# Report to the Illinois Financial Advisory Board

**in response to**

**IDOR Foundation Level and Poverty Grant Methodologies**
**(Ref # IDOREDUCRFP)**

**Part I**

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**Task 3 & Task 5**

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**IDOR Foundation Level and Poverty Grant Methodologies**
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## A. Recommendation of Foundation Level for 2001-02

### Introduction

No question is asked more frequently by the General Assembly relative to K-12 finance than the question, "How much is enough?" Since 1927 the legislative body has addressed this question through the concept of a "foundation level". The foundation level is a combined sum of funds raised by both (a) the state government and (b) the local school district expressed in per pupil terms. It is closely linked with a distribution system called the "Strayer-Haig" system in which all school districts in the state are required to levy the same local school tax rate against their respective property valuations to establish the "local share" of the "foundation level". The state then sets the "foundation level" itself and the difference between what the local district can raise and this "foundation level" is the amount of general aid provided to the district. Even when different distribution systems are used other than the Strayer-Haig, the foundation level remains a very important constant in the state grant in aid equations.

Professional educators tend to look at the "foundation level" as the level of funding that should provide a quality education to all pupils in the state. In other words, it should provide an adequate education for a child to function as a participating citizen in a representative system of government. However, others, and there are many of them, view the foundation level as a safety net below which no student's level of educational services will be allowed to drop. It is thus similar to a "minimum wage" or "basic health care" or "employer of last resort" in a system of public welfare. This is often expressed by introducing adjectives in front of the concept so that the debate turns on what constitutes a MINIMUM ADEQUATE foundation level.

Empirical studies in school finance and the politics of education often deride the above discussion of "foundation level" and point out that in the real world these notions play a very small part in the actual setting of the foundation level. That level, they say, is arrived at after, and only after, the amount of increase in funding for K-12 education is agreed to by the political leaders. Thus the foundation level is an artifact or aftermath of the budgetary battles over how much will go to what public services in a given fiscal year. Still even this hard school of real politic agrees that if one can start into the budgetary battles with a well defended and documented foundation level one is apt to emerge from those battles closer to the sum that was being asked for in the first place.

Given this background, the purpose of this study was to explore the adequacy of the foundation level as currently used in the state of Illinois. The concept of adequacy being used here is quite tightly drawn. Over seven decades of practice has accustomed members of the General Assembly to think in terms of dollars and cents and thus we feel this admittedly traditional line of research should be continued

**In order to recommend a foundation level we proposed to perform the following tasks:**

## Task (1)

Plot the foundation level in Illinois against the average per pupil expenditure level in the state over the last 20 years. The gap between these two lines tells one how "firm" or how "soft" the foundation level has been. This gap can also be thought of as the amount of state aid needed to level up the expenditures of the poorer districts. The cost to the state of leveling up to three or four points on the graph will be shown.

## Findings

How much of the cost of education is the state supporting? That is the crux of the issue being examined in this task. By comparing the rise in Illinois' average expenditure per pupil over the last twenty years with the changes in the foundation level during the same period of time we can be establish at least two things: First, is there a pattern to the growth? Second, has the increase in operating expense per pupil been paralleled by a similar increase in the foundation level? (See Figure 1.1)

An examination of Figure 1.1 demonstrates that from 1981 to 1997 there has been a nearly straight line rise in the Average Expenditure Per Pupil (AEPP). Data 1997 to present follow the same pattern but with an upturn in the rate of increase during the last three years (this change of rate of increase will be addressed later in this document). During the entire period from 1981 to 1999 Illinois' Average Expenditure Per Pupil increased from $2654 to $7146. This represents a $4492 increase or 169% over the twenty-year period.

Figure 1.1 also shows that prior to 1997 there was a steady increase in the foundation level, but at a different rate. In essence, the difference between Average Expenditure Per Pupil and the foundation level have grown from $1190 in 1981 to a peak of $3550 in 1997. With the change in the school funding formula that occurred in 1997 the difference between the foundation level the AEPP has been reduced to $2921. (See Figure 1.2)

Because of the change that occurs in the distribution of dollars when the student count in the formula is shifted from Weighted Average Daily Attendance (WADA) to an unweighted Average Daily Attendance (ADA), as it was in 1997, a word of caution needs to be expressed when examining longitudinal data. While the change in the foundation level may appear dramatic in the last few years the actual dollars distributed to school districts has not changed as significantly. While comparative examination of the foundation level can occur, consideration should be given to the changes that occur in total dollar distribution. Those changes are not considered here and are not included in this study.

During the twenty-year period that is the subject of this study the Average Expenditure Per Pupil in Illinois gained an average of $240 per year. (See Figure 1.3) At the same time the average rate of increase in the foundation level has been $99 per year. The difference between the rate of increase in the AEPP and rate of increase in the foundation level represent a shifting of educational costs for local school districts to a source other than the state. This other source has been local and is most likely the property tax.

However, during the last three years, 1997 to present, there has been a different rate of increase for the Average Expenditure Per Pupil (See Figure 1.4). The rate of increase has changed from an average of $240 per year to an average of $433 per year. This raises two questions:

- First, is this a new trend or a temporary break (or blip) in the historical trend?
- Second, do policy makers wish to try to parallel increases in the cost per pupil or maintain the historical practice of the foundation level growing at a rate slower than the cost of Average Expenditure Per Pupil?

These questions will be addressed in our recommendations.

**Task (2)**

Plot the unadjusted foundation level with the foundation level adjusted for cost-of-living in the state over the last 20 years. This will indicate the cost to the state of keeping the foundation level current with the cost-of-living. This is the cost of keeping current with inflation, however, and says nothing about what the foundation should be relative to other factors.

**Findings**

Examining the relationship between changes in the foundation level over time and the impact of inflation places a perspective on the dollars provided to school districts and the degrading of the value of those dollars over time as increases in the foundation level have been provided.

When examining Figure 2.1 two distinct trends are identifiable, the period of time through FY'97 and the period of time since the formula changes enacted in 1997. Because of the change that occurs in the distribution of dollars when student count in the formula is shifted away from Weighted Average Daily Attendance (WADA) to an unweighted Average Daily Attendance (ADA), as it was in 1997, a word of caution has to be expressed about examining longitudinal data. While the change in the foundation level may appear dramatic in the last few years, the actual dollars distributed to school districts has not changed as significantly. While a pure comparative examination of the foundation level can occur, consideration should be given to the changes that occur in total dollar distribution. Those changes are not considered here.

Over the period of time from 1981 to 1997 the actual or unadjusted change in foundation support grew from $1464 to $3132 or a difference of $1668. This represents an unadjusted increase of 114%. Between 1997 and 2001 the foundation grew from $3132 to the current level of $4425 or an increase of $1293, a 41% difference. The overall growth in the foundation level during the last twenty years is from $1464 in 1981 to $4425 in 2001 representing a twenty-year growth of 202% in unadjusted dollars.

Adjusting the growth of the foundation level for inflation during the same period of time presents a somewhat different picture. Between 1981 and 1997 the foundation level growth was $304 or an increase of 17%. The change from 1997 to the current year's $2302 represents a 30% increase. Overall, in the past twenty years the foundation level has changed in inflation adjusted dollars from $1464 to $2302, an increase of 57%. (See Table 2.1)

| TABLE 2.1 Foundation Level Dollar and Percentage Change in Current and Inflation Adjusted Dollars | | | | |
|---|---|---|---|---|
| YEARS | Unadjusted Dollar Change | Unadjusted Percentage Change | Inflation Adjusted Dollar Change | Inflation Adjusted Percentage Change |
| 1981-98 | $1668 | 114% | $304 | 17% |
| 1998-01* | $1293 | 41% | $534 | 30% |
| 1981-01* | $2961 | 202% | $838 | 57% |
| * Formula shifted in student count from WADA to ADA | | | | |

**Task (3) revised 5/15/01**

Plot the foundation level increase in Illinois against the foundation level increase in other selected states. This will indicate the degree to which Illinois has "kept up" with neighboring states.

**Findings**

The report submitted by the Center for the Study of Educational Policy at Illinois State University on Dec.8, 2000 to the Illinois Financial Advisory Board did not contain comparisons of the Illinois foundation level with other states. This omission was caused by the late completion of the 7th edition of Public School Finance Programs of the United States and Canada, a report of the National Center for Educational Statistics. That report has since become available and this revision completes this item.

First it should be noted that simple Foundation Level or Strayer-Haig grant in aid systems continue to decline in popularity with state governments. When the Thomas Liston Johns compiled these state programs in the early 1970s virtually all states used a simple Foundation level grant-in-aid system although there were considerable variations in the model from state to state. At present three neighboring states of Illinois, e.g., Indiana, Michigan, and Wisconsin, no longer use a simple Strayer-Haig system. The increasing complexity of school aid allocation systems makes it extremely difficult to compare foundation levels from state to state.

Legislative bodies in states that have elected to stay with the older school finance model should have some way to compare foundation levels from state to state. In our judgment, the authors identify 20 states can be compared to Illinois in terms of the value of their foundation levels. Reader's of this section should note that some of these states have extensive categorical grants in addition to their equalization grants, and some, by contrast, have very little by way of targeted or special purpose grants in addition to the basic foundation level grant. It is possible to say that those states with a high foundation level are attempting to equalize educational opportunities within their state boundaries more than states with low foundation levels. In some cases it is possible for the state to maintain low foundation levels due to little variation in property values from local district to local district. In other states, and Illinois is one of them, there is enormous variation between local district's property valuation and therefore a much higher foundation level is needed to achieve any kind equalization of educational opportunity.

The comparable 1998-99 Foundation Levels are listed in Table 3.1 below.

| Table 3.1 Foundation Level of States With a Foundation Level Funding Formula | | | |
|---|---|---|---|
| State | Foundation Level | State | Foundation Level |
| New Jersey | $6554 | Massachusetts | $6442 |
| Connecticut | $5775 | Vermont | $5010 |
| Oregon | $4500 | Nebraska | $4311 |
| Colorado | $4305 | Illinois | $4225 |
| New Hampshire | $4220 | Ohio | $3851 |
| Maryland | $3829 | Nevada | $3812 |
| Kansas | $3750 | Minnesota | $3530 |
| Iowa | $3511 | Florida | $3223 |
| Mississippi | $2787 | Arizona | $2523 |
| North Dakota | $2023 | South Carolina | $1879 |
| Utah | $1854 | | |

The geographic pattern is not rigidly distinct but it does seem that eastern states on the whole have higher foundation levels, Middle Western states are also in the middle of the distribution, while southern states and some western states have the lower foundation levels. It should also be noted that these figures are not corrected for cost-of-living differences although the geographic pattern suggest that such a correction might not make a difference since eastern states have high costs of living and southern states have low costs of living.

One consideration emerges: many states have departed from the Strayer-Haig model or foundation level system. It is time to examine the K-12 allocation system in Illinois and decide if the state should remain with this approach to funding schools. The guaranteed tax yield systems in Michigan and Indiana are possibilities as is the two tiered system in Wisconsin. One might also look at the resource cost models in use in Tennessee and Wyoming. None of these systems have a single over-all foundation level.

When comparing the changes in Illinois' foundation level with changes in Iowa (Figure 3.1), the two states appear to have moved their foundation level approximately the same amount over the past two decades, although at different rates. During the period 1981 to 1990 Iowa's foundation level increases outpaced Illinois by $249 or about 27%. By the end of decade of 1990 to 1999 the Illinois foundation level growth had exceeded Iowa by $448. Considering a combination of the two data sets from 1981 to 1999, Illinois foundation level increased $2761 while Iowa's increased by $2562 lagging behind by $199 or less than 1% (See Table 3.2). It should be noted that Iowa has not eliminated the weighting of pupils in its formula.

| Table 3.2 A Comparison of Changes in the Foundation Level in Illinois and Iowa 1981 to 1999 | | | | |
|---|---|---|---|---|
| YEARS | FL Change Ill. | FL Change Iowa | Difference Il - IO | Percent Dif. |
| 1981-1990 | $920 | $1169 | -$249 | -27% |
| 1990-1999 | $1841 | $1393 | $448 | 24% |
| 1981-1999 | $$2761 | $2562 | $199 | >1% |

## Task (4)

Plot the foundation level increase in Illinois against the average expenditure increase in the United States. This is another rough measure of "adequacy" in funding.

## Findings

Comparing Illinois' growth of foundation level to that of the increase of operating expenditures in the United States is an exercise in examining and comparing the rate of growth. The last twenty years has been divided into two decades for purposes of demonstrating the distinct differences in those decades and their compounding effect. (See Figure 4.1)

During the decade of the 1980s the changes in Illinois' foundation level did not compare favorably with the nationwide changes in Average Expenditures Per Pupil. The Illinois state aid funding foundation level increased by $920 while the rise in the United States Average Expenditure Per Pupil was $2470 (See Figure 4.1). This means that expenditures per pupil nationwide was 1.7 times greater than the increase in the Illinois foundation level or $1558 more.

Comparatively the decade of the 1990s is more favorable. Illinois' foundation level growth was $1841while the change in the Average Expenditure Per Pupil nationally was an increase of $1935, putting Illinois behind by only $94 or 5%.

For the entire twenty-year period the Illinois foundation level fell $1652 behind the growth of the Average Expenditure Per Pupil in the United States. The country's AEPP grew by a total of $4431 while the foundation level in Illinois increased by $2761 or 60% of the increase in national Average Expenditure Per Pupil. (See Table 4.1)

Table 4.1 Comparison of Increase in the Average Expenditure Per Pupil (AEPP) in the United States with Increases in the Illinois Foundation Level, 1981 to 1999

| YEAR | Increase in Av. AEPP U.S.A. | Increase in Illinois Foundation Level | Difference: U.S.A. - Illinois | Percentage Difference |
|---|---|---|---|---|
| 1981 to 1990 | $2478 | $920 | $1558 | >170% |
| 1990 to 1999 | $1935 | $1841 | $94 | >5% |
| 1981 to 1999 | $4431 | $2761 | $1652 | >60% |

## Task (5) revised 5/15/01

Plot the average expenditure per pupil gain in Illinois against similar gains in selected states. This is another rough measure of "adequacy".

## Findings

NOTE: The differences in the averages found in Task 1 and the averages used in the comparisons of Task 5 are the results of using two different data bases as sources of information. The findings of Task 1 are based on information from Illinois State Board of Education publications while those in Task 5 are based on data from the National Center for Educational Statistics (NCES). Both sets of data are correct in representing *what is included* in calculating an average by combining a variety of costs in education. The data from NCES are more narrowly defined in order to provide for intrastate comparisons. Thus NCES averages are lower.

The findings in Task (1) demonstrated the cost of the Average Expenditure Per Pupil in Illinois is increasing over twice (2.41 x) the average increases in the foundation level over the last twenty years. This gives rise to the question: Are the increases in the average expenditure per pupil in Illinois abnormal when compared with other states? This question is examined with the two approaches found below.

1) Comparison of Illinois' average expenditure per pupil (AEPP) with five mid-western states in proximity to Illinois. The states are Indiana, Iowa, Michigan, Minnesota, and Wisconsin. (See Table 5.1) The mean column is based only on increases from 1993 to 1998.

2) Comparison of Illinois' average expenditure per pupil with the two states having the highest expenditure per pupil (New Jersey, New York) and the two states having the lowest expenditure per pupil (Mississippi, Utah). (See Table 5.2) The mean column is based only on increases from 1993 to 1998.

As Table 5.1 indicates a mean increase in the Average Expenditure Per Pupil (AEPP) during the period of time 1993 to 1998 of $192 per year. The range of average increases for the six states included in this comparison are a low of $192 (Illinois) to high of $288 (Indiana). This comparison would be a partial indicator of a state's effort (including state and local resources) in funding education over this time.

Table 5.1 Comparison of Illinois' Increase in AEPP with Five Mid-western States 1981 to 1998

| State | 1981 | 1991 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | Mean |
|---|---|---|---|---|---|---|---|---|---|
| Illinois | $2704 | $5520 | $5898 | $5983 | $6136 | $6128 | $6557 | $6858 | $192 |
| Indiana | $2010 | $4930 | $5344 | $5630 | $5826 | $6040 | $6605 | $6786 | $288 |
| Iowa | $2668 | $4679 | $5257 | $5288 | $5483 | $5772 | $6047 | $6295 | $208 |
| Mich. | $3037 | $5883 | $6494 | $6658 | $6994 | $7166 | $7568 | $7717 | $245 |
| Minn. | $2673 | $5239 | $5554 | $5270 | $6000 | $6162 | $6371 | $6795 | $248 |
| Wisc. | $2738 | $5871 | $6475 | $6717 | $6930 | $7094 | $7398 | $7680 | $241 |

Another indicator of a state's effort (including both state and local sources) would be the growth of AEPP over the time period examined (See Table 5.2). While Illinois ranked third in percentage growth for the time period 1981 to1991 it dropped to last place in percentage growth of the AEPP from 1991 to 1998. When the entire period 1981 to 1998 is considered Illinois, Michigan and Minnesota tie for third in the percentage growth of their states AEPP.

| Table 5.2 Percentage Growth in Selected Mid-West State's Average Expenditure Per Pupil 1981 to 1998 | | | |
|---|---|---|---|
| State | Percent Growth 1981 to 1991 | Percent Growth 1991 to 1998 | Percent Growth 1981 to 1998 |
| Illinois | 104% | 24% | 154% |
| Indiana | 145% | 38% | 237% |
| Iowa | 75% | 35% | 136% |
| Mich. | 94% | 31% | 154% |
| Minn. | 96% | 30% | 154% |
| Wisc. | 114% | 31% | 180% |

A second comparison was made with a different selection of states in order to examine whether the above analysis for question 1 was atypical (see Table 5.3). Illinois, when compared with the two states having the highest AEPP and the two states having the lowest AEPP appears next to last in the mean growth of its AEPP for the period of time 1993 to 1998.

| Table 5.3 Comparison of Illinois AEPP with the Two Highest and Two Lowest States 1981 to 1998 | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| State | 1981 | 1991 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | Mean |
| N. J. | $3254 | $8756 | $9415 | $9677 | $9774 | $9955 | $10211 | $10233 | $164 |
| N.Y. | $3741 | $8565 | $8902 | $9175 | $9623 | $9549 | $9658 | $9970 | $214 |
| Illinois | $2704 | $5520 | $5898 | $5983 | $6136 | $6128 | $6557 | $6858 | $192 |
| Miss. | $1605 | $3187 | $3382 | $3660 | $4080 | $4250 | $4312 | $4575 | $239 |
| Utah | $1819 | $2960 | $3180 | $3439 | $3656 | $3867 | $4045 | $4256 | $215 |

A review of the percentage change for this combination of states is shown in Table 5.4. The percentage growth for the AEPP in Illinois ranks fourth in the comparison with New Jersey showing the greatest percentage growth and the state of Utah showing the least.

| Table 5.4 Percentage Growth in Average Expenditure Per Pupil in Illinois and the Two Highest and Lowest States 1981 to 1998 | | | |
|---|---|---|---|
| State | Percent Growth 1981 to 1991 | Percent Growth 1991 to 1998 | Percent Growth 1981 to 1998 |
| N. J. | 169% | 17% | 214% |
| N.Y. | 129% | 16% | 167% |
| Illinois | 104% | 24% | 154% |
| Miss. | 99% | 44% | 185% |
| Utah | 63% | 44% | 134% |

Are the increases in the Average Expenditure Per Pupil in Illinois are abnormal when compared with other states? The mean growth on two different examples demonstrates that Illinois ranks either last (mid-west states) or next to last (two highest and two lowest states). The examination of the percentage growth in the average expenditure shows nearly identical results with Illinois' growth ranking next to last in both examples. The answer to the question is no.

**Task (6)**

Calculate the number of districts and number of pupils in Illinois funded at less than the average expenditure per pupil in a number of poorer states. This is a further dimension in the "adequacy" of funding.

## Findings

Two states were selected, Mississippi and Arizona, for this calculation. Mississippi was selected because its Average Expenditure Per Pupil has consistently been in the lowest quartile of states in AEPP. The FY 00 Average Expenditure Per Pupil for Mississippi was $5590. Arizona was selected for two factors: 1) state support in Arizona ranks last in the United States and 2) Arizona's Average Expenditure Per Pupil typically has ranked in the bottom three in the past decade.

When using Mississippi's AEPP as a cut off point we find that Illinois has 309 school districts whose Average Expenditure Per Pupil is below Mississippi's. These 309 Illinois districts have a total enrollment of 346,469 students.

Utilizing Arizona's AEPP of $4247 is less dramatic. We find that 11 Illinois districts with a total enrollment of 8378 students are below Arizona's AEPP. See Table 6.1 below for a summary.

Table 6.1 Comparison of Mississippi and Arizona Average Expenditure Per Pupil with Illinois Districts Average Expenditure Per Pupil

| STATE/AEPP | Number of Illinois of Districts With AEPP Below | Enrollment of Illinois Districts With AEPP Below |
|---|---|---|
| Mississippi/$5590 | 309 | 346,469 |
| Arizona/$4247 | 11 | 8378 |

## Foundation Level: Summary and Recommendations

### Task (7)

Provide a recommendation for the range of the general state aid foundation level for FY02.

## Findings

The most cogent points in this study that influenced our recommendation for a range in the foundation level are:

1) For the period of 1981 to 1997 there was a trend of an ever-widening gap between the Average Expenditure Per Pupil and the foundation level of the general state aid formula. That gap was narrowed between 1998 and 2001 but whether or not this represents a proportional increase in the percentage of support for the cost of education has not been determined.

2) Regression analysis of the period 1981 to 1997 reveals that the Average Expenditure Per Pupil had increased at an average of $240 per year while the foundation level increased at an average of $99 per year.

3) From 1997 to 2000 the Illinois Average Expenditure Per Pupil grew at an average of $432 per year in Illinois.

4) During the twenty-year period of this study the Average Expenditure Per Pupil in the United States increased by an average of $201 per year.

5) When comparing increase in the foundation level to the rise in the Average Expenditure Per Pupil in the United States the country's AEPP outpaced Illinois foundation level by $1652 or 60% during the period 1981 to 1999.

6) Interstate comparison finds 309 school districts in Illinois with an AEPP below the AEPP in Mississippi. These 309 districts enroll a total of 346,469 students.

The historical trend lines of growth in AEPP at an average $240 per year and growth in the foundation level at average $99 per year had the greatest influence on our recommendations (See Attachments Figure 7.1). By the end of FY02 the Average Expenditure Per Pupil will have increased somewhere between $240 and $432 (the 1997 to 2000 average of growth in AEPP) This will place the Illinois Average Expenditure Per Pupil in a range of $7867 to $8444.

The question before policy makers is whether they wish to follow the historical trend of increasing the foundation level by $99. This decision would make a foundation level of $4524 for FY02. This should be the minimum foundation level considered because in doing so a shift to the local taxpayer of somewhere between $141 and $333 in Average Expenditure Per Pupil for FY02 will most likely occur. If policy makers have a desire to not allow the gap between Illinois Average Expenditure Per Pupil and the foundation level to widen then the following should be considered: adopt a foundation level based on the historical average increase of the AEPP. This would place the upper end of the range for the foundation level to be adopted for FY02 at $4946.

While we recognize that this would represent a tremendous increase in resources we can only repeat the cliché that if we continue to do what has always been done we will continue to get the results that have always been gotten. In this case it would be an ever-decreasing state role in the funding of education.

The range for the foundation level for FY02 that we have identified is as listed below. We calculated the cost for these foundation levels by using $12,000,000 for each $10 increase. These cost estimates are high. We did not offset our estimates with an increase in EAV or changes in pupil count, both of which would lower the cost to the state.

**Minimum: $4524** **Cost Estimate: $118,800,000**

**Optimum: $4946** **Cost Estimate: $625,200,000**

**Our recommendation is that the general state aid foundation level be set as close to the optimum as possible in order to avoid further degradation of the gap between the foundation level and the Average Operating Expense Per Pupil for the State of Illinois.**

## B. Recommendation of Poverty Grant Amounts and More Accurate Measure of Children From Low-Income Families

### Introduction

States compensate local school districts for poverty impaction in two major fashions. Either a weighting for poverty impaction is placed in the general aid formula or a separate categorical grant is operated outside of the general aid with the funds targeted to special populations of students. Occasionally a state will do both. It is generally agreed that districts with heavy impaction of poverty students require considerably more funds than districts that are lightly impacted. However, just how much more funds need to be sent to the poverty areas is in dispute.

In Illinois the percentage of Title I eligible in a school district is the best single predictor of test scores in that district. The relationship is negative as expected; that is, the greater the percentage of Title I eligible in the district the lower the test scores. Sociologists and social psychologists have various explanations for this phenomena but the negative effects of an adverse "school climate" operating largely through peer groups is usually a major factor in this phenomena. Previous research at the Center for the Study of Educational (Finance) Policy, going back to the 1970's, demonstrated that this relationship is curvilinear rather than linear. Small increments in percentage of Title I eligible cause the test scores to drop, although not sharply. This effect is then followed by a range in which increases in Title I eligible seem to have little effect on test scores. Then, at the larger percentages of Title I eligible, i.e., beyond 50 or 60 percent of the entire school population, there is a precipitous drop in test scores. Apparently when students from families in poverty become more than a majority in school, the educational "climate" of those districts changes a great deal. We believe that funds for poverty impaction can be distributed on the basis of this poverty concentration/test result function. We recommend a flat grant modified by a square of the percent of the total population in order to obtain this curvilinear effect.

We have simulated the model and estimated the cost to the state for this proposal. This is a delivery model, that is, it simply gets the money to the places that need the money. It is also very important to spend the funds at the local level in a manner that gets the best results. This later matter, however, requires a much more intensive investigation than could be allotted in the time available here.

### Task

To develop a model for poverty grant distribution and provide a cost for that model.

### Findings

The first question to be resolved is the source of the student count that is to be utilized in determining the poverty grant amounts. Currently the basis for poverty grants is a count provided by the 1990 census. Even though these data are about to be updated (2 years out) a universal expression of changes in student demographics occur much quicker than the census data can represent. Two other alternatives exist: Title I counts and free and reduced lunch counts.

Title I counts are updated more frequently than the census data but adjustments are not made annually with changes that occurs in student populations. So the Title I count offsets to some degree the criticism of the census count but not entirely.

Free and reduced lunch counts adjust annually but currently are not state audited so a question could be raised regarding the reliability of the data provided. This argument could be countered by auditing these counts similar to the audit of ADA. Another problem with the free and reduced lunch data is that the actual count is much higher (approximately 2:1) than both the census and Title I data.

First, we examined for the relationship, if any, between the three different approaches to identifying students who live in poverty. We found that the correlation between census data, Title I counts and free and reduced lunch counts to be a positive .99. In other words, there is a very high relationship between the three data sets. Because of its annual flexibility, we opted to use free and reduced lunch in our poverty grant distribution model.

A frequent criticism of the current model for poverty grants is the cut off at 18%. This eliminates any poverty distribution to school districts that have a concentration below this level. Combined with the step incremental funding level school districts can suddenly receive "windfalls" and "surprise losses" with the change of just a few students.

Taking the above into consideration the following formula was developed and simulated.

**POVERTY GRANT = FACTOR x FL x F & R COUNT**

FACTOR = .03 + .24 (PERCENT FREE AND REDUCED LUNCH)$^2$

FL = FOUNDATION LEVEL

F & R COUNT = FREE AND REDUCED LUNCH COUNT

The salient points of the above formula are:

- It provides 3% of Foundation Level as flat grant to all poverty counts.
- The maximum grant is 27% of Foundation Level for each poverty count.
- The formula student count is based on free and reduced lunch count that can be updated each year.
- The formula is tied to Foundation Level so the grant scales up with foundation level.
- There are no abrupt brackets. It is a continuous formula that will not result in sudden gain or loss of a large amount because of minor changes in pupil counts.

We also would propose that means should be explored to develop counts at the building level and develop a method of calculating and distributing money to the individual school site for determination of expenditure to support of the instructional process. The rationale for this

recommendation is the concept that children in poverty do not distribute themselves equally across a school district. A district with a 15% free and reduced lunch count will most likely have facilities with concentrations of students eligible for the poverty grant at two or three times the district percentage while other schools in the same system may have none. While the proposal to assure the poverty grant allocation "follow the child" directly to the school may seem radical, we would point out that it is not without precedent in Illinois. Title I money in Chicago Public Schools is directed to each school.

In simulating the above formula we found that some districts lost money. This is when calculating only the poverty grant formula. The proposed formula was simulated at both the minimum and optimum foundation levels proposed in Part A (minimum = $4524; optimum $4946). Because of the poverty grant loss to some districts we calculated the amount necessary to keep all districts from losing money in poverty grant only, not in total aid. In all likelihood, these amounts (and number of districts) would be reduced with increases in the foundation level and eliminated over time because of the proposed formula being tied to the foundation level and its future increases.

Table 8.1 Cost of Proposed Poverty Grant at Minimum and Optimum Foundation Levels

| Foundation Level Amount | Cost of Implementation | Number of Districts That Lose $$ | Additional Cost of No Losses in Poverty Grant |
|---|---|---|---|
| $4524 | $353 Million | 165 | $38 Million |
| $4946 | $395 Million | 150 | $32 Million |

## Closing Remarks

The Center for the Study of Educational Policy appreciates having the opportunity to provide these analyses and proposals for your consideration. We would point out that while we have made numerous references to the 1997 change in the state aid formula that eliminated weighting students for purposes of calculating general state aid, we are not advocating a return to the previous student weighting scheme. These references were made only to highlight the changes in the underlying monetary distribution effects when considering only the foundation level in a historical scheme.

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**ATTACHMENTS: FIGURES 1.1 ; 1.2; 1.3; 1.4; 2.1; 3.1; 3.2; 4.1; 4.2; 7.1**