In this study, the entire population was included. Thus, any differences are significant. However, a transformed r-to-z (Fisher's z) has been used to determine if any differences were important which would give strength to the findings of this study in the area of fiscal neutrality.

The formula used to determine importance at the .01 level is a ratio between the differences of the Fisher's z scores of each set data and the standard deviation with a Z score that is higher than 2.58. The formula that was used is as follows:

$$Z = (Z1 – Z2) / SQRT([1/\{N1 – 3\}] + [1 / \{N2 – 3\}])$$

Process

The first step was to create a spreadsheet with all the required data from all the state school districts: Net Assessed Valuation, WADM, and State Dedicated Funds for each of the five (5) years. Added to this data was the creation of a simulated 4 Mill County Levy for each district.

The second step was to determine the total amount of money that was generated for the entire state and the two sections of the formula, excluding transportation. This was accomplished by calculating the present formula as if the entire state was one large district. This calculation was performed for all five (5) years of the study.

The third step was to determine the Foundation Aid and Incentive Guarantee factors and use them in the calculation of a simulated state aid for each district for each of the four scenarios. This process was described in "Data Collection" section of this paper.

Once the simulated state aid was determined for each scenario, the calculations of District Wealth per pupil and simulated state aid per pupil were performed. This provided the necessary data to calculate a Pearson r for each scenario.

Included in the spreadsheet was a calculation of total dollars from all state sources per pupil for each district. The data was sorted in descending order, thus providing a rank order of each district according to their total dollars per student.

The top 10% total dollars per student districts and the bottom 10% total dollars per student districts were eliminated from the restricted range measure. The total number of districts excluded from the top and bottom were 54 for each year. (The largest number of included districts for this study was 541 and the lowest number was 539.)

At the completion of this process, the steps of calculating the Restricted Range were accomplished again. This time, instead of using the local dollar collections as published in the Annual Report, the amount used for local funding for each of the districts was 35 mills of a district's Ad Valorum and the amount generated by the Four Mill County Levy. This view of the funding formulas looks at the potential of the funding formulas to provide real dollar equity.

The following chart is a compilation of the restricted ranges for the two formulas over the five (5) year period of the study as well as the potential that each formula has.

Chart 3: Restricted Ranges

		Formula 1		**Formula 2**	
SY	**N**	**RR**	**Potential RR**	**RR**	**Potential RR**
'03	541	195	15.52	207	17.37
'04	541	195	16.54	202	18.07
'05	540	205	17.45	242	19.30
'06	540	218	19.15	289	21.16
'07	539	228	19.57	276	21.50

Hypotheses Testing

A Pearson r correlation and a t-test were calculated for Formula 1 and for Formula 2 for each year. The following chart gives the results of these calculations as they are compared to a Pearson r correlation equal to zero (0).

Chart 4: Formula 1 Correlation and t-test Results

Formula 1	r	z*	St Error	t
2003	-0.935	-1.700	0.043	-61.40*
2004	-0.932	-1.677	0.043	-59.90*
2005	-0.896	-1.453	0.043	-46.89*
2006	-0.886	-1.404	0.043	-44.35*
2007	-0.881	-1.380	0.043	-43.17*

(*, p < .01)

Chart 5: Formula 2 Correlation and t-test Results

Formula 2	r	z*	St Error	t
2003	-0.931	-1.665	0.043	-59.13*
2004	-0.927	-1.639	0.043	-57.54*
2005	-0.893	-1.435	0.043	-45.95*
2006	-0.879	-1.372	0.043	-42.81*
2007	-0.872	-1.340	0.043	-41.24*

(*, p < .01)

Each of the following hypotheses were rejected at the .01 level. Each formula is capable of providing a high level of equity.

Ho1.1: $r_{F1\text{-}03} = 0$ Ho1.6: $r_{F2\text{-}03} = 0$
Ho1.2: $r_{F1\text{-}04} = 0$ Ho1.7: $r_{F2\text{-}04} = 0$
Ho1.3: $r_{F1\text{-}05} = 0$ Ho1.8: $r_{F2\text{-}05} = 0$
Ho1.4: $r_{F1\text{-}06} = 0$ Ho1.9: $r_{F2\text{-}06} = 0$
Ho1.5: $r_{F1\text{-}07} = 0$ Ho1.10: $r_{F2\text{-}07} = 0$

The following chart gives the results of the calculations of importance between Formula 1 and Formula 2.

Chart 6: Z test Results between Formula 1 and Formula 2

		Formula 1		Formula 2		
SY	**N**	**r**	**z***	**r**	**z***	**Z**
‘03	541	-0.935	-1.700	-0.931	-1.665	-0.574
‘04	541	-0.932	-1.677	-0.927	-1.639	-0.624
‘05	540	-0.896	-1.453	-0.893	-1.435	-0.295
‘06	540	-0.886	-1.404	-0.879	-1.372	-0.525
‘07	539	-0.881	-1.380	-0.872	-1.340	-0.656

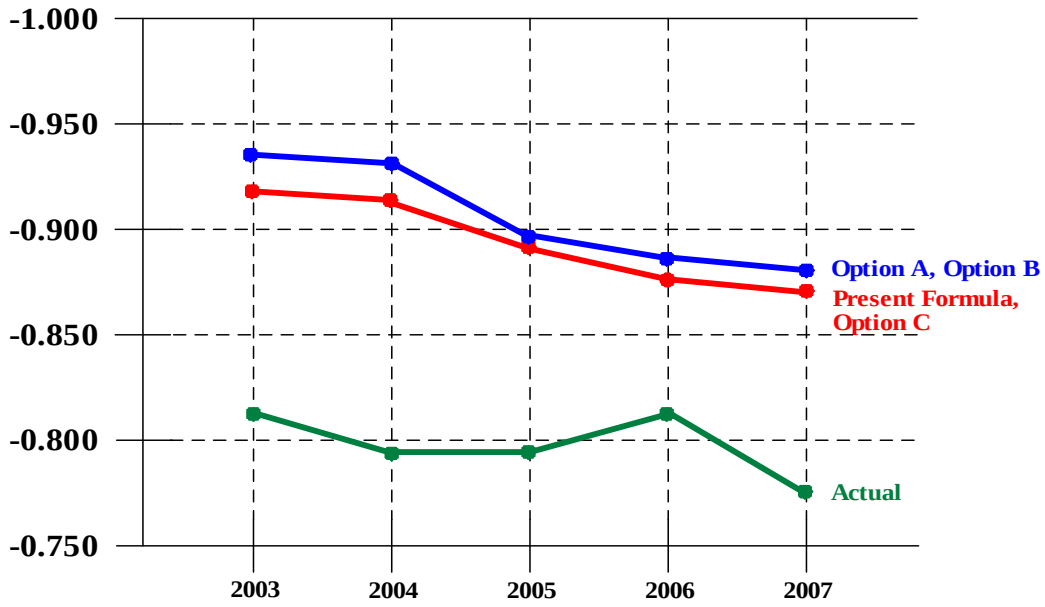
(*, p < .01)

Each of the following hypotheses were accepted at the .01 level. While each formula demonstrated a high ability to equitably fund the school districts, there is not an important difference between the equity ability of Formula 1 and Formula 2.

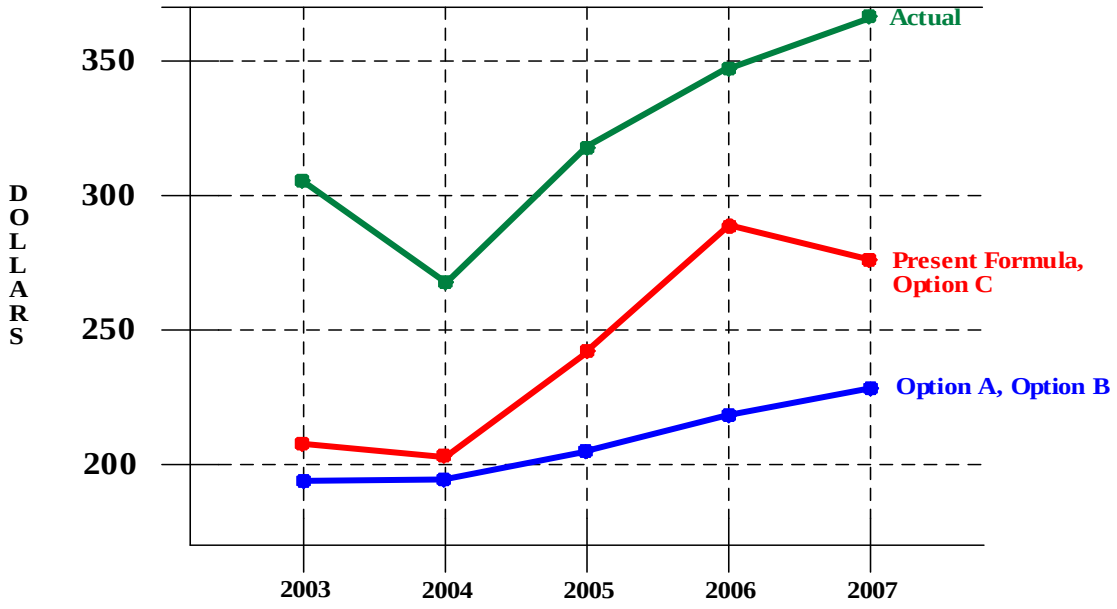
Ho 1: $r_{F1\text{-}03} = r_{F2\text{-}03}$ Ho 4: $r_{F1\text{-}06} = r_{F2\text{-}06}$
Ho 2: $r_{F1\text{-}04} = r_{F2\text{-}04}$ Ho 5: $r_{F1\text{-}07} = r_{F2\text{-}07}$
Ho 3: $r_{F1\text{-}05} = r_{F2\text{-}05}$

The following graphs provide a visual of the differences in the two formula simulations and what actually happened as depicted in Charts 3-5.

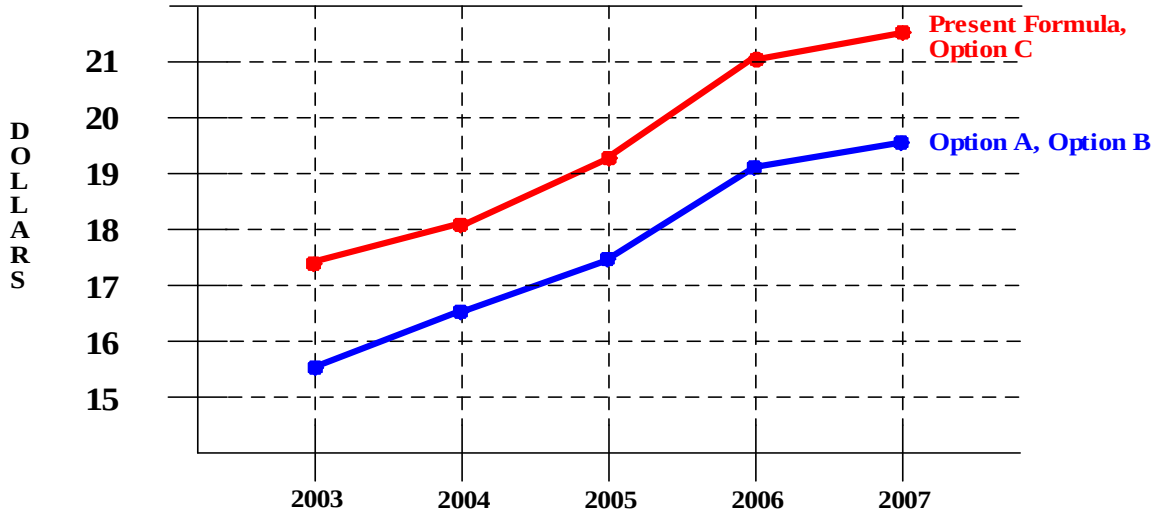
Graph 1: Correlation Coefficients for Proposed Funding Formulas



Graph 2: Restricted Ranges for Proposed Funding Formulas



Graph 3: Potential Restricted Ranges for Proposed Funding Formulas



The Findings

1. In each of the years of the study, there is no important difference in the proposed funding formulas at the .01 level.
2. Because of the use of the entire population, the differences recorded between the formulas are significant.
3. Formula 1 consistently outperformed Formula 2 in both the correlation coefficient and the restricted range calculations in each of the five years of the study.
4. There is an indication that, regardless of the formula and scenario, the equity ability of the formulas continue to weaken as witnessed by both the correlation coefficient and restricted range calculations for each year.

Conclusions & Recommendations

1. The adoption of Formula 1 would provide a more equitable mechanism for funding the schools in Oklahoma.
2. Option B would be the preferable choice for answering Oklahoma Constitutional requirements for the Foundation Aid section of the formula while Option A is the more simple to read and understand. Since both options are equivalent, perhaps a footnote as to how the constitutional provisions are met would be sufficient for the use of Option A.
3. Further study and research needs to be done to help determine why the equity was decreasing during the five years of this study with each of the proposals.

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Attachment A

Mathematical Analysis of Proposed Funding Formulas

The following abbreviations will be used to re-create the various funding formulas:
Weighted Average Daily Attendance = S,
Foundation Aid factor = FF,
Ad Valorum Tax base = AV,
State Dedicated Funds = SD,
Four Mill County Levy = FM,
Incentive Aid factor = IF

Funding formula Option A and Option B are as follows:

Option A, State Aid = (S x FF) – {(AV x .035) + SD + (FM x .75)}*
Option B, State Aid = [(S x FF) – {(AV x .015) + SD + (FM x .75)}] - (AV x .020)
= (S x FF) – (AV x .015) – SD – (FM x .75) – (AV x .020)
= (S x FF) – (AV x .015) – (AV x .020) – SD – (FM x .75)
= (S x FF) – [(AV x .015) + (AV x .020)] – SD – (FM x .75)
= (S x FF) – (AV x .035) – SD – (FM x .75), or
(S x FF) – {(AV x .035) + SD + (FM x .75)}*

Thus, Option A and Option B are equivalent formulas.

The present funding formula is written as follows:
State Aid = [(S x FF) – {(AV x .015) + SD + (FM x .75)}] + [{(S x IF) – (AV x .001)} x 20]

Option C funding formula is written as follows:
State Aid = [(S x FF) – {(AV x .015) + SD + (FM x .75)}] + [(S x IF) – (AV x .020)]

To make a comparison of the Incentive Aid sections, the last parts of the two above formulas will be used. If the same amount of money is placed in the Incentive Aid section of each, then

$$\{(S \times IF) - (AV \times .001)\} \times 20 = (S \times IF) - (AV \times .020)$$

Since the S and AV are constants in each of the two formulas, the solution will be accomplished by comparing the factors or the IFs.

Thus:	(20 x S x IF) – (AV x .020)	=	(S x IF) - (AV x .020)
	+ (AV x .020) + (20 x S x IF) - (AV x .020)	=	(S x IF) - (AV x .020) + (AV x .020)
	20 x S x IF	=	S x IF
Therefore:	20 x IF	=	IF

By placing the same amount of money into each of the formulas and working them backwards to find the factor, the only difference is that the Incentive Aid factor for Option C is always 20 times the Incentive Aid factor for the Present formula. Thus, the two formulas are equivalent which is empirically demonstrated when the calculations for correlation and restricted range are performed.

Attachment C

Attachment B

Current
Oklahoma Funding Formula

FOUNDATION AID

Weighted ADM _____ x Foundation Aid Factor _____ = _____ (1)

SUBTRACT CHARGEABLE INCOME

Adjusted Valuation X 15 Mills: _____ x 0.015 = _____

75% of County 4-Mill Levy _____ x 0.75 = _____

School Land _____

Gross Production _____

Motor Vehicle Collections _____

R.E.A. Tax _____

TOTAL CHARGEABLES TOTAL = _____ (2)

FOUNDATION AID TOTAL (Amount [1] less Amount [2]) = _____ (3)
(Zero if Less Than Zero)

TRANSPORTATION:
(Average Daily Haul x Per Capita x Transportation Factor)

_____ x _____ x 1.39 TOTAL = _____ (4)

SALARY INCENTIVE AID

A. _____ Incentive Aid Factor x _____ = _____
(Weighted ADM)

B. _____ Adjusted District Assesses Valuation / 1000 = _____

C. Step A (-) Step B = _____

Step C x 20 Mills = SALARY INCENTIVE AID = _____ (5)

TOTAL STATE AID (Amounts 3 + 4 + 5) = _____

Attachment C

Option A
Oklahoma Funding Formula

FOUNDATION AID

Weighted ADM _____ x Foundation Aid Factor _____ = _____ (1)

SUBTRACT CHARGEABLE INCOME

Adjusted Valuation X 35 Mills: _____ x 0.035 = _____

75% of County 4-Mill Levy _____ x 0.75 = _____

School Land _____

Gross Production _____

Motor Vehicle Collections _____

R.E.A. Tax _____

TOTAL CHARGEABLES TOTAL = _____ (2)

FOUNDATION AID TOTAL (Amount [1] less Amount [2]) = _____ (3)
(Zero if Less Than Zero)

Attachment D

Option B
Oklahoma Funding Formula

FOUNDATION AID

Weighted ADM _____ x Foundation Aid Factor _____ = _____ (1)

Constitutional Equalization
Adjusted Valuation X 15 Mills: _____ x 0.015 = _____

75% of County 4-Mill Levy _____ x 0.75 = _____

School Land _____

Gross Production _____

Motor Vehicle Collections _____

R.E.A. Tax _____

TOTAL CHARGEABLES TOTAL = _____ (2)

FOUNDATION AID TOTAL (Amount [1] less Amount [2]) = _____ (3)
(Zero if Less Than Zero)

Statutory Equalization
INCENTIVE AID

_____ Adjusted District Assesses Valuation x 20 Mills (.020) = _____ (4)

TOTAL STATE AID (Line 3 minus Line 4) = _____ (5)

Attachment E

Option C
Oklahoma Funding Formula

FOUNDATION AID

Weighted ADM _____ x Foundation Aid Factor _____ = _____ (1)

SUBTRACT CHARGEABLE INCOME

Adjusted Valuation X 15 Mills: _____ x 0.015 = _____

75% of County 4-Mill Levy _____ x 0.75 = _____

School Land _____

Gross Production _____

Motor Vehicle Collections _____

R.E.A. Tax _____

TOTAL CHARGEABLES TOTAL = _____ (2)

FOUNDATION AID TOTAL (Amount [1] less Amount [2]) = _____ (3)
(Zero if Less Than Zero)

INCENTIVE AID

_____ Incentive Aid Factor x _____ = _____ (4)
(Weighted ADM)

_____ Adjusted District Assesses Valuation x 20 mills = _____ (5)

INCENTIVE AID TOTAL (Line 4 minus Line 5**)** = _____ (6)

TOTAL STATE AID (Line 3 plus Line 6) = _____