Toward More Effective Financing of Student Achievement in Delaware's Schools

An Executive Summary and Policy Recommendation Document of the Delaware Public Policy Institute Project:
Evaluating the Effectiveness of Financing Delaware's Public Education: A Business Initiative

DELAWARE
PUBLIC POLICY
INSTITUTE

FELLOW DELAWAREANS:

On behalf of the Board of Trustees of the Delaware Public Policy Institute, I am pleased to present this report, which summarizes the findings and recommendations of the first two phases of our ongoing study of Delaware's system of education finance. We thank the Longwood Foundation, the Rodel Charitable Foundation of Delaware, MBNA America, AstraZeneca, Conectiv, Verizon, Wilmington Trust, the University of Delaware, and my own institution, WSFS Financial Corporation for their generosity in providing support for this study.

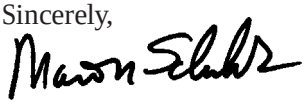
The Delaware Public Policy Institute holds a firm conviction that the success of education is critical to Delaware's future. A decade of education reform has put us on the right track and produced significant gain, but we have much more work to do. In the short term, employers note that the education system remains a significant concern when trying to recruit talent to Delaware. In the long run, public education helps us foster an educated citizenry capable of exercising public responsibilities. It is equally important that our education system produce workers with the capacity for continuous learning so that Delaware maintains its competitive edge in this global economy.

This project, "Evaluating the Effectiveness of Financing Delaware's Public Education: A Business Initiative," provides an important foundation and lays out an agenda for improving Delaware's education finance system. The study produced an important community resource of significant data and text providing a comprehensive picture of Delaware's system of education finance that may be accessed via the Internet at http://www.cadsr.udel.edu/education/projects.htm.

Our next task is to achieve the goal of linking school finance to educational outcomes. Because education is so vital to Delaware's future, the Delaware Public Policy Institute (DPPI) will continue its focus on education reform by examining proactively what it costs to provide an adequate public education in Delaware and explore the implications of moving toward an education finance system based on achieving student performance standards.

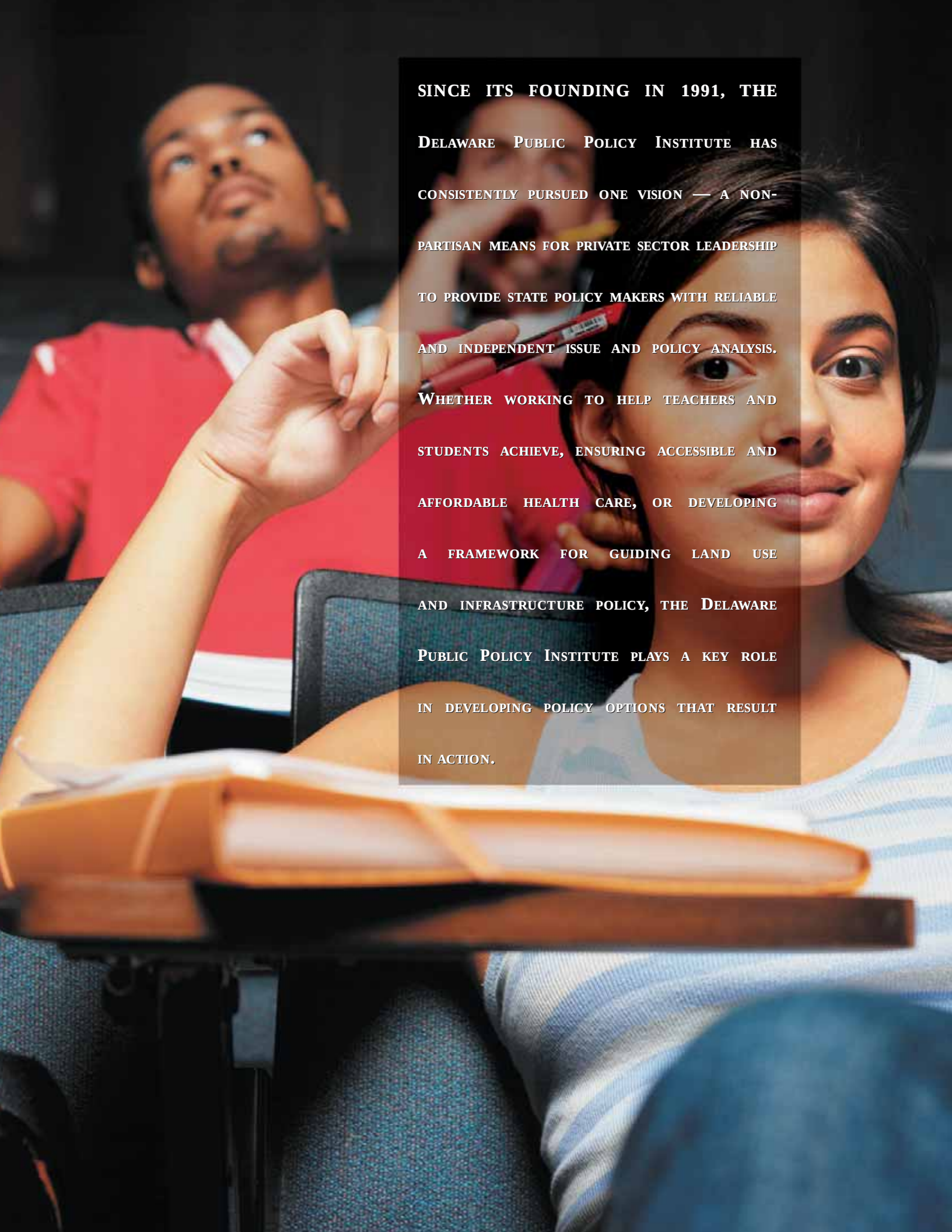
Each fall, the school year begins with renewed optimism and joy about the potential for learning and growth. Our hope is that this report, and the recommendations contained herein, stir similar emotions and produce a call to action among leadership throughout this state toward our next steps for improving the education of Delaware's children.

Sincerely,



Marvin N. Schoenhals, Chair

SEPTEMBER 15, 2004



SINCE ITS FOUNDING IN 1991, THE DELAWARE PUBLIC POLICY INSTITUTE HAS CONSISTENTLY PURSUED ONE VISION — A NON-PARTISAN MEANS FOR PRIVATE SECTOR LEADERSHIP TO PROVIDE STATE POLICY MAKERS WITH RELIABLE AND INDEPENDENT ISSUE AND POLICY ANALYSIS. WHETHER WORKING TO HELP TEACHERS AND STUDENTS ACHIEVE, ENSURING ACCESSIBLE AND AFFORDABLE HEALTH CARE, OR DEVELOPING A FRAMEWORK FOR GUIDING LAND USE AND INFRASTRUCTURE POLICY, THE DELAWARE PUBLIC POLICY INSTITUTE PLAYS A KEY ROLE IN DEVELOPING POLICY OPTIONS THAT RESULT IN ACTION.

INTRODUCTION

In the last decade, private and public sector leaders focused attention on many threads of education reform: improving standards in Delaware's public schools through stronger curricula, shared accountability, enhanced professional development, and greater competition through charter and choice schools. Private sector leadership was critical in pushing this complex education reform agenda forward. As a result of these efforts, Delaware's public schools are showing good progress against national standards. Work remains to ensure that nothing undermines the significant progress made in these areas and that the momentum built continues to produce further gains.

Delaware's system of education finance should reflect the new realities of public education in this era of accountability. Yet, despite these significant changes in the state's approach to education, little comprehensive or systematic attention has been focused on the short- and long-term financial implications of our new education accountability system. Effective financing of schools is critical to ensuring that available resources are sufficient and appropriately aligned toward raising student achievement to expected levels. Furthermore, it is only fair that if educators, school leaders, and administrators are to be held accountable for these outcomes that the state, its citizens and business community help to make the improved outcomes possible. Control of those resources made available by public authorities must rest with those held accountable for those outcomes.

"Harnessing spending to school improvement strategies can help spur the systemic change needed to raise academic achievement. Redesigning funding policies is an essential step in the process of transforming schools into high performance organizations."

"Investing in Learning: School Funding Policies to Foster High Performance,"
The Committee for Economic Development

Education reform carries a substantial price tag for increased testing, enhanced professional development, mandates approved by the General Assembly and the federal government, reduced class size, extended school days, summer classes, year-round schools, and instructional technology. Add to it the burgeoning capital needs of some districts, and the reasons behind significant growth in public expenditures on education become apparent. The financial implications of the system of education accountability deserve the attention of Delaware's business leaders, policy makers, educators, and citizens.

With that in mind, the Delaware Public Policy Institute (DPPI) embarked on a comprehensive study of education finance in Delaware, "Evaluating the Effectiveness of Financing Delaware's Public Education: A Business Initiative."[1] The DPPI partnered with the University of Delaware's Center for Applied Demography and Survey Research to complete the empirical work of the project in two phases. Phase One analyzed the current education budget in terms of statewide resource allocation and utilization. This data allow direct comparisons to national and state-level benchmarks and trends in education spending. Phase Two of the project makes an important, if incremental, step beyond earlier studies by extending the

1 Delaware has a long history of studying education finance. At least four comprehensive looks at these issues were done in the last two decades. The Grimes Report of 1986, the Education Finance Subcommittee of the Education Improvement Commission in 1992, the Education Finance Reform Committees of 1998, and a study, "School Finance: Investing in Student Learning," commissioned by the State School Boards Association issued in 2000. The central findings of those earlier reports remain largely unchanged because the fundamentals of the system of education finance underlying the current revenue and expenditure patterns remain remarkably unchanged despite the significant changes resulting from education reform over the last decade.

study of resource allocation to the district level to look at the comparative sources and uses of resources. These data allow some direct comparisons among Delaware's school districts as well as comparisons with peers in surrounding states. These reports provide significant additional data and text that interested readers, researchers, and policy makers can access:

http://www.cadsr.udel.edu/education/projects.htm
This link provides the report summaries and text that formed the basis of the findings presented in this summary report.

http://www.cadsr.udel.edu/FINANCE/pubedindex3.htm
This link provides statewide data on education revenues, expenditures, employment, and teacher/student ratios for the period covering 1990-2000 to 2000-2001.

http://www.cadsr.udel.edu/FINANCE/pubedindex4.htm
This link provides school district-level data on revenues, expenditures, student unit counts, and other subjects covering the period from 1991-1992 to 2001-2002.

This executive report relies on and supplements the data gathered from these empirical phases with additional data to develop the conclusions and recommendations presented below.

I

EMPIRICAL FINDINGS

The initial goal of this study was to present an accessible, easy-to-understand, and comprehensive picture of where the money comes from and where it goes, all the way down to the school level for Delaware's citizens and parents. However, given the complexities and data limitations of the system of education finance in this state, such a product proved impossible.

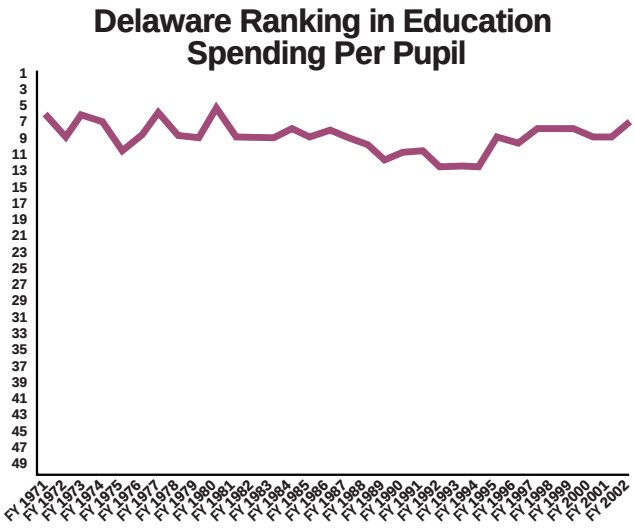
The current financial information does not allow educational leaders to know whether resource decisions that they make are paying off in terms of improved outcomes for their students. Nor is the data that is available presented in a format that is understandable, accessible, and comparable for state policy makers, school board members, and researchers.

The education finance system is simply not organized with the goal of knowing whether how money spent produces results or whether alternate allocations of resources would increase student achievement. Instead, the system is organized around counting children. District finance personnel focus on managing unit counts (the codified system for counting students in districts and school buildings) in order to maximize revenues. Delaware is not

HIGH OVERALL LEVEL OF FUNDING		
Ranking	**State**	**Per Student Spending Adjusted for Regional Cost Differences**
1	New Jersey	$8,436
2	New York	$7,635
3	Connecticut	$7,289
4	**Delaware**	**$7,228**
5	Wisconsin	$7,097
6	Pennsylvania	$7,092
9	Maryland	$6,708
10	Michigan	$6,689
15	Rhode Island	$6,468
20	Massachusetts	$6,201
25	Ohio	$5,916
26	**U.S.**	**$5,906**
30	Kentucky	$5,583
35	Hawaii	$5,387
40	South Dakota	$5,222
45	Colorado	$4,941
50	Mississippi	$4,633
51	Utah	$3,985

Source: *Education Week*

Table 1



Graph 1

2 Delaware ranks high on every measure of education spending with two exceptions — per pupil spending as a percentage of personal income and percent of total taxable resources spent on education. Lower rankings on these measures are misleading when used as a measure of relative support for education. They actually are a measure of the state's capacity to spend more on government services because of the state's ability to export its tax burden and its relative personal wealth to level of personal taxes in the form of sales, property, and personal income tax. With Delaware's high per capita income and exportation of nearly 40 percent of its revenue base in the form of corporate and bank franchise taxes, escheat, and video lottery, it is not surprising that Delaware ranks relatively low on these measures.

unique in this regard. The rise of cost-center accounting combined with the focus on equity in the post-Brown vs. Board of Education era caused nearly every state to allocate resources to schools by formulae driven by counting groups of students. Despite these significant limitations, the data produced from this extensive research still provide meaningful insights into the level and allocation of resources in Delaware's public education system and school districts.

A. High Overall Level of Funding

Delaware's public school system is comparatively well funded by virtually every measure.[2] Apples-to-apples comparisons of funding levels are difficult to make because factors such as the cost of living and the composition of the student population affect the cost of delivering educational services. Therefore, the best measure to compare funding of education is education spending per student adjusted for regional cost differences. On this measure, Delaware ranks fourth nationally *(see Table 1)*.

This relatively high level of spending is not a recent phenomenon. It did not result from the out-performance of Delaware's economy compared to the nation or an outgrowth of additional revenues from video lottery, bank franchise, or corporate franchise taxes. For at least the last three decades, Delaware's ranking in education spending per pupil has been in the top 10 nationally and never dipped below thirteenth *(see Graph 1)*. Recent public education spending continues to sustain this investment. Public education spending has grown at a rate of almost two percent annually more than inflation on a per pupil basis in the last decade.

B. High Degree of Superficial Equity

Thanks to the large share of state funding, Delaware's education system has a high degree of equity at the district level compared to other states. In addition to the large share of state funding, Delaware uses an equalization formula to put districts with different taxing power or property tax bases on more equal footing in terms of resources.

Recent trends, however, suggest that the equalization formula is becoming less efficient in closing the gaps because of hold-harmless provisions. The gap in total current expense spending between the regular (i.e. non-vocational) district with the highest funding per student (Christina at nearly $9,300) and lowest funding per student (Delmar at $7,740) is more than $1,500 per student annually. The gap is even more striking when compared to the vocational districts (which also receive money from the equalization formula). All three vocational districts spend in excess of $11,000 per student with New Castle County Vocational School District spending nearly $14,000 per

student.[3] Courts have also found that such wealth equalization formulae can do harm to efforts to appropriately align resources with the education needs of students, especially in areas with urban centers with greater concentrations of poverty.

Of equal or larger concern is the inability to assess the relative equity in distribution of resources within districts. Within districts, schools serving children with greater need often have equal or fewer resources, financial and otherwise, despite serving a population with greater academic challenges. Seniority preferences in contract agreements facilitate the migration of more experienced teachers toward schools and classrooms with higher achievement, especially absent any countervailing rewards for selecting more demanding assignments. Experienced teachers and administrators are more adept at securing discretionary resources for their classrooms and buildings. Because the data did not permit analysis at the school level, it is not possible to assess the level of resource equity within districts in Delaware. Given the increasing level of concentration of children eligible for free and reduced lunch in many schools, it is imperative to better understand the resource differences at the school level.

C. People Are the Biggest Investment

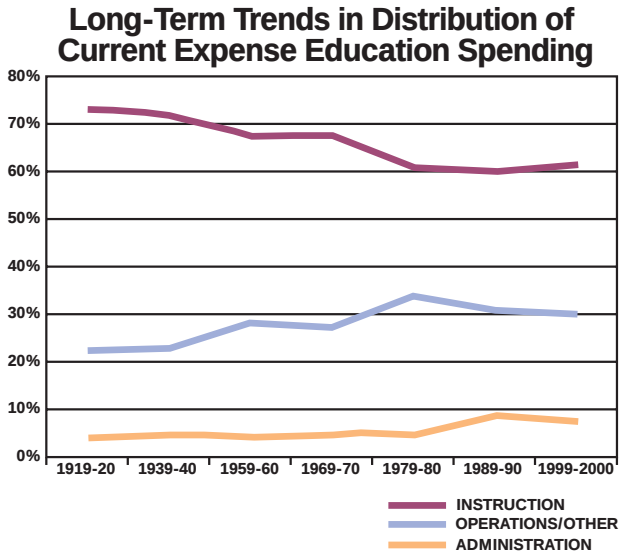
Spending on instruction nationally has hovered around 60 percent since the 1970s. This pattern is remarkably similar in districts large and small, rural or urban, high or low-spending. The pervasiveness of this pattern of spending suggests the trends result from forces that cut across state borders. Nationally and in Delaware, people costs are the most significant proportion of operational expenditures (77 percent). Salaries and benefits for teachers account for 62 percent of current spending.

Districts with greater resources tend to use those extra funds on hiring more teachers. In general, high-spending districts use about half of the additional money on teachers and the other half on non-instructional services. The spending patterns of first-year charter schools mirrors national district averages in classroom expenditures as a share of overall spending.

Despite higher levels of funding, money actually going into the classroom in Delaware mirrors the national average of 60 percent *(see Graph 2)*. Administrative spending (both school and central office) is about two to three percentage points below national averages, while spending on educational support services (teachers' aides, specialists, interventionists, psychologists, social workers, etc.) is about three to five percent higher. The research nationally shows that larger districts or districts with larger schools do manage to put more new money into the classroom in terms of percentage spent on instruction. This finding is largely a function of school size and the unit-driven system of

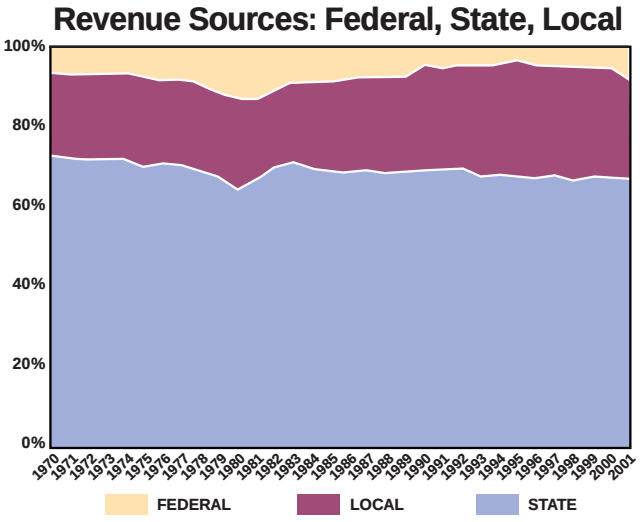
"…researchers and policy analysts need to explicitly address the link between education inputs, processes, and academic achievement, a linkage virtually ignored in the finance system based on wealth neutrality of equality of funding."

Ladd and Hansen,
Committee on Education Finance,
National Research Council



Graph 2

3 Thus the gap between the highest and lowest funded school district on a per pupil basis is approximately $6,500 per student. The difference in per student funding for the vocational districts is explained by several factors: cost (vocational programs typically cost more than traditional academic programs and vocational districts only serve high schools which typically have greater cost than elementary and early secondary education); customers served (as noted in *Table 3* on page 9, the vocational schools typically served more special education students though this pattern is changing); and tax rules (vocational district tax rates are set by a board under a cap established by the legislature rather than through referenda).



Graph 3

education finance. Smaller schools spend more in percentage terms on administration inside the building. However, some research shows that small schools may produce greater gains in terms of student achievement especially in the lower grades. These patterns in Delaware district-level spending are illustrated below in *Table 2*.

D. Control Over Resources Shifting

Significantly higher portions of education spending in Delaware come from state funds (67 percent versus a national average of 44 percent – see *Graph 3*). Local property taxes, which are the third lowest in the nation, supply only 25 cents of each dollar of education spending (versus a national average of nearly 50 cents). The remaining eight percent of funds come from federal grants, which are the fastest growing source of education funding across the nation. High levels of state spending create incentives and disincentives for districts. For example, local districts would lose revenue by choosing to contract out food service or for cashing in units to obtain greater flexibility.

Recent trends are positive in that a higher percentage of all new money is ending up in the classrooms. This trend is driven by Dover and Washington because new money comes in the form of categorical aid. Expenditure growth in the post-education reform era came in the form of categorical aid devoted to:

- Class Size Reduction
- School Discipline and School Climate
- Academic Excellence

DISTRICT-LEVEL SPENDING PATTERNS

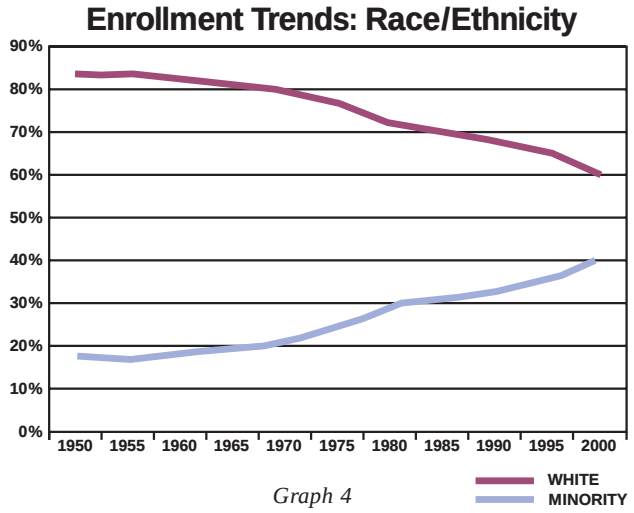
	DISTRIBUTION OF CURRENT EXPENSE SPENDING				VARIABLES AFFECTING EXPENSE		
	Net Instruction	Student/Staff Support	Administration	Operations, Food, Other	% FR Lunch % LEP*	% of Students High School	No. of Schools
Appoquinimink	59.0%	4.0%	16.0%	20.0%	7.1%	26.5%	7
Brandywine	63.0%	8.0%	12.0%	17.0%	10.8%	30.9%	21
Caesar Rodney	62.0%	7.0%	12.0%	19.0%	14.8%	28.4%	14
Cape Henlopen	60.0%	9.0%	10.0%	21.0%	13.7%	28.2%	8
Capital	62.0%	6.0%	12.0%	19.0%	21.6%	25.3%	12
Christina	62.0%	6.0%	12.0%	20.0%	14.3%	25.2%	29
Colonial	69.0%	6.0%	7.0%	19.0%	13.0%	22.3%	16
Delmar	63.0%	5.0%	24.0%	19.0%	13.5%	54.4%	2
Indian River	62.0%	6.0%	10.0%	21.0%	23.2%	24.9%	15
Lake Forest	60.0%	6.0%	16.0%	18.0%	20.5%	25.1%	6
Laurel	58.0%	6.0%	13.0%	23.0%	24.0%	23.5%	6
Milford	63.0%	5.0%	12.0%	20.0%	17.2%	27.4%	6
NCC Vo-Tech	58.0%	6.0%	12.0%	24.0%	n/a	100.0%	1
Polytech	54.0%	7.0%	15.0%	25.0%	n/a	100.0%	1
Red Clay	64.0%	5.0%	10.0%	21.0%	16.5%	23.6%	27
Seaford	59.0%	5.0%	10.0%	26.0%	15.9%	29.0%	9
Smyrna	60.0%	8.0%	12.0%	20.0%	12.7%	27.5%	7
Sussex Vo-Tech	57.0%	6.0%	15.0%	22.0%	n/a	100.0%	1
Woodbridge	58.0%	8.0%	13.0%	26.0%	38.1%	25.0%	5
Kennett, PA	63.0%	8.0%	9.0%	20.0%	9.1%	26.4%	5
Unionville/Chadds Ford, PA	62.0%	12.0%	8.0%	18.0%	1.6%	n/a	5
Fairfax, VA	60.0%	10.0%	10.0%	17.0%	15.2%	31.2%	206
AVERAGE	60.6%	6.8%	11.8%	20.7%	15.9%	28.0%	18.8

*Free and Reduced Lunch and Limited English Proficiency.

Table 2

- Extra Time
- Testing and Accountability
- Professional Development
- Early Childhood Assistance Program
- Property Tax Relief and Elderly Property Tax Credit

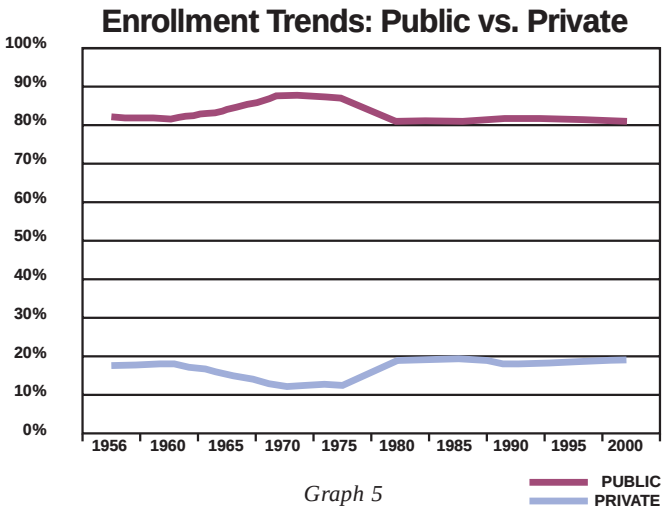
Many of these programs came with processes that allowed districts to seek waivers. Still, the list above illustrates a trend for new state investment in public education to come with specific programmatic goals and requirements attached. The federal government, too, has taken an increasingly interventionist role in prescribing the use of federal funds as witnessed by the controversy over whether the requirements of the No Child Left Behind Act impose an unfunded mandate on states.



Graph 4

E. Customer Base Changing in Significant Ways

The customer base of public schools is changing significantly in ways that will affect how districts must fund the mission of raising student achievement. By most measures, the children enrolled in public schools have, and increasingly will have, greater needs and challenges. The long-term trend shows a rising percentage of children served by many of Delaware's public schools are living in poverty. The percentage of children from one-parent households is rising. Though the overall percentage is small, the number of children with limited English proficiency is climbing dramatically. In short, the population of children in Delaware public schools increasingly comes from these at-risk populations.



Graph 5

The racial mix of schools is also changing. From the 1950s through the early 1970s, the racial mix in Delaware public schools was roughly stable with 80 percent white and 20 percent minority students. Since that time, a steady shift has occurred. By 2000, the percentage of minority students nearly doubled to 40 percent *(see Graph 4)*. This trend is important because, according to a report by the Education Commission of the States on the achievement gap,[4] "the average black or Hispanic high school student currently achieves at about the same level as the average white student in the lowest quartile of white achievement. Black and Hispanic students are much more likely than white students to fall behind in school and drop out." These patterns hold true even when controlling for factors such as socioeconomic and family backgrounds. The causes of these patterns are unknown and further study is needed to understand how to address achievement gaps.

It is clear that doing so requires a complex and nuanced understanding of the factors contributing to the evolution of a child's educational life.

These changing patterns within the public school population reflect changing demographic patterns more than changing parental choice in terms of education. The percentage of

4 Education Commission of the States, The Progress of Education Reform 2003: Closing the Achievement Gap, Vol. 4, No. 1, March 2003.

Delaware children attending private school has remained relatively stable over the last decade (18.7 percent vs. 18.2 percent a decade ago – see *Graph 5*). Public charter schools now educate only about four percent of the state's school-aged children. For many districts, the rate of enrollment growth for traditional public schools has slowed significantly (or in many cases dipped to the negative) in the last three years in part as a result of the rise of public charter schools. Choice does have other effects, primarily on the stability of district enrollment and thus the stability of district finances. For example, as a result of enrollment through the choice program, the Red Clay School District received over $2 million in additional revenue in Fiscal Year 2003 from students within the Colonial and Christina School Districts. This period of enrollment flux from charter and choice is beginning to stabilize.

The number of students identified as special education has increased significantly with the ratio dropping from 1:11 to 1:9 over the last decade in regular school districts. A large portion of this change results from increasing classification and diagnoses of children with ADHD and other learning-related diagnoses. The percentage of children classified as special education generally has increased in regular districts while it has declined in the vocational districts, especially those in Kent and Sussex Counties (see *Table 3*).

It is not clear whether these changes result from changing populations, changing diagnostic patterns, or other forces. However, financial incentives built into the unit count formula may encourage classifying children as special education as a means of getting more resources to serve students with greater educational needs.

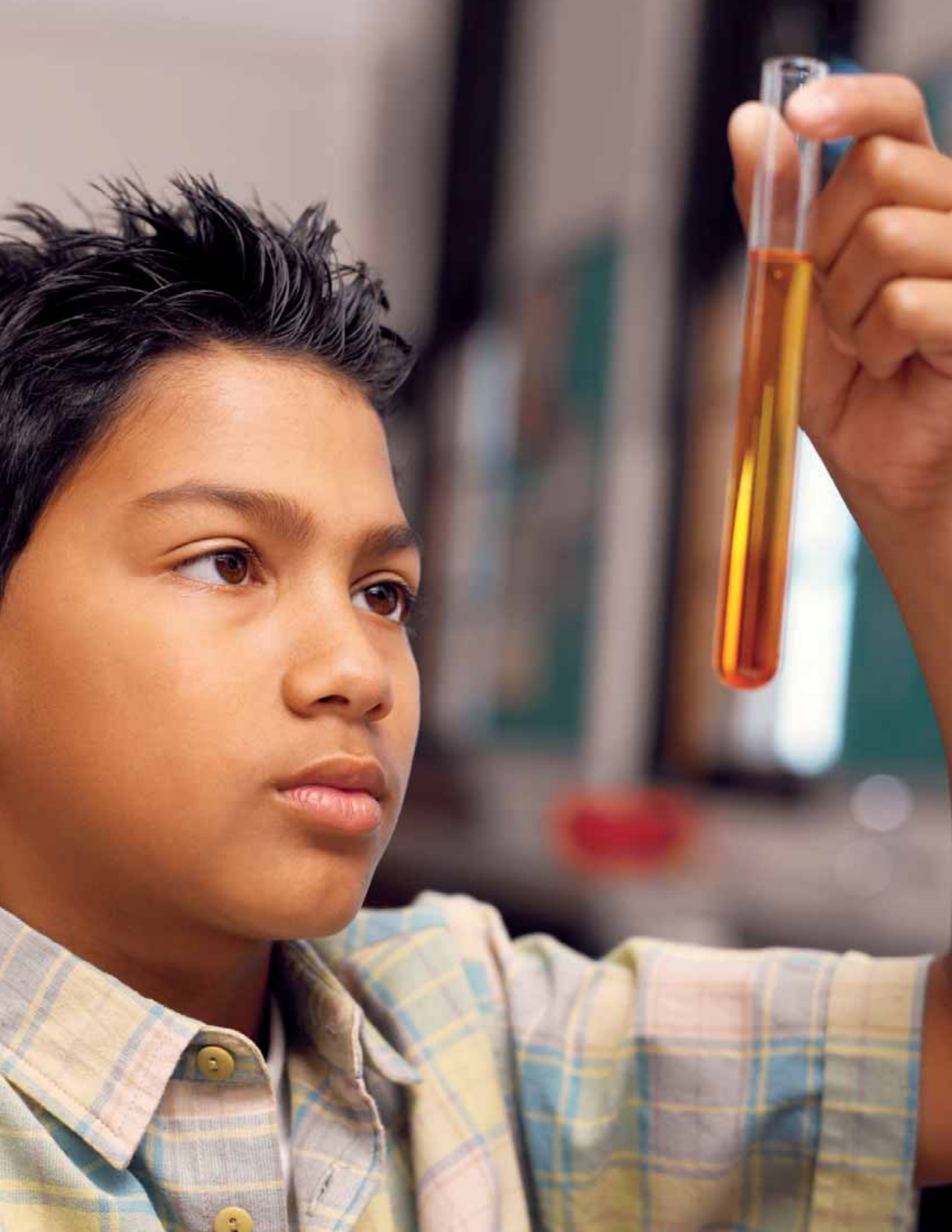
ENROLLMENT TRENDS: SPECIAL EDUCATION

SPECIAL EDUCATION UNITS AS A PERCENTAGE OF TOTAL UNITS

School District	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Appoquinimink	17.1	17.7	18.1	17.5	17.3	16.3	15.2	17.4	17.8	20.5
Brandywine	18.1	18.0	19.5	20.1	20.9	21.8	22.3	21.8	22.3	23.2
Christina	24.9	25.3	25.8	25.8	25.9	26.3	26.8	26.3	26.6	27.4
Colonial	21.9	23.8	23.6	23.7	24.4	25.3	27.1	25.4	25.4	25.4
NCC Vo-Tech	30.9	30.9	30.2	29.9	29.6	29.9	30.3	29.2	25.0	26.4
Red Clay	20.2	19.9	20.2	21.0	20.6	21.2	20.9	21.1	21.8	22.1
Caesar Rodney	20.7	21.9	21.2	23.0	23.5	24.5	25.7	26.0	27.8	27.8
CR-DAFB	9.8	9.7	6.5	5.0	20.5	11.3	10.2	10.0	9.8	11.1
Capital	17.8	19.6	21.2	22.5	23.5	25.0	26.6	25.9	25.7	26.0
Lake Forest	18.9	20.1	19.8	20.4	22.1	18.6	20.7	20.8	20.0	22.0
Milford	24.8	25.8	27.5	27.1	26.7	28.4	27.1	25.2	25.2	25.9
Polytech	41.7	37.5	29.8	29.5	27.9	25.4	22.2	23.0	24.2	25.0
Smyrna	21.1	21.0	21.6	22.5	22.7	22.6	24.1	25.2	24.9	25.4
Cape Henlopen	25.9	26.1	26.2	27.7	28.5	28.5	30.6	31.2	30.5	30.7
Delmar	17.6	16.7	18.9	18.9	24.4	23.8	24.4	20.9	21.7	21.8
Indian River	30.8	3.3	35.2	37.0	36.9	36.3	34.8	30.3	29.3	30.1
Laurel	21.2	22.6	24.4	24.4	23.3	25/0	23.1	22.7	20.8	20.0
Seaford	25.2	25.4	26.3	28.6	29.9	29.3	29.1	25.6	24.7	23.9
Sussex Vo-Tech	47.5	44.4	40.3	36.8	34.3	32.9	32.9	24.6	27.1	23.9
Woodbridge	21.6	24.2	25.0	25.7	24.5	22.4	22.8	20.0	18.1	18.0
STATE DISTRICT AVERAGES	22.8	23.6	24.2	24.7	25.0	25.3	25.6	24.7	24.7	25.2

Source: Report of Educational Statistics and September 30 Student Enrollment and Unit Allotment Report (Delaware DOE). Includes special schools.

Table 3



II

RECOMMENDATIONS

A. Changing the Goal of Our Education Finance System

The empirical research from this study provides important evidence of the need for fundamental change in how Delaware finances schools and manages educational resources. Delaware's education finance system currently is organized around equity defined by inputs (i.e., delivering equal resources on a per unit basis to each district). The foundation of the education reform and accountability movement was a shift of focus to outcomes (measured in terms of student achievement). Aligning Delaware's education finance system with the system of education accountability ought to be the long-term goal for the state's education finance system.[5]

Still, the work to prepare for such a transition is not complete. None of the research to date can address the most important and fundamental question of education finance reform: whether schools have adequate resources to educate all children to the standards set by the new accountability systems. It is possible that Delaware's public education system has adequate resources,[6] but that those resources (because of current formulae for distributing the money, institutional forces driving allocations, and other reasons) are not allocated to ensure that there are sufficient resources for all to meet the goals established. Moving toward a so-called adequacy approach to education is not merely about whether there are enough resources and doesn't merely seek to throw money at the problem.

The most significant improvements in education finance in Delaware would come from objectively assessing: 1) whether schools have adequate resources to educate all children to the standards set by the new accountability systems, 2) the level and types of resources needed compared to current levels, and 3) ways to create flexibility for administrators and principals to reprogram those resources in exchange for accountability in meeting those benchmarks.[7] The methods for developing measures of adequacy are in their infancy, and are more art than science. They are nonetheless critical to moving forward to match the education finance system to the realities of education accountability.[8] Data analysis alone is not sufficient to answer this question since the available data do not permit researchers to match patterns of resource allocation and achievement within schools or below the categorical level across districts.

There are significant cost differentials associated with student need. Relatively high concentrations of students who are 1) economically disadvantaged, 2) have limited

5 Simply increasing inputs is no magic bullet for raising student achievement. Researchers have found that most of the improvement in test scores comes from non-financial inputs like student effort and parental involvement. Still, in these studies, schools analyzed made few changes to financial allocations, did not make systemic changes to align resources to need, or fundamentally change school organization (Gale).

6 Indeed, in the most recent available studies applying a cost-adjusted, student-weighted (i.e. accounting for differences in the percentage of low income and special needs students) measure of adequacy, Delaware finished tied for first (Rubinstein).

7 Educational adequacy is not merely about whether there are enough resources either at the system, district, or school level. It may be possible that Delaware's public education system has adequate resources, but that those resources (because of current formulae for distributing the money, institutional forces driving allocations, and other reasons) are not allocated to ensure resources for all are sufficient to meet the goals established. It may better be understood as a focus on vertical equity — to what extent do schools and students with meaningfully dissimilar characteristics receive appropriately dissimilar resources in order to achieve the goal. School finance systems have spent nearly a half century relentless pursuing the goal of horizontal equity — making sure that all districts have roughly equivalent levels of resources. Delaware's system is among the best in terms of statewide resource equity, but such measures of equity inevitably mask vast differences in resource distribution at the school level and divert attention from the question of whether equal resources will produce equal results in terms of student achievement.

8 There are recognized alternatives for measuring the adequacy of resources. Nearly 20 states have undertaken the process of determining the level of resource adequacy, but no state has successfully implemented an adequacy-based approach.

proficiency in English, 3) are in special education programs, or 4) are enrolled in high school can substantially increase school district costs and have dramatic impact on student achievement levels. For example, districts or schools that educate more students who are eligible for free lunch than average would be projected to need to spend more to achieve comparable outcomes, other things being equal. Conversely, districts or schools that educate fewer students eligible for free lunch than the average would be projected to require less funding. Delaware's current education finance system makes few adjustments to reflect building or district composition in allocating and managing resources. Nor does the system have a coherent policy for managing enrollment levels and concentrations of at-risk children to ensure the best outcomes in terms of student achievement for all students.

Achieving the goal of linking resource inputs to student outcomes would not be as simple (insert laughter here) as calculating and supporting the level of resources adequate to educate all children up to performance standards. It would require building consensus and capacity to restructure the methods for allocating funds, as well as the roles that state policy makers, districts, administrators, principals, and teachers play in the resource control and allocation process.

There are many models with potential that deserve further study. One model worth exploring, which started in Edmonton, Alberta was copied in cities and districts including Seattle, Houston and Cincinnati and borrowed from states such as Florida, combines two elements to increase alignment of resource allocations and student outcomes. These systems rely on two components: 1) a weighted per-pupil model to allocate funds and 2) decentralization so that building-level decision makers have greater control over resource allocation. Such a move would require change of a significant magnitude. However, linking the cost of educating each student to standards to how resources are distributed may be necessary to achieve equity in terms of student outcomes.

One need not tackle a complete overhaul of the state's school funding formulas in order to make progress toward matching resources to desired outcomes. The results from school finance adequacy formulas can be 1) directly used to model how to provide adequate resources within the current system of distribution, 2) be the source of recommendations for reforming the current system of distributing resources or 3) suggest more comprehensive reforms to the education finance system. The next phase of the study will identify different ways those results could be used under the current unit and equalization

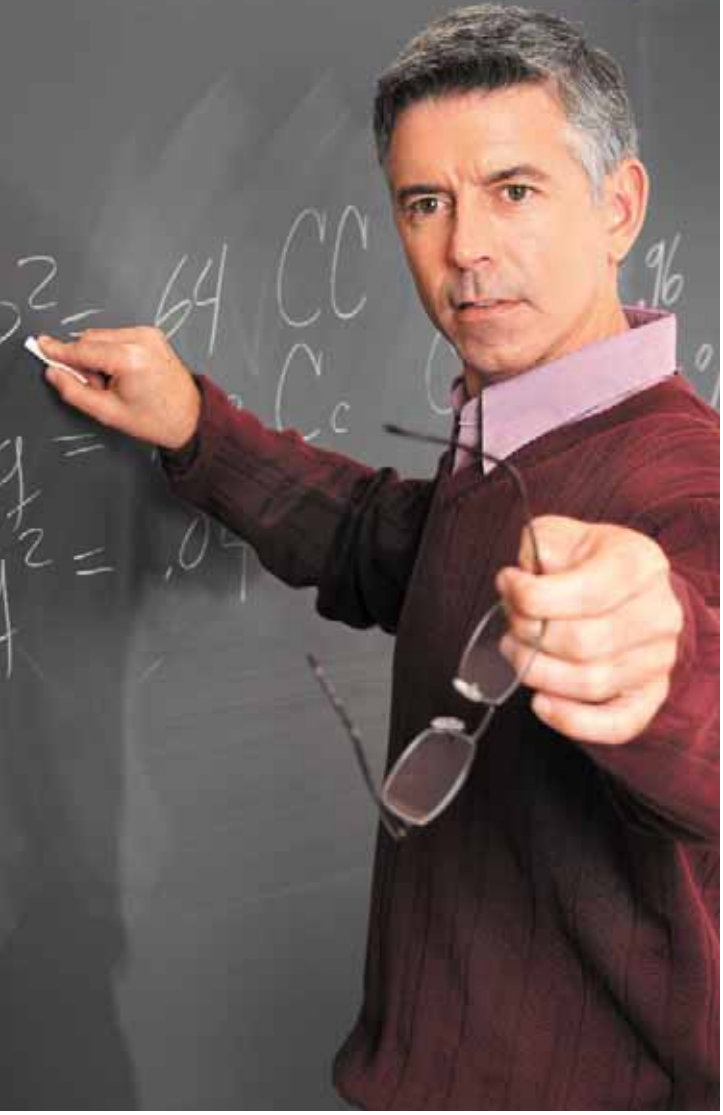
"The vast majority of states have created accountability systems with consequences, but most policy makers don't know how much it costs to reach those standards and don't know whether they are providing too much or too little money."

John Augenblick,
Distinguished Senior Fellow,
Education Commission of the States

RECOMMENDATIONS

- Commission further study employing nationally established models that determine the cost of educating children to the standards and develop a plan to better align resources to goals for student achievement at the school level.

- Work to align resources so that all children have the opportunity to meet state standards and all schools and students meet targets set by the No Child Left Behind Act.



finance formulas and through district-to-school funding schemes to get adequate resources into schools. The ultimate goal of the next phase is to link educational resources put into the system to educational outcomes for students coming out of the system.

Calculating an adequate level of funding is defined in reference to the cost of meeting the state's performance standards. Adequacy studies thus do not supplant the decisions of state officials or educators making public policy decisions concerning the goals and outcomes for public education. Such study has as its starting point the educational standards set by the state. The study will not opine on what students should be able to know and do.

That said, an adequacy study does assess the educational programs and practices that must be in place in order to reach the outcome benchmarks set by state law. It also incorporates and addresses the costs of complying with the new No Child Left Behind Act. Thus, the typical adequacy study process includes a process for developing consensus on the key components that are necessary to educate all children to the outcomes set by state and federal standards for K-12 public education.[9] Relevant components include: high quality teachers with access to high quality professional development; appropriate pupil-teacher and class-size ratios; and the spectrum of educational preparation such as early childhood programs.

Since differences across districts in input costs and student needs translate into differential ability to meet those standards, most researchers agree that the school finance system must compensate for these relevant differences. For example, all else being equal, a high-poverty school district will not be able to attain the same performance levels as a low-poverty school district if those districts have the same resources. Thus, if all students in a state are to have access to an adequate education, higher poverty districts and schools must receive more aid than lower poverty districts and schools. Then the adjustments will require determining differences in prices that will have to be paid to purchase equal quality resources across the state. Since the majority of educational expenditures are for personnel, at a minimum these adjustments must account for variation in cost-of-living and working conditions.

In short, achieving the goal of linking school finance to educational outcomes requires:

1. Assessing the cost of providing an education to Delaware's children, including those with limited English proficiency, students in poverty, and other "at-risk" groups with greater educational need;

9 It is important to recognize that there is no single method for estimating the cost of an adequate education that guarantees results or provides an unambiguous answer to the research question posed in this study. Each of the various methods currently in use by researchers in this field has advantages and disadvantages. The "professional judgment" approach (Guthrie, Augenblick & Myers) uses a modified market-basket approach by gathering professional educators, school board members, policy makers, business and community leaders and others with professional insight together to discuss and evaluate the resource needs of different students in order to achieve the defined performance standards. The "evidence-based" approach (Odden and Archibald) evaluates the cost per student of successful whole school reforms (Success for All, Roots and Wings, etc.), compares them to the current resources of the district/school, and identifies targeted areas for reprogramming existing resources to fund the whole school reform. The "economic/cost-function" model (Stiefel, Schwartz, Rubenstein; Reschovsky, Imazeki) applies econometric techniques to regress expenditure per pupil with district characteristics and performance levels to identify efficient and effective schools. The "successful schools" model identifies districts and schools that have been successful in teaching students to desired levels of achievement against state and national benchmarks and sets the adequacy level at the weighted average of expenditures of such districts.

2. Aggregating the cost into district and state costs based on the student population served by each school and district;

3. Comparing the current resource allocation to that required to produce an adequate education for each school and district; and,

4. Developing recommendations for state school finance policy that would better align education resources with the needs of each district and each school in order to ensure an "adequate" education for all children that each school will serve.

B. Incremental Steps Toward the Goal

The changes implied by the long-term goal of aligning resources with desired outcomes in terms of student achievement are of significant magnitude. Even if the proposed study resulted in a perfect solution and sound transitional planning, the political realities and need to minimize disruption to students would demand significant time to achieve full implementation of an education finance regime that linked resources to outcomes. Enacting comprehensive education finance reform takes time and careful planning. Recognizing this, DPPI looked for concrete, achievable steps toward improving the education system that would support later implementation of the systemic recommendation of linking education finance and student achievement.

1. Getting More Flexibility, Innovation, and Need-Based Funding Into the Current System

Districts currently do not take advantage of the limited flexibility available in the current education finance system. Under the Ed Flex waiver program, districts may request waivers to innovatively use federal and state funds earmarked for programs such as extra time, school climate, academic excellence, mentoring, and professional and curriculum development. Yet, no district to date has submitted a request for a waiver. The State Department of Education has proposed to create a model waiver to assist districts in submitting a plan for flexible use of funds within categories designated under the Ed Flex waiver.

Such a proposal is a good start, but many districts lack the capacity and resources to develop a systematic plan for combining and reallocating resources in innovative ways or lack the political capital necessary to do so. Moreover, though many categorical aid programs are included in the Ed Flex program, the amount of dollars at stake may not be sufficient to spur districts to invest in such comprehensive strategic planning. Legislative action to expand the categories eligible for Ed Flex is a start toward shifting responsibility and accountability to those charged with educating children.

RECOMMENDATIONS:

- Create a model waiver, provide technical assistance, and expand the categories of funding eligible in order to promote flexible use of funds by districts.
- Consider the possible creation of a pilot program by DOE where districts are provided a level of financial flexibility similar to that given to public charter schools in exchange for fiscal and performance accountability reporting.
- Allocate more categorical funding based on need. New educator mentoring and extra time monies are just two of many examples where need-based allocations make more sense than allocations based on district size or number of units.
- Develop a common statewide financial management system that tracks revenue and expenditures down to the school level.
- Encourage the use of return on investment and other methodologies that link financial decisions to performance measured in terms of student achievement.

Superintendents, principals, and board members must demonstrate the willingness and capacity to use this flexibility to better align resources with educational outcomes. Reallocation across and within districts will raise political, economic, and social issues that require careful management and planning. Progress towards a system that allocates revenues based on the cost to educate different types of children to the same standards would also come from incrementally shifting to a need-based formula for allocating resources. There are several approaches to realigning funding to match the needs of student populations. Christina is among a vanguard of districts nationally (including Charlotte-Mecklenburg) that authorize differential funding levels for schools with concentrated populations of at-risk children. In addition, several categories of state financial aid, such as new educator mentoring, extra time, and school climate and discipline, would more effectively be allocated based on need. Encouraging such resource reallocation within districts is a means of incrementally moving toward alignment of resources with student need to improve educational outcomes for all.

2. Driving Investments with Better Data, Greater Accountability, and More Transparency

If we are to improve educational outcomes by better targeting and investing resources, we need to pay significant attention to developing solid information and evidence about what things work and what things do not. Developing such evidence requires generating and using high quality information about student outcomes and resource management. In particular, it must be possible to infer the value added by schools, teachers, and others to a student's education.

Along with added flexibility to reprogram resources, school boards, districts, and principals must expect greater fiscal responsibility to parents, taxpayers, and policy makers. Fiscal accountability depends on better reporting at the district and school level on how investments of resources affect the academic outcomes achieved. Such data are critical to effectively managing resources to meet the goals of the new systems of education accountability. It is impossible to evaluate who is best managing resources to spur student achievement unless comparable data on resource allocation can be matched with available data on student achievement, both of which must be able to be tracked and compared across time. A sound financial management system tied to student achievement outcomes is an essential element of ensuring return on the investment in public education. The state must provide policy makers, school boards, superintendents, education professionals, and citizens with the data needed to set goals for financial and educational outcomes and assess whether alternate resource allocations would be more effective in meeting those goals.

3. Making the Most of Resources Already Available

Eighty to 90 percent of current expense dollars get spent on people. Research demonstrates that the knowledge and skills of classroom teachers are among the most significant factors affecting student learning and the most significant investment of resources in the school systems across the nation. High quality teachers can make up for the typical deficits seen in the preparation of children from disadvantaged backgrounds when given these assignments. Yet, Delaware still has barriers throughout the human resources process that deny Delaware schools a competitive edge in terms of attracting and retaining the best talent.

These barriers begin at the entrance. Differences in intangible factors such as school climate (whether real or perceived) and delays in hiring (resulting from policies and contractual agreements governing reduction-in-force and unit counts) prevent Delaware from being first in line when time comes to hire and retain talented educators. Too many districts in Delaware do not make offers to teachers until the late spring or early summer when many talented teachers have already accepted offers outside the state. More progressive districts have begun to use innovative practices to allow them to hire earlier in the cycle and become more competitive in the teacher recruitment process.

Since implementing a significant salary restructuring four years ago, Delaware's teacher compensation is now very competitive with surrounding jurisdictions and nationally at both the entry- and senior levels according to the most recent American Federation of Teachers survey. However, the survey shows that their ability to earn more money in other career paths in the Delaware market is much greater than elsewhere and good teachers get frustrated by not receiving any greater level of pay for better results or greater effort. Moreover, the focus on improving teaching quality through stronger regulation and higher pay may not result in improving outcomes since research shows that these factors have little correlation to improved outcomes in terms of student achievement.

There also appears to be room for significant tangible and intangible benefit from better management of district-level operations and resources. The complaint that Delaware has too many school districts is not new. Policy makers and others have repeatedly reached the conclusion that the potential gain from consolidation was small and certainly not worth the costs either in terms of disruption and political capital. With only two percent of expenses devoted to district administration, there is not much money to be gained through consolidation of district-level personnel.

Still, in areas such as professional and curriculum development, common purchasing, recruitment and

RECOMMENDATIONS:

- Reform collective bargaining agreements and state policies to align and speed up teacher notification, and transfer processes to permit districts to hire earlier in the recruitment cycle.
- Improve modelling to better predict student enrollment, or employ other methods to insulate schools, starting with those with the highest need, from variations in the unit count.
- Give principals and superintendents greater authority and hold them accountable for the impact in hiring, retaining, and assigning teachers as the means of driving improved student achievement.
- Build rewards into the system of teacher recruitment and retention through 1) summer stipends for new highly qualified graduates to fill positions in key areas, 2) performance-based pay that would reward those proven to raise student achievement each year, 3) master teacher status for those who consistently and continuously raise student achievement, and 4) differential pay for those who accept more challenging assignments.
- Move toward common purchasing and coordinated operations management, curriculum and professional development,

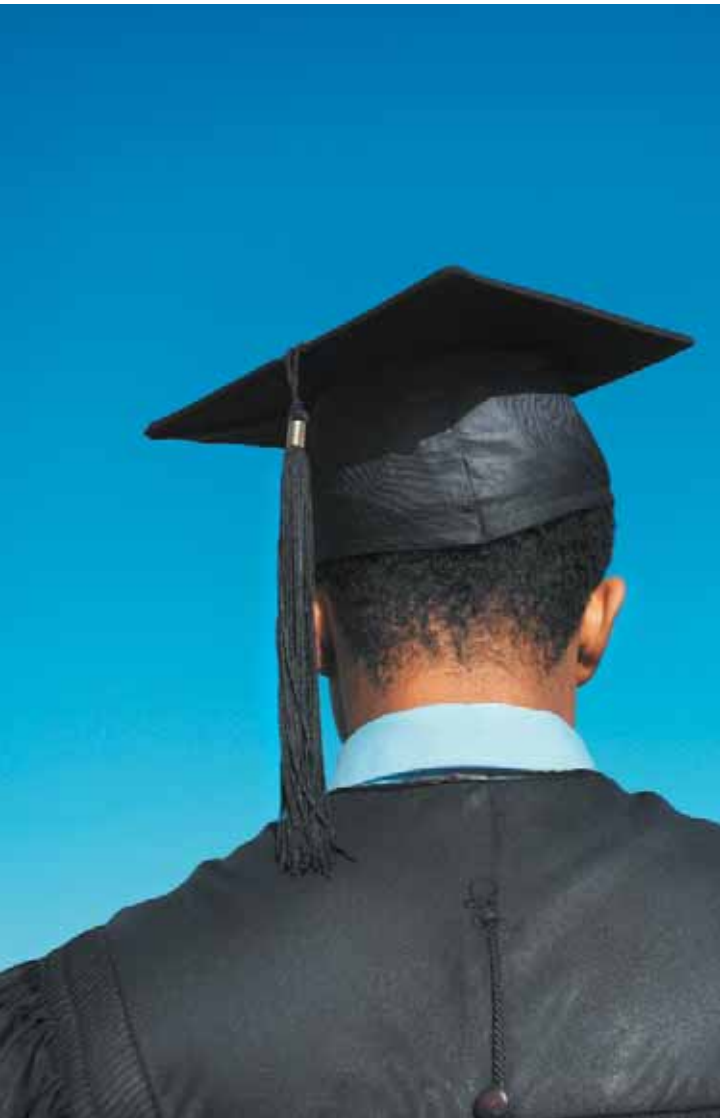
collective recruitment and retention strategies, and other measures where inter-district efficiencies would better leverage resources toward the goal.

- Remove or reduce barriers and provide incentives to operate business and operational functions more efficiently to permit and encourage contracting with outside providers.

retention, and operations management, there are significant gains to be made by coordination across district lines. The successes of the coordinated and comprehensive science curriculum demonstrate that significant and coordinated investment of resources can pay big and measurable dividends in terms of student achievement across the state. In operational areas, the current structure of statewide education finance rules provides few incentives to innovate in these areas or to focus attention on making them more efficient. Removing barriers to more efficient business practices andfreeing up these resources to allow for reprogramming to the core function of educating children would be important moves to prepare for more systemic reforms aimed at aligning education finance with Delaware's goals for student achievement.

III

CONCLUSION



Education is our biggest public investment. The primary purpose of the public education system is to graduate students with the skills and knowledge necessary to make them productive citizens. Evidence is clear that our nation's most successful economies have the most educated work forces. To ensure the success of Delaware's next generation and its economy, we must produce a highly educated work force. Investment in public education spurs economic success not only for those being educated, but also for the overall economy and community.

Knowing that we need a highly educated work force, however, does not tell us where to invest in order to maximize the use of limited public resources to boost outcomes measured in terms of student achievement. Educators and policy makers must identify the educational investments that yield the highest public returns based on information that links investments to outcomes. Our education finance system must encourage wise and strategic investment of resources. By better recognizing the cost of educating different children to the same high standards, aligning resources with student needs, and creating incentives to make the most of our investments in public education, Delaware can ensure that our great investment in public education pays dividends for our children and our state.

SELECTED BIBLIOGRAPHY

Nelson, F. Howard, and Rachel Drown. "Survey and Analysis of Teacher Salary Trends." *American Federation of Teachers* (2002).

American Institutes for Research and Management Analysis and Planning, Inc. "The New York Adequacy Study: 'Adequate' Education Cost in New York State." Unpublished report. (2004).

Andrews, M., et al. "Revisiting Economies of Size in American Education: Are We Any Closer to Consensus?" *Economics of Education Review* 21 (2002): 245.

Augenblick, John. "Equity in Public School Finance." *North Central Regional Laboratories Policy Seminars* (1994). <http://www.ncrel.org/sdrs/areas/issues/envrnmnt/go/94-waug.htm>.

Augenblick and Myers, Inc. "Calculation of the Cost of an Adequate Education in Montana in 2001-2002 Using the Professional Judgment Approach." Unpublished report. (2002).

Augenblick and Myers, Inc. "Calculation of the Cost of an Adequate Education in Nebraska in 2002-2003 Using the Professional Judgment Approach." Unpublished report. (2003).

Berry, Barnett, and Eric Hirsch. "What We Know and Can Do to What We Know and Can Do to Recruit & Retain Quality Recruit & Retain Quality Teachers." *Alliance for Quality Teaching* (2003).

Chambers, Jay G. "Geographic Variations in the Public Schools' Costs." *National Center for Education Statistics Working Paper* 98-04. Washington, DC: U.S. Department of Education, National Center for Education Statistics, (February 1998).

Chi, Keon S., and Cindy Jasper. "Reforming School Finance." *Solutions: Policy Options for State Decision-Makers* (1997).

Cullen, Julie Berry. "The Impact of Fiscal Incentives on Student Disability Rates." *Journal of Public Economics* 87 (August 2003): 1557-89.

Downes, Thomas A., and Thomas F. Pogue. "Adjusting School Aid Formulas for the Higher Costs of Educating Disadvantaged Students." *National Tax Journal* 47 (March 1994): 83-102.

Downes, Thomas A., and Thomas F. Pogue. "How Best to Hand Out Money: Issues in the Design and Structure of Intergovernmental Aid Formulas." *Journal of Official Statistics* 18 (December 2002): 329-352.

Downes, Thomas A., and Jeffrey Zabel. "The Impact of School Quality on House Prices: Chicago 1987-1991." *Journal of Urban Economics* 52 (July 2002): 1-25.

Duncombe, William. "Estimating the Cost of an Adequate Education in New York." *Center for Policy Research Working Paper* 44 (2002).

Duncombe, William, and Jocelyn Johnston. "The Impacts of School Finance Reform in Kansas: Equity is in the Eye of the Beholder." *In Helping Children Left Behind: State Aid and the Pursuit of Educational Equity.* Ed. John Yinger. Cambridge: MIT Press.

Duncombe, William, and Anna Lukemeyer. "Estimating the Cost of Educational Adequacy: A Comparison of Approaches." Annual Meeting of the American Education Finance Association. (2003).

Duncombe, William D., and Anna Lukemeyer. "Estimating the Cost of Educational Adequacy: A Comparison of Approaches." Unpublished Manuscript. (2002).

Duncombe, William, and John Yinger. "School Finance Reforms: Aid Formulas and Equity Objectives." *National Tax Journal* 51, no. 2 (1998): 239-63.

Duncombe, William D., and John Yinger. "Does School District Consolidation Cut Costs?" *Center for Policy Research Working Paper* 33 (2001).

Duncombe, William D., and John Yinger. "Performance Standards and Educational Cost Indexes: You Can't Have One without the Other." *Equity and Adequacy in Education Finance: Issues and Perspectives.* Ed. Helen F. Ladd, et al. Washington, D.C.: National Academy Press (1998), 260-97.

Fermanich, Mark, et al. "A Case Study of District Decentralization and Site-Based Budgeting: Cordell Place School District." *Consortium for Policy Research in Education University of Wisconsin-Madison* (2000).

SELECTED BIBLIOGRAPHY

Gale, William, et al. "An Economic Perspective on Urban Education." *The Brookings Institution Conference Report* 15 (2003).

Guthrie, James W. "Twenty-First Century Education Finance: Equity, Adequacy, and the Emerging Challenge of Linking Resources to Performance." Unpublished Manuscript. (2001).

Guthrie, James W. "Reinventing Education Finance: Alternatives for Allocating Resources to Individual Schools." *Selected Papers in School Finance, National Center for Education Statistics* (1996).

Guthrie, James W. "School Restructuring and Design." *North Central Regional Laboratories Policy Seminars.* (1999): <http://www.ncrel.org/sdrs/areas/issues/envrnmnt/go/94-wguth.htm>.

Guthrie, James W., and Richard Rothstein. "Enabling 'Adequacy' to Achieve Reality: Translating Adequacy into State School Finance Arrangements." *Equity and Adequacy in Education Finance: Issues and Perspectives*. Ed. Helen F. Ladd, et al. Washington, D.C.: National Academy Press (1999), 209-259.

Herdman, Paul, and Marc Dean Millot. "Are Charter Schools Getting More Money into the Classroom?" *A Micro-Financial Analysis of First Year of Charter Schools in Massachusetts* (2000): <http://www.crpe.org/pubs/pdf/CSF_report.pdf>.

Hovey, Kendra A., and Harold Hovey. "Congressional Quarterly's State Fact Finder: Rankings Across America." *Congressional Quarterly* (2004).

Hussain, Samid, et al. "School Finance: Investing in Student Learning." *Delaware Education Research and Development Center, University of Delaware* (2000): <http://webs.oet.udel.edu/rd/reports/development/finance.pdf>.

Kelley, C., and A. Odden. "Reinventing Teacher Compensation Systems." *Consortium for Policy Research in Education (CPRE) Finance Briefs* (1995).

Lankford, Hamilton, and James H. Wyckoff. "The Allocation of Resources to Special Education and Regular Instruction." *Making Schools Accountable: Performance-Based Approaches to School Reform*. Ed. Helen F. Ladd. Washington, DC: Brookings Institution (1996), 221-57.

Levin, Jessica, and Meredith Quinn. "Missed Opportunities: How We Keep High-Quality Teachers Out of Urban Classrooms." *The New Teacher Project* (2003): <http://www.tntp.org/docs/reportfinal9-12.pdf>.

Ed. Louis, Thomas A., et al. *Statistical Issues in Allocating Funds by Formula*. Washington, DC: National Academies Press, 2003.

Monk, D. H. *Educational Finance: An Economic Approach*. New York: McGraw-Hill, 1990.

Monk, David. H., et al. "Fiscal Accountability for Low-Wealth School Districts: Perceptions and Consequences of High Local Taxes for Education Governance." *Education Policy* 12 (1998):19-30.

National Center for Education Statistics. "Education Equity in the States." *Inequalities in Public School District Revenues* (1998).

National Conference of State Legislatures. "Educational Adequacy: Building An Adequate School Finance System." *Education Partners Project of the Foundation for State Legislatures* (1998).

National Conference of State Legislatures. "Critical Issues in State-Local Fiscal Policy: A Guide to Local Option Taxes." *National Conference of State Legislatures* (1997).

National Conference of State Legislatures. "Principles of a High Quality Revenue System." *National Conference of State Legislatures* (1992).

National Industrial Conference Board. "The Fiscal Problem in Delaware." *National Industrial Conference Board, Inc.* (1927).

Odden, Allan. "Creating School Finance Policies that Facilitate Goals." *Consortium for Policy Research in Education Policy Briefs* (1998).

Odden, Allan R. "The Finance Side of Implementing New American Schools." *Report for the New American Schools* (1997).

Odden, Allan. "Public School Finance Reform." *North Central Regional Laboratories Policy Seminars* (1994): <http://www.ncrel.org/sdrs/areas/issues/envrnmnt/go/94-wodd.htm>.

SELECTED BIBLIOGRAPHY

Odden, Allan and Carolyn Busch. *Financing Schools for High Performance: Strategies for Improving the Use of Educational Resources*. San Francisco: Jossey-Bass Publishers, 1998.

Odden, Allan and Carolyn Kelley. *Paying Teachers for What They Know and Do*. Thousand Oaks: Corwin Press, 1997.

Ouchi, William. *Making Schools Work: A Revolutionary Plan to Get Your Children the Education They Need*. New York: Simon & Schuster, 2003.

Reschovsky, Andrew, and Jennifer Imazeki. "Achieving Educational Adequacy through School Finance Reform." *Journal of Education Finance* 26 (2001): 373-96.

Reschovsky, Andrew, and Jennifer Imazeki. "The Development of School Finance Formulas to Guarantee the Provision of Adequate Education to Low-Income Students." *Developments in School Finance*. Ed. William J. Fowler, Jr. Washington, DC: U.S. Department of Education, National Center for Education Statistics (1998).

Rose, Heather, et al. *High Expectations, Modest Means: The Challenge Facing California's Public Schools*. San Francisco: Public Policy Institute of California, 2003.

Rothstein, Richard. "What Does Education Cost?" *The American School Board Journal* (September 1998): 30-33.

Rubinstein, Ross. "National Evidence on Racial Disparities in School Finance Adequacy." *Developments in School Finance: 2001-02*. Ed. William J. Fowler. Washington, D.C.: National Center for Education Statistics (2003), 91-109.

Sonstelie, Jon. "Toward Cost and Quality Models for California's Public Schools." *School Finance and California's Master Plan for Education*. Ed. Jon Sonstelie, et al. San Francisco: Public Policy Institute of California (2001), 103-123.

Sonstelie, Jon. "Fiscal Federalism, State Academic Standards, and the Adequacy of Public School Resources." *Working Paper* (2004).

Stanley, M. Craig. *Educational Collaboratives Saving Tax Dollars for Massachusetts Schools*. The Pioneer Institute, 2003.

Stanley, M.C. *Analysis of Savings through Collaboration: A Twenty Year Longitudinal Study*. Lawrence, MA: Greater Lawrence Educational Collaborative (1995).

Stanley, M.C. "Proving ESA's Save Dollars: A Research Design That Works." *Perspectives: A Journal of Research and Opinion about Educational Service Agencies* 1, Number 1 (1995).

State Aid Work Group, New York State Education Department. "Regents Proposal on State Aid for School Districts for 2004-2005." Unpublished report. (2004).

Stephens, E.R., and W.G. Turner. *Approaching the Next Millennium: ESAs in the Decade of the 1990s*. Arlington: American Association of Educational Service Agencies (1991).

Stephens, E.R. *A Brief History of State-Sponsored Inter-District Coordination and Some Conjectures About the Future Direction of this Policy Strategy*. San Francisco: Far West Laboratory for Educational Research and Development (1989).

Stephens, E.R. *State Planning for Inter-District Coordination*. College Park: University of Maryland.

Taylor, Lori L., and Harrison Keller. "Competing Perspectives on the Cost of Education." *Developments in School Finance 2001-02*. Ed. William J. Fowler, Jr. Washington, D.C.: National Center for Education Statistics (2003), 111-126.

Verstegen, D. *Calculating the Cost of an Adequate Education in Kentucky*. Council for Better Education (2003).

THE DELAWARE PUBLIC POLICY INSTITUTE
1201 N. ORANGE STREET P.O. BOX 1052
WILMINGTON, DE 19899-1052
www.dscc.comhttp://www.dscc.com/state_chamber/affiliates/dppi/DPPI.htm