Fiscal Equity For At-Risk Students
A Quantitative Analysis of the At-Risk Index Component of the New Mexico
Public School Funding Formula

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ABSTRACT

This quantitative research has been designed to investigate fiscal equity
for at-risk students in the State of New Mexico. This empirical data analysis
compared equity indices before the At-Risk Index was implemented in the
New Mexico public school funding formula in FY 1996-97 and after the At-
Risk Index was included for FY 1997-98. Formula options based on the
premise of vertical equity were reviewed. This research was selected as the
2001 New Scholars Program Award sponsored by the American Education
Finance Association and the National Center for Education Statistics. The
research model was presented at the 2002 AEFA National conference in
Albuquerque, New Mexico. In brief, the results of the analyses showed that
very modest fiscal equity gains occurred following the implementation of the
At-Risk Index. However, the ability to achieve significant gains in equity
scores was restricted due to a lack of state revenue growth.

Dedication

This dissertation is dedicated to my parents, C. Donald Gates Jr. and Donna F. Gates. My father was a constant model of determination, persistence, and professional dedication. His interactions with people were a wonderful lesson for me that every person one meets is uniquely gifted and must be afforded respect and kindness. My mother always provided loving support, encouragement, and confidence that I could achieve any goal that I set for myself with her by my side. I will always be grateful for these precious gifts afforded to me by my parents.

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Several people from the Southwestern United States provided exceptional resources and found time in their busy schedules for interviews,

telephone conversations, and email responses. I would like to take this opportunity to share my gratitude with Kathleen Forrer, Sharon Ball, Brenda Suazo-Giles, K. Forbis Jordan, Danice Picraux, Placido Garcia, Paul Sandford, Thomas Marek, and Mike Phipps.

Finally, I would like to thank all the members of the American Education Finance Association (AEFA) for selecting my research for the 2001 New Scholars Award. The support of the AEFA provided some of the fiscal resources needed for the study and helped to establish contacts for my several trips to New Mexico.

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Chapter 1

The Problem

> The needs of our children are changing and increasing every day. They must be addressed. The United States needs to develop and fund strong children's policies before any definition of equal or adequate educational opportunities can be achieved. We need to accept the responsibility to support all families and all children in the United States. [1]

Rationale

Models that indicate progress towards decreasing disparity for *at-risk* students are worth investigating so that other states may glean critical information. Demographic statistics provide insight regarding the numbers of *at-risk* students entering our public school systems. For example, "By 1998, 36.4 percent of African-American children under the age of 18 resided in households that were classified as below the poverty level. The percentage of children in this category for students of Hispanic background was 33.6 percent."[2]

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[1] Julie Underwood*,* " School Finance Litigation: Legal Theories, Judicial Activism, and Social Neglect," *Journal of Education Finance* 20 (1994): 161.
[2] Poverty Status of Persons, Families, and Children Under 18, by Race/Ethnicity: 1959 to 1998, Table 21: Digest of Education Statistics, 1999, Chapter I All Levels of Education. Available on 104 kb Excel file from nces.ed.gov/pubs 2000/digest 99.

The term, *at risk*, is self-explanatory: "…one who is in danger of failing to complete his or her education with an adequate level of skills. Risk factors include low achievement, retention in grade, behavior problems, poor attendance, low socioeconomic status, and attendance at schools with large numbers of poor students."[3] States have struggled to find both the educational solutions and the financial resources that will remedy the problems presented by the increasing numbers of *at-risk* children. This research investigates a funding program developed by one state, New Mexico, which was designed specifically to more equitably appropriate resources for the *at-risk* student population. First, however, it is necessary to understand the general structure of school finance systems, specific finance systems, terminology, and an overview of the issue of fiscal equalization of educational opportunity.

A National Perspective

Although the legal authority for the maintenance and operation of public schools in the United States has always rested with each of the 50 state governments, in most states, local communities initially assumed

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[3] Slavin, R.E. and N.A. Madden, "What Works for Students at Risk: A Research Synthesis," *(Educational Leadership*: Vol.46: 5, 4-13).

managerial and fiscal responsibility. As recently as 1929-30, there were approximately 120,000 public school districts that enrolled nearly 26 million pupils. At that time, local governments contributed 82.7 percent of the revenues, while state governments and the federal governments provided the remaining 16.9 percent and 0.4, respectively.[4] Nationwide, approximately 48 million pupils were enrolled in approximately 15,000 school districts in 2003-2004. Gradually, state governments began to assume greater responsibility for providing the fiscal resources for the public schools. The National Education Association estimated that in 2003-2004, state governments provided 49.1 percent of the revenue for public elementary and secondary schools while local governments and the federal government provided 42.7 percent and 8.2 percent, respectively. However considerable diversity exists among the 50 states regarding the fiscal support provided by the three levels of government. At one end of the continuum, it is estimated that for 2003-2004, Hawaii provided 89.2 percent of the revenue from state sources, 1.7 percent from local sources, and the remaining 9.1 percent from federal sources. At the other end of the continuum, Illinois provided 30.4 percent from state sources, 61.9 percent from local sources and the remaining 7.7 percent from federal sources.

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[4] National Center for Education Statistics, United States Department of Education, Digest of Education Statistics, 1992. (Washington, D.C.: U.S. Government Printing Office, 1992), p. 49.

While there is nothing inherently evil if a state chooses to rely primarily

upon local resources for the support of its public schools, a disparate

funding system is the inevitable result. For the 2003-2004, the National

Education Association estimated that New Mexico provided 69.0 percent

from state sources, 13.3 from local sources, and the remaining 17.7 percent

from the federal government. Among the fifty states, New Mexico ranked

3rd in the percentage of public school revenue provided from state sources.[5]

  The evolution of public schools, from public school fiscal resources

generated almost exclusively by local taxation to elaborate tripartite fiscal

systems employed by most states, required both the state and federal

governments to develop systems for the intergovernmental transfer of

revenue. Under-girding the early development and implementation of state

systems for intergovernmental revenue transfer was recognition by state

policymakers that if excessive dependence were placed on local

communities to fund public schools, disparate systems usually occurred, a

result that has been validated repeatedly over the years. Historically, wide

disparities regarding both fiscal resources and the social resolve to support

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[5] National Education Association, *Estimates*, 2005. (Washington, D.C.: NEA, 2005), 93.

public schools have existed among local communities within all 50 states.[6]

In order to insure at a rudimentary education throughout its constitutional

boundaries, most state governments, during the early decades of the

twentieth century, began to design intergovernmental revenue transfer

systems to provide state fiscal assistance for common schools. In essence,

state governments commenced to implement various types of state-aid

programs, broadly entitled, State Grants, that redistributed fiscal resources

from areas that possessed high fiscal capacity to those areas with low fiscal

capacity. As a consequence, since the resources of the state as a whole were

utilized, through allocation of state aid to local school districts, nearly all

state grants provided some level of fiscal equalization.

<div align="center">

Conceptual Models of Typical State-Aid Programs
Used in the United States

</div>

Almost all states use a combination of intergovernmental transfer

mechanisms to fiscally support their local school districts, including flat

grants, foundation programs, guaranteed tax yield programs, power

equalization formulae, matching grants, and leeway funds. Each

intergovernmental revenue transfer system is defined below:

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[6] Excluding Hawaii, that has always operated as a single school district, thereby avoiding disparate funding systems common in most states. However, while the problem of disparate funding has been solved by Hawaii, there are those who suggest that adequacy has not been achieved.

Flat Grant

$$S_i = p_iF$$

Where: S_i = State flat grant to ith district
P_i = Units of the ith district (pupils, teachers, other measures of educational need)
F = Flat grant unit value

Although relatively few states employ flat grants as their primary state aid allocation system, Delaware provides an excellent example of a state that does so. The flat grant used by Delaware is a sophisticated flat grant, with an elaborate instructional unit weighting system superimposed with a small equalization grant. Whenever a weighting system is used to account for variance in educational need, the appropriation is termed "categorical". In some instances, funds have to be expended as appropriated. In other and more common instances, the categorical weights only serve to calculate the costs. The local school districts have access to the real property tax and their fiscal capacities are measured on the basis of equalized assessed valuation of property.

Foundation Program

$$S_i = p_i F - Rv_i$$

Where: S_i =   State equalization aid the ith district
          P_i =   Units of the ith district (pupils, teachers,
                        other measures of educational need)
          F   =   Foundation program per unit value
          R   =   Uniform required local effort
          V_i =   Equalized assessed valuation of property in
                        the ith district

The foundation program is calculated based on the state and local contributions for education. Fundamental to the foundation program concept is that it takes into consideration both fiscal capacity and uniform local required effort in order to achieve a guaranteed level of educational services, i.e., foundation program. The state allocation, in effect, guarantees a minimum level of state support after fiscal capacity of a local school district and a minimum local tax effort are taken into consideration.

Maryland provides an example of a foundation based funding formula with an income adjustment. On a statewide basis the state and local school districts each provide approximately fifty percent of the minimum foundation program amount. The state provides fiscal support based on the

fiscal capacity and required local tax effort of the several school districts. The fiscal capacities of the school districts are determined by reviewing their respective assessed real estate values, assessed personal property values and net taxable income.

In 2002, Maryland adopted an updated standards-based finance system for their schools based on the recommendations of the Thornton Commission. Under this new plan, additional state funding would be provided for high need districts. The four goals of the Commission were to move towards adequacy, equity, simplicity, and flexibility. These goals were met through a six year phase in plan which funding for high needs districts would increase from nineteen percent of the state aid to twenty-eight percent of the state aid by the fifth year. Student weightings for economically disadvantaged students, special education students and Limited English Proficiency students were provided.[7]

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[7]Molly A. Hunter, Maryland Enacts Modern, Standards-Based Education Finance System: Reforms Based on "Adequacy" Cost Study, (Campaign for Fiscal Equity, Inc. 2001-2004) Available from Access, www.schoolfunding.info/resource_center/Mdbrief.php3. INTERNET.

Guaranteed Tax Yield Program

$$S_i = p_i[(G - y_i)r_i]$$

Where: S_i = State equalization aid to the ith district
p_i = Units of the ith district (pupils, teachers, other measures of educational need)
G = Guaranteed yield per unit value
Y_i = Yield per unit value of the ith district
r_i = Local fiscal effort (in units)

The guaranteed tax yield program, the guaranteed tax base program, and the power equalization program all share the common philosophy of shifting the fiscal decision making from the state to the local school district. In regard to the guaranteed tax yield program, the state guarantees each school district a specified yield from each unit of tax effort, e.g., $500 per mill per Average Daily Membership, etc. However, most states that use the guaranteed tax yield, or similar programs, only guarantee up to a certain level per unit of tax effort and only for a limited number of tax units, thereby controlling the amount of state aid.

Wisconsin serves as an example of a three-tier guaranteed tax base formula in which the state participates at decreasing levels of fiscal support. The local school districts have access only to the property tax and their

fiscal capacities are measured by the equalized valuation of property. The

Wisconsin formula can be mathematically expressed as follows:

State Aid = [1 – Equalized Val Per Pupil/State Guar Val Per

Pupil]*Shared Cost]

Graphic Presentations of School Finance Models

Displayed in Chart 1 is a graphic portrayal of a typical model of a

state system of school finance. It contains a foundation-type equalization

program with a uniform required local effort and a state-guaranteed

foundation equalization program. Also shown is a series of categorical flat

grants and discretionary local leeway funds, an essential feature of

foundation programs. Not shown in Chart 1 are federal grants, which for

the most part would be featured as categorical grants, although unlike most

state categorical grants, federal categorical grants tend to equalize.

Chart 1

A TYPICAL MODEL OF A STATE SYSTEM OF SCHOOL FINANCE

LOCAL REQUIRED EFFORT   **STATE CATEGORICAL GRANTS**

              STATE EQUALIZATION PLAN   **LOCAL LEEWAY FUNDS**
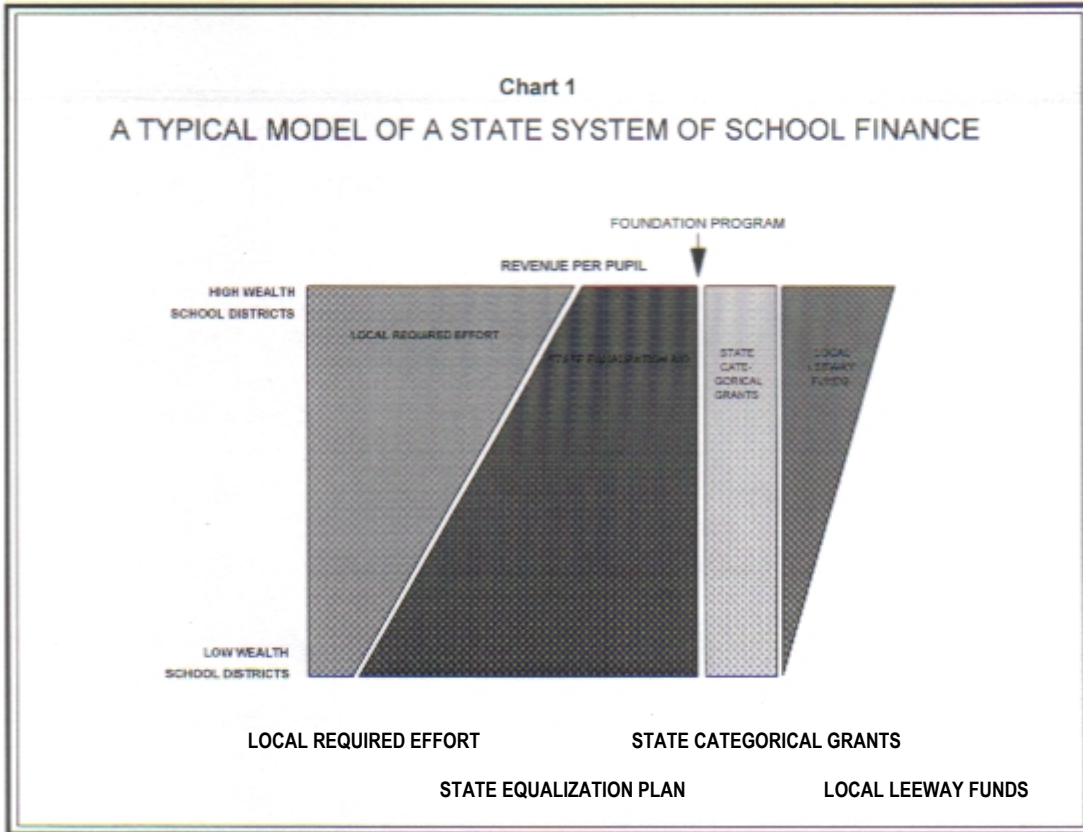
Charts 1 & 2 were provided by R.G. Salmon, Virginia Polytechnic Institute and State University, Educational Leadership and Policy Studies Department

Shown in Chart 2 is a graphic presentation of the New Mexico
school finance system.
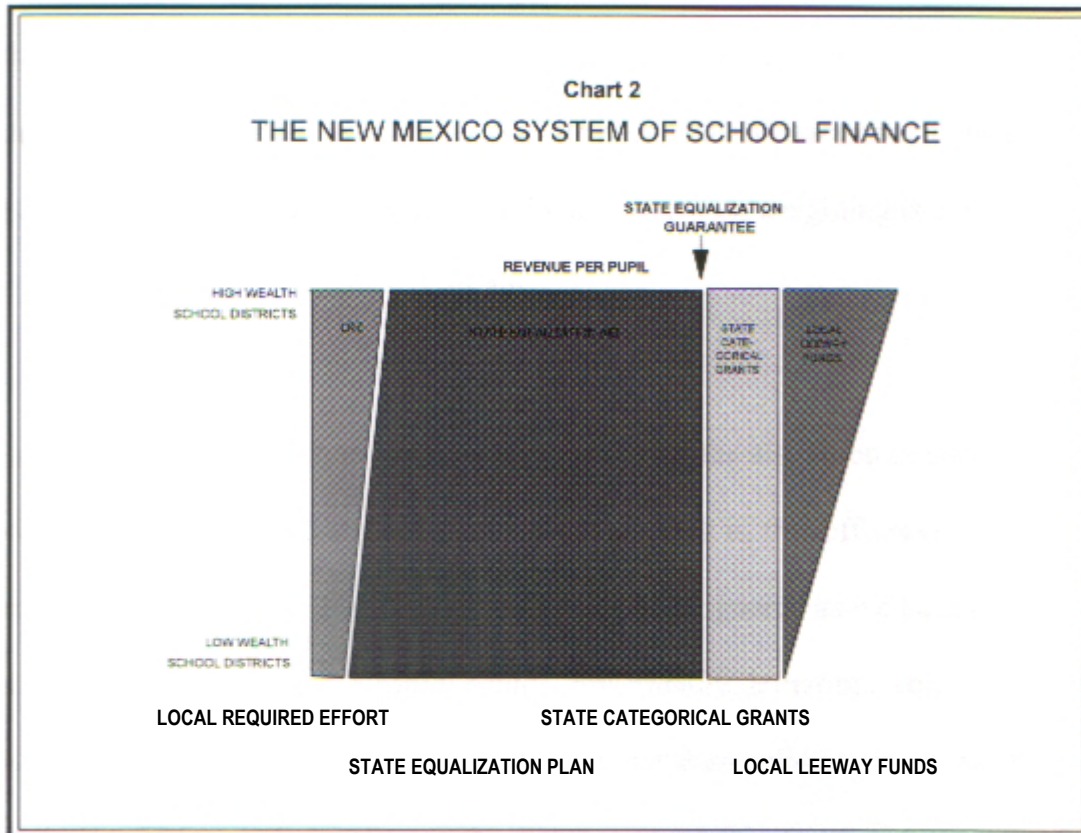
New Mexico uses a rather traditional foundation program and achieves a
rather high level of equity by placing primary fiscal responsibility on the
state. A relatively small required local effort is deducted from the state
equalization guarantee (foundation program) and few categorical aid
programs are used. An *at-risk* weighting is contained within the state
equalization guarantee program.

Funding To Meet Student Needs

To this point, the discussion has primarily addressed the allocation of state aid to local school districts and has treated all students identically. That is, the difference in the costs required to serve children of differing needs have been ignored as we have only addressed what is referred to as horizontal equity. Specifically, horizontal equity is defined as students who are alike should receive equal shares. Equity is assessed by measuring the dispersion, or inequality, in the distribution of objects; no dispersion indicates perfect equity.[8] We have made the assumption that all students are alike and their costs are identical. We, know of course, that this assumption is false. The other all-important concept to equity is the concept of vertical equity which requires that….unequals receive appropriately unequal treatment. Both the identification of legitimate differences among children and the selection of the nature and extent of the appropriate unequal treatment must be made.[9] In order to address vertical equity, states primarily have relied on two similar weighting programs; pupil unit weights and instructional unit weights. Pupil unit weights apply a series of weights

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[8] Berne, Robert and Leann Stiefel, *The Measurement of Equity in School Finance*. (Baltimore: Johns Hopkins University Press, 1984), 13.
[9] Ibid., 42 .

to pupil units such as the number of pupils in Average Daily Attendance (ADA), Average Daily Membership (ADM), Enrollment (ENL), etc. In some instances, these units are expressed in Fulltime Equivalent (FTE). Pupils are often identified by grade level, i.e., K-3, 4-7, 8-12, and program, i.e., Special Education, Emotionally Disturbed-Self-Contained, etc. The weights are set through the use of cost accounting studies, although political interest groups usually have had a role in setting the individual program weights. Instructional unit weights can be made mathematically identical to the pupil weights but are expressed entirely differently. In the use of weighted pupil units a cost differential is multiplied by the number of pupils of certain categories and all categories are then aggregated and multiplied by a fixed dollar amount for the total guarantee.

In the case of instructional units, each type of instructional unit is aggregated and multiplied by a specific dollar amount. These dollar amounts are then aggregated for the total guarantee. Instructional units are generated when pupils, by grade level and/or program reach a certain level, e.g., 1-25, K-3, grade produces 1 kindergarten teacher unit, 1-6 emotionally disturbed elementary pupils who need self-contained services produces 1 self contained special education teacher unit and 1 teacher aide, etc.

Related concepts of equity include *pupil equity* and *taxpayer equity*. *Pupil equity* requires that pupils receive identical quality of educational services regardless of where they may attend public school within a state while *taxpayer equity* requires that taxpayers exert the same level of fiscal effort for a specified level of educational services.

Florida provides an excellent example of a state that uses pupil unit weights to achieve the objectives of vertical equity or *pupil equity*. Florida applies a series of cost differentiated student counts in the Average Daily Membership and are calculated in Full Time Equivalent Units. These cost differentials represent grade level and program cost differences (i.e. K-3, special education, vocational education, gifted education, etc.)

In 1998-1999, The Florida Education Finance Program specified program cost factors for three at-risk areas. The weight designated for dropout prevention and teenage parents was 1.399. The second at-risk programming area was for educational alternatives, grades 9-12, with a weighting of 1.138. Finally, the third at-risk program area was intensive English/ESOL that was assigned a weighting of 1.201.[10] These weights were multiplied by the FTE or the full time equivalent student membership

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[10]   William Fowler, 2001. "Public School Finance Programs of the United States and Canada: 1998-99". In National Education Statistics. U.S. Department of Education. Washington, D.C. Available from nces.ed.gov/edfin/state 7; INTERNET.

in order to determine the Weighted Full Time Equivalent (WFTE) student

membership.

Florida has a very sophisticated weighting system that not only

weights for educational need but also takes into consideration the

proportion of the school day that the special services are provided through

the use of the category known as full time equivalency or FTE. Next, the

FTEs are multiplied by the BSA or Base Student Allocation which is a per

pupil expenditure determined by the Legislature. In 1998-1999, the BSA

was $3,223.06.[11] The product is multiplied by the DCD or the District Cost

Differential that provides allowances for the variation in costs of living

amongst the school districts. The Florida Education Finance Program

allocated $5,843.8 million in 1998-1999 and $8,036.4 million for the total

state school aid.[12]

In contrast to the pupil unit method, Georgia provides an example of

a state that uses an instructional unit weight method for accommodating

vertical equity. The Georgia Quality Basic Education Act (QBE) formula

requires: (1) multiply an average of the three most recent Full Time

Equivalent (FTE) counts in Average Daily Membership (ADM) by the

program weight (e.g., grade level, special education, vocational education,

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[11] Ibid., 7.
[12] Ibid., 7.

etc.) (2) multiply the product of (1) times a fixed amount set by the state

appropriations, and (3) add to the product of (2) the "program adjustment

amount for training and experience".

Specific dates are determined by the Georgia Board of Education for

the eligible student counts. There are two counts conducted, one in the fall

and another count in the spring. The fall count is weighted for two parts and

the spring count is weighted for one part. Only those students who are in an

authorized program are included. In other words, a student in a study hall

period is not considered an authorized program and that segment of the day

would not be counted. The total amount of segments for each program is

divided by six which determines the FTE count. It is important to note that

districts do not receive less funding if the calculation results are less than

the district is currently receiving. This is referred to as a Save Harmless

Clause. The QBE Basic Formula program provided $3,522.6 million in

1998-1999. Additional funding for equalization totaled $204.3 million.[13]

These two states provide examples of funding formulas in which weighted

program or pupil costs are included through a vertical equity structure.

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[13] Ibid., 4-5.

Insights Regarding Equity and At-Risk Students

With the increasing numbers of at-risk students entering our school

systems and state aid programs available, several options are evident in the

attempts to decrease levels of disparity for at-risk students. Various terms

are used in discussions regarding fiscal equity that necessitate definitions in

order to support an understanding of equity. Fiscal capacity is defined as

"the tax base of a governmental entity measured in terms of income,

wealth, or other fiscal measures of economic productivity".[14] High fiscal

capacity districts receive their revenues based on higher income, property

wealth, and other forms of fiscal capacity. Low fiscal capacity districts

receive their revenues based on lower income, less property wealth, and

decreased measures of fiscal capacity.

Hickrod defines fiscal effort as "the ratio of expenditure per pupil to

income per capita".[15] It is not uncommon for courts and state governments

to refer to per pupil expenditures or the amount of funds spent for educating

an individual student. Fiscal neutrality, as defined in the California court

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[14] Kern Alexander and Richard Salmon, *Public School Finance* (Massachusetts: Allyn & Bacon, 1995), 158.
[15] G.Alan Hickrod, The Effect of Constitutional Litigation on Educational Finance: A Further Analysis, in U.S. Department of Education, Office of Educational Research and Improvement, National Center of Education Statistics, Selected Papers in School Finance 1995, NCES 97-536, by William Fowler Jr., (Washington, D.C., 1997), 43.

case, Serrano v. Priest, is "the concept that the level of spending for a

child's education may not be a function of wealth other than the wealth of

the state as a whole".[16] The educational need of a district is determined by

several factors: property wealth, income, the number of students in a

district and the characteristics or needs of the students. This demand is

related to the number of pupils within a local school district (usually the

pupils are weighted to account for differences in educational demand) and

other cost factors beyond the control of the district".[17]

In order to provide student weightings for at-risk populations courts

and states have attempted to define the characteristics of at-risk children. In

a 1990 dissertation, McDonough provided several interpretations of the at-

risk terminology. He noted that across the states, the definitions ranged

from lists of characteristics to lengthy paragraphs that included students'

contributions to a democratic society. McDonough concluded that a

consistent definition of the term at-risk did not exist.[18]

The funding systems used by states for appropriating funds to local

school districts to help meet the needs of at-risk pupils also lacked

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[16] *Serrano v. Priest*, 487 P.2d 1241 (1971).
[17] David Monk, *Education Finance An Economic Approach* (New York: McGraw-Hill Publishing Company, 1990), 186-187.
[18] John T. McDonough, "A Survey of Opinions and Attitudes Toward State At-Risk Program Focus, Delivery, and Funding" (Ed.D. diss., Arizona State University, 1990), 46.

consistency. Lyons concluded that the principal funding plans which provided additional funding for at-risk pupils were: equalized per pupil allocations, an indices of need, categorical flat grants, excess cost reimbursements, personnel unit allocations and competitive discretionary grants.[19] The indices of need and the competitive discretionary grants usually provide more benefits for the low capacity local school districts. In contrast, the categorical flat grants, the equalized per pupil allocations, and the excess cost reimbursements generally benefit the large high capacity suburban local school districts.

A review from the national perspective of how states fund for at-risk students through various strategies is provided. For example, compensatory education is a category of funding that encompasses an array of programs such as: English as a Second Language, remedial education, educationally disadvantaged programs, adult basic education, dropout prevention, summer school and extended day instruction, all programs that either directly or indirectly address at-risk students. Weightings in funding formule, as previously demonstrated in Florida, often are designed to provide additional financial support for at-risk programs. As suggested by

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[19] Teresa Sue Lyons, "Alternative State Funding Allocation Methods For Local School District Programs To Serve "At-Risk" Students," Ph.D. diss., Arizona State University, 1990 quoted in K. Forbis Jordan and Teresa Lyons, "An Analysis of State Funding Options For Local School District Programs To Serve "At-Risk" Students," *The Journal of School Business Management* 3 (July 1991), 28-33.

Lyons, other states may include at-risk indices which are then multiplied by

the number of qualifying students (e.g., numbers of students eligible for

free and reduced lunch in a local school district). Provided in Table V in the

Appendices is a state-by-state analysis of funding formulae.

Illustrated in Table I are the state revenues for 2002-2003 that were

appropriated for at-risk education in twenty-three states either specifically

for at-risk pupils or through factors that have been linked to pupils who are

"at-risk". Often such factors are broadly referred to as compensatory

programs. Only those states that provided formula assistance and

compensatory programs were included on the chart.

TABLE I SUMMARY OF THE STATE REVENUES FOR AT-RISK PROGRAMMING
2002-2003

(Thousand Dollars)

State	Total Revenues 000	Formula Funding Appropriations 000	Compensatory Program Funding 000
Alabama	2,966,981	2,541,242	45,073
Arizona	2,912,629	2,414,309	1,238
Arkansas	2,001,992	1,374,509	4,851
California	33,617,766	17,205,894	1,404,787
Connecticut	2,481,901	1,220,559	22,663
Hawaii	1,873,318	1,350,721	12,343
Illinois	6,792,637	3,639,603	5,753
Indiana	4,569,923	3,795,288	15,804
Iowa	1,974,708	1,792,617	10,286
Maryland	3,317,403	1,815,690	209,221
Michigan	11,227,903	9,888,021	299,510
Minnesota	6,064,474	4,518,855	261,872
Mississippi	1,754,451	1,622,555	53,569
Nevada	1,663,026	613,651	5,053
New Jersey	8,135,014	3,410,483	1,402,430
New Mexico	1,905,419	1,651,862	1,469
Ohio	7,844,992	6,226,592	289,872
Oklahoma	2,272,785	1,530,706	18,986
Pennsylvania	6,912,678	4,091,831	50,074
South Carolina	2,761,951	657,293	115,534
Utah	1,607,204	842,808	23,624
Virginia	4,087,720	3,235,335	157,261
Washington	5,334,268	3,946,656	100,475

Replicated from the U.S. Census Bureau's Annual Survey of Government Finances[20] Comparisons regarding the fiscal effort made by the states for at-risk education are not recommended due to the variations within the programming.

[20] Bureau of the Census, *Government Finances, 2002-2003*, prepared by the Governments Division, Census Management Staff, Table 3. Revenue From State Sources for Public Elementary-Secondary School Systems by State: 2002-2003, Bureau of the Census (Washington, D.C., Issued 2001). Available from www.census.gov/govs/www./school.html.

Equity Across the Nation

Several measures can be interpreted in order to gauge the progress of increasing equity from a national perspective, a state-by-state comparison or intrastate analyses. Expenditures per pupil or equity indices are examples of data that are compared in order to measure efforts to decease disparities or increase the level of equity.

The expenditures per pupil are one of the indicators of educational funding used for comparison. Nationally, by 1998-99, the average of per pupil expenditures based on fall enrollments was $6,508. New Jersey had the highest per pupil expenditure with $10,145. Utah had the lowest per pupil expenditure with $4,210. Also, by 1999-2000, discrepancies were evident comparing per pupil expenditures among the states. The average total per pupil expenditure based on fall enrollments had risen to $8,032. Again, New Jersey's per pupil expenditure was the highest at $11,471 and this state continued to have the highest expenditure while Utah continued to be the lowest with a per pupil expenditure of $5,278. New Mexico's per

pupil expenditure was recorded as $6,786 also expressed in unadjusted dollars. [21]

Several indices are referenced as indicators of equity in order to compare the levels of equity. Alexander and Salmon defined some of these measures.[22] A coefficient of variation is calculated as a percentage by dividing the standard deviation of a distribution by the mean of the distribution based on the per-pupil expenditures. The Gini Index is another gauge of equity. As the Gini Index approaches 0, the state is moving closer to fiscal equity. According to Alexander and Salmon "The Theil Index is a powerful econometric measure designed to measure the dispersion of income within societies and has been adapted to measure the level of horizontal and vertical equity provided by state systems of school finance."[23] The McLoone Index is determined by comparing the per pupil expenditures for students below the median per pupil inputs compared to the total inputs necessary for these students to reach the median per pupil input levels. The range of this index is from 0 to 1.0. As the calculated index increases, the level of fiscal equity also increases.[24] Finally, the

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[21] David Hurst, Alexander Tan, Anne Meek, Jason Sellers and Project Officer Edith McArthur, *Overview and Inventory of State Education Reforms: 1990-2000,* National Center for Education Statistics, United States Department of Education, Washington, D.C. Ed Pubs, 2003.
[22] Alexander and Salmon, *Public School Finance,* 236.
[23] Ibid., 238.
[24] Ibid., 237.

Federal Range Ratio (FRR) is computed by the federal government for

decisions revolving around federal impact aid that is distributed to school

systems.[25] In essence, if the state achieves a ratio of 0.25 or less, the state is

permitted to "take into consideration" a certain amount of the federal

impact aid. Thus, the state is permitted to deduct a portion of the impact aid

from the calculated state entitlements originally intended for local school

districts that qualify for impact aid.

Hussar and Sonnenberg reviewed the levels of equity based on a

regional and national approach. The four regions were categorized as the

Northeast, the Midwest, the South, and the West.

They indicated that a majority of the disparity measures showed a
decline in disparity in most states and in the four geographic regions
between 1979-80 and 1993-1994 but an increase in disparity for the nation
as a whole. For 27 of the 49 states with at least two unified school districts,
the seven disparity measures unanimously indicated declining disparity. For
11 other states, a majority of the measures indicated declining disparity. For
only 1 state did all seven measures indicate increasing disparity. A majority
of the measures indicated increasing disparity for 10 other states. The
results show clear regional differences among the states regarding
increasing or decreasing disparity. Six of the states for which a majority of
disparity measures indicted increasing disparity were in the Midwest, and
four were in the West. Only one state in the Northeast and none in the
South had a majority of the disparity measures indicating increasing
disparity.[26]

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[25] Ibid., 236.

[26] "Trends in Disparities in School District Level Expenditures per Pupil," National Center for Education
Statistics, United States Department of Education, (Washington, D.C.) available from
http://nces.ed.gov/programs/quarterly/vol_2/2_1/q4-12.asp. INTERNET.

Table II   States Decreasing Disparity

**Region   Total number of
states with two
or more districts   Number of measures indicating decreasing disparity**

		7	6	5	4	3	2	1	0
United States	49	27	8	3	0	5	3	2	1
Northeast	9	6	1	1	0	1	0	0	0
Midwest	12	4	2	0	0	2	2	1	1
South	16	12	4	0	0	0	0	0	0
West	12	5	1	2	0	2	1	1	0

Source: U.S. Department of Commerce, Bureau of the Census, "Annual Survey of Government Finances: School Systems," school years 1979-80 through 1982-83 and 1985-86 through 1993-94, unpublished tabulations. [27]

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[27] Bureau of Census, Annual Survey of Government Finances: School Systems, Table A. Number of states indicating disparity, by region and the number of disparity measures: 1980 to 1994, (Washington, D.C.). Available from http://nces.ed.gov/programs/quarterly/vol_2/2_1/q4-12.asp. INTERNET.

Statement of the Problem

Fiscal inequities for at-risk students continue to be problematic. There are few who would reject the argument that at-risk students are more expensive to educate than students who are not so classified. The debate is centered not on whether at-risk students are more expensive to educate than general education students, but specifically how, much more do at-risk students cost than comparable grade level general education students?

Purpose of the Study

The purpose of this study is to determine through application of acceptable statistical methodology whether a revised cost differential, a method that sets a per pupil cost difference for at-risk students relative to general education students, improved the vertical equity for at-risk children attending the public schools in New Mexico.

The analysis is based on the following research questions:

1. How did the At-Risk Index evolve?

2. How did the equity indicators compare before the At-Risk Index was implemented in the New Mexico Public School Funding Formula? Is there evidence that the funding levels provided equity across the student populations in New Mexico after the At-Risk Index was implemented in the New Mexico Public School Funding Formula in school year 1997-98 according to the equity indices?

3. Were additional funds allocated for the state budget to compensate for the appropriations determined by the At-Risk Index after the index was implemented during the school year 1997-98?

The At-Risk Index was devised in order to determine additional funding for school districts in New Mexico based on several factors such as the number of students qualifying for Title I allocations or the percent of students categorized as Limited English Proficiency (LEP). The premise of this research was based on the assumption that if additional at-risk funding were provided for school districts then the difference between high fiscal capacity districts and low fiscal capacity districts would be decreased and the level of equity across New Mexico would likewise increase as indicated by the traditional equity statistics. Both New Mexico and other states have

attempted to apply vertical equity strategies in order to increase equity

levels across their respective publics.

Litigation Overview

Concerns about equity and disparity have continued to surface. One

of the arenas that taxpayers, parents, superintendents, students, and other

interested parties have brought their concerns to are the courthouses. The

1971 landmark California decision, Serrano v. Priest in 1971, was the initial

case that opened the door for equity litigation, thus acknowledging that

gross disparities in per pupil revenues provided sufficient evidence that the

state school finance was unconstitutional. By 2005, according to the

Campaign for Fiscal Equity, twenty-five plaintiffs had declared victories at

their State's highest court, eighteen defendants claimed victories, and seven

states currently are waiting court decisions.[28] Typically, the plaintiffs are

students, parents, school districts, or advocacy groups. According to

Hickrod, et al., typically the results of the litigation results in the following

pattern, of "winning the case carries with it an increase in state funding and

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[28] Molly A. Hunter, State-By-State Status of School Finance Litigations, (Campaign for Fiscal Equity, Inc. 2005) Available from Access, www.schoolfunding.info INTERNET.

losing the case carries with it an increase in local funding".[29] The litigation

battle has been waged in the federal and state courts. The federal cases were

predicated upon the equal protection clause of the Fourteenth Amendment

of the United States Constitution. This legal test was designed by the

Supreme Court of the United States in 1890.[30] The intention of the test is to

"determine the constitutionality of state taxation. The equal protection

clause establishes a minimum standard of uniformity to which state tax

legislation must conform".[31] This approach evaluates the equality and

uniformity "of taxation provisions of most state constitutions".[32] Several

standards of review are applied under the equal protection clauses. These

standards include: the rational relationship test, the strict scrutiny test, and

the intermediate test. In order to provide an understanding of the following

cases, a description and application of each test provides additional

insights.

In the rational relationship test, the court must determine if a "branch

of government had such a basis for creating a classification a court should

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[29] G. Alan Hickrod, Edward R. Hines, Gregory P. Anthony, John A. Dively, and Gwen B. Pruyne, "The Effect of Constitutional Litigation on Education Finance: A Preliminary Analysis," *Journal of Education Finance* 18 (1992): 189.

[30] Kern Alexander and David Alexander, *American Public School Law* (Belmont: West/Wadsworth Publishing Company, 1998), 793.

[31] Ibid., 793.

[32] Ibid., 793.

not invalidate the law".[33] In other words, if a group of students were classified according to the wealth of their school district but were receiving an allocation based on a state formula and this classification was determined on a sound basis, then the court would not invalidate the funding formula of the legislative branch.

In the strict scrutiny test, the courts will only uphold a classification if the government can "show that it is pursuing a "compelling" or "overriding" end-one whose value is so great that it justifies the limitation of fundamental constitutional values".[34] For example, if a group of students are classified as at-risk according to their participation on a free and reduced lunch program and they are guaranteed a "fundamental education" then the "minimum foundation" funding level may be acceptable.

Initially, when the litigation began in 1968,[35] the plaintiffs focused their complaints solely on the per pupil expenditure disparities that existed among school districts within their respective states. By 2005, the primary challenge to state finance systems is based on the issue of vertical equity and specifically on the plight of the at-risk populations. The paramount question remains. What level of funding is necessary for at-risk students to

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[33] Ibid., 802.
[34] Ibid., 802.
[35] *Burruss v. Wilkerson*, 310 F. Supp. 572 (1969).

receive an adequate level of education? Thus what began as an equity issue has moved gradually towards a combination of equity and adequacy arguments. Litigation based on equity focused on the variances of funding provided to districts across a state and the inconsistencies of support related to the demographic profiles of the students in those districts. Litigation based on an adequacy premise includes the interpretation of a state's constitutional definition of the foundation level of education that is guaranteed for the students in the state and attempts to determine what level of funding is necessary for all students, regardless of their socioeconomic level or place of residence, to receive an adequate education. Numerous factors are considered in the adequacy cases such as: the costs of educating students entering school without the necessary prerequisite skills, preschool preparation, teachers' salaries in the area, compensatory education or programming to decrease dropout rates.

The judicial branches follow the state constitutional regulations that require the legislatures to determine how the funding formule should be designed and allocated. Minimum funding levels based on per pupil expenditures appear to be one of the indicators of equity that the courts have used. A series of dispersion and relationship statistics have also been used by both the plaintiffs and the defendants in litigation waged over the

past 37 years to reform state public K-12 school finance systems. Often referred to as "equity statistics," most of the dispersion statistics have been borrowed from other disciplines. The dispersion statistics measure, in various ways, how fiscal resources are distributed among local school districts throughout a specific state. The relationship statistics, common to nearly all disciplines, measure the strength of the bond between fiscal capacity of the local school district and the level of fiscal resources provided. Together, the two sets of statistics furnish equity and fiscal capacity neutrality profiles for the state.

A linear presentation of selected cases from 1971 provides further insights regarding the gradual strategic shift by the plaintiffs from placing their primary focus on the failure of their states to provide equity to a primary focus on the state's inability to adequately fund public schools by their own state's definition. The strategic shift by the plaintiffs from alleging that the states had failed to equitably fund public schools to alleging that the states had failed to either equitably or adequately fund public schools was evident by a review of the trial proceedings.

By 1971, John Serrano and a group of plaintiffs, challenged the constitutionality of the California Public School Financing System based on the equal protection guarantees of both the federal and California

constitutions.   In 1977, the Supreme Court of California affirmed the ruling

of the Los Angeles County Superior Court in 1974 which declared that the

California Public School Financing System was "invalid as in violation of

state constitutional provisions guaranteeing equal protection under the

laws"[36] and that the funding system needed to be corrected within a six year

period from the day that the judgment was determined. The equal

protection premise was found to not be in violation of the U.S.

Constitution. Initially, the California Supreme Court ruled that the

California School finance system was unconstitutional under equal

protection clause of both the Fourteenth Amendment and the California

Constitution. However, after San Antonio v. Rodriguez was adjudicated in

1973, the California Supreme Court deferred to the U.S. Supreme Court

and ruled that the California school finance system was unconstitutional

only under the California Constitution.[37] Significant findings in Serrano I

and Serrano II included the need for equalization and updating of the

educational system with the requirement of the state to bring the funding

formula into compliance with the state constitution. These findings opened

the door for the level of education for all students in California not to be

[36] *Serrano v. Priest*, 20 Cal. 3d 25; 569 P.2d 1303 (1977)
[37] *San Antonio Independent School District v. Rodriguez*, 411 U.S. 959,93 S.Ct. 1919 (1973).

dependent upon the wealth of the district in which they reside. Several

cases followed Serrano II in which equity was the premise of litigation.

In the early seventies, San Antonio Independent School District v.

Rodriguez had appeared on the docket in the court system in Texas. The

lower court ruled that the funding system in Texas was unconstitutional

based again on the equal protection premise. The plaintiffs were Mexican-

American families whose median income was below the poverty level.[38]

Based on the assessed property values where the students resided, the tax

rate for the area, and the Foundation Program allocation, less expenditure

per student was available for the at-risk students compared to wealthier

school districts.[39] Relative to contiguous school districts per pupil current

expenditures were significantly below those of wealthier districts despite

their higher tax rates. The equalizing funding formula in Texas was

designed to combine a foundation program with local effort in order to

account for the variances between low wealth and high wealth districts. An

economic index was devised to weigh the ability of each district to

contribute to the Local Fund Assignment from the local property taxes.

The federal district court ruled that the wealth of a school district

entitled the plaintiffs to a "suspect classification," due to the historical

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[38] Alexander and Alexander, *American Public School Law*, 796.
[39] Ibid., 796.

pattern of property-poor school districts being under-funded. The court also agreed with the plaintiffs that education was a fundamental right of the citizens of their county. The burden of proof thereby shifted to the defendant and the state had to show a compelling interest in how the state aid formula was designed. The burden was too great for the state and the court ruled for the plaintiffs. However, on a writ of certiorari, the U.S. Supreme court overturned the lower court and ruled that education was not a fundamental right, that the wealth of a school district could not be considered a suspect classification, and as such the state did not have to show a compelling interest in how its school finance system was designed.

By 1989, the case of Rose v. The Council for Better Education, paved the path for equity and adequacy issues to be addressed in the courtroom. Witnesses in the Kentucky Supreme Court case testified regarding the disparity between high wealth districts and low wealth districts in relation to teachers' pay, educational materials, facilities, and the per pupil expenditures.[40] More importantly, for the first time, the court in ruling the Kentucky educational system unconstitutional, relied extensively on the disparities of educational outputs, e.g., dropout rates, test scores, etc., between high wealth and low wealth districts. The Kentucky

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[40] *Rose v. Council for Better Education*, 790 S.W.2d 186 (1989).

Constitution is unusually succinct in regard to its charge to the General

Assembly to provide public schools, and the Kentucky Supreme Court was

likewise succinct in its decision, that the "General Assembly has failed to

establish an efficient system of common schools throughout the

Commonwealth".[41] The plaintiff's victory in Kentucky laid the framework

for years of school reform in that state.

Kansas had experienced the impact of continued litigation since 1976

when the plaintiffs lost at the Supreme Court in Knowles v. State Board of

Education.[42] In 1994, the state school finance system was again challenged

in Unified School District No.229 v. Kansas. Equal Protection violations

were brought forth by the plaintiffs and the court applied the rational

relationship test. Again, the Kansas Supreme Court acknowledged that they

were not in a position to override the legislation implemented through the

School District Finance and Quality Performance Act. Weightings such as

0.05 were designated for at-risk students in the funding formula. These

weightings were multiplied by the number of students in the designated

categories in order to provide additional funding to meet the needs of the

students in the groups.

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[41] Ibid., 23.
[42] National Center for Education Statistics, United States Department of Education, *Overview and Inventory of State Education Reforms: 1990-2000.* (Washington, D.C.: Ed Publications, 2003), 42.

The act also provided provisions for funds to be recaptured or funds from one district being moved to another district when a district's local effort exceeds the cap limits. Recaptured funds were questioned as a violation of constitutional rights however, the purpose of the recaptured funds was to ensure less disparity between the high wealth and low wealth districts. [43] Proficiency standards were included in the Quality Performance Accreditation system which provided a measure for performance. Unlike the previous court case, Unified School District No. 229 v. Kansas and the intervening plaintiffs represented high wealth school districts concerned about the provisions provided by the state to increase equity.

Funding disparities pertinent to minority and disadvantaged students were brought to the forefront in a more recent decision in the case Montoy v. Kansas.[44] The plaintiffs in this case represented Hispanic, African-American, and disabled students. They contended that the funding formula violated state and federal constitutional rights. The Kansas Supreme Court reversed a district court's ruling based on the evidence that the state was not providing an education that was documented in the state constitution and the achievement gap between minority students and white students served as evidence that the minority students were being denied equal

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[43] *Unified School District No. 229 v. The State of Kansas*, 885 P.2d 1170 (1994)
[44] Montoy v. Kansas, 62 P. 3d 228 (2003)

protection and due process rights. The district court provided a preliminary order based on the violation of the state constitution due to the school finance system and the inadequate achievement gains of the minority and disadvantaged students. The Kansas legislature was required to remedy the constitutional violations by the end of the 2004 General Assembly session. When the remedy was not evident, the district court issued a directive for the public schools to be closed. The Kansas Supreme Court halted the order to close the schools. However, it was affirmed that the district court's ruling that according to student achievement and school accreditation standards, the funding system was not providing sufficient support to meet the standards set by legislation. The trend from horizontal equity to adequacy was indicative in this recent case in Kansas.

Adequacy or the question of how much funding or inputs are necessary in order for all students to reach outcome goals, continued to surface in the courtrooms. Along with the diverse interpretations of state constitutions related to a minimal or basic education were the debates regarding per pupil expenditures. Frequently, challenges to state finance systems had evolved towards adequacy issues from a focus on equity. DeRolph v. The State of Ohio was decided in 1999 in which the arguments were based on the amounts of per pupil expenditures necessary for the state

to implement Ohio's academic and educational output under its constitutional mandate for an "efficient and thorough school system".[45] The lower court ruled in 1999 that the funding system for Ohio's schools was unconstitutional; however despite the enactment of numerous items of legislation by the General Assembly, a team of experts found that the new system and increased funding did not guarantee either a sound plan or adequacy. Ohio did address the issue of vertical equity and the need to fund at-risk children. The Ohio state aid formula has a sliding scale feature so that a school district that has high numbers of children who are at-risk receive additional funding.

Recent litigation in North Carolina also brings the issue of funding for at-risk students to the forefront. In 1997, the Supreme Court of North Carolina reviewed a suit brought forward by a group of low wealth school districts that claimed that the disparities in funding violated the state constitutional rights of poor students for a basic education. In the case Leandro v. The State of North Carolina,[46] the North Carolina Supreme Court clarified that the state constitution does not guarantee equal funding for all districts but rather the opportunity for a sound, basic education. In addition to the original plaintiffs were plaintiff-intervenors representing

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[45] Ohio Constitution, Art. IV, Sec. 2.
[46] *Leandro v. The State of North Carolina*, 488 S.E.2d 249 (1997)

parents and guardians from several wealthy school districts who claimed that their children also were denied a sound basic education. The plaintiff-intervenors alleged that the North Carolina's funding system did not delineate or guarantee a certain amount of per pupil expenditure required for a sound, basic education.

Several of the plaintiffs from the Leandro case returned to the courtroom in 2004 and the Supreme Court "granted discretionary review"[47] of nine decisions granted by the Court of Appeals. One in particular that was related to at-risk education was the order that provided pre-kindergarten classes for all at-risk students. The Supreme Court ruled that the state constitution does not recognize the particular needs of a certain group of students but rather guarantees the right to a sound, basic education for all children of North Carolina. Numerous forms of documentation were presented such as per pupil expenditures, program initiatives, test scores based on the North Carolina proficiency levels, graduation rates and grades of at-risk students. The Supreme Court recognized that the trial court decided that the State had not identified the large number of at-risk students residing in the low wealth districts and that the State had not evaluated how funds were being used in order to meet the needs of the at-risk students.

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[47] *Hoke County School Board v. The State of North Carolina,* 599 S.E.2d 365 (2004)

However, mandating the pre-kindergarten classes violated the General Assembly's regulations which clarify the starting age for school students and therefore the judicial system should not cross the lines into the legislative decisions. Although adequacy issues were presented during the case, the clear lines of separation of powers again prevailed.

Few court cases have surfaced in New Mexico regarding the funding of public education. Carlsbad v. New Mexico State Department of Education was filed in 1999.[48] The premise of the case was the training and experience index that provided additional funds for a school district based on the level of education and experience that the teachers earned. A save harmless clause was provided for the school systems who qualified for this funding. By 1999, New Mexico was one of the few states that the Supreme Court had not ruled on a decision regarding the school finance system.[49]

Theoretical Framework

This research proposal is based on a theoretical framework that is anchored on vertical equity as a funding strategy to decrease disparities for

[48] *Carlsbad v. New Mexico*, 993 P.2d 112 (1999)
[49] National Center for Education Statistics, *Overview and Inventory of State Education Reforms*, Chart 3.3.

at-risk populations. Vertical equity refers to the "unequal treatment of unequals".[50]

According to Berne and Stiefel, three considerations may be necessary to substantiate the application of vertical equity.[51] First, the characteristics of the student population may categorize the students as "unequals". At-risk students for the purpose of this study are students who are identified as "at-risk" by the New Mexico Department of Education. In New Mexico, the At-Risk Index is a composite calculated from the following components: economically disadvantaged students, Limited English Speaking pupils, pupils with mobility patterns, and the number of dropout students.[52]

The second characteristic necessary for a vertical equity funding scheme is the difference in objects such as revenues that the "unequal" students should receive. The At-Risk Index in the New Mexico public school funding formula was designed in order to determine the additional funding for this student population in each school district. Finally, guidelines should exist to identify the "unequal" subgroup of students. The

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[50] Berne and Stiefel, *The Measurement of Equity in School Finance*, 13.
[51] Ibid., 82.
[52] Commencing in FY 2002, the dropout component was eliminated from the computations.

At-Risk Index was included in the New Mexico public school funding

formula in 1997 based on legislative statute 22-8.23.3.[53]

      With the conditions in place, New Mexico is a likely choice to

evaluate the levels of vertical equity before the implementation of the At-

Risk Index and after the At-Risk Index was included in the formula for

New Mexico's public schools. For the purpose of this study, the measure of

fiscal capacity was the legal measure selected by New Mexico for the

purpose of distributing state equalization aid. New Mexico relied on the

assessed district valuation per final funded membership and the cost

differential unit in order to provide funding for at-risk students and to

address the issue of fiscal equity.

<div align="center">

New Mexico

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      New Mexico surfaced for the purposes of this research as a model in

which the span of disparity appears to have been reduced. Ball and Garcia

commented that, "New Mexico's public school funding formula continues to

be widely acclaimed as one of the most innovative of school finance plans in

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[53] Statute 22-8-23.3, Forty-Third Legislature., second session. (1998 Replacement Pamphlet), 22-8-24.

use across the country".[54]   The purpose of this research is to investigate a

state educational funding policy that may enhance the level of fiscal equity

provided for at-risk students. New Mexico has surfaced as an exemplar for a

number of reasons. First, in 1994, 32.2 percent of the student population was

categorized as at-risk based on the federal guidelines of free or reduced meal

qualifications.[55] In 1998-1999, 42 percent of the student population was

recorded as "at-risk". New Mexico's enrollment had reached 330,372

students, of whom 135,942 qualified for free or reduced meal plans.[56] In

1998, 23.5 percent of children between the ages of 5-17 residing in New

Mexico were classified at the poverty level.[57] By the year 2000, 57 percent

of the students, or 180,001 out of 317,509 students were eligible for the

Child Nutrition Programs.[58]

The funding formula for public schools in New Mexico includes an

At-Risk Index as a means of designating funds for this population. The index

was introduced through the funding formula for the 1997-98 school year.

The first factor was calculated in 1997 and then recalculated in 1999 and

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[54] Sharon S. Ball and J. Placido Garcia, "*New Mexico,*" National Center for Education Statistics, 1998-1999: quoted in William Fowler, "*Public School Finance Programs of the United States and Canada: 1998-1999,*" Available from www.nces.ed.gov/edfin/state.

[55] Wong, *Funding Public Schools,* 59.

[56] State of New Mexico Education Department Web Site, www.sde.state.nm.us.

[57] NCES web site of school statistics, www.nces.edgov/pubs2001/digest/dt020.

[58] New Mexico Department of Education, Child Nutrition Programs, Campus Enrollment and Eligibility for Program Year 2000, 22.

2001. This quantitative study will compare the equity indices before and after the implementation of the At-Risk Index.

In 1997-98, the state provided 1,409,495,000 revenues or 72.2 percent, the federal government contributed 258,676,000, or 13.2 percent and local governments provided 284,281,000 revenues, or the remaining 14.6%. The following year, 1998-99, remained relatively unchanged from a percentage basis. The state provided 1,522,000,000 revenues, or 72.5 percent, the federal government 282,233,000 revenues or 13.4 percent and the local governments 294,395,000 revenues or 14.1 percent. The public school funding formula provided over 95% of the operational revenues for the public schools in New Mexico.[59] As discussed earlier, this formula was designed as a foundation program based on a matrix comprised of per pupil value units. Originally, the At-Risk Index was multiplied by the MEM or membership after a locality had been ranked according to the percentage of Title I students, the percentage of limited English proficient students, the level of student mobility, and the percentage of dropouts in the district.[60] The term membership is defined in the Public School Finance Act as "the total enrollment of qualified students on the current roll of a class or school

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[59] Teresa Jordan et al. "School Finance Reform in New Mexico," *Journal of Education Finance* 23 (1998): 324.

[60] New Mexico *1998 Replacement Pamphlet for the 1978 Statutes, Annotated* (Michie 1998), Section 22-8-23.3.

on a specified day. The current roll is established by the addition of original entries and reentries minus withdrawals. Withdrawals of students, in addition to students formally withdrawn from the public school, include students absent from the public school for as many as ten consecutive school days."[61]

Senate Bill 61 was introduced and it was approved by the 45th Legislature during the Second Session of 2002. This Bill adjusted the calculation of the At-Risk Index in order to include a three-year average rate. This rate is calculated by computing a three-year average of a district's percentage of membership for Title I allocations, English language learners, and the percentage of student mobility. The dropout percentage was eliminated effective SY 2002. Also, the recalculation was completed every year rather than every other year. For the school years 2002, 2003, and 2004 a save harmless provision also was included. The save harmless provision specified that school districts could not receive less than ninety percent of the amount allocated during the preceding school year. [62]

The educational clause in the New Mexico Constitution obligates the State Legislature to provide "a uniform system of free public schools sufficient for the education of, and open to, all the children of school age in

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[61] New Mexico Constitution, Article XIII, Sec. 22-8-2 Definitions, available from New Mexico Statutes on www.lexis.com.

[62] Senate Bill 61, 45th Legislature., 2nd sess., Amendment to Sec. 22-8-23.3 of the Public School Finance Act, 1997.

the state shall be established and maintained."[63] New Mexico also delineates a definition of at-risk students recommended by the state department of education. According to the New Mexico definition, at-risk pupils are those "whose school achievement, progress toward graduation, and/or preparation for employment are in serious jeopardy".[64]

By 1990, sixteen states had included funding specifically targeted for the at-risk students.[65] By 1999, an additional state had included an at-risk factor to its funding formula and now its state aid program. Eight states allocated funding through categorical grants or allocated various amounts that were multiplied by the number of students receiving specific services such as $100 per student for tutoring, e.g., State of Alabama.[66] Five states used a weighting system for additional funds for the at-risk population beyond their base foundation levels. Twenty-five states referred to remedial services through their compensatory education provisions in the budget outlines. New Mexico has included an At-Risk Index as an integral component of their foundation funding formula for public schools.

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[63] N.Mex. Const, Art XII, Sec. 1. from www.puertorico51.org/english/newmex.htm.
[64] John T. McDonough, "A Survey of Opinions and Attitudes Toward State At-Risk Program Focus, Delivery, and Funding" (Ed.D. diss., Arizona State University, 1990), 145.
[65] Ibid., 53.
[66] Fowler, William. 2001. "*Public School Finance Programs of the United States and Canada:1998-99.*" In National Center for Education Statistics. U.S. Department of Education. Washington, D.C. Available from www. nces.ed.gov/edfin/state.

Research Design

The quantitative analysis of this study investigated the effect of the At-Risk Index component of the New Mexico Public School Funding Formula. A chronological timeline traced the development of the At-Risk Index. An empirical data analysis included a review of: current expenditures, state revenues, local revenues, federal revenues, final funded membership totals, equity indices, assessed district valuations, and allocation totals based on the at-risk enrollment. At-risk qualifiers such as: free and reduced meal recipient totals, dropout rates at the secondary level, the percentage of mobility, and the percentages of limited English proficiency students were included in the Refined Cluster Index as the qualifying factors of the At-Risk Index as defined by the statutes of New Mexico.

Summary

State constitutions delineate the level of education afforded all children in the United States, regardless of their socioeconomic background. Equitable funding is an essential element of a model state system of public education that addresses the educational needs of at-risk students.

The purpose of this research is to investigate New Mexico's Public School Funding Formula, delineated through state policy, which includes the implementation of an at-risk index. The evaluation of the equity statistics applied illustrated whether the at-risk index improved the level of vertical equity for all children. The results of the research may provide a policy model for advocacy groups, appointed commissions, or state policymakers to consider. Dissemination could also occur through conference presentations.

While there is a legal responsibility for providing a uniform system for free public schools, the state may share its responsibility for providing the fiscal foundation for all students including at-risk students with the local school districts. Advocates for those children classified as at-risk contend that for this segment of our student population to become productive citizens, the resource gaps between high fiscal localities and low fiscal school divisions had to be reduced. An investigation to determine whether the implementation of the At-Risk index in 1997-98 has begun to move New Mexico in the direction of greater fiscal equity for all students, including at-risk students, is warranted in order to assess the effectiveness of this important fiscal policy. Other states faced with a similar challenge will benefit from an indepth and unbiased analysis.

If a nation expects to be ignorant and free, in a state of civilization, it expects what never was and never will be.[67]

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[67] Thomas Jefferson in a letter to Charles Yancy, January 6, 1816. *In The Harper Book of American Quotations*, edited by Gorton Carruth and Eugene Ehrlich, 208. New York: Harper and Row, 1988.

Chapter 2

Literature Review

Surely there is enough for everyone within this country. It is a tragedy that these good things are not more widely shared. All our children ought to be allowed a stake in the enormous richness of America. Whether they were born to poor White Appalachians or to wealthy Texans, to poor Black people in the Bronx or to rich people in Manhasset or Winnetka, they are quite wonderful and innocent when they are small. We soil them needlessly.[68]

Insight Regarding Policy Development

Numerous documents including textbooks, journal articles, editorials, policy papers, and dissertations were reviewed in order to provide insights related to research that was centered on the assessment of fiscal equity. Related topics such as funding formula designs, funding sources, statistical applications and various stakeholders' opinions and most important, the funding schemes were reviewed.

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[68] Jonathan Kozol, *Savage Inequalities Children in America's Schools* (New York: Harper Collins, 1991), 233.

Vertical and Horizontal Equity

There are two categories of equity, vertical equity and horizontal

equity. Berne and Stiefel differentiated between the two categories. Horizontal

equity strategies are applied when funding is provided for "equal treatment of

equals".[69] In other words, students in various subgroups are considered equal

and may receive equal revenues, expenditures, pupil-teacher ratios, or equal

resources compared to the general student population to support their

education. Variations amongst the subgroups of students such as

socioeconomic backgrounds or language proficiency may not be factors in the

funding schemes for additional revenues.

Vertical equity assumes the "unequal treatment of unequals"[70] or that

subgroups of students do have various characteristics that affect the cost of

their education. This approach requires that critical decisions be made

regarding the nature of the differences of the students that are "unequal".

Berne and Stiefel provided a framework in order for policy makers to analyze

their decisions regarding vertical equity funding. Three categories of

characteristics were recommended, child-based, district-based, or program-

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[69] Robert Berne and Leanna Stiefel, *The Measurement of Equity in School Finance Conceptual, Methodological, and Empirical Dimensions* (Baltimore: The Johns Hopkins University Press, 1984): 13.
[70] Ibid., 13.

based. Child-based decisions may include Special Education services or the necessity of preschool programming. District-based considerations may include the transportation demands of a rural district or the costs of technology. Finally, the program-based characteristics may include mandated services required by the federal government or recommended teacher-pupil ratio standards.[71] In either category, additional funding would be provided through the vertical equity strategy.

Additional funding for at-risk students may fall into the category of child-based or program-based vertical equity. Funding may be appropriated through several avenues such as student weightings beyond the foundation level, categorical grants or through the compensatory education funds that are added beyond the foundation level of funding. Student weightings are applicable when a state designates a student population, such as students who are eligible for at-risk programming. This group of students is assigned a weighted numerical factor as in Florida's funding plan, students eligible for at-risk programming were assigned a weighting of 1.399 in 1998-99.[72] Allocations based on multiplying these weighted factors by the number of eligible students are included within the funding appropriations.

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[71] Ibid., 14.

[72] Fowler, William. 2001. "Public School Finance Programs of the United States and Canada:1998-99." In National Center for Education Statistics. U.S. Department of Education. Washington, D.C. Available from www.nces.ed.gov/edfin/state.

Categorical grants or categorical aid grants are defined as,

"governmental units with specific expenditure requirements".[73] In the state of

Michigan, $260 million was designated as categorical funding for at-risk

students who qualified for reduced meals in 1998-99.[74] The categorical

funding amounts may be an avenue that a state implements to account for the

fiscal demands of various student populations. This is another example of a

vertical equity model to address the "unequal treatment of unequals"

examined by Berne and Stiefel.[75]

Another example of categorical funding is at-risk funding through

the category of compensatory education. States implement numerous options

for this category of funding such as: educationally disadvantaged, remedial

education, adult education, or dropout prevention. Again, additional funding is

provided for a specific program or students beyond the foundation level

funding.

Policy decisions at the state level frame the vertical equity models

included in a state funding formula. Clune and Odden recognized the need for

states to revamp their school finance systems due to the lack of progress in

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[73] Alexander and Salmon, *Public School Finance*, 195.
[74] Fowler, William, 2001. "*Public School Finance Programs of the United States and Canada: 1998-99.*" In National Center for Education Statistics. U.S. Department of Education. Washington, D.C. Available from www.nces.ed.gov/edfin/state.
[75] Berne and Stiefel, *The Measurement of Equity in School Finance*, 13.

regard to achieving fiscal equity by reexamining the existing funding policies. Evans, Murray, and Schwab confirmed Clune and Odden's premise by noting that after twenty years of effort, fiscal inequities had been reduced by sixteen to twenty-five percent nationally.[76]

Throughout their analysis of several finance systems, Clune and Odden delineated several weaknesses evident in the current plans. First, it was noted that school finance plans do not include fiscal equity policy targets. An example of one of these goals would be to increase pupil expenditures that fall into the bottom 50 percent of the districts in order to raise the expenditures up to the median levels. Secondly, efforts to decrease fiscal inequities need to be evident within the policy statements. While equity scores normally increase when the state assumes greater fiscal responsibility, this does not ensure increased fiscal equity. Unfortunately the areas that receive additional funding may actually increase the span of disparity if they are not carefully selected based on the fiscal equity policy targets. Fourth, assumptions cannot be made that equate court mandates with fiscal equity. It is not uncommon for spending adjustments to be made as the result of litigation across a state. However, the

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[76] W. Evans, S. Murray, and R. Schwab, "State Education Finance Policy After Court-Mandated Reform: The Legacy of Serrano" (presented at the 1996 proceedings of the Eighty-Ninth Annual Conference on Taxation, National Tax Association, Washington, DC, 1997): 366-371, quoted in Allan Odden and William Clune, "School Finance Systems: Aging Structures in Need of Renovation," *Educational Evaluation and Policy Analysis* 20 (1998), 159.

apparent variations of base funding levels remain after the across the board adjustments are devised.

Odden and Clune offer several recommendations in which fiscal equity policy targets may be developed to decrease disparity. The policy targets need to be developed through the political process in order to measure the effects of the formula strategies. This plan would move the political debate away from which school districts are receiving increased funds to the progress made towards the goal outcomes. Examples of equity policy targets may be for a state to raise all of their localities to reach the national median or gauge the districts' spending level on the median per pupil expenditure level. Finally, an index to compensate for at-risk education for nearly all states is essential.[77] The adjustment is determined by specifying characteristics evident in certain localities that justify their need for increased funding. The At-Risk Index in the New Mexico Public School Funding Formula is an example of such a policy decision.

Addressing the fiscal demands of educating at-risk students may be allotted for in-state funding formulas by several avenues. Some states refer to indices of need such as an at-risk index. Additional insights related to at-risk

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[77] Alan Odden and Willaim Clune, "School Finance Systems: Aging Structures in Need of Renovation," *Educational Evaluation and Policy Analysis* 20 (1998): 162-166.

funding were reviewed in a dissertation authored by Lyons in 1990.[78] Several

funding models were delineated and a simulation was created to evaluate the

alternatives. The funding methods included: competitive discretionary grants,

special purpose categorical (flat) grants, equalized per-pupil grants, personnel

(classroom) unit allocations, excess cost reimbursements, and the index of

need.[79]

An index of need was one of the funding strategies, which is similar to

the At-Risk Index in New Mexico's public school funding formula. According

to Lyons, implementing an index of need allows a district to consider the

extent of the concentration of lower socioeconomic students rather than

counting the number of targeted students. The index of need is calculated

based on several factors indicative of the students' socioeconomic level.

The research questions that were related to the index of need

component in her dissertation included:

1. What were the prototype programs, as identified by a
   classification system for at-risk programs, currently
   being funded from discretionary grants from the Arizona
   Department of Education?

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[78] Teresa S. Lyons, "Alternative State Funding Allocation Methods For Local School District Programs To Serve "At-Risk" Students" (Ph.D. diss., Arizona State University, 1990).
[79] Ibid., 59-60.

2. What alternative methods could be identified for allocating state funds through the state funding formula to local school districts to support programs and activities for at-risk students?

3. Based on a simulation of at-risk programs in prototype districts within a prototype state, how were monies distributed among school districts utilizing the funding alternatives?[80]

Based on the conclusions and the generalizations section of Lyons' dissertation, the index of need appeared to be an appropriate method of funding for at-risk populations.[81] She noted that students do not have to be labeled and districts were afforded program delivery flexibility in their instructional models. Accountability measures would need to be developed and decisions would need to be made regarding which factors would be included in the index of need. Arizona selected the following variables: absentee rate, number of limited English proficiency students, number of students in the bottom quartile for K-3 pupils and below the 40th percentile for grades 7-12, the 7-12 dropout rate, the K-3 mobility index, and the social

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[80] Teresa Sue Lyons, "Alternative State Funding Allocation Methods For Local School district Programs To Serve "At-Risk" Students" (Ph.D. diss.,Arizona State University, 1990), 45.
[58] Ibid., 100.

economic status index for the school districts.[82] The components of the New

Mexico At-Risk Index were selected, based partly on research findings and

partly on policy decisions. Each selected component are identified and

discussed below.

Lyons and Jordan included an index of need in their analysis of state

funding options for at-risk students. The index was one of six funding

schemes apparent through a national survey conducted by McDonough. The

funding plans that were prevalent across the nation were: equalized per-pupil

allocations, index of need, categorical flat grants, excess cost reimbursement,

personnel unit allocations, and competitive discretionary grants.[83]

Lyons and Jordan determined the following conclusions regarding the

distributive effects of the various funding schemes. The index of need and the

discretionary grants provided more benefits for poor districts. In comparison

the categorical flat grants, the equalized per pupil allocations, and the excess

cost reimbursements benefited the large, wealthy, suburban districts. Through

the policy analysis of New Mexico, it became clear that the index of need

provided monetary benefits to the low wealth areas of the state.

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[82] Ibid., 50.

[83] Teresa Sue Lyons, "Alternative State Funding allocation Methods For Local School District Programs To Serve "At Risk" Students," Ph.D. diss., Arizona State University, 1990: quoted in K. Forbis Jordan and Teresa Lyons, "An Analysis of State Funding Options For Local School District Programs To Serve "At-Risk" Students," *The Journal of School Business Management* 3 (July 1991), 28-33.

Additional insights regarding at-risk initiatives may be gleaned by reviewing a dissertation by McDonough in 1990. He completed a dissertation that investigated efforts to define the at-risk terminology and then surveyed several groups regarding the program focuses, delivery, and funding strategies for at-risk initiatives. McDonough concluded that the definition of the term "at-risk" lacks consistency. The definitions range from lists of characteristics to lengthy paragraphs that included students' contributions to a democratic society. McDonough compiled a chart for the United States and classified sixteen states, including New Mexico, which provided state funds targeted specifically for at-risk populations.

He summarized definitions of the term "at-risk" students and indicated that New Mexico, Alaska, South Dakota, Utah, and Wyoming identify at-risk students as pupils that may not graduate or achieve the level of academic knowledge with adequate social skills to prepare them for personal, economic, and social sufficiency in society.[84] Specifically, McDonough noted that in New Mexico the state department of education defines at-risk students as those whose school achievement, progress toward graduation, and/or preparation for employment are in serious jeopardy".[85] Also he described the

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[84] John T. McDonough, "A Survey of Opinions and Attitudes Toward State At-Risk Program Focus, Delivery, and Funding" (Ed.D. diss., Arizona State University, 1990), 46.
[85] Ibid., 145.

funding for at-risk students in the fiscal years of 1990 and 1991. For each of these two years New Mexico allocated $2 million that were earmarked for at-risk students through a general equalized aid formula and an additional $1 million through competitive grants.[86]

McDonough conducted his study based on four research questions:

1. How many states have official definitions of at-risk youth, what are those definitions, and what are their characteristics?

2. How many states were funding at-risk programming, and what were the characteristics of the funding methods used by the states surveyed to fund their at-risk programs?

3. What were the attitudes and opinions of national experts (NE), state school finance officials (SFO), state coordinators of dropout prevention (SCDP), and legislative liaisons of The Council of Great City Schools (CGCS) member districts toward state level focus, delivery, and funding of at-risk programs? What was the frequency distribution of responses for the entire population and for each of the four groups, which comprised the population? What were the mean, median, and standard deviations for the entire population and

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[86] Ibid., 145.

for each of the four groups, which comprised the population? Were there significant differences at the .05 level between the attitudes and opinions of the groups surveyed? Where significant differences occurred, which of the four groups responded differently?

4. What was the rank ordered response of national experts (NE), state school finance officials (SFO), state coordinators of dropout prevention (SCDP), and legislative liaisons of The Council of Great City Schools (CGCS) member districts regarding preferred state funding methods for at-risk programming? What was the frequency of distribution of the rank ordered responses for the entire population and for each of the four groups that comprised the population? What was the mean rank ordered responses of the total population and for the four groups that comprised the population? Were there significant differences at the .05 level between the rank ordered responses of the four groups that comprised the

population? Where significant differences occurred, which of

the four groups responded differently?[87]

Through his survey questions, McDonough requested that the four

groups of stakeholders rank several methods of funding schemes from their

most favored preference to their least favored preference. These plans

included: categorical grants, weighted pupil allocations, an index of need,

competitive discretionary grants, and personnel units. The funding methods

that were selected by the higher percentage of respondents as most favorable

were categorical grants, followed by weighted pupil allocations, and finally an

index of need. Additionally, of the seventeen states that McDonough

delineated as having at-risk funding included in his summary findings, eight

states distributed funds through competitive grants, six states allocated funds

with formula based strategies, and three states utilized a combination of

formula funding and competitive grants.[88] These findings provided a backdrop

for the public school funding formula components in New Mexico for at-risk

students.

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[87] Ibid., 6.
[88] Ibid., 92.

New Mexico's Funding Policy

Background

The Public School Finance Act delineated the framework for the financial support for New Mexico's public schools. This school finance reform was centered on the goal of escalating fiscal equalization for students across the state. One of the cost differential indices contained in the formula was entitled the At-Risk Index, which addressed the student population from low socioeconomic backgrounds. Additionally, the financial support from the state was increased and the degree of reliance on property taxes was reduced. New Mexico has consistently exerted a high level of fiscal effort for education relative to their fiscal capacity.

For Fiscal Year 2001, New Mexico ranked tenth as measured by state and local tax receipts for K-12 public schools per $1,000 of personal income.[89] During the time period that the latest analysis of the At-Risk Index was completed, New Mexico's fiscal effort was ranked higher than the national average. When New Mexico was compared to the five neighboring states in the Southwest, it ranked fourth in fiscal capacity as measured by per-capita personal income during the years 1994-1995. In contrast to its fiscal

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[89] Derived from United State Department of Commerce, Bureau of Economic Analysis, "Survey of Current Business." (U.S. Government Printing Office, Washington, D.C., 2002). National Education Association, Rankings and Estimates 2001-2002. (Washington, D.C. NEA, 2002).

capacity, among its contiguous states, New Mexico ranked first in comparison of state and local revenues per $1,000 of the per-capita income and third in regard to per-pupil expenditures.

The current public school funding formula for New Mexico was included in the Public School Finance Act enacted in 1974 by the Legislature. Two guiding objectives were designed to frame the public school funding formula. First, "to equalize educational opportunity statewide" and secondly "to retain local autonomy in the actual use of funds".[90] Numerous legislative adjustments were made to the formula from 1974 through 1995, however for the purposes of this research, the changes that were related to at-risk and bilingual education will be detailed. Both of these factors were included in the At-Risk Index.

In 1988, the Joint Legislative Education Study Committee appointed a task force. They recommended increased funding in order to expand the programming opportunities for at-risk students and bilingual education. The changes that were recommended in 1988 regarding at-risk education were not approved by the Legislature. However, a "multi agency task force was

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[90] New Mexico Legislative Council, The New Mexico Public School Funding Formula Task Force, "Studies of New Mexico's Public School Funding Formula and Changes Made in the Formula, 1974-1994" (Initial meeting of the Public School Funding Task Force, Albuquerque, New Mexico 1995, photocopy), 1.

appointed by the Legislative Education Study Committee"[91] in order to

continue the review of the funding formula components. In 1988, amendments

were included by the Legislature that ended the "crediting of supplemental aid

for students living on Indian lands".[92] Again in 1989, the task force

recommended increasing the cost differentials for bilingual education and

providing funding for at-risk students or students in danger of school failure.[93]

By 1990, the modifications approved by the Legislature included an "increase

in the bilingual cost differential from .3 unit per FTE student to .35 unit in

1990-91, .4 unit in 1991-92, .45 unit in 1992-93 and .5 unit in 1993-94.[94]

By 1991, the Governor created another task force entitled, The

Governor's School Funding Formula Task Force. Serving on the committee

were the "Secretary of the Department of Finance and Administration, the

President of the State Board of Education, a Senate member, a House member

and a liaison from the Governor's Office".[95] The task force concluded that

"the formula generally provides a reasonable and fair distribution, continues

to promote equal access, and changes should only be made after thorough

study".[96]

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[91] Ibid., 6.
[92] Ibid., 5.
[93] Ibid., 6.
[94] Ibid., 6.
[95] Ibid., 7.
[96] Ibid.,7.

In 1995, the Public School Funding Formula Task Force was created and convened in Albuquerque, New Mexico. The task force was comprised of fourteen voting members that included legislative representatives, senators, and local school district superintendents. Their charge was to hire a consulting firm that would review the effectiveness of the public school funding formula. Jordan and Associates were selected for the review.

The Public School Funding Formula Task Force

A school finance study was directed by K. Forbis Jordan for the New Mexico Public School Funding Formula Task Force. The results of the Jordan study provided valuable insights for the primary objective of this study and created a model for educational funding that has the potential for increasing the level of vertical equity if implemented by other states.

Members of the study team for the Jordan project were organized to interview state officials, staff members from the State Board of Education and the State Department of Education, state program administrators, interest groups, and local school officials. Seven components of the funding formula emerged as concerns through the analysis of the 226 interviews and questionnaires. The participants identified components that included: the

density factors, the Teacher and Experience waivers, indices allotted for

Special Education students, the identification of students that required

bilingual instruction, the need for an At-Risk Index, the need for a cost of

living index, and the accuracy of student counting procedures. Two funding

policy issues surfaced as well: increasing equalization for capital

improvement funding and increasing the base funding per unit.[97]

The public school funding formula for New Mexico provided over 95%

of the operational revenues from the state level.[98] The formula follows an

equalization format based on a matrix comprised of per pupil value units. The

adjustments for units included grade levels, special education, gifted

programs, and bilingual education. The units for the 1995-96 calculations

totaled 563,000 and they were funded at a level of $2,113 per unit.[99] "The

1995-96 value of the state program was over $1.190 billion with $1.147

billion coming from the state funds and $41 million coming from the local

funds.[100] This is an example of a state reducing inequities in operational

funding of public education by reducing the burden on localities to generate a

high percentage of the revenues.

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[97] Ibid., 3.
[98] Teresa S. Jordan et al., " School Finance Reform," 324.
[99] Ibid., 325.
[100] Ibid., 325.

Although the configuration of the formula has basically remained in tact, a few changes are evident. First, the *Big Mac* tax reform was initiated in 1981 that reduced local property taxes as the main revenue base for education. The tax mill reductions included two types of property taxes, residential and nonresidential. Also, oil and gas severance credits were included. These reductions were phased in commencing in 1981 and continued through 1983.[101] Also, the responsibility for school finance was shifted to the State Board of Education (SBE) and to the State Department of Education (SDE). These agencies approved local school district budgets and confirmed the number of students who were identified by the school districts as eligible for special programs.[102]

By the 1998-1999 school year, New Mexico's student enrollment reached 330,372 students, of whom 135,942 of them qualified for free or reduced meal plans.[103] The funding formula was modified therefore to include additional variables that would meet the increasing range of educational needs for the public school students. By the 1997-98 school year, the At-Risk Index was integrated as a component of the public school

[101] "Studies of New Mexico's Funding Formula," 2.
[102] Jordan et al. 1996. *Final Report*, 2.
[103] State of New Mexico Department of Education Web Site, www.sde.state.nm.us.

funding formula as a cost differentiated unit. The index appropriations were recalculated for school years 1998-1999 and 2000-2001.

In New Mexico, the number of cost differentiated units has increased since 1979 and the membership totals have increased since 1982. Also, the funding formula has provided increased appropriations in order to meet the needs of a wider range of students.[104] However, the funding levels per unit have not increased compared to the increases in per-capita personal income. A dilemma arises for building level administrators in which they are challenged to meet the educational demands of their school population with the current and inadequate per unit funding levels.[105]

Legislative Statute 22-8-23.3 in the Public School Finance Act was enacted by law and effective by July 1, 1997.[106] This statute delineated the inclusion of an at-risk unit in the program cost calculations. Every two years the At-Risk Index was determined by the following method. First, the school districts were ranked based on the percentage of students eligible for Title I services, the percentage of limited English speaking pupils, the percentage of dropouts in the school division, and the percentage of student mobility. The districts with the highest need were assigned the highest numbers in the

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[104] Jordan et al. 1996. *Final Report,.4*- 5.
[105] Ibid., 5.
[106] Statutes Chapters 22 and 22A, Public Schools, Pamphlets 40 to 42, 43rd Legislature, 2nd sess. (1998), 80.

rankings. This ranking was multiplied by the total district membership to determine the program units. [107] Senate Bill 61 provided the amendments for calculating the At-Risk Index by eliminating the dropout component and requiring the recalculations of the district allocations annually. The Save Harmless Clause of this amendment guaranteed that all districts received not less than 90 percent of their at-risk funding from FY 2001 and subsequent years.

In New Mexico the study team organized by Jordan and Associates, recognized that these indices could be used to support policies and drive innovative programming. The At Risk Index was acclaimed in the Final Report to the Public School Funding Formula Task Force for a number of reasons. First, this tool matched the policy goal that the funding mechanisms should match the educational needs of the students and the students would not have to be labeled in order to receive the financial support. The programming plans were the basis for the index determinations. Second, it provided a program structure for at-risk students. Finally, the expanse of the diverse characteristics of at-risk students were accommodated in the index. After the index was determined for each district it was multiplied by the final funded membership of the localities in order to determine the aggregate

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[107] 22-8-23.3. Article 8, *New Mexico Statutes*, *Annotated* (Michie 1978), 1998 Replacement Pamphlet, No. 6, Chapters 22 and 22A, Second Session of the Forty-Third Legislature, *Program Cost Calculation*.

appropriations.

One component of the Jordan and Associates study of the New Mexico public school funding formula involved several of these equity indices. "Two measures of local fiscal capacity were used in calculating the equity measures using cost differential units. They were the assessed value of taxable property per unit and the local revenues per unit used in calculating state aid payments to local school districts."[108] K. Forbis Jordan concluded that the New Mexico public school funding formula is "highly equitable".[109] However, Teresa Jordan noted that disparities may be evident when calculating the equity indices through the use of unweighted pupil counts.[110] The equity indices based on the property values per pupil in 1996, indicated the Federal Range Ratio as 0.461, the McLoone Index was 0.92, and the Gini Coefficient was 0.07.[111] According to the interpretations of these indices, variations in the equity indices may be noted if students are used as the basis of the calculations instead of the cost differential units when compared to the assessed property values per unit or the local revenues per unit.

Further literature review will include an analysis of the documents prepared for the Legislative Education Study Committee such as; Volume I:

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[108] Teresa S. Jordan et al., "School Finance Reform," 332.
[109] Jordan et al. 1996. Final Report,. 5.
[110] Teresa S. Jordan et al., "School Finance Reform," 332.
[111] Ibid., 333.

Final Report to the Public School Funding Formula Task Force and Volume

II: Technical Reports and Appendices for the Public School Funding Formula

Task Force. These references were listed in relation to the funding formula

literature. The Santa Fe New Mexico Legislative Education Study Committee

was noted in several references also.

 Next, standards based education may provide the backdrop for funding

allocations. The assumption that all students can reach the required standards

necessitates reviewing the student populations to assess the appropriate level

of funding for academic success. At-risk populations generally require higher

allocations of funding. Finally, attempts of finance reform have resulted in

minimal improvements in funding formulas.[112]

This literature review provided insights regarding funding options

based on the premise of vertical equity for at-risk students. The dissertations

offered research models centered on the topic of fiscal equity. Next, insights

from this background will be applied to a review of fiscal equity for at-risk

students in New Mexico.

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[112] Allan Odden and William Clune, "School Finance Systems: Aging Structures in Need of Renovation,"
Educational Evaluation and Policy Analysis 20 (1998): 157-158.

The better part of a man's education is that which he gives himself.[113]

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[113] James Russell Lowell, "Abraham Lincoln," My Study Windows, 1871. *In The Harper Book of American Quotations,* edited by Gorton Carruth and Eugene Ehrlich, 208. New York: Harper and Row, 1988.

Chapter 3

Methodology

> We just must not, we just cannot afford the great waste that comes from the neglect of a single child.[114]

The inclusion of an at-risk index in a public school funding formula is an avenue for states to provide funding for at-risk students. The New Mexico public school funding formula includes an At-Risk Index as a component of the vertical equity strategy. Equity indices are a measure of vertical equity. This research has been developed in order to compare the equity indices before the inclusion of the At-Risk Index in the public school funding formula and after the At-Risk Index was added in New Mexico. After reviewing several equity indices, it is apparent that New Mexico has made an effort to promote vertical equity. By the 1998-1999 school year 135,942 students qualified for free or reduced lunches in New Mexico. The total public school

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[114] Lyndon B. Johnson . Speech before the National Conference on Education Legislation on March 1, 1965. In *The Harper Book of American Quotations,* edited by Gorton Carruth and Eugene Ehrlich, 208. New York: Harper and Row, 1988.

enrollment was 330,372.[115] The fiscal demands necessary to educate at-risk

students continued to increase.

The challenge to provide additional funding for at-risk students is

evident for low wealth school districts, particularly when the funding levels

are primarily dependent upon local fiscal capacity. State policies that include

an index of need to increase vertical equity levels are imperative for other

states to emulate in order to meet the fiscal demands for educating the

increasing at-risk populations. This fiscal equity analysis may provide

valuable insights regarding an index of need as a component in a funding

formula to reduce disparities. A series of dispersion statistics, referred to as

equity statistics, were compared before and after the implementation of the

At-Risk Index in the New Mexico public school funding formula in this study.

The following research questions provide the framework for this policy

analysis:

1. How did the At-Risk Index evolve?

2. How did the equity indicators compare before the At-Risk Index was

   implemented in the New Mexico Public School Funding Formula?

   Is there evidence that the funding levels provided improved equity

   across the student populations in the state of New Mexico after the

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[115] State of New Mexico Education Department Web Site, www.sde.state.nm.us.

At-Risk Index was implemented in the New Mexico public school

funding formula in school year 1997-98, according to the equity

indices?

3. Were additional funds allocated for the state budget to compensate

for the appropriations determined by the At-Risk Index after the

index was implemented during school year 1997-98?

Research Designs

Several dissertations and research studies were reviewed to gain

insights regarding approaches to financial research that were centered on

empirical data examinations. Kenneth Wong's book entitled, Funding Public

Schools provides information regarding research methods for equity studies.

He "employed a variety of research strategies, including empirical analysis of

funding trends, comparative case studies of policymaking in political

institutions, in-depth interviews with policymakers and practitioners,

observation of classroom activities, and a synthesis of documentary sources

on resource allocation."[116]

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[116] Wong, *Funding Public Schools*, 2.

A number of these data gathering strategies are appropriate for conducting a dissertation of this type. First, empirical data analysis was essential for the financial review of: student expenditures, state revenues, local revenues, federal revenues, equity indices, at-risk refined clusters, assessed district valuations, equalization efforts, final funded membership totals, and allocation amounts based on at-risk enrollments. Also, interviews with policymakers provided valuable insights into the development of the funding policy for New Mexico.

Another example of a study centered on fiscal equity was authored by Carr (1987) entitled, "A Study of Equity and Adequacy in the Virginia Public School Finance System".[117] This empirical data analysis reviewed the degree of horizontal equity through several indices that will be used in this study. Equity indices will be included in this research model.

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[117] Edward W. Carr, "A Study of Equity and Adequacy in the Virginia Public School Finance System" (Ed.D. dissertation., College of William and Mary, 1987).

Research Questions

The research design of this dissertation is an empirical study anchored on vertical equity models. To address the first research question (How did the At-Risk Index evolve?), an analysis of the state statutes related to the At-Risk Index will be completed. Also, several documents have been acquired from members of the Public School Funding Formula Task Force and the Legislative Education Study Committee. The chronological development of the index is presented below and its major features highlighted. The public school funding formula was enacted initially in 1974 by New Mexico and has remained essentially intact despite a series of minor revisions. However the At-Risk Index was developed over an eleven-year period spanning from 1988 to 1997 and was incorporated into the public school funding formula for the 1997-98 school year. It is currently recalculated annually in order to remain relevant to the New Mexico economy.

The second research question is divided into two sub parts, (How did the equity indices compare before the At-Risk Index was implemented in the New Mexico public school funding formula?) and (Is there evidence that the funding levels provided equity across the student populations in New Mexico after the At-Risk Index was implemented in the New Mexico public school funding formula in 1997-98 according to the equity indices?). Both sub parts

of the second research question will be answered by conducting a statistical

analysis with pertinent data drawn from New Mexico Public School Finance

Statistics from 1996-97 and 1997-1998.[118] These documents include the

essential components to complete empirical data analysis, including: state

revenues, local revenues, federal revenues, current expenditures by source,

i.e., local, federal, and state, final funded membership data, measures of

assessed district values, the cost differential units, and unit value expenditures.

Data collection included the number and percentage of at-risk populations in

the 89 public school districts located in New Mexico. Other databases that

provided information necessary for the assessment of equity included: The

National Education Association and The National Center for Education

Statistics. The SAS software package was utilized as a tool to calculate the

current equity indices with these statistics.[119]

Prior to the conduct of the statistical evaluations of horizontal and

vertical equity, it was necessary to make the following adjustments to the

fiscal data obtained in the publication, *New Mexico Public School Finance*

Statistics, 1996-97. The preliminary assessment of fiscal equity included the

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[118] New Mexico State Department of Education, *New Mexico Public School Finance Statistics*, *Fiscal Years 1996-97 Actual 1997-98 Estimated.* School Budget Planning Unit, Tres Giron, Chief Financial Officer, SDE (Print Shop, 1998), 1-120.
New Mexico State Department of Education, *New Mexico Public School Finance Statistics, Fiscal Years 1997-1998 Actual, 1998-1999 Estimated.* School Finance Analysis & Capital Outlay Unit and the School Budget Planning Unit, Tres Firon, Chief Financial Officer, SDE (Print Shop, 1999), C-1-C-88.
[119] SAS 8.2, Statistical Analyses Systems Institute Inc., Cary, N.C.

following adjustments which utilize the 1996-1997 New Mexico Public

School Finance Statistics for each of the 89 districts:

1. The following budget code totals were subtracted from the total local revenue category: 8303 (Sale of Pers./Real Prop./Equip.), 8304 (Sale of Pers. Prop./Equipment), 8306 (Gifts, Donations-Non-Categorical), and 8307 (Insurance Recoveries);
2. Total revenues from the state were listed;
3. Federal revenue codes 8603 (Impact Aid) and code 8604 (Forest Reserve) were included;
4. Total local and state grants were listed from budget code 25000;[120]
5. Total selected revenues were determined by adding the delineated amounts;
6. The final funded membership was listed from the State Membership data;[121] and
7. The assessed district valuations were acquired from the Comparison of Assessed Valuations.[122]

As indicated earlier, the At-Risk Index was implemented initially

during the 1997-1998 fiscal year. Therefore, the preliminary calculations were

completed through data analysis applied to 1997-98 data drawn from the *New*

Mexico Public School Finance Statistics data which represents all 89 school

districts and contain the following adjustments:

1. The following budget code totals were subtracted from the total local revenue category: 8303 (Sale of Pers./Real

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[120] New Mexico State Department of Education, *New Mexico Public School Finance Statistics, Fiscal Years 1996-97 Actual, 1997-98* Estimated. School Budget Planning Unit, Tres Giron, Chief Financial Officer, SDE (Print Shop, 1998), 1-120.
[121] Ibid., B-1 of 3 and B-2 of 3.
[122] Ibid., E1-E4 of 13.

Prop./Equip.), 8304 (Sale of Pers. Prop./Equipment), 8306 (Gifts, Donations-Non-Categorical), and 8307 (Insurance Recoveries);

2. Total revenues from the state were listed;
3. Federal revenue codes 8603 (Impact Aid) and 8604 (Forest Reserve) were included;
4. The sum of the local grants, state grants, and the combined local and state grants was determined;
5. Total selected revenues were determined by adding the delineated amounts;[123]
6. The At-Risk Refined Cluster Numeral was listed for each district;[124]
7. The At-Risk Add-on Index was determined by multiplying 0.015 times the At-Risk Refined Cluster for each district;[125]
8. The final funded membership was listed from the State Membership data;[126]
9. The At-Risk funds were determined by multiplying the At-Risk Index times the final funded membership amount. (This product is then multiplied by the unit value for 1997-1998 that was $2,175 based on the At-Risk Funding Formula);
10. The At-Risk funding amount was subtracted from the total selected revenues; and
11. The assessed district valuations were acquired from the Comparison of Assessed Valuations.[127]

The third research question, (Were additional funds allocated for the state budget to compensate for the appropriations determined by the At-Risk Index after the index was implemented for the 1997-98 school year?),

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[123] New Mexico State Department of Education, *New Mexico Public School Finance Statistics, Fiscal Years 1997-1998 Actual, 1998-1998 Estimated.* School Finance Analysis & Capital Outlay Unit and the School Budget Planning Unit, Tres Firon, Chief Financial Officer, SDE (Print Shop, 1999), C-1-C-88.

[124] Dr. Kathleen Forrer, "New Mexico Variables, Refined Clusters, and Indices For At-Risk and EOI" (Transportation and the Administration Division for the Department of Education, Santa Fe, N.Mex., 1997, photocopy).

[125] Ibid., 1-2.

[126] *New Mexico School Finance Statistics, Fiscal Years 1997-1998 Actual,* B-1-B-2 of 3.

[127] *New Mexico School Finance Statistics, Fiscal Years 1997-1998, Actual,* E-5-E8 of 24.

included a budget analysis of the state allocations. Data were collected from

the New Mexico Public School Finance Statistics.

The New Mexico State Department of Education web site contains a

portion of the data essential to a study of this type and The American

Education Finance Association. In the state produced document, *New Mexico*

Public School Finance Statistics, the appropriations and expenditures arrayed

by code provides a comparison of the expenditure and appropriation levels

both before and after the At-Risk Index was implemented.

Summary

Educators, legislatures, politicians, and communities are faced with a

critical problem. With the number of at-risk students on the rise, how can

states provide equitable opportunities for all students in order to ensure their

productive and successful futures? A child's education should not be limited

by their socioeconomic backgrounds. An inclusion of an at-risk index or an

index of need may provide an avenue for state funding to decrease the span of

disparities between high fiscal capacity and low fiscal capacity districts. Fiscal

policies from the state government levels have the potential to decrease or

even eliminate the inequities of educational opportunities. This research

project may provide a model for states struggling with this issue. The

American Education Finance Association awarded the opportunity for a

presentation of this research in the spring of 2002 in Albuquerque, New

Mexico.

> In the final analysis it is not what you do for your children but what you have taught them to do for themselves that will make them successful human beings.[128]

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[128] Ann Landers. *Ann Landers Says Truth Is Stranger*, 1968. In *The Harper Book of American Quotations*, edited by Gorton Carruth and Eugene Ehrlich, 208. New York: Harper and Row, 1988.

Chapter 4

Results

> If an information age society and technology-based
> economy require people who are well educated and
> if it is the symbolic analysts who will be
> economically successful, what are we doing to
> ensure equal access to the good life? We cling to the
> notion that good education is the key to success in
> life, but we seem unwilling to guarantee equal
> educational opportunity.[129]

The purpose of this research was to provide an analysis of the At-Risk

Index component of the New Mexico Public School Funding Formula. This

analysis includes: a comparison of the equity indices for the districts in New

Mexico before the implementation of the At-Risk Index in the New Mexico

Public School Funding Formula during 1997-1998 and after the At-Risk Index

funds were included in the State Equalization Distribution Formula. Also a

summary of how the At-Risk Index was developed, and insights regarding

additional funding provided by New Mexico in order to implement the At-

Risk Index are included in this chapter. Several measures of equity were

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[129] James Gordon Ward, "To Be Poor, Powerless, and Schooled in America: An Introduction to the Special Issue On School Finance Litigation," *Journal of Education Finance* 25 (1999): 3.

extrapolated from the data run outputs such as, the Restricted Range, the Theil

Index, the Gini Index, the McCloone Index, and the Federal Range Ratio.

Analysis of the Research Questions

Insights regarding the first research question (How were the funding

levels for at-risk students determined in the state of New Mexico? How did

the At-Risk Index evolve?), were analyzed based on the documents presented

by the Public School Funding Formula Task Force which was organized in

1995. The New Mexico Public School Funding Formula was enacted in 1974.

The funding formula was based on two guiding principles. First, the policy

was designed in order to equalize educational opportunities for all students

regardless of the wealth of the school district they attended. The second

priority was to continue the local control of the funding decisions with non-

categorical resources that were not earmarked for specific expenditures.

The appropriating body that was responsible for distributing public

school funding and maintaining the financial accounts shifted in 1977. First,

the public school finance division of the Department of Finance and

Administration was eliminated as documented in the 1977 New Mexico State

Statutes.[130] By 1987, the responsibility for managing the finances for public

education had been delegated to the State Department of Education and the

State Board of Education.[131]

The density factors were recommended in 1989 and 1991 as

components of the funding formula.[132] This legislative adaptation allowed for

larger school systems to have additional program units which calculated into

additional funding.[133] The larger school districts with an enrollment of 10,000

or more students such as; Albuquerque, Las Cruces, Gallup, Farmington,

Santa Fe and Roswell, were successful politically by organizing the passage

of this amendment due to the political power of their legislative

representatives. Several districts that didn't receive the program units based

on the density factor began preparations in order to take legal action due to the

inequities of the formula changes.

The Training and Experience Index had caused some dissension among

several school districts. The purpose of this index was to provide additional

funds to compensate for the cost of higher salaries for more experienced

teachers and personnel with advanced degrees. After the change of the fiscal

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[130] New Mexico Statutes, Annotated (Michie 1988), Chap. 246, Art. 69
[131] New Mexico Statutes, Annotated, (LexisNexis TM CD), Chap.22, Art.8.
[132] New Mexico Legislative Council. *The New Mexico Public School Funding Formula Task Force.* Initial Meeting of the Public School Funding Formula Task Force. *Studies of New Mexico's Public School Funding Formula and Changes Made In The Formula, 1974-1994.* (Albuquerque, 1995), Item 5.
[133] Ibid., Item 5.

agency, some districts were granted waivers in order to retain their funding based on the Training and Experience Index. Eventually, the waivers were discontinued and more concerns were raised regarding the inconsistencies of the funding formula.[134]

By 1994, the escalating costs of educating at-risk students were acknowledged. The Legislative Education Study Committee reviewed opportunities for funding a poverty index that could be appropriated through direct grants from the Department of Education. The Chief Financial Officer, the Director of the Legislative Education Study Committee, and a Legislative Representative on the Committee recommended replacing the density factor with an at-risk factor. At-risk programming such as alternative education was included in a small school size adjustment factor. However the legislative package that was recommended did not pass in 1995.

A Public School Funding Formula Task Force was assembled and the initial meeting was conducted on September 18, 1995. Their responsibilities were delineated. "The Public School Funding Formula Task Force is charged with hiring an independent expert to perform a study of the equity issues related to New Mexico's Public School Funding Formula and with monitoring the study. The Task Force is responsible for developing the scope of this study

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[134] Chief Financial Officer, State of New Mexico, Department of Education, interview by author, tape recording, Santa Fe, N.Mex., 14 August 2001.

as it pertains to equity issues raised by the current formula."[135] The

responsibilities included defining the parameters of the analysis with a request

for proposals and selecting a consulting firm to complete the study. A final

report was required with a presentation for the Legislative Council, the

Legislative Education Study Committee, the Legislative Finance Committee,

the State Board of Education, the Governor's Office, and the Department of

Finance and Administration before the 1997 legislative session was

scheduled.

By November 20th, 1995 interviews were scheduled for the selection

process for a consulting firm. The firm of Jordan and Associates was awarded

the contract for the study and the Final Report to the Public School Funding

Formula Task Force was completed by September 24, 1996. A justification

for an at-risk index was included in the report.

Seven tasks that had been completed by the firm were outlined. First,

the report included a summary of the pertinent documents had been reviewed

such as, the New Mexico Constitution, statutes, and the history of the New

Mexico Public School Funding Formula. Next, interviews and a survey were

conducted which encompassed numerous audiences such as: leaders in the

educational field, legislative members, employees from local school districts,

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[135] Funding Task Force, "Initial Meeting," Item 2.

and state officials. The New Mexico Public School Funding Formula, as it was calculated at that time, was evaluated with equity indices. Also, the formula was reviewed in order to determine if it met the goals stated in the policies and the state constitution. A cost analysis was completed to compare the various expenses of programs and the amounts allocated that coincided with the weighted program units. Next, two indices were created, an At-Risk Index and an Educational Overburden Index. The accountability requirements for the State Board of Education and the State Department of Education were reviewed.

Several conclusions were drawn from the analysis by Jordan and his associates. It was evident that legal action had been initiated due to the fact that the equity of funding had been questioned after the implementation of the density factors and the Training and Experience waivers. Finally, various calculations were considered in order to adjust the funding formula.[136] The variations adjusted the Training and Experience Index, the density factor, Special Education units, the Educational Overburden Index and the At-Risk Index.[137]

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[136] K. Forbis Jordan et al., "Volume I Final Report To The Public School Funding Formula Task Force." (Jordan and Associates, Henderson, Nev., 1996, photocopy), ii-iv.
[137] Ibid., 18-19.

The concerns about the density factors and the waivers surfaced

through the survey responses also. The necessity of funding designated for at-

risk populations was brought to the forefront by several constituents that

completed the surveys. The funding formula was found to be "highly

equitable" according to the standard equity indices calculations.[138] Results

from the cost analysis section revealed that the weights assigned to the grade

levels were adequate except for kindergarten. Recommendations for the

Special Education components were delineated.

The At-Risk Index was designed to take the place of the density factor.

The Educational Overburden Index would assist in supporting the additional

costs of certain student populations such as Limited English speaking

students. Suggestions for improving the audit practices, accountability reports,

and an updated information system were noted for the State Board of

Education's and the State Department of Education's accountability practices.

Finally, Jordan and Associates prepared examples of several funding formula

changes. The At-Risk Index was one of the recommendations for the New

Mexico Public School Funding Formula.

Jordan justified the concept for the At-Risk index based on three

premises. First, New Mexico did not have a plan that was designed to provide

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[138] Ibid., iii.

programming for at-risk students. Next, Jordan observed that the state had not

developed a research-based foundation for a program development plan

tailored for this population. Finally, the At-Risk Index was designed in order

to accommodate the wide diversity of student needs in this category.[139]

A procedure for calculating the index was delineated in the report. Four

variables were selected which were utilized to cluster the districts based on

their student population needs. These four variables were: the percent of Title

I students, a mobility factor which was based on the number of students

transferring into or out of a district, the drop-out rate for a school district, and

the percent of students who were categorized as Limited English

Proficiency.[140] A computer software program was used to cluster the districts

and an index was assigned to each district based on their level of need. The

index was multiplied by the district's membership and the unit value to

determine the additional funds that would be appropriated. The unit value in

1997-1998 was $2,175.[141] The successful passage of the At-Risk Index was

guided by the chair of the Task Force who was a respected member of the

New Mexico House of Representatives.

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[139] Ibid., 25.
[140] Ibid., 25.
[141]" LESC: Issues and Answers, 1982-1983; A first Look at New Mexico Public School Budgets, 1983-1984
through 1998-1999; New Mexico Public School Finance Statistics, 1999-2000; analysis of appropriated
program cost for 2000-2001" (Department of Education, Santa Fe, N.Mex., 2001, photocopied), B-5 0f 9.

The second research question was stated as (Is there evidence that the funding levels provided equity across the student population in the state of New Mexico after the At-Risk Index was implemented according to the equity indices? How did the equity indicators compare before the At-Risk Index was implemented in the New Mexico Public School Funding Formula?).

Three data runs were processed utilizing the SAS 8.2 software package.[142] The first data run inputs were comprised of the total selected revenues, the final funded memberships, and the assessed district valuations for 1996-1997. The second data run inputs included the total selected revenues, the final funded memberships and the assessed district valuations for 1997-1998. Finally, the third data run inputs were comprised of the total selected revenues excluding the additional At-Risk Index funds, the funded memberships, and the assessed district valuations for 1997-1998.

The following table illustrates the equity indices extracted from the outputs based on the three data runs designed based on the New Mexico Public School Finance Statistics from 1996-1997 and 1997-1998.

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[142] SAS 8.2. Statistical Analyses Systems Inc., Cary, N.C.

Table III   New Mexico Fiscal Equity Indices and Regression Statistics

Statistic	1996-97 Before The At-Risk Index Funding Was Included	1997-98 Including The At-Risk Funding	1997-98 Excluding The At-Risk Funding
	Data Run #1	Data Run #2	Data Run #3
Range	$8294.65	$8071.13	$7901.48
Restricted Range	$1167.53	$1541.57	$1272.78
Restricted Range Ratio	1.33714	1.43278	1.36075
Fifth Percentile	$3463.08	$3562.05	$3528.13
Ninety-Fifth Percentile	$4630.60	$5103.63	$4800.91
Federal Range Ratio	0.33714	0.43278	0.36075
Mean	$3996.77	$4227.52	$4065.74
Median	$4008.68	$4203.83	$4028.32
Coefficient of Variation	12.0407	11.9460	12.0299
Theil Index	.006695093	.006553943	.006594403
Gini Index	0.058375	0.056181	0.055536
Atkinson Index I2	0.99400	0.99421	0.99425
I4	0.98338	0.98422	0.98447
I6	0.97395	0.97558	0.97616
I8	0.96532	0.96780	0.96877
I10	0.95728	0.96060	0.96202
McLoone	0.91281	0.92976	0.93499

Table III New Mexico Fiscal Equity and Regression Statistics

Statistic	1996-97 Before The At-Risk Index Funding Was Included Data Run #1	1997-98 Including The At-Risk Funding Data Run #2	1997-98 Excluding The At-Risk Funding Data Run #3
r	0.54400	0.54160	0.60737
R(2)	0.29593	0.29333	0.36890
Slope	65460.14	70048.93	76662.86
Elasticity	0.019536	0.021481	0.022012

Table IV Regression Table

1996-1997 Output Data	Percap	Wealth
Percap	1.00000	0.54400
Wealth	0.54400	1.00000
1997-1998 Including At-Risk Funds	Percap	Wealth
Percap	1.00000	0.54160
Wealth	0.54160	1.00000
1997-1998 Without At-Risk Funds	Percap	Wealth
Percap	1.00000	0.60737
Wealth	0.60737	1.00000

The equity indices were based on un-weighted student counts. The independent variable was the revenue per pupil and the dependent variable was the assessed property value.

An analysis of the equity indices illustrates a slight increase in the levels of fiscal equity after the additional at-risk funds were included in the funding formula in 1997-1998. The majority of the indices provide indications

of a slight increase fiscal equity based on the interpretation of the indices. An individual analysis of each equity index follows.

The range illustrates the difference between the lowest per pupil inputs and the highest per-pupil inputs. As the range decreases or the difference between the highest and lowest per-pupil expenditure decreases, the level of vertical and horizontal equity increases. As indicated in the data runs output, the ranges decreased after the At-Risk Index was included in the calculations from $8,295 to $8,071. The range without the additional At-Risk funds in 1997-1998 decreased again to $7,901. Unexpectedly, when the additional At-Risk funds were excluded, the range continued to decrease.

The restricted range ratio is determined by dividing the fifth percentile of per-pupil inputs by the ninety-fifth percentile in per-pupil inputs. The restricted range ratio increased from 1.33714 to 1.43278 when the at-risk funding was added in FY 1997-98. However the restricted range decreased to 1.36075 after the additional at-risk funds were subtracted. The restricted range illustrates the difference between the per-pupil inputs at the 5th percentile and the 95th percentile. The restricted range increased after the implementation of the At-Risk Index with the At-Risk funds included and without the inclusion of the At-Risk funds in 1997-1998. As indicated by the restricted range measure, as the Restricted Range of the per-pupil inputs increase, the level of

equity, including vertical and horizontal equity, have decreased.[143] In 1996-

97, before the At-Risk Index was included in the State Equalization

Distribution, the restricted range was $1,168. This measure increased to

$1,542 in 1997-1998, which illustrates a decrease in equity with the At-Risk

funding amounts included. During the same funding year of 1997-1998, the

restricted range decreased to $1,273 when the At-Risk funds were excluded in

the revenues. One disadvantage of the restricted range is that it only refers to

the fifth and ninety-fifth percentile rankings and it does not include the full

distribution of per pupil expenditure units.[144]

A statistic that is instrumental from the federal government for

measuring fiscal equity is the federal range ratio. This indicator takes into

account the Federal Impact Aid that school districts are appropriated due to

the fiscal effects created by federal installations on property. Federal Impact

Aid was designed in order to provide localities federal revenues to

compensate for the additional expenditure burdens placed on the locality and

to support the school district financially after the loss of tax revenues not

required for residents living on federal property.[145] The interpretation of this

equity statistic is based on a decrease in the numerical indicator. "The

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[143] Alexander and Salmon, *Public School Finance*, 235.
[144] Ibid., 235.
[145] Joel D. Sherman, ed., "Review of School Finance Equalization Under Section 5(d)(2) of P.L. 81-874, The Impact Aid Program," *Journal of Education Finance* 18 (1992):1.

minimum acceptable score of the federal range ratio is set at 0.2500 by federal

regulations."[146] If the federal range ratio increases then the level of equity

appears to have decreased.[147] The federal range ratio for 1996-1997 according

to this research indicated a level of 0.33714. By 1997-1998 the federal range

ratio had increased to 0.43278 and after the At-Risk funds were deducted, the

federal range ratio decreased to 0.36075. This measure of equity is similar to

the restricted range ratio because the fifth percentile student inputs are

subtracted from the ninety-fifth percentile student inputs before the result is

divided by the fifth per-pupil inputs.[148]Therefore, vertical and horizontal

equity decreased in New Mexico, according to this measure of equity. Two

federal revenue categories were included in the input data, federal revenue

code 8603 (Federal Impact Aid) and federal budget code 8604 (Forest

Reserves).

The mean and the median provide additional insights as descriptive

indicators rather than equity indices.[149] The calculation of the mean is

determined by computing the sum of the per-pupil inputs and dividing the

sum by the number of per-pupil inputs.[150] The mean in 1996-1997 was

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[146] Alexander and Salmon, *Public School Finance*, 240.

[147] Ibid., 236.

[148] Ibid., 236

[149] Ibid., 240.

[150] David Howell, *Statistical Methods for Psychology* (California: Wadsworth Publishing Co., 1997), 36.

$3,997. By 1997-1998, when the At-Risk Index was included in the New Mexico Public School Funding Formula, the mean increased to $4,228 and without the additional at-risk funds, the mean decreased to $4,065. An additional descriptive indicator, the median, was also indicated on the output charts from the SAS 8.2 data runs. The median "corresponds to the point at or below which fifty percent of the scores fall when the data are arranged in numerical order".[151] The median per-pupil input in 1996-1997 was $4,009 and increased to $4,204 with the additional at-risk funds. When the at-risk funds were excluded from the 1997-1998 selected revenues, the median per-pupil inputs decreased to $4,028. The mean and the median provide approximate indicators of adequacy.[152] Therefore, since the mean and the median increased with the adjustments of the At-Risk Index, a slight improvement of equity may be indicated by these descriptive statistics.

The coefficient of variation is an additional indicator of fiscal equity patterns. Generally, the level of vertical and horizontal equity decreases as the coefficient of variation increases. Statistically, this equity index represents "the standard deviation of a distribution of per-pupil inputs divided by the mean".[153] According to the coefficient of variation for 1996-1997 and 1997-

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[151] Ibid., 35.
[152] Alexander and Salmon, *Public School Finance*, 240.
[153] Ibid., 236.

1998, the level of equity appears to have improved. The coefficient of variation decreased from 12.0407 in 1996-1997 to 11.9460 for 1997-98 when At-Risk funds were included and 12.0299 when At-Risk funds were excluded. Both indices in 1997-1998 illustrated a slight improvement in the horizontal and vertical equity levels.

The Theil Index was recorded as .006695093 in 1996-97 before the At-Risk Index was included in the State Equalization Distribution Formula. By 1997-1998, the Theil Index decreased to .006553943. When the Theil Index was recalculated with the At-Risk Funds included in the State Equalization Distribution funding, the index increased to .006594403. The range of the Theil Index is from 0.0 to 1.0. A decrease in the Theil Index value is indicative of an decrease in the level of vertical and horizontal equity.[154] Therefore, according to the Theil Index, the equity levels in New Mexico decreased after the At-Risk Index was included in the New Mexico Public School Funding Formula.

The equity levels indicated by the Gini Coefficient are twofold. For the 1996-1997 input data, the Gini Coefficient was indicative of an equity level of 0.058375. Based on the revenues, assessed property values, and membership levels for the 1997-1998-budget year, the Gini Coefficient decreased to a

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[154] Ibid., 238

value of 0.056181. Finally, with the At-Risk funds excluded from the 1997-98

State Equalization Distribution Funds, the Gini Coefficient equaled 0.055536.

The Gini Coefficient ranges from 0.0 to 1.0. As the Gini Coefficient

approaches 0.0, then the level of horizontal and vertical equity increases.[155]

From 1996-1997 to 1997-1998, this measure of equity decreased which

indicates a movement towards equity. However, an increase in the equity

level, as indicated by the Gini Coefficient, was not clear with the inclusion of

the at-risk additional funds.

The Atkinson Index provides an indication of "the social welfare

(desirability) of the distribution".[156] The "welfare" of the students takes into

account the size of the per-pupil inputs and the equity provided for the

students.[157] The interpretation of the Atkinson Index is based on where the

index falls between 0.0 and 1.0. Technically, as the index moves towards 1.0,

the level of equity increases. This analysis description is based on the

Atkinson I2 figures extracted from the data outputs from 1996-1997 and

1997-1998. Additional Atkinson results are available on Table III. The

Atkinson I2 index for 1996-1997 was 0.99400. By 1997-1998 with the At-

Risk Index funds included, the Atkinson I2 index increased to 0.99421. There

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[155] Ibid., 236.
[156] Ibid., 238.
[157] Ibid., 238.

was a slight increase in the Atkinson I2 index to 0.99425 when the at-risk

funds were subtracted. The movement of the Atkinson Index towards 1.0

indicates a slight increase in the horizontal and vertical equity for the students

in New Mexico in 1997-1998.

The McLoone Index also provides an indication that the horizontal and

vertical equity levels were slightly increased with the additional at-risk funds

in 1997-1998. The range of the McLoone Index is from 0.0 to 1.0. As the

index increases towards 1.0, the level of vertical and horizontal equity

increases.[158] In 1996-1997 the McLoone Index was .91281. By the year 1997-

1998, when the At-Risk Index was included in the New Mexico Public School

Funding Formula, the McLoone Index was measured as .92976 which was an

increase towards 1.0 or an increase in the level of equity. However, similar to

the Gini Coefficient measures, when the At-Risk Index funds were deducted

from the funding, the McLoone Index continued to increase to 0.93499.

Unlike, the other equity measures, the McLoone Index is focused on the lower

one-half of the distribution and how equitably the resources are distributed per

pupil below the median per pupil amount.

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[158] Ibid., 237.

Wealth Relationships

In addition to the fiscal equity indices, a statistical analysis may be derived from the output data to gain insight regarding fiscal neutrality or "the strength of the relationship between fiscal capacity and the quality of education provided by the state system of school finance".[159] The strength of the relationship between the fiscal capacity of a school district and their per-pupil inputs may be expressed in terms of correlation, regression, elasticity, and slopes. A visual representation of the strength of the relationship is exhibited through a graph of a Lorenz Curve. The output created by the SAS 2.8 software illustrated the y-axis of the Lorenz Curve graph as the percent of revenues and the x-axis of the graph as the percent of pupils. The broken line represented perfect equity and the plotted points represented the intersection points of the school districts based on the x and y-axes criteria.

Correlation is defined as, "the degree to which the points cluster around the regression line".[160] The Pearson Product-Moment Correlation (r), represents the relationship between per-pupil inputs and the fiscal capacity of

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[159] Ibid., 238.
[160] Howell, *Statistical Methods for Psychology*, 232.

a school district.[161] The range of the Pearson Product-Moment Correlation is

0.0 ± 1.0. The interpretation of this statistic is illustrated "as the correlation

coefficient increases, the level of fiscal neutrality decreases".[162] The

correlation in 1996-1997 was 0.54400. By 1997-1998 with the additional at-

risk funds included, the correlation indicators decreased to 0.54160 and

without the at-risk funds included, the correlation increased to 0.60737. It

appears that the inclusion of the At-Risk Index in the funding formula

lessened the relationship between the per-pupil inputs and the fiscal capacity

of the school districts. As expected, when the at-risk funds were subtracted the

relationship between the per-pupil inputs and the fiscal capacity of the

districts was strengthened.

Regression is another statistic that provides additional insight regarding

the relationship between variables. In this instance, the independent variable is

represented by the per-pupil inputs. The dependent variable is represented by

the fiscal capacity of the school districts. Regression or r squared "represents

the degree to which the variability in one measure is attributable to variability

in the other measure".[163] This percentage ranges from 0.0 to 100.0. Similar to

the Pearson Product-Moment Correlation, as the "percentage of variance

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[161] Alexander and Salmon, *Public School Finance*, 238.
[162] Ibid., 238.
[163] Howell, *Statistical Methods for Psychology*, 251.

explained increases, the level of fiscal neutrality decreases'.[164] In 1996-1997,

the regression indicator represented 0.29593. By 1997-1998, the percentage of

variance decreased to 0.29333 which indicates an decrease in the level of

fiscal neutrality. Similar to the Pearson Product-Moment Correlation, when

the additional at-risk funds were subtracted based on the 1997-1998 selected

revenues, the regression statistic increased to 0.36890 which indicated a

increase in fiscal neutrality.

Two additional statistics related to correlation and regression are the

slope and the elasticity. Both of these indicators measure the magnitude of the

relationship between the per-pupil inputs and the fiscal capacity of a school

district. The difference between the slope and the elasticity is how the two

indicators are expressed. The slope is expressed as absolute values and the

elasticity is expressed as percentages. As the slope and elasticity increases, the

magnitude of the relationship between per-pupil units and fiscal capacity

decreases. Both the slope and the elasticity increased from 1996-1997 to

1997-1998 with and without the inclusion of at-risk funds. The slope was

recorded as 65460.14 in 1996-1997 and increased to 70048.93 in 1997-1998

after the At-Risk Index was implemented. Deducting the at-risk funds in

1997-1998, resulted in a slope of 7662.86. The magnitude of the relationship

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[164] Alexander and Salmon, *Public School Finance*, 239.

between per-pupil inputs and the fiscal capacity of the school districts in New

Mexico decreased after the at-risk funding was added to the funding formula.

Also, the pattern of the elasticity indicator was similar. It increased from

0.019536 in 1996-1997 to 0.021481 in 1997-1998 and finally, excluding the

at-risk funds, the elasticity statistic increased again to 0.022012. It appears

that the relationship between the fiscal capacity and the per-pupil inputs for

the districts in New Mexico decreased again.

The results of the three data runs, as indicated by the equity indices,

illustrate very slight increases in the horizontal and vertical equity levels. The

slight increases may not provide sufficient evidence in order to form a sound

conclusion regarding the results of including an At-Risk Index into a public

school funding formula in order to increase the levels of equity for at-risk

students.

In regard to the third question (Were additional funds allocated for the

state budget to compensate for the appropriations determined by the At-Risk

Index after the index was implemented?), a review of the 1997 New Mexico

Public School Finance Statistics revealed that an at-risk cost was not noted as

a line item. Referring back to the findings for the first question, funds from

the density factor and the Teacher and Experience Index were phased out. The

chairman of the Public School Funding Formula Task Force, the chief

financial officer of the State Department of Education, the Director of the

Legislative Education Study Committee, and the Public School Funding

Formula Task Force considered the At-Risk Index to be a favorable approach

to provide additional funding for the urban districts and the areas with high at-

risk populations replacing the former options.[165]

The committee chair for the Public School Funding Formula Task

Force recommended a total of $60 million in order to ensure that there would

not be any losers from the transition of density and Teacher and Experience

Index to the At-Risk Index appropriations.[166] When the At-Risk Index was

passed by the 1997 Legislature, $65 million was added to the State

Equalization Guarantee funds to cover the cost of the appropriations. By 1999,

At-Risk programming was included in the New Mexico Public School

Finance Statistics document. The 1999-2000 At-Risk actual appropriations

equaled $56,975,064 in order to provide funding for 23,160.595 program

units. The estimated appropriations for the 2000-2001 school year were

$59,619,839 in order to provide funding for 22,649.118 cost differential

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[165] Chief Financial Officer, State of New Mexico, Department of Education, interview by author, tape recording, Santa Fe, N.Mex., 14 August 2001.

   Director of the Legislative Education Study Committee, interview by author, tape recording, Albuquerque, N.Mex., 15 August 2001.

   Chairman of the Public School Funding Formula Task Force, interview by author, tape recording, Albuquerque, N.Mex., 15 August 2001.

[166] Chief Financial Officer, State of New Mexico, Department of Education, interview by author, tape recording, Santa Fe, N.Mex., 14 August 2001.

program units. The budgeted amount for the 2000-2001 school year was $60,380,088 in order to provide funding for 22,937.974 cost differential program units.[167]

Based on the results of the data runs, a slight improvement in the levels of horizontal and vertical equity appear to be evident after the inclusion of the At-Risk Index in the New Mexico Public School Funding Formula. However, the increases in the equity levels may not be substantial enough in order to form the conclusion that adding an At-Risk Index into a school funding formula increases the level of equity for at-risk students. Questions remain which may guide researchers for further investigation of these issues.

> We have concluded that state school finance systems are aging and in need of substantial repair. They were designed in the beginning and middle of the 20th century, primarily to remedy fiscal disparities across school districts caused by the unequal distribution of property wealth. But we contend that few are designed to achieve any defined degree of equity.[168]

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[167] New Mexico State Department of Education, New Mexico Public School Finance Statistics, Fiscal Years 1999-2000 Actual, 2000-2001 Estimated. New Mexico Department of Education, Dr. Kathleen Forrer, Chief Financial Officer, SDE (Pint Shop, 2001), B-4 of 9.

[168] Allan Odden and William H. Clune, "School Finance Systems: Aging Structures in Need of Renovation," *Educational Evaluation and Policy Analysis* 20 (1998): 157.

Chapter 5

Conclusions

> What are we really doing to better educate poor
> children and children of color? Sporadically we hear
> of "minorities" scoring higher in basic skills, but on
> the same newspaper page we're informed of their
> dismal showing in higher-order thinking skills. We
> hear of the occasional school exemplifying urban
> excellence, but we are inundated with stories of
> inner-city mass failure, student violence, and soaring
> dropout rates. We are heartened by new attempts at
> school improvement-better teacher education, higher
> standards, revised curricula-even while teachers of
> color are disappearing from the workforce and fiscal
> cutbacks increase class sizes, decimate critical
> instructional programs, and make it impossible to
> repair the buildings that are literally falling down
> around our children's heads.[169]

Public school funding formulas that follow a model of vertical equity

may contribute to higher levels of fiscal equity for at-risk student populations.

This model provides the avenues for additional allocations for students with

identified needs. The equity indices that were based on the preliminary data

before and after the At-Risk Index was implemented in the New Mexico

Public School Funding Formula indicate a slight improvement in fiscal equity.

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[169] Lisa Delpit, *Other People's Children* (New York: New Press, 1995), xiv.

One theory related to fiscal equity is based on the premise of dominance and parity funding. According to Wong, the parity status of a state refers to a state that allocates less than fifty percent of the funding for public schools compared to a dominant state in which the state allocations total more than fifty percent of the public school funding.[170] The percentages are in comparison to the percentages of local and federal funding. The state of New Mexico matches the characteristics of dominance funding. In 1997-1998, the distribution of the actual revenues for all of the funds included: total state revenues of 72.2 percent or $1,409,495,000 total federal revenues of 13.2 percent or $258,676,000, and the total local revenues were 14.6 percent or $284,281,000.[171] Equity appears to be more feasible when the state provides the majority of the revenues compared to local taxes which allows for more variation due to the fiscal capacities of the districts. Wong's theory also refers to, "the higher the level of state aid (that is, dominance status), the smaller the interdistrict variation in the level of state support".[172] According to Wong's speculation, the fiscal equity levels of the eighty-nine districts in New Mexico should display less interdistrict variation. However, the equity indices

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[170] Wong, *Funding Public Schools*, 43.

[171] *New Mexico School Finance Statistics*, Fiscal Years 1997-1998 Actual, C-99 of 409.

[172] Wong, *Funding Public Schools*, 57.

illustrated slight advancements in fiscal equity after the additional at-risk funds were included.

Specifically providing a funding mechanism for at-risk students such as the At-Risk Index within a state funding formula may be beneficial. Even though New Mexico does not target certain students, the localities are provided with additional revenues for the educational demands of this population. Flexibility is allotted to the localities for programming decisions after the plan is devised and submitted. However, are the amounts allotted for the At-Risk Index substantial in order to have a positive effect on the equity levels indicative of the Restricted Range, the Theil Index, the Gini Coefficient, the McCloone Index, the Federal Range Ratio and other equity indices? The at-risk funding amounts ranged from $31,527 in Vaughn County to $15,002,417 in Albuquerque.[173] These allocations are determined by multiplying the At-Risk Index assigned to the counties by the membership totals and the unit value for the specific year. The final unit value for 1996-1997 was $2,149.11. The final unit value for 1997-1998 was $2,175.00.[174] The question remains concerning how much additional funding is necessary to

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[173] LESC; *Issues and Answers*, 1982-1983; A *First Look at New Mexico Public School Budgets*, 1983-1984 through 1998-1999; *New Mexico Public School Finance Statistics*, 1999-2000; analysis of appropriated program cost for 2000-2001.
[174] *New Mexico Statutes, Annotated* (Michie 1978), sec. 22-8-23.3, art. 8.

increase the levels of equity for at-risk students through an At-Risk funding index.

<center>Further Research Considerations</center>

Fiscal equity for at-risk students raises several issues for further research. First, a review of the sixteen states that have specifically included funding for at-risk students may be reviewed and analyzed in order to compare how the allocations are determined. These states were designated by McDonough as: Arizona, California, Colorado, Connecticut, Delaware, Indiana, Iowa, Kansas, New Mexico, North Carolina, Oklahoma, Rhode Island, South Dakota, Texas, Utah, and Wisconsin [175] Equity indices could be calculated in order to compare the effectiveness of the funding patterns to reduce inequities for this student population in these states.

The At-Risk Index in the New Mexico Public School Funding Formula could be monitored and evaluated over a period of fiscal years in order to determine if the equity levels found in SY 1997 increase as the percent of at-risk population change. An equity analysis based on only the number of at-risk students in each district and the level of funding appropriated through the

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[175] McDonough, "A Survey of Opinions and Attitudes Toward State At-Risk Program Focus, Delivery, and Funding," 53.

At-Risk Index may be helpful in order to isolate funding specified for the economically disadvantaged student populations. The students identified for additional funding based on mobility, limited English speaking students, and the dropout factors could be eliminated from variables included in the At-Risk Index.

The concerns regarding adequacy of funding have moved to the forefront of fiscal equity discussions. Further research may be centered around the adequacy of the at-risk funds based on the final funded membership totals and a per pupil expenditure. It is yet to be determined what an adequate level of funding is for the at-risk populations entering the public school systems across the country.

Various input data could be compared in order to evaluate the equity indices results. For example, Jordan included the assessed value of taxable property per unit and the local revenues per unit for the state aid payments to school systems.[176] Selected local revenues, selected Federal revenues, the total state revenues, and the total local and state grant appropriations were utilized for this research. Isolating the state revenue sources and comparing the equity indices would be beneficial in order to determine the impact that the inclusion

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[176] Teresa S. Jordan et al., "School Finance Reform," 332.

of an At-Risk Index may achieve through the New Mexico Public School Funding Formula.

No Child Left Behind

The importance of providing educational opportunities for at-risk students has been brought to the forefront by the re-authorization of the Elementary and Secondary Act.[177] President Bush has issued a national call for school systems to revisit their achievement standards for economically disadvantaged students. The "No Child Left Behind" Act of 2001 became effective in July of 2002. Several directives of this initiative match the design and intentions of this research. This research addresses education for at-risk students. "No Child Left Behind" substantiates and dictates providing educational opportunities for four subgroups of our student populations: economically disadvantaged students, limited English speaking pupils, Special Education students, and minority students.

One of the priorities specified in the seven performance based goals of "No Child Left Behind" includes improving the academic achievement of disadvantaged students. States are held accountable for all pupils reaching the

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[177] Public Law 107-110, the *No Child Left Behind Act of 2001*, Available on www.ed.gov/policy/elsec/leg/esea02, INTERNET.

designated academic standards. The Federal government has set benchmarks for each state disaggregated by the four identified student population subgroups. If the Adequate Yearly Progress goals are not met for three consecutive years, then Title I students will be awarded the opportunity to transfer to a higher performing school. States will receive rewards if they are successful in narrowing the achievement gaps between disadvantaged and advantaged students as measured by the Adequate Yearly Progress goals.[178]

New Mexico has implemented an At-Risk Index in their Public School Funding Formula that paves the way for additional funds for at-risk students' educational needs. This may be a step in the direction from the state level that matches the federal initiative to provide educational opportunities for economically disadvantaged students.

> Upon the subject of education, not presuming to dictate any plan or system respecting it, I can only say that I view it as the most important subject which we, as a people, can be engaged in.[179]

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[178] *No Child Left Behind A Special Reprint of President George W. Bush's Education Plan, With Relevant Discussion Questions Education Leaders Should Ask.* Educational Research Service, Concerns In Education, Presenting and Analyzing Important Educational Issues. Arlington, 2001, 4-6.

[179] Abraham Lincoln. First recorded public speech to the people of Sangamon County, Illinois on March 9, 1932. In *The Harper Book of American Quotations*, edited by Gorton Carruth and Eugene Ehrlich, 208. New York: Harper and Row, 1988.

Appendices:

New Mexico Finance Statistics
State Analysis of Funding Formulas

District Name	Total revenues from local sources – budget codes 8303, 8304, 8306, and 8307	Total revenues from state sources	Federal revenue codes 8603 (Impact Aid) and 8604 (Forest Reserve)	Total local and state grants, budget code 25000	Total selected revenues	1996-97 final funded membership	Assessed district valuations for 1996
Alamogordo	326,108	25,789,989	1,414,204	402,866	27,933,167	8,066.0	290,592,598
Albuquerque	6,529,995	353,818,314	27,726	2,958,260	363,334,295	85,826.0	6,332,401,631
Animas	62,589	2,551,354	1,549	41,441	2,656,933	618.5	53,015,285
Artesia	348,878	13,577,413	1,779	51,871	13,979,941	3,869.0	342,400,204
Aztec	383,435	11,533,069	0	54,069	11,970,573	3282.5	322,371,853
Belen	257,921	16,869,544	146	58,202	17,185,813	4,677.5	214,120,340
Bernalillo	171,341	13,582,509	1,750,359	205,210	15,709,419	3,560.0	174,363,563
Bloomfield	446,167	11,959,657	255,940	53,342	12,715,106	3,398.5	424,712,495
Capitan	45,228	2,538,904	2,531	7,065	2,593,728	588.0	96,770,460
Carlsbad	562,974	25,223,964	3,121	120,446	25,910,505	6,767.0	445,918,258
Carrizozo	12,217	1,158,498	896	13,125	1,184,736	208.0	13,717,706
Central Con	1,187,534	15,181,266	12,151,388	231,487	28,751,675	7,180.0	671,206,489
Chama Valley	34,861	3,045,941	7,117	41,811	3,129,730	607.0	50,419,408
Cimarron	120,024	3,416,466	1,126	40,062	3,577,678	679.0	100,976,634
Clayton	79,296	3,565,778	0	6,762	3,651,836	747.5	51,110,334
Cloudcroft	54,711	2,529,237	1,255	5,483	2,590,686	570.5	59,467,398
Clovis	542,043	30,840,526	577,001	92,858	32,052,428	9,103.0	304,983,606
Cobre Con	272,473	8,705,744	6,119	43,032	9,027,368	2,106.0	190,090,511
Corona	12,869	730,615	342	0	743,826	79.5	18,068,805
Cuba	27,191	2,346,819	1,111,768	16,652	3,502,430	749.5	36,772,447
Deming	201,394	17,354,948	0	67,619	17,623,961	5,380.0	189,276,448

District Name	Total revenues from local sources – budget codes 8303, 8304, 8306, and 8307	Total revenues from state sources	Federal revenue codes 8603 (Impact Aid) and 8604 (Forest Reserve)	Total local and state grants, budget code 25000	Total selected revenues	1996-97 final funded membership	Assessed district valuations for 1996
Des Moines	11,727	1,034,493	0	29,753	1,075,973	183.5	11,934,833
Dexter	45,544	4,813,480	138	11,863	4,871,025	1,140.0	28,404,007
Dora	24,314	1,390,729	0	2,435	1,417,478	269.0	18,535,132
Dulce	185,699	1,106,407	1,597,068	8,790	2,897,964	667.5	205,940,180
Elida	20,652	814,003	0	0	834,655	122.5	12,054,881
Espanola	274,749	19,882,983	57,821	219,177	20,434,730	4,970.5	158,636,572
Estancia	49,813	3,735,722	587	12,828	3,798,950	905.5	36,274,854
Eunice	148,709	3,069,342	0	7,695	3,225,746	812.5	216,033,353
Farmington	520,809	35,454,869	56,861	170,707	36,203,246	10,297.5	529,988,973
Floyd	29,226	1,465,812	0	4,908	1,499,946	287.5	9,097,948
Ft. Sumner	30,275	2,182,282	0	7,708	2,220,265	451.5	28,662,760
Gadsden	408,026	42,447,651	0	214,512	43,070,189	12,080.5	259,603,520
Gallup-McKinley	1,146,474	29,304,339	19,426,098	255,727	49,884,846	13,763.0	548,184,302
Grady	11,927	931,683	0	7,935	951,545	166.0	6,184,536
Grants-Cibola	136,165	12,985,276	1,138,483	67,070	14,326,994	3,837.5	101,970,128
Hagerman	17,612	2,185,329	57	23,201	2,226,199	465.5	13,412,078
Hatch	111,653	6,103,985	0	62,272	6,277,910	1,448.5	30,981,667
Hobbs	451,789	26,553,971	70,090	85,787	27,091,547	8,306.0	391,190,641
Hondo Valley	9,715	1,056,182	704	26,353	1,092,954	165.5	12,121,432
House	12,729	799,576	0	1,828	814,133	121.0	4,793,177
Jal	101,693	2,404,511	0	5,079	2,511,283	553.0	101,143,814
Jemez Mountain	95,696	2,269,303	5,229	0	2,370,228	448.0	154,806,507
Jemez Valley	37,565	2,462,239	8,003	19,141	2,769,626	517.0	40,315,500
Lake Arthur	10,800	1,354,451	30	14,963	1,380,244	248.5	10,990,215
Las Cruces	1,020,672	84,194,717	86,121	444,065	85,745,575	21,389.5	1,031,115,162

Table V 1996-97 New Mexico Public School Finance Statistics

District Name	Total revenues from local sources – budget codes 8303, 8304, 8306, and 8307	Total revenues from state sources	Federal revenue codes 8603 (Impact Aid) and 8604 (Forest Reserve)	Total local and state grants, budget code 25000	Total selected revenues	1996-97 final funded membership	Assessed district valuations for 1996
Las Vegas City	85,570	10,363,874	6,915	26,263	10,482,622	2,724.5	117,686,508
Las Vegas West	53,393	8,853,502	7,174	52,495	8,966,564	2,079.0	77,830,943
Logan	19,488	1,644,530	0	50,250	1,714,268	305.0	11,020,597
Lordsburg	80,583	4,180,613	2,138	316,544	4,579,878	855.5	42,967,687
Los Alamos	1,403,705	13,288,861	194,752	127,189	15,014,507	3,509.5	321,638,067
Los Lunas	376,809	28,175,647	110,614	83,668	28,746,738	7,683	232,655,036
Loving	47,229	2,498,467	248	17,722	2,563,666	539.0	53,107,707
Lovington	227,922	10,453,868	0	23,682	10,705,472	2,924.5	257,688,958
Magdalena	22,334	1,824,991	215,909	81,795	2,145,029	375.0	9,527,044
Maxwell	14,241	984,789	1,658	11,275	1,011,963	133.0	4,230,682
Melrose	24,169	1,586,129	0	7,797	1,618,095	295.5	12,316,745
Mesa Vista	40,462	3,469,680	3,705	40,274	3,554,121	611.0	15,289,002
Mora	18,468	3,445,609	3,686	14,450	3,482,213	751.5	24,350,321
Moriarty	195,294	17,147,723	2,940	141,724	17,487,681	4,555.0	63,778,823
Mosquero	12,109	642,003	0	39,268	693,380	59.5	14,982,024
Mountainair	18,874	1,943,757	231	5,142	1,968,004	357.5	16,122,877
Pecos	28,777	4,008,012	13,637	21,510	4,071,936	879.5	39,346,020
Penasco	34,334	3,578,683	7,009	39,178	3,659,204	750.0	19,430,204
Pojoaque	114,767	7,320,161	413,542	202,193	8,050,663	1,959.5	98,561,339
Portales	119,894	9,927,683	16,368	97,764	10,161,709	2,912.0	117,205,726
Quemado	24,853	1,225,617	28,169	12,508	1,291,147	232.0	23,559,950
Questa	69,307	3,548,787	4,162	28,927	3,651,183	686.5	65,139,176
Raton	122,937	6,064,239	6,375	12,341	6,205,892	1,536.0	51,846,138
Reserve	25,564	1,668,249	31,599	3,775	1,729,187	262.0	28,450,973
Rio Rancho	444,784	22,475,181	8,720	667,217	23,595,902	6,238.5	508,849,345

District Name	Total revenues from local sources – budget codes 8303, 8304, 8306, and 8307	Total revenues from state sources	Federal revenue codes 8603 (Impact Aid) and 8604 (Forest Reserve)	Total local and state grants, budget code 25000	Total selected revenues	1996-97 final funded membership	Assessed district valuations for 1996
Roswell	500,770	40,258,522	1,313	253,661	41,014,266	10,783.0	412,373,694
Roy	8,164	847,333	0	3,548	859,045	108.5	4,907,543
Ruidoso	156,566	9,750,502	277,621	37,420	10,222,119	2,393.0	198,745,604
San Jon	16,675	1,173,724	0	1,995	1,192,394	214.5	9,205,019
Santa Fe	994,206	46,995,592	14,787	741,317	48,745,902	12,888.0	2,560,459,683
Santa Rosa	57,279	4,465,528	0	26,571	4,549,378	864.0	40,389,878
Silver City	224,041	15,834,657	11,231	241,055	16,310,984	3,859.5	218,201,574
Socorro	138,658	7,850,253	12,916	23,201	8,025,028	2,179.0	71,342,739
Springer	14,890	1,781,671	529	264,381	2,061,471	320.5	12,220,084
Taos*	174,497	13,629,309	47,969	55,300	13,907,075	3,391.0	299,288,845
Tatum*	72,934	2,117,509	0	3,417	2,193,860	399.0	44,729,769
Texico*	23,514	2,567,467	0	15,700	2,606,681	535.0	18,818,072
Truth or Conseq.*	109,198	6,668,116	8,067	32,703	6,818,084	1,821.0	126,802,746
Tucumcari*	67,840	6,207,522	100	49,099	6,324,561	1,588.5	53,464,031
Tularosa*	40,256	5,095,723	142,636	11,829	5,290,444	1,152.0	25,424,445
Vaughn*	26,602	1,000,482	0	2,596	1,029,680	140.0	13,671,790
Wagon Mound*	15,061	1,378,035	954	9,600	1,403,650	197.5	9,223,633
Zuni*	106,022	3,708,479	4,168,431	83,170	8,066.102	1,663.0	2,107,504

Table V 1997-98 New Mexico Public School Finance Statistics

District Name	Total revenues from local sources – budget codes 8303,8304, 8306, and 8307	Total revenues from state sources	Total revenues from Federal sources	Total local and state grants Budget code 25000	Total selected revenues	At-Risk Refined Cluster Numeral	At-Risk Refined Cluster X 0.015= At-Risk Add-on Index	1997-98 Final Funded membership	At-Risk funds= Index X membership X unit value	Total selected revenues- At-Risk funding	Assessed District Valuations For 1997
Alamogordo	369,880	25,144,986	2,134,339	223,868	27,873,073	1.0403	.0156	7,824.5	265,485	27,607,588	339,337,628
Albuquerque	7,574,016	349,517,473	415,351	2,938,882	360,445,722	5.4937	.0824	83,709.5	15,002,417	345,443,305	6,673,165,035
Animas	66,296	2,532,892	1,613	46,359	2,647,160	1.3258	.0199	580.5	25,125	2,622,035	58,985,639
Artesia	346,911	14,647,014	5,496	61,162	15,060,583	3.1460	.0472	3,861.0	396,370	14,664,213	476,147,526
Aztec	444,526	12,454,602	1,474	40,911	12,941,513	4.4705	.0671	3,283.5	479,202	12,462,311	456,661,786
Belen	204,708	19,163,989	389	154,699	19,523,785	5.4040	.0811	4,732.5	834,778	18,689,007	248,711,761
Bernalillo	315,901	14,632,492	2,754,094	308,208	18,010,695	9.2800	.1392	3,528.5	1,068,289	16,942,406	207,599,401
Bloomfield	458,024	12,389,715	521,811	175,928	13,545,478	5.3499	.0802	3,358.5	585,840	12,959,638	498,919,951
Capitan	51,095	2,792,065	3,476	7,327	2,853,963	1.1310	.0170	622.5	23,017	2,830,946	120,284,422
Carlsbad	589,477	26,090,769	3,825	93,696	26,777,767	2.2202	.0333	6,690.0	484,540	26,293,227	655,582,906
Carrizozo	13,934	1,266,148	1,240	3,048	1,284,370	2.5603	.0384	222.5	18,583	1,265,787	17,119,097
Central Con	1,101,016	16,766,929	13,543,680	107,940	31,519,565	5.0371	.0756	7,314.0	1,202,641	30,316,924	670,332,071
Chama Valley	44,129	3,409,196	8,073	42,950	3,504,348	8.1173	.1218	620.0	164,247	3,348,484	66,372,594
Cimarron	91,317	3,425,683	988	64,832	3,582,820	1.3958	.0209	666.5	30,297	3,552,523	102,937,621
Clayton	78,504	3,654,673	0	79,535	3,815,580	1.1541	.0173	732.5	27,562	3,785,150	60,067,209
Cloudcroft	49,902	2,607,134	6,977	10,091	2,674,104	4.1441	.0622	545.0	73,730	2,600,374	73,971,636
Clovis	542,320	30,931,070	904,922	129,778	32,508,090	4.0670	.0610	8,639.5	1,146,246	31,361,844	309,600,271
Cobre Con	289,773	9,720,322	6,042	77,281	10,093,418	7.2580	.1089	2,067.0	489,584	9,603,834	203,174,545
Corona	24,001	514,243	457	1,872	540,573	2.7474	.0412	81.0	7,258	533,315	16,652,232
Cuba	26,784	3,023,837	774,095	36,173	3,860,889	7.3736	.1106	773.0	185,949	3,674,940	39,275,003
Deming	249,817	18,758,127	0	102,500	19,110,444	5.7107	.0857	5,326.0	992,753	18,117,691	202,320,153
Des Moines	11,922	1,084,108	0	21,268	1,117,298	1.4183	.0213	196.5	9,103	1,108,195	12,496,543
Dexter	26,728	5,275,591	176	82,332	5,384,827	6.8953	.1034	1,161.5	261,216	5,123,611	28,750,203
Dora	25,425	1,414,510	0	0	1,439,935	1.0000	.0150	254.0	8,287	1,431,648	19,277,891
Dulce	203,492	1,519,080	1,756,180	15,342	3,494,094	8.3090	.1246	718.0	194,582	3,299,512	286,151,111
Elida	9,483	811,451	0	1,752	822,686	2.2935	.0344	127.0	9,502	813,184	12,632,525
Espanola	368,973	21,638,794	158,006	206,112	22,371,885	8.5280	.1279	4,920.5	1,368,797	21,003,088	186,839,204
Estancia	59,536	4,192,062	1,620	14,549	4,267,767	2.0662	.0310	950.0	64,054	4,203,713	40,541,273
Eunice	136,013	3,128,628	0	10,638	3,275,279	1.2431	.0186	780.0	31,555	3,243,724	243,340,511
Farmington	622,644	37,070,960	123,488	164,384	37,981,476	4.8064	.0721	10,153.0	1,592,168	36,389,308	575,901,821
Floyd	34,928	1,461,095	0	0	1,496,023	3.9147	.0587	261.5	33,386	1,462,637	8,705,767
Ft. Sumner	26,859	2,210,089	0	12,952	2,249,900	2.0034	.0301	428.0	28,020	2,221,880	29,574,928
Gadsden	341,762	45,318,964	0	240,746	45,901,472	6.1075	.0916	12,000.5	2,390,860	43,510,612	281,575,491

District Name	Total revenues from local sources – budget codes 8303,8304, 8306, and 8307	Total revenues from state sources	Total revenues from Federal sources	Total local and state grants Budget code 25000	Total selected revenues	At-Risk Refined Cluster Numeral	At-Risk Refined Cluster X 0.015= At-Risk Add-on Index	1997-98 Final Funded membership	At-Risk funds= Index X membership X unit value	Total selected revenues- At-Risk funding	Assessed District Valuations For 1997
Gallup-McKinley	1,225,693	31,383,604	19,495,972	424,644	52,529,913	5.4941	.0824	13,815.0	2,475,924	50,053,989	559,988,408
Grady	11,705	946,335	0	8,304	966,344	1.4768	.0222	159.5	7,701	958,643	6,082,070
Grants-Cibola	133,889	13,906,118	709,836	60,367	14,810,210	6.7561	.1013	3,699.0	814,991	13,995,219	110,910,942
Hagerman	18,092	2,512,759	71	33,931	2,564,853	9.0151	.1352	475.5	139,826	2,425,027	14,436,326
Hatch	121,808	6,380,603	0	95,056	6,597,467	6.6085	.0991	1,410.5	304,023	6,293,444	32,115,863
Hobbs	463,160	27,558,418	0	113,460	28,135,038	2.3027	.0345	8,114.5	608,892	27,526,146	444,290,748
Hondo Valley	10,398	1,090,525	872	14,700	1,116,495	1.1092	.0166	157.5	5,687	1,110,808	11,971,487
House	14,189	802,760	0	0	816,949	1.000	.0150	119.0	3,882	813,067	4,586,442
Jal	99,314	2,619,308	0	63,404	2,782,026	2.5193	.0378	534.0	43,903	2,738,123	137,014,095
Jemez Mountain	128,223	2,283,478	29,843	4,275	2,445,819	6.2800	.0942	415.5	85,130	2,360,689	216,556,385
Jemez Valley	81,185	2,519,061	317,137	133,596	3,050,979	6.6024	.0990	513.5	110,569	2,940,410	42,041,455
Lake Arthur	16,970	1,408,690	37	36,468	1,462,165	4.1757	.0626	245.5	33,426	1,428,739	12,598,147
Las Cruces	1,284,743	87,858,897	211,313	464,181	89,819,134	5.3789	.0807	21,365.5	3,750,126	86,069,008	1,138,431,590
Las Vegas City	80,779	10,574,176	11,026	63,580	10,729,561	2.7402	.0411	2,623.5	234,521	10,495,040	129,577,052
Las Vegas West	84,196	10,061,292	12,323	46,056	10,203,867	7.3331	.1100	2,130.5	509,722	9,694,145	87,769,254
Logan	22,245	1,640,134	0	67,576	1,729,955	1.0525	.0158	278.0	9,553	1,720,402	12,186,585
Lordsburg	84,794	4,614,217	2,393	359,418	5,060,822	5.3864	.0808	860.5	151,224	4,909,598	47,123,815
Los Alamos	1,662,956	14,240,321	282,838	52,526	16,238,641	1.000	.0150	3,509.5	114,497	16,124,144	353,152,676
Los Lunas	337,881	31,201,103	134,149	156,338	31,829,471	4.1462	.0622	7,946.5	1,075,042	30,754,429	280,993,793
Loving	53,287	3,008,607	316	89,021	3,151,231	8.8288	.1324	556.5	160,255	2,990,976	68,778,508
Lovington	241,492	11,238,152	0	37,899	11,517,543	4.2130	.0632	2,909.5	399,940	11,117,603	320,290,394
Magdalena	9,963	2,059,837	280,059	23,313	2,373,172	9.2800	.1392	377.5	114,292	2,258,880	9,764,667
Maxwell	38,844	1,111,115	545	43,106	1,193,610	5.2866	.0793	152.0	26,217	1,167,393	4,668,942
Melrose	28,140	1,582,623	0	13,931	1,624,694	2.8502	.0428	287.5	26,763	1,597,931	12,836,405
Mesa Vista	21,599	3,429,890	3,495	58,752	3,513,736	9.1655	.1375	572.0	171,064	3,342,672	18,530,479
Mora	19,215	3,525,541	5,195	27,890	3,577,841	2.0676	.0310	707.5	47,703	3,530,138	34,012,159
Moriarty	137,664	18,476,928	7,897	108,051	18,730,540	1.0000	.0150	4,643.5	151,494	18,579,046	76,807,416
Mosquero	10,160	615,945	0	31,571	657,676	7.4988	.1125	57.0	13,947	643,729	17,568,861

District Name	Total revenues from local sources – budget codes 8303,8304, 8306, and 8307	Total revenues from state sources	Total revenues from Federal sources	Total local and state grants Budget code 25000	Total selected revenues	At-Risk Refined Cluster Numeral	At-Risk Refined Cluster X 0.015= At-Risk Add-on Index	1997-98 Final Funded membership	At-Risk funds= Index X membership X unit value	Total selected revenues- At-Risk funding	Assessed District Valuations For 1997
Mountainair	11,347	2,075,412	620	4,204	2,091,583	2.3663	.0355	365.0	28,183	2,063,400	17,942,870
Pecos	28,269	4,410,615	3,882	29,407	4,472,173	9.1518	.1373	878.5	262,344	4,209,829	47,671,653
Penasco	52,038	3,708,210	22,212	57,793	3,840,253	9.2800	.1392	709.5	214,808	3,625,445	19,724,212
Pojoaque	213,766	7,886,986	652,062	112,888	8,865,702	7.2023	.1080	1,937.5	455,119	8,410,583	111,031,395
Portales	124,924	10,523,801	0	45,684	10,694,409	2.6788	.0402	2,806.5	245,386	10,449,023	123,156,870
Quemado	27,536	1,209,043	43,296	33,553	1,313,428	3.4266	.0514	214.5	23,980	1,289,448	24,388,002
Questa	101,715	3,594,091	3,483	30,564	3,729,853	9.2800	.1392	638.5	193,312	3,536,541	69,422,402
Raton	150,370	6,312,244	6,241	22,250	6,491,105	2.6106	.0392	1,479.5	126,142	6,364,963	53,730,366
Reserve	24,150	1,474,498	54,412	7,598	1,560,658	2.3362	.0350	270.0	20,554	1,540,104	28,258,144
Rio Rancho	697,417	36,004,204	16,507	358,089	37,076,217	4.9239	.0739	8,590.5	1,380,773	35,695,444	557,215,237
Roswell	671,270	41,766,151	1,611	205,970	42,645,002	3.9572	.0594	10,528.5	1,360,230	41,284,772	428,461,850
Roy	10,151	797,356	2,894	13,240	823,641	1.000	.0150	113.0	3,687	819,954	5,193,224
Ruidoso	219,055	10,477,905	307,544	53,922	11,058,426	5.4061	.0811	2,408.0	424,753	10,633,673	220,343,905
San Jon	18,596	1,200,261	0	30,450	1,249,307	1.1937	.0179	217.5	8,468	1,240,839	8,921,668
Santa Fe	1,108,619	50,097,588	18,931	1,273,891	52,499,029	4.6908	.0704	13,044.0	1,997,297	50,501,732	2,784,599,741
Santa Rosa	61,173	4,660,166	0	57,395	4,778,734	7.6217	.1143	860.0	213,798	4,564,936	42,641,042
Silver City	409,303	16,769,475	11,196	185,972	17,375,946	4.8955	.0734	3,837.5	612,638	16,763,308	266,982,091
Socorro	101,386	8,626,585	36,500	36,083	8,800,554	5.8211	.0873	2,204.5	418,585	8,381,969	75,286,513
Springer	39,421	1,774,369	424	222,521	2,036,735	2.3070	.0346	285.5	21,485	2,015,250	12,676,600
Taos	246,657	14,402,334	60,141	119,308	14,828,440	6.5235	.0979	3,326.5	708,320	14,120,120	342,910,371
Tatum	92,192	2,157,015	0	4,660	2,253,867	3.7337	.0560	369.0	44,944	2,208,923	50,856,917
Texico	26,751	2,655,673	0	19,015	2,701,439	5.1745	.0776	498.0	84,052	2,617,387	19,015,192
Truth or Conseq.	153,071	7,166,714	8,974	69,437	7,398,196	5.4181	.0813	1,771.0	313,162	7,398,196	143,780,296
Tucumcari	67,763	6,547,671	0	25,785	6,641,219	5.7665	.0865	1,526.5	287,192	6,354,027	56,131,079
Tularosa	42,896	5,240,280	303,160	18,413	5,604,749	7.6646	.1150	1,140.5	285,268	5,319,481	32,189,478
Vaughn	23,228	1,126,841	0	1,528	1,151,597	8.6654	.1300	111.5	31,527	1,120,070	16,128,219
Wagon Mound	15,025	1,369,681	1,365	18,222	1,404,293	9.1292	.1369	185.5	55,234	1,349,059	10,106,732
Zuni	130,196	3,094,304	5,592,286	116,754	8,933,540	9.2800	.1392	1,696.0	513,481	8,420,059	2,048,770

Table VI: STATE ANALYSIS OF FUNDING FORMULAS 1998-99

(Total State School Aid in millions)

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Alabama	Foundation	NA	$100 per student for tutoring, def.	No compensatory ed	Total state school aid $2,661.5 total local school revenues $1,092.4
Alaska	Foundation	NA	NA	No compensatory ed	Total state school aid $765 total local school revenues $316
Arizona	Foundation	Bilingual, special education	NA	Low enrollment, teacher exp., growth district, no comp ed	Total state school aid $2,579.6 total local school revenues $2,384.8
Arkansas	Foundation	ADM, bilingual	NA	Comp ed- $3.5 million grades K-3	Total state school aid $1,569.4 total local school revenues $649.7

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
California	Foundation	NA	Meals for needy students	Summer school, bilingual, etc. CE-"gross need" formula, children ages 5-17 from AFDC families, concentration of poor children, $436.2 million	Total state school aid $24,472.8 total local school revenues $12,011.5
Colorado	Foundation	NA	Part of the formula At-Risk Funding, % of at-risk students based on % of students in grades 1-8 qualified for free lunch	NA	Total state school aid $1,966.4 total local school revenues $1,570.4
Connecticut	Foundation based equalization	Calendar excess of 180 days, free summer school, students eligible for Temporary Family Assistance Program, limited English, remedial education	NA	NA	Total state school aid $2,319 total local school revenue $2,917
Delaware	Unit funding, combination flat grant and equalization	NA	NA	NA	Total state school aid $637.5 total local school revenue $218.7
Florida	Foundation	Programming, At-Risk =1.399 for drop out and teenage parents, alternative ed=1.138, LEP=1.201	See weightings	NA	Total state school aid $8,036.4 total local school revenues $3,895.4
Georgia	Foundation with equalization	Programming	NA	$103.5 million Special Instructional Assistance and Remedial Education	Total state school aid $4,828.9 total local school revenues $3,987.7

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Hawaii	Full state funding	NA	NA	$40.4 million includes educationally disadvantaged, and LEP	Total state school aid $859.9 total local school revenue NA
Idaho	Foundation, units	NA	Additional funds for bilingual	NA	Total state school aid $850.5 total local school revenues $167.4
Illinois	Foundation, flat grants or alternative method	Best 3 months Average Daily Membership	NA	$26.3 million for adult education and public assistance adult ed. (drop out program)	Total state school aid $4,849.3 total local school revenues $8,470.1
Indiana	Guaranteed tax base	Kindergarten 0.5	At-Risk Index: % of population 20 years old without a 12th grade education 0.44, % of families with single parents 0.40, % of families with children under 18 with a family income below poverty level 0.16	$43.3 million K-12 At-Risk Index	Total state school aid $4,083 total local revenues $2,992
Iowa	Foundation	ESL .19	NA	NA	Total state school aid $1,767.6 total local school revenues $1,120.2
Kansas	Foundation	Programming, low enrollments	At-Risk weighting 0.08, Early Childhood	Included in State Financial Aid	Total state school aid $2,222 total local school revenues $639

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Kentucky	Foundation, equalized grants	At-risk based on average # of free lunch x 0.15	See weightings	$34 million, Extended School Services based on test scores, dropout and at-risk #	Total state school aid $2,920 total local revenues $959
Louisiana	Foundation, equalization	Free or reduced lunch student counts x .17	7.3% of state and local costs	$11.7 million for at-risk instructional services	Total state school aid $2,299.7 total local school revenues $1,670.8
Maine	Unit per pupil guarantee	NA	NA	NA	Total state school aid $773 total local school revenues $753
Maryland	Foundation with wealth adjustment	K enrollment	Children At-Risk $10.0 million & Dropout Prevention	$101.7 million for students eligible for Title I services	Total state school aid $2.610 total local school revenues $3,138
Massachusetts	Foundation	Low income and grade level programming	Dropout instructional support	$21.4 million for low income students $2,228 per elementary pupil $1,794 per high school pupil	Total state school aid $3,179.5 total local school revenues $4,506.1
Michigan	Foundation allowance, 1993 local property tax for school funding eliminated	NA	Categorical funding $260 million based on free lunch and criteria delineated in legislation	At-Risk categorical funding	Total state school aid $9,667 total local school revenues $2,442

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Minnesota	General education Revenue Program 1988-89 At-Risk, Early Childhood, American Indian categories	Kindergarten .53 grades 1-6 1.06 grades 7-12 1.30	Early childhood	Free and reduced lunch counts $207 million	Total state school aid $3,834 total local school revenues $2,588
Mississippi	Mississippi Adequate Education Program guaranteed yield plan	NA	State aid includes the # of at-risk students = 5% of Basic Student Costs determined by costs in 4 areas, instruction, administration, operations and maintenance, and ancillary support	NA	Total state school aid $1,333.5 total local school revenues $754.8
Missouri	Foundation	Free and reduced lunch students=20%	Free and reduced lunch students in allocation units $655 per pupil	Special Education	Total state school aid $3,084 total local school revenues $2,185
Montana	State equalization plan	Small school districts, high schools	NA	NA	Total state school aid $462.1 total local school revenues $455.4
Nebraska	State foundation equalization plan	Grade levels	Adjusted Formula Students 5%-30% based on the # of students living in poverty according to free and reduced lunches 25% adjustment for students residing on Indian Land	NA	Total state school aid $778 total local school revenues $887

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Nevada	Foundation	Adult Education, 0.6 for kindergarten students, handicapped preschool	NA	NA	Total state school aid $882 total local school revenues $332
New Hampshire	Local property taxes fund schools	Grade levels	Poverty weights based on the % of elementary students eligible for free or reduced meals, 12-24% of the students, weighted .5, more than 24% of the students, weighted 1.0	NA	Total state school aid $126.2 total local school revenues $1,090
New Jersey	Foundation, TE fund, Thorough and Efficient Fund, Abbott v Burke Parity Remedy Aid= $249.8 million	Grade levels	See compensatory	187.3 million, Demonstrably Effective Program Aid=20-40% low income students-receive $316 per student, greater than 40% low income students-receive $448 per student 17.4 million, Instructional Supplement Aid=low income in non Abbott districts, 5-20% low income students-receive $348	Total state school aid $5,906 total local school revenues $8,091.6

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
New Mexico	Foundation, goal to equalize financial opportunities, offer students equal access to programs regardless of local economic conditions, local autonomy	Adjusted program units multiplied by indices, example: Training and Experience, Special Education institutions, size factors, growing districts, newly created districts, at-risk factor, save harmless factors for small districts facing a decline in revenues	At-Risk Index: $54.5 million, districts must have a State approved plan for services for at-risk students, districts are rank ordered by 4 criteria: % of students in Title I programs, % of students classified as limited English proficiency using the Office of Civil Rights criteria, student mobility rates, and dropout rate, each district is assigned a rating, assigned cluster rating which is X by 0.015 to calculate the At-Risk Index	See At-Risk Index	Total state school aid $1,514.8 total local school revenues $339.2
New York	Percentage Equalizing Basic Operating Aid (BOA)	Programming	Extraordinary Needs Aid $653.2 million based on the number of students receiving free and reduced lunch, LEP, and sparsity costs, Youth at Risk funds and Native American funds	Funding provided based on poor attendance districts and the % of students falling below the state test reference points	Total state school aid $11,773 total local school revenues $14,338

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
North Carolina	Flat grants, equalized foundation program	Categorical allotments instead	At-Risk funding based on: dropout prevention, alternative instruction, low wealth districts that are less than 100% of the state average wealth level, Low Wealth Funding= $86.9 million calculated by the district's ability to generate revenues compared to the state average in per capita income, county adjusted property taxes, and the square miles in the district	$131.2 million, summer school remediation, dropout prevention, Poverty Index= # of students at poverty level=$261.53 per child	Total state school aid $5,111.1 total local school revenues $1,958.7
North Dakota	Equalized formula	District size and grade levels	Categorical program: $1.5 million, revenue supplement for each district with a taxable valuation below the state average	NA	Total state school aid $273 total local school revenues $306
Ohio	Foundation with categorical grants	Grade levels	Disadvantaged Pupil Impact Aid	$386.6 million for DPIA (see at-risk)	Total state school aid $4,470.1 total local school revenues $6,022.5
Oklahoma	Two-tiered equalization program, foundation program for transportation supplement and salary incentive aid	Grade levels, Special Education, small school isolation, and teacher index	Compensatory ed.	$184.4 million add on weight of .25 for at-risk	Total state school aid $1,769.5 total local school revenues $571.2

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Oregon	Equalization distribution formula	Pupil allocation unit weighting	Students in Poverty Weight .25 based on the census count of the # of students in poverty level homes, Distribution Equity-equalization has eliminated inequities	NA	Total state school aid $2,100.1 total local school revenues $884.3
Pennsylvania	Basic Education Funding, percent-equalized foundation program	Grade levels	Poverty Supplement $6.8 million-based on the # of children ages 5-17 from families supported by AFDC, if more than 10% of the district's ADM then they receive $500 per AFDC count	NA	Total state school aid $5,870.4 total local school revenues $8,178.0
Rhode Island	Foundation	NA	Student Equity Fund=27.7 million based on the # of students eligible for USDA reimbursable meals, Instructional Equity Investment Fund=12.6 million based on the tax effort index of .5 or less, Targeted Urban Aid Fund urban areas with a low tax capacity, index less than 1.0 and 40% or more of the students qualify for free or reduced lunches in grades K-3	NA	Total state school aid $511.1 total local school revenues $702.3
South Carolina	Education Finance Act of 1977, foundation	Pupil characteristics and grade levels	Academic Assistance for grades K-12, based on the # of students that qualify for free and reduced lunch, student weight of .26	$111.4 million Academic Assistance	Total state school aid $1,968.8 total local school revenues $1,701.4

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
South Dakota	Foundation	Adjusted ADM for district sizes	NA	NA	Total state school aid $272 total local school revenues $300
Tennessee	Basic Education Program, weighted regression formula, fiscal equalization priority, foundation	Pupil allocation units	Personnel-at-risk assistants	NA	Total state school aid $2,216.2 total local school revenues $2,274.1
Texas	Foundation School Program	Instructional Programs and ADA, districts with a high % of students qualifying for the Federal School Lunch Program	See Comp. Ed.	$929.9 state and local funds for the # of students eligible for free or reduced meals X by 0.2	Total state school aid $10,477.4 total local school revenues $10,927.0
Utah	Foundation grants	Per pupil unit based on enrollments	Highly Impacted Schools $5.4 million based on students mobility, free lunch counts, minority students, LEP, and single parent households	Disadvantaged youth category, amounts not designated	Total state school aid $1,428 total local school revenues $383
Vermont	Block grants and guaranteed yield recapture	Weighted ADM, economically deprived weight 0.25, based on the poverty ratio of the district's preschool and early education programs	See Comp. Ed.	Success Beyond Six, $6.4 million for the expansion of local partnerships to support at-risk students	Total state school aid $663.3 total local school revenues $128.3

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Virginia	Minimum foundation program	NA	At-Risk $58.5 million based on the # and % of pupils qualifying for free and reduced meals, 2-12% additional state aid, grants for at-risk 4 year olds, Dropout Prevention, #12 million, $177 per pupil for grades 6-10, 11 pilot programs	$64.7 million for remediation, summer school $328 per pupil	Total state school aid $3,471.8 total local school revenues $3,644
Washington	Full state funding for basic education	Grade level weightings	Learning Assistance Program LAP, grades 4-8 for students in the lower quartile and a % of poverty, for grades K-9, $390 per pupil who is at or below the state poverty average of 31% based on free and reduced meals	$62.8 million for low performing students in grades K-9	Total state school aid $4,890 total local school revenues $1,070.2
West Virginia	Basic Foundation Program with 7 allowances	Special Education and advanced and Honors students	Title I only	NA	Total state school aid $1.373.7 total local school revenues $645.2
Wisconsin	Guaranteed tax base formula with three tiers of state sharing in school district costs	K and preschool	Aid to Milwaukee Public Schools $8 million, academic deficiencies of disadvantage students, 1 district participating, SAGE Students Achievement Guarantee $15 million, enrollment of at least 30% low income students, Children At-Risk $3.5 million, at-risk of not completing high school, dropout rate exceeding 5%	$7 million, preschool -5th grade, high concentration of economically disadvantaged and low achieving students, competitive grants available	Total state school aid $3,989 total local school revenues $3,039

State	Major Formula Type	Weight	At-Risk Components	Compensatory Education Factor	Funding In 1998-99 of dollars
Wyoming	Education Resource Block Grant Model	Education basket prototypes based on grade levels, enrollment, class sizes, personnel, supplies, special services, special student characteristics, special regional characteristics	Economically Disadvantaged Youth, recognizes that expenditures differ between high wealth and low wealth districts	NA until January of 1999, then .07 million allocated	Total state school aid $312.5 total local school revenues $283.1[180]

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[180] William Fowler, 2001. "Public School Finance Programs of the United States and Canada: 1998-99." In National Center for Education Statistics. U.S. Department of Education. Washington, D.C. Available from nces.ed.gov/edfin/state.

Chart III

Definitions of Constructs in the Analysis

Construct	Constructive Definition
At-risk students	students that qualify for free or reduced meals according to the federal guidelines **New Mexico**: free and reduced lunch, mobility, dropout, and English as a Second Language
Equity	students receiving their fair shares of educational opportunity in comparison to equality, which refers to equal shares
Fiscal Equalization	financial support is distributed for localities or populations based on their fiscal capacities
Pupil equity	student's access to revenues and the amount of expenditures allocated for their academic preparation
Horizontal equity	funding formulas in which students with similar characteristics receive equal shares of the funds

Vertical equity	pupils with varying educational needs receive differentiated funding amounts for their academic programming
Public School Funding Formula	The financial plan for New Mexico Formula enacted by the New Mexico in 1974 Legislature
Disparity	difference in educational spending based on rank, amount or degree
Real Terms	expenditures that have been adjusted for inflation
Constant Dollars	dollar amounts that have been adjusted for inflation
Current Dollars	dollar amounts that have not been adjusted for inflation
Equity Indices	indices calculated to determine the level of equity such as: Thiel Index, McCloone Index, Gini Index, Federal Range Ratio, and the coefficient of variation
Ad Valorem	taxes based on the percentage value of the property
Save Harmless Clause	allows for a district not to receive lesser amounts of allocations than the previous year

State Equalization Distribution	Equalization plan for public school funding for the state of New Mexico
Cost Differential Unit	Weightings assigned to student population groups for funding adjustments
Range	Represents the difference between the highest and the lowest per pupil expenditure
Restricted Range	Represents the difference between the per pupil expenditures at the 95th percentile and the 5th percentile
Restricted Range Ratio	Represents the quotient after dividing the per pupil expenditure at the 5th percentile by the expenditure at the 95th percentile
Federal Range Ratio	Represents the difference between the expenditure per pupils at the 95th and 5th percentile divided by the 5th percentile
Mean	Computing the sum of the per-pupil inputs divided by the number of per-pupil inputs
Median	Corresponds to the point at or below which fifty percent of the per pupil expenditures fall

Coefficient of Variation	Represents the "standard deviation of a distribution of per-pupil inputs divided by the mean"[181]
Theil Index	Measure of the variation in the distribution of revenue across the distribution
Gini Index	Illustrates how far the actual distribution of revenues are from providing students with equal proportions of the revenues
Atkinson Index	Represents a "function that converts a distribution of per pupil objects to a single number that measures the total welfare of the distribution taking into account how much of the object each student receives and the equity among pupils"[182]
McLoone	Measures the equity of the lower half of the distribution of revenues
Pearson Product-Moment Correlation (r)	Represents the "degree to which the points cluster around a regression line"[183]

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[181] Alexander and Salmon, *Public School Finance*, 240.
[182] Ibid., 237.
[183] Howell, *Statistical Methods for Psychology*, 232

Slope   Indicates the size of change
                                               between the dependent
                                               variable and the independent
                                               variable

Elasticity   Measures the magnitude of the
                                               relationship between the
                                               independent variable and the
                                               dependent variable

Definitions for the chart were adapted from Appendix A, Glossary of Equity Statistics in a
dissertation authored by Terry E. Arbogast II entitled, *An Historical Analysis on Fiscal
Equity in Virginia: 1974-2003.*

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