

8-1-1995

Will SEEK Funding Help Bring Equity in Educational Output to Kentucky's School Districts?

William Winfrey
Western Kentucky University

Follow this and additional works at: <http://digitalcommons.wku.edu/theses>



Part of the [Economics Commons](#)

Recommended Citation

Winfrey, William, "Will SEEK Funding Help Bring Equity in Educational Output to Kentucky's School Districts?" (1995). *Masters Theses & Specialist Projects*. Paper 1016.
<http://digitalcommons.wku.edu/theses/1016>

This Thesis is brought to you for free and open access by TopSCHOLAR®. It has been accepted for inclusion in Masters Theses & Specialist Projects by an authorized administrator of TopSCHOLAR®. For more information, please contact connie.foster@wku.edu.

WILL S.E.E.K. FUNDING HELP BRING EQUITY IN EDUCATIONAL
OUTPUT TO KENTUCKY'S SCHOOL DISTRICTS?

A Thesis

Presented to

the Faculty of the Department of Economics

Western Kentucky University

Bowling Green, Kentucky

In Partial Fulfillment

of the Requirements for the Degree

Master of Arts in Economics

by

William Steven Winfrey

August, 1995

WILL S.E.E.K. FUNDING HELP BRING EQUITY IN EDUCATIONAL
OUTPUT TO KENTUCKY'S SCHOOL DISTRICTS?

Date Recommended 5-26-95

Melvin B. Baker
Director of Thesis

[Signature]

Dan Myer

Date Approved 8/21/95

Elmer Gray
Dean, Graduate Studies and Research

TABLE OF CONTENTS

Introduction 1
History of Permanent Public School Funds 2
Pre-K.E.R.A. Funding Procedures 8
Rose v. The Council For Better Education, Inc. . . 11
S.E.E.K. Funding 12
Data 15
Model and Examination of Results 17
Conclusions 22
Endnotes 25
References 26

WILL S.E.E.K. FUNDING HELP BRING EQUITY IN EDUCATIONAL
OUTPUT TO KENTUCKY'S SCHOOL DISTRICTS?

August, 1995

33 Pages

Directed by: Melvin Borland, Daniel Myers, and William
Davis

Department of Economics

Western Kentucky University

The Constitution of the United States gave the individual states the responsibility of providing an adequate minimum education to their citizens. With this responsibility came the additional responsibility of financing the educational process. I will examine the historical thoughts on funding, emphasizing Kentucky, past and present. An ordinary least squares regression analysis will be used to predict the success of the Support Educational Excellence in Kentucky formula. Success is defined as bringing equity of test-based outputs to all school districts. The model and variables are then examined and conclusions drawn concerning the new funding formula.

INTRODUCTION

Nowhere in the Constitution of the United States, the Bill of Rights, nor any subsequent amendments is the right to an adequate minimum education given to the citizens of this country. This omission was not accidental. However, it did not mean that little importance was placed on education. The Tenth Amendment gave all rights not reserved for the Federal Government to the individual states. In this way the states were mandated, either by their constitution or legislation, to see that their citizens be afforded an adequate minimum education. The "equal protection" clause of the Fourteenth Amendment has subsequently been determined by the courts to include all citizens as having the right to an adequate minimum education.

The states also have the responsibility to fund the schools. Issues in educational finance have evolved from the question of merely allowing school districts to tax their citizens to the current questions of equity for all school-age children. In this paper I will attempt to test the hypothesis that the newest funding formula implemented by Kentucky's General Assembly is superior, in terms of equity for all, to the previous procedures. Equity, for the

purpose of this paper, will be examined based on student test scores, not merely equal expenditures.

HISTORY OF PERMANENT PUBLIC SCHOOL FUNDS

The legal responsibility of educating children rests with the state and not the parent. The following discussion on the history of permanent public school funding is based on the work of Swift(1911).¹ The state and/or school district has the right to tax all of its inhabitants for the purpose of educating its school age children. These principles are rarely questioned, but it was not always so. Until the mid-nineteenth century, the only right of the states generally accepted was to grant townships permission to tax themselves. Only after permissive taxation (taxing only property owners with school age children) had existed for a long period of time were compulsory taxation bills enacted. In 1835 Thaddeus Stevens, a Pennsylvania congressman, wrote in defense of compulsory taxation, "This is a sufficient answer to those who deem education a private and not a public duty--who argue that they are willing to educate their own children, but not their neighbor's children."²

Approximately 1870, free public school systems had been established in every state, and these systems had been helped by general public school funds provided by each legislature. Private schools were still the norm because of the stigma of pauperism attached to the acceptance of such

funds by school districts. In many states the permanent funds set aside to draw interest for the use of free public schools were almost immediately diverted to other debts. Kentucky was no exception. By 1905 only twelve states had their original allocations fully intact; in the rest of the states, the funds were either partially or wholly made up of either state debts to the fund or state bonds obligated to it. The situation of Kentucky's fund will be examined in more detail later.

Although not directly linked to education by the Constitution, the Federal Government did help fund state education programs in a variety of ways. The earliest help came with the Ordinance of 1785. The ordinance regulated the handling of federal lands in the western territories as to surveying and sale.

This ordinance, which set aside a portion of all lands sold for educational purposes, may have been instigated somewhat by an interest in education, but probably more important was the need to sell western lands and make westward emigration more attractive. The area of western lands which became Kentucky in 1792 contained none of the federal lands set aside for education.

Additional Congressional acts devoted to aiding public education were for the sale of internal improvement lands in 1841, the sale of saline lands in 1876, and the sale of swamp lands in 1850. Kentucky received none of these proceeds either. The only federal help that Kentucky

received was in the form of the United States Surplus Revenue Loan of 1837. The state had earlier enacted, funded, and lost financing for its public schools.

Kentucky, by legislative act in 1821, set aside one-half of the net profits of the stock held by the state in the Bank of the Commonwealth. This money was called the Literary Fund and was to be maintained for the establishment and support of the general education system. Income from the fund was intended for public common schools. Though records are not detailed, it appears that most of the approximately \$60,000 per year was actually used to meet general budget expenses. One estimate of the fund stated that the principal was completely diverted by 1826.

The state again set up a fund known as the Permanent School Fund in 1838. This fund came from income received from \$850,000 of the U. S. Surplus Revenue Loan which was distributed in 1837 and amounted to approximately \$66,000 per year. Two years later, in 1840, the school funds were again taken by the state and used to liquidate the state debt. By 1843 the entire principal had been used for general budget expenditures. This time the state was acknowledging the debt owed the fund by issuing state school bonds to cover the \$116,000 owed. In 1845 the state school bonds were surrendered and burned in front of witnesses and a new issue sold. In 1848 the state issued another new bond edition of over \$360,000 to cover additional debts owed the fund.

In 1850 Kentucky revised its Constitution. The revised Constitution provided funds for the Common School Fund mostly out of state bonds. The fund was to be maintained exclusively for the purpose of sustaining a system of common schools, and the revenue was to go to no other purpose. This provision did not reinstate the principal which had previously been diverted but did constitutionally acknowledge the state's debt.

This state Common School Fund was managed by the state legislature. A Superintendent of Public Instruction apportioned the revenue from the Fund to school districts based on school population. The money was then paid bimonthly to the superintendents of each school district. The allotted funds were to be spent only for the salaries of legally qualified teachers and the expenses of the Kentucky Department of Education. In order to receive funds each district had to maintain at least one school for a minimum of six months per year, the school had to be taught by qualified teachers, and the school had to be free and open to every child between six and twenty years of age in the district. In 1905 total revenue from all sources for education was about \$2,500,000 with the state accounting for less than six percent of the total.

From the end of the Civil War until the turn of the century, tax-supported education became increasingly commonplace. The rate of growth in the South was slower because of the devastation of the War. By the early 1900's

most children had access to elementary education, although even that varied from three or four months per year to eight or nine. In rural Kentucky quite often no high schools were available, only in urban areas could a full school year be expected for all public school age children.

In the early 1900's, some educators began to espouse equality of education for all school children. Ellwood P. Cubberly, in 1905, gave his view of state responsibility when he wrote:

Theoretically all the children of the state are equally important and are entitled to have the same advantages; practically this can never be quite true. The duty of the state is to secure for all as high a minimum of good instruction as is possible, but not to reduce all to this minimum; to equalize the advantages to all as nearly as can be done with the resources at hand; to place a premium on those local efforts which will enable communities to rise above the legal minimum as far as possible; and to encourage communities to extend their educational energies to new and desirable undertakings.³

He saw that the unequal distribution of wealth among school districts made for unequal educational opportunities unless the state taxed and distributed the funds.

Johns (1972) has reported that "reward for effort" was being pushed by other educators as well.⁴ The concept of a poor district willing to tax its citizens at the same proportional rate as the rich districts being subsidized by the state was beginning to take hold during the first quarter of the twentieth century. This equality of education and reward for effort was mirrored in court decisions regarding public school finance.

During the era when most public school systems were established, the courts generally ruled that, because of Section 1 of the Tenth Amendment, state legislatures had the right to levy taxes for education and to require local districts to tax also. During the nineteenth century, courts seemed more concerned with the legality of levying taxes than with the rights of children to an adequate education. This interpretation continued into the twentieth century. Kern Alexander and K. Forbes Jordan (1972) noted the evolution of court decisions in this century. They observed three generations of court cases.

1. First Generation Cases. The taxpayer was generally contesting a school tax in an attempt to save money. As mentioned earlier, the Tenth Amendment was generally considered to give the states the right to tax at their level and to require local government units to do likewise.

2. Second Generation Cases. Second generation cases maintained that equality of education was the right of a student and should not depend on the wealth of his school district. Two well-known cases exemplify this generation: *Brown v. Board of Education of Topeka* (1954), a U. S. Supreme Court case, in which the desegregation ruling placed emphasis on equality of education for minority groups; and *Serrano v. Priest* (1971), a California court case, in which it was decided that a child's education should not be affected by wealth, except that of the state of residence. The *Serrano v. Priest* case established the

principle of fiscal neutrality; it did not mandate equal dollar expenditures per child in a given state. This decision, and similar ones thereafter, began to emphasize equity instead of equality. Equity is a method of expenditure based on the realization that some pupils require different amounts of funding to achieve the same educational level, while equality is simply a method under which each pupil receives the same amount of funds. Serrano leads directly to the last generation of cases.

3. Third Generation Cases. Third generation cases allege that educational needs differ among subgroups of students and per-pupil costs should vary in order to meet these special needs. This issue was brought up by the much-publicized Illinois case of *McInnis v. Shapiro* (1969) in which the State Supreme Court ruled that courts did not have "the knowledge, nor the means, nor the power to tailor the public moneys to fit the varying needs of...students."⁵ The decision was disappointing to educators. *McInnis* was to be among the last rulings against financing equity, and rulings such as that in Kentucky's *Rose v. Council for Better Education* (1989) became the norm.

PRE-K.E.R.A. FUNDING PROCEDURES

The second generation of cases started Kentucky's attempt at equity of education in 1960. Kentucky's first Minimum Foundation Program was adopted by the legislature and fully financed that year:

The basic structure of the foundation program is simple: the state sets a foundation level and a local tax effort and then pays the difference between the amount of revenue generated at that effort and the amount guaranteed as a foundation.⁶

The initial local requirement for the districts of Kentucky was \$0.30 per \$100 assessed value. The state then provided sufficient additional revenue to bring each district to a minimum level of funding per pupil. All state funds were restricted to specific expenditures. All districts received some funds and total per-pupil funds, based on the minimum, were equal in all districts. Any district could levy additional taxes to fund expenditures above the minimum. In 1966 the legislature gave local districts authority to generate revenue by increasing their taxes, in addition to property, in such areas as occupational license, utility, and state income excise. By 1989, approximately fifty percent of the local districts had levied such permissive taxes.

Just after the Rose decision and prior to restructuring of school finances, approximately eighty-nine percent of

state money spent on elementary and secondary education was distributed through the Minimum Foundation Program (Prichard Committee, 1990). The Program was changed by legislation in 1978 to include a "power equalization" concept of finance.

In 1978 the \$0.30 per \$100 assessed value tax was transferred from the local districts to a state tax. This approach obviously increased the degree of centralization of funding for public schools. The minimum foundation method, although superior to previous methods because it did guarantee some level of state assistance, did not raise the poorer districts to equity with the richer ones, because the state would only fund up to the minimum. Districts could raise local tax rates for additional funds but the property values in the lower property value areas were so low that only negligible new revenues accrued; therefore, the minimum foundation amount was usually the same as the maximum amount in those districts. Because power equalization is generally better accepted in states with a higher percentage of state funding, and because of the lack of success of the basic minimum foundation approach, the new concept became law in 1978.

Power equalization, also known as "district power equalization", "equalized percentage matching", "open-end equalization", and "reward-for-effort", had been proposed in the early twentieth century by Harlan Updergraff (Johns, 1972). The idea was too innovative and was essentially

forgotten until the mid-1900s. The principle of power equalization provides the poorer districts the ability to obtain as much revenue per student as the richer districts.

In Kentucky, initially, a district could receive equalization funds either through increased property taxes or any of three permissive taxes. The poorer property tax districts could receive the equivalent of a \$0.05 tax in the richest district. Unlike the minimum foundation revenue, the funds were not originally tied to specific expenditures, although restrictions were applied in 1986. Also, the richer districts received no state support, even though they had under previous systems of funding. By 1986 the amount required to be levied in order for a district to participate in equalization was \$0.25 per \$100 assessed value or the equivalent. Equalization gave power and flexibility to the local districts which the foundation program did not. As evidenced by 1988 statistics from the Kentucky Department of Education, however, many districts were underutilizing their power, probably because they did not want to make the tax decisions. In the 1988 school year, tax levies ranged from \$1.139 to \$0.238 per \$100 assessed value. About two-thirds of the districts levied less than \$0.40. During the period from 1976 until the Rose decision, local funding became less equal than it had been previously. Because a larger percentage of funds came to the state, there was an overall equalizing effect, but the Prichard Committee stated "On

balance, significant inequality of revenue among districts remains."⁷

ROSE v. THE COUNCIL FOR BETTER EDUCATION, INC.

In 1985 sixty-six of the poorer school districts in Kentucky filed a class action suit against the State Board of Education declaring that the state's school funding was unconstitutional and inadequate because it discriminated against children in property-poor school districts.

The case was first heard in the Franklin Circuit Court by Judge Ray Corns. His decision in favor of the plaintiffs declared that Kentucky's system of financing its common schools violated Section 183 of the state constitution. That section says the General Assembly shall "provide for an efficient system of common schools throughout the state."⁸

Judge Corns' decision was appealed to the State Supreme Court by John Rose, President Pro Tem of the Kentucky Senate. Chief Justice Robert Stephens presided over the case and handed down the decision.

Going beyond Judge Corns' decision, the high court said in its ruling that "the children of the poor and the children of the rich... must be given the same opportunity and access to an adequate education." Additionally, Judge Stephens stated:

In spite of the Minimum Foundation Program and the Power Equalization Program, there are wide variations in financial resources and dispositions thereof which

result in unequal educational opportunities throughout Kentucky. . . .

The achievement test scores in the poorer districts are lower than those in the richer districts and expert opinion clearly established that there is a correlation between those scores and the wealth of the district. .

. .
Lest there be any doubt the result of our decision is that Kentucky's entire system of common schools is unconstitutional.⁹

Without declaring any particular school law to be, in itself, unconstitutional, the court stated that the system as a whole did not provide equality, equity, or adequacy of schooling. It directed the General Assembly to provide the funding to correct the inequities.

S.E.E.K. FUNDING

Support Educational Excellence in Kentucky, or "S.E.E.K.," was the General Assembly's answer to the Supreme Court mandate. Like minimum foundation funding, S.E.E.K. provided a guarantee base level of funding according to average daily attendance, or A.D.A., in each school district. In addition to a base amount per student, four adjustments can be made to bring vertical equity, or pupil weighting, into the formula. Pupil weighting is the method used to allow some student subgroups within a population to be recognized as having higher cost requirements for education.

In the case of S.E.E.K. an adjustment is made for "Home and Hospital" students who, due to illness or injury, cannot attend school and are furnished a teacher to visit them. An adjustment is also made for "At Risk" students. These are students who, based on parents income, are eligible and apply for Kentucky's free lunch program for school-age children.

A "Transportation" adjustment is made to help equalize the cost per district of transporting pupils to and from school. For the most part the poorer districts are rural and the transportation adjustment is an incentive to see

that students in outlying areas of the county are given equal access to buses. The adjustment is simply the previous year's calculated cost of transportation divided by the A.D.A.

The fourth adjustment is the "Exceptional Child" provision, made for students in three different categories, ranging from severe to moderate handicaps. In the severe category, students are included who are trainable mentally handicapped, who are seriously emotionally disturbed and who have multiple and serious physical handicaps. The next category includes students who have moderate learning disabilities, who are visually impaired, who are educable mentally handicapped, or who have multiple handicaps and other moderate mental or physical handicaps. The third category for special education students is for speech/language handicaps.

The adjustments added to the base funding, currently \$2,640 per student, determines the total S.E.E.K. guarantee per pupil per school district. This base is then divided between the required local effort of \$0.30 per \$100 assessed property value with the remaining amount coming from state contribution. Where S.E.E.K. strays from the minimum foundation concept of the past is in its "tier" approach. S.E.E.K. includes 3 tiers, one of which is available for capital construction projects. Tiers 1 and 2 are attainable

by any school district regardless of its financial status. They are based on effort rather than ability.

Tier 1 is any amount up to fifteen percent over the S.E.E.K. guarantee. The tax rate to reach the maximum can be levied without local referendum. The percent the school board decides to levy is funded locally based on the district's assessed value divided by a state evaluation base, which was one hundred fifty percent of the statewide assessed value per A.D.A. in 1992. State contribution then picks up the difference, or equalizes the district's effort to reach the desired level. In 1992, 141 school districts had reached some level above the base guarantee.

Although attainable, tier 2 is based on local tax rates with no state contribution. It is therefore more like the previous reward for effort formula with the lower property value districts unable to reach the level. Tier 2 can be anywhere up to an additional thirty percent over the base guarantee plus the fifteen percent tier 1 funding.

One group of data published by the Kentucky Department of Education since 1985 is the local financial index (detailed later). This index notes a school district's financial effort as a percent of its assessed property. Approximately the top twenty percent of assessed property districts increased their financial index from fifty-seven percent in 1989 to sixty-eight percent in 1992. However approximately the lowest twenty percent assessed property

districts raised their financial index from forty-four percent in 1989 to sixty-six and a half percent in 1992, almost a fifty percent jump. Based on this increased effort, it appears that the poorer districts are taking advantage of the new funding formula. Nevertheless, the effort does not answer the question of whether S.E.E.K. funding is helping the students as identified by increased comprehensive tests of basic skills scores.

DATA

The data used in this study was obtained from various sources within the Kentucky Department of Education. The observations are for the autonomous school districts in the state. Five independent districts--Anchorage, East Bernstadt, Science Hill, Southgate, and West Point--were omitted because they do not have students through the secondary grades. In addition, the independent district of Maysville was omitted because several of the variables used in the model were not available. The remaining one hundred seventy-one districts make up the model.

The definitions and origins of the variables used are indicated below.

Normal Curve Equivalent (NCE): Normal curve equivalent scores will be used as the dependent variable for the model. They were taken from the Biennial Report of the Superintendent of Public Instruction 1987-1989-Part II, Performance.¹⁰ The scores are based on student performance on the CTBS/4 test. For the purpose of this report I chose to use tenth grade scores, hence the omission of the elementary only districts. The scores are the composite of reading, language and math.

Cost of Instruction (CI): The instruction costs are calculated by dividing the total spent for instruction by the average daily attendance. The total instruction costs exclude various expenditures for federal programs.

Non-Instruction (CNI): This variable was derived by subtracting the cost of instruction from the total expenditures per student. It was felt that the total cost published by the department would duplicate the instruction costs for the model. Non-instruction costs are made up mainly of administrative expenses and the purchase of instructional material.

Local Financial Index (LFI): The index is derived by dividing the local revenue per child in average daily attendance by the assessed value per child in average daily attendance. The index measures the amount of effort a district puts into support of its schools based on its ability to pay.

Percent of Local Revenue (PCTLR): This variable illustrates the percent of total revenue from local sources.

Percent of Economically Deprived Children (PCTED): This variable is taken from the Division of School Food Services indicating the percentage of children eligible for free or reduced price lunches in proportion to the fall membership of a district.

Pupil/Teacher Ratio (PTR): This variable is calculated by dividing the enrollment obtained from the

Superintendents' Annual Statistical Report by the total number of classroom teachers reported on salary schedules.

Attendance Rate (ARATE): This variable is found by dividing the aggregate days attendance by aggregate days membership. The definitions for the above variables were taken from the Biennial Report.

Cognitive Skills Index (CSI): This variable is better known as a student's ability to learn, or IQ. This information is derived from the CTBS/4 test for 1989 and was furnished by the division of Accountability and Assessment of the Kentucky Department of Education.

MODEL AND EXAMINATION OF RESULTS

The model used to test the potential success of the S.E.E.K. formula is similar to many previous ones. Indeed, Hanushek (1986) identified one hundred forty-seven different studies, ninety-six of which had as a dependent variable some standardized test score. In particular, student achievement was assumed to be dependent on several variables as indicated by the regression below:

$$NCE=f(CI,CNI,LFI,PCTLR,PCTED,PTR,ARATE,CSI)$$

An ordinary least squares (OLS) regression is used to test the significance of the model and the individual explanatory variables used. The results of the regression are shown in Table 1.

TABLE 1
Regression of Normal Curve Equivalent Scores

VARIABLE	COEFFICIENT	T-stat
INTERCEPT	-102.5874	-3.636
CSI	0.0029	1.538
CNI	0.0040	-1.595
LFI	-2.4969	-1.417
PCTLR	0.0595	1.102
PCTED	-0.0338	-1.704
PTR	-0.0958	-0.411
ARATE	0.9493	3.376
CSI	0.6433	9.240
R ²		0.6427
F VALUE		36.428

Cost of instruction has a positive, though insignificant, influence on the test scores. Any additional funding to a district would increase instructional expenditures to varying degrees. Hanushek (1986) suggests that the low turnover rate among teachers and relatively long preparation time (educational training) to become a teacher will reduce the ability of higher salaries to bring in any significant change in the workforce. His research shows that of sixty models using cost of instruction (teacher salaries), only nine had significant positive influences. In contrast, Sander (1993) presents a model that shows cost of instruction to be significantly positive.

I believe a more immediate reason for the lack of significance is the absence of merit increases in salaries among teachers. Salary increases are, instead, based on academic credentials and length of service in the particular school districts. Service time could have either a positive or negative influence on student scores but, as the coefficient of the model suggests, probably has little or no influence at all.

The cost of non-instruction is also insignificant. This variable would probably have a higher significance if it were used to help predict a different utility of education. A more complete library or more state-of-the-art computer equipment could be appreciated by the administration, teachers and the community but they might

have little effect on comprehensive test scores. The sign for non-instructional expenditures is negative. Because of the way the variable was determined, this seems reasonable since any increase (decrease) in the variable would have an opposite effect on the cost of instruction, holding total cost constant.

The variable local financial index is negative but insignificant. The sign is surprising because the variable is designed to measure the effort a school district is willing to put forth to educate its children. I would expect that the greater importance placed on education by the community to transform into higher test scores by the students.

Another insignificant variable is found for the percent of local revenue to total revenue. Like the previous variable, it should give insight into the community itself. However, unlike the financial index, the variable more nearly measures the financial ability of a district to pay for education. Because generally higher education is positively equated with higher earnings, it could be anticipated that a higher tax base population would be a better educated population. For this reason I would expect, correctly, the sign for the coefficient to be positive.

The percent of economically deprived children should vary inversely to the test scores. The higher the percent of free lunch program students, the lower the financial tax

base of the district. Using the education to earnings rationale from the local revenue variable, the negative sign of the coefficient is to be expected. It is also significant at the 0.10 level.

The (lack of) significance level of the previous three variables were unexpected. I anticipated the financial and ideological framework of a community/family/peer group to have a significant effect on a student's performance.

Pupil/teacher ratio is probably the most used variable in trying to find a significant cause for student achievement. Hanushek (1986) found it used in 112 of the 147 models he examined. Of these, only nine were statistically significant in the expected direction. In my model the variance shows the same result, a coefficient which is negative but insignificant. Sander (1993) cited several recent studies and his own research which did show a significant, negative, relationship between pupil/teacher ratio and student achievement. He did note, however, that the significance was at the primary, not secondary, grade level. Also, unlike my model and ninety-six of those studied by Hanushek, Sander used graduation rates and plans to attend college as his dependent variable instead of achievement test scores. Perhaps smaller class sizes and more well-paid teachers would increase students' appetites for more education without significantly increasing their knowledge.

The variable for attendance rate shows an expected positive coefficient. The variable is also the first in this model to be significant at the 0.05 level. Such significance seems to be the result of several factors. A student in class more of the time should learn more, increase his knowledge and have higher test scores. For support see Borland and Howsen (1992). It seems reasonable to expect that the attendance rate mirrors a community's commitment to education. The more affluent students are generally healthier; conversely, the students on free lunch programs would be expected to have poor nutrition and more sick days.

The cognitive skills index is the most significant variable in the model. As defined earlier, it is the students' innate ability to learn. This model tends to lend some credence to signalling models (Hanushek 1986) which show that schooling has no, or minimal, effect on a person's abilities.

The overall effectiveness of the model to explain the variation in NCE scores among Kentucky school districts is measured using R^2 , which shows the model explaining 64.27% of the variance. Also, regarding the overall model, an F value of 36.43 opposed to a critical F of approximately 2.0 rejects the Null Hypothesis that all explanatory variables in the model are 0.0 value.

CONCLUSIONS

The purpose of this project is to determine if the new S.E.E.K. funding formula developed by the Kentucky Department of Education can enhance student performance as evidenced by standard achievement scores.

The model used to help forecast the probability of enhancement examined several variables associated directly or indirectly with changes in funding of districts and several variables unrelated to funding. As previously stated, the model explains approximately 64% of the test score variances. No individual variable associated with funding had a significant effect on the variation of the scores.

Beginning in 1991 the new K.E.R.A. outcome based tests replaced the comprehensive test for basic skills in all school districts in Kentucky. The 1992-93 Technical Report prepared for the Kentucky Department of Education by Advanced Systems in Measurement and Evaluation, Inc. stated that there was a high degree of relationship and that the correlation between the old and new methods were sufficient. Whether or not this claim is substantiated should be of no concern to this study as different techniques will only

change scores of each individual district and not affect the ranking of the districts.

The conclusion of this study is that additional funds allocated to school districts or changes in individual school district budgets will not affect student performance significantly.

Although it does not appear S.E.E.K. funding will bring equity of student performance, there is still a positive note. Many parts of K.E.R.A. have come under increasing scrutiny and attack, including outcome based testing, decreased instruction of basics and the combining of elementary grades. There has been little public opposition to S.E.E.K. funding's attempt to bring financial equality among the districts closer to reality. Since the original class action suit filed against the Kentucky Department of Education in 1985 was based on the unconstitutionality of the system of finance, not the system of education, S.E.E.K. funding may prove to be an answer to the original decision of the Franklin Circuit Court.

ENDNOTES

1. Swift, Fletcher H., A History of Permanent Public Common School Funding in the United States, 1795-1905, (New York, Henry Holt and Company, 1911).
2. Ibid., 575.
3. Cubberly, Ellwood P., School Funds and Their Apportionment, New York Teachers College, Columbia University, 1905, p. 17.
4. Johns, Roe L., Full State Funding of Education, Evolution and Implications, Horace Mann Lecture, 1972, University of Pittsburgh Press.
5. 394 U. S. 322, 89 S. Ct. at 774
6. Augenblick, John, Mary Fulton and Chris Piphon, School Finance: A Primer (Education Committee of States, April 1991), p. 7.
7. Prichard Committee for Academic Excellence, The Path to a Larger Life, Creating Kentucky's Educational Future, 2d Ed., The University Press of Kentucky, 1990, p. 109.
8. Kentucky Constitution, Sec. 183.
9. 790 S.W.2d at 211-213
10. Kentucky Board of Education, Biennial Report of the Superintendent of Public Instruction 1987-1989, Part II, Performance.

REFERENCES

Advanced Systems in Measurement and Evaluation, Kentucky Instructional Results Information System, 1992-93 Technical Report, Dover, New Hampshire.

Alexander, Kern and Jordan, K. F. "Constitutional Alternatives for State School Finance." Financing Education-Fiscal and Legal Alternatives, (Columbus: Charles Merrill Co., Inc., 1972)

Augenblick, John, Gold, Steven D. and McGuire, Kent. Education Finance in the 1990's. (Education Committee of States, Nov. 1990)

Augenblick, John, Fulton, Mary and Pipho, Chris. School Finance: A Primer. (Education Committee of States, April, 1991)

Borland, M. V. and Howsen, R. M., (1992). "Student Academic Achievement and the Degree of Market Concentration in Education", Economics of Education Review, Vol. 11, pp. 131-39.

Couch, J. F., Shughart, II, W. F., and Williams, A. L. (1993). "Private School Enrollment and Public School Performance", Public Choice, Vol 76, pp. 301-12.

Cubberly, Ellwood P., School Funds and Their Apportionment, New York State Teachers College, Columbia University, 1905.

Hanushek, E. A., (1986). "The Economics of Schooling: Production and Efficiency in Public Schools", Journal of Economic Literature, Vol. 24, pp. 1141-77.

Johns, Roe L., Full State Funding of Education, Evolution and Implications, Horace Mann Lecture, 1972. University of Pittsburgh Press.

Kentucky Department of Education, Biennial Report of the Superintendent of Public Instruction 1987-1989, Part II, Performance.

McInnis v. Shapiro. 394 U. S. 322, 89 S. Ct. 1197 (1969).

Prichard Committee for Academic Excellence, The Path to a Larger Life, Creating Kentucky's Educational Future, 2d Ed., University Press of Kentucky, 1990.

Rose v. Council for Better Education, Inc., 790 S. W. 2d 186 (Ky. 1989).

Swift, F. H., A History of Permanent Public Common School Funding in the United States, 1795-1905, 1911 (New York, Henry Holt and Company).