

CENTER FOR APPLIED DEMOGRAPHY & SURVEY RESEARCH
UNIVERSITY OF DELAWARE

FINANCING PUBLIC EDUCATION IN DELAWARE 2012

STATE LEVEL ANALYSIS
DISTRICT LEVEL ANALYSIS

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STATEWIDE ANALYSIS

INTRODUCTION

The College of Education and Public Policy (CEPP) of the University of Delaware presents the following work as a study of the State's investment of financial resources in public education.

Education is a vital ingredient in the health of an economy, and has direct bearing on the quality of the Delaware workforce. Effective spending on public education may increase the quality of the labor market, enhance the productivity and competitiveness of state businesses, and render Delaware attractive to current and emerging industries as well as potential employees. Understanding how the public education system currently uses financial resources is a first step towards insight on how best to turn dollars into productive resources in districts, schools, and classrooms.

This report combines two sections centering on financing public education in Delaware. Section one the statewide analysis provides a system overview of how the state raises and spends the education dollar. Section two extends the study and resulting data to the district level.

The statewide analysis is divided into four sections, considers the education system at the state level. The first section is largely background material and provides information that will provide a broad perspective on public education financing. The second section describes Delaware's sources and allocation of funds. Where available, data are provided annually from 1990 through 2009. The third section uses comparative information to illustrate similarities and differences between Delaware and neighboring states along with the national average.¹ The final section presents observations from the analysis.

The district level analysis is also divided into multiple sections. The first section provides an overview of the Delaware school districts. The next section discusses expenditure patterns by district. The third section follows,

¹ The research uses the latest available data. The latest data from the Delaware Department of Education is 2009-2010. Census data are for fiscal year 2009. The latest NCES data are 2008-2009.

covering administration costs. The fourth section discusses unit allocations. The subsequent sections draw peer comparisons, both regional and national. Administration per pupil spending: national comparison follows. A Mid-Atlantic school district comparison is then discussed, followed by a literature review. The final section summarizes the report. The purpose of the report is to provide a system-wide review of the public education finance system in Delaware. The report will detail how public education revenue is raised and spent.

Understanding the allocation of resources can drive policy choices and highlight accountability of the system. This report serves as an overview of the financial system of public education in Delaware. Where possible, this research utilizes the most recent available data. For Delaware-specific data, the primary sources are the State Board of Education and the Department of Education's Report of Educational Statistics. For interstate comparisons the Federal Government's Digest of Education Statistics is the main source.

EXECUTIVE SUMMARY

Understanding how the public education system currently uses financial resources is a first step towards gaining insight on how best to turn dollars into productive resources in districts, schools, and classrooms.

Data

The research involved a large data collection and manipulation effort. Substantial data sets have been constructed during the course of this research, which will be maintained and updated for future research.

Numerous agents are involved in the process of providing public education in the state. Recognizing that education revenues and expenditures reflect the choices and priorities of each of these agents is important. However, data availability preempts the evaluation of each agent's individual impact. The data compiled by government agencies gives greater focus to measuring enrollment than expenditures.

Financial data are published only at the district level, by broad revenue and expenditure categories. While these data are useful, they are still several steps removed from the necessary data to answer questions such as how efficiently and productively resources are being used in the provision of public education.

The financial data permit the identification of differing spending patterns among school districts within the state and across the country. Discerning the cause and impact of these differences involves going beyond the routine publications of government agencies. It is hoped that data availability will evolve over time to allow greater transparency in school districts' finances, and permit more detailed research into public education finance.

Statewide Findings

Some key findings of the state-level research are:

Public education is a \$1.507 billion investment in Delaware. Public education consumes more than one-fifth of direct general expenditures per capita, making it the single largest expenditure in the state budget.

Public education current expenditures grew 151% since 1992. However, in per pupil, inflation-adjusted terms, expenditure growth was 36%. Public education revenue in Delaware is provided by the State (64%), local school districts (27%), and the Federal government (9%). Local school district revenue is raised primarily through property taxes (over 80%).

State funding from the General Fund is allocated based upon formula. Funding levels depend on public school enrollment, and the education and experience of the teaching workforce.

Salary and benefits are the largest cost of the public education system. Instruction receives the largest share of funding by function within the public education system.

Despite the diversity of states in the Mid-Atlantic region, the distribution in percentage terms of public education financing is similar. The degree of variation among the Mid-Atlantic States is small. Delaware is in the mainstream in terms of how it spends its education dollars, and is not an outlier within the Mid-Atlantic. Delaware ranks in the top ten among all states for per pupil expenditures; reflecting the higher costs of the region versus the nation.

The pupil/teacher ratio is falling in Delaware: from 16.7 in 1992 to 14.7 in 2009/10. The pupil/non-teaching staff ratio is falling, which reflects the fact that growth in non-teaching staff is outpacing public school enrollment growth. A rising pupil/non-teaching staff ratio would indicate that non-teaching staff are supporting a greater number of students (an economy of scale).

Local revenue, which is raised primarily through property taxes, is a stable source of revenue and is growing in importance in the public education budget.

Delaware inflation-adjusted expenditures per pupil are increasing faster than those of Maryland and Pennsylvania. Average teacher salaries in Delaware are lower than the region (according to the National Education Association, NEA), but greater than the national average. Beginning salaries in Delaware are less than Pennsylvania, New York, Maryland and New Jersey

District Level Findings

Expenditures

All districts spend more on net current expenses per pupil than a decade ago. The inflation-adjusted change in current expenditures per pupil from 2000-2001(10,638) to 2008-2009 (12,226)among school districts in Delaware was \$1558. .

Larger districts allocate a smaller proportion of their current expenditures to general administration than do smaller districts. The share of real per pupil current expenditures on general administration is as low as 0.67% (Capital) and as high as 4.27% (Delmar). This implies an economy of scale benefit. However, Delmar is by far the smallest district in the state, making it an outlier in the data rather than the norm. Low (less than 5,000) apply 1% of their current expenditures to general administration. Medium and high enrollment districts also apply 1%. Therefore, while economies of scale are possible, the significant savings may be difficult to realize.

Charter Schools

The emergence of Charter schools in Delaware is bringing greater education choice to the state. Given their short history in the state, the full effect of Charter schools has yet to be realized. It is likely that an equilibrium enrollment has not yet been established, making hazardous predictions of their long-term impact on districts and district financing.

Administration

School administrations' share of current expenses varies across districts. School administrators include principals, assistant principals, and office staff. School size is the primary determinant of school administration unit entitlement. Districts that are organized into smaller schools will tend to dedicate a larger share of current expenditures to school administration than districts organized into larger schools.

General administration costs per pupil are rising in many districts in Delaware. These costs include superintendents and their support staff. However, as a share of current expenditures, general administration costs

per pupil are falling (this implies that general administrations' share of additional funding is decreasing). School administration costs per pupil are rising in almost every district. School administration costs per pupil as a share of total current expenditures are rising, but not as fast as expenditures on net instruction.

Vocational/Special Education Students

One in every eight students in the state is classified as a special education student. This increased from one in every eleven student a decade ago. There are more vocational units allotted to regular school districts than the vocational districts.

Inter-district Comparisons

Six Delaware school districts lie above the Mid-Atlantic peer average for total expenditures per pupil. These districts are Brandywine, Cape Henlopen, Christina, New Castle County Vocational Technical, Polytech and Sussex County Vocational Tech. This outcome may reflect the smaller sized school districts within Pennsylvania and New Jersey.

In Pennsylvania and Maryland, local funds pay for a majority of operating expenditures, meaning districts have greater discretion in allocating funds than with a rigid formula. There is greater variability between the districts in expenditure patterns, influencing, among other areas, the number of administration staff hired at the district and school level.

BACKGROUND

Public education in Delaware is now a billion dollar investment. During the 2009-2010 school year public school current expenditures² totaled over \$1.5 billion, and a record 126,805 students were enrolled in state public schools.³ The average annual growth of these expenditures over the past ten years is 6.4%. In per pupil terms⁴, current expenditures increased from \$6,696 in 1995-1996 to \$11,888 in 2009-2010. This equates to 5.2% average annual growth. See Table 1.0 below.

TABLE 1.0
SUMMARY OF CURRENT EXPENDITURES ON PUBLIC EDUCATION IN DELAWARE:

	92-93	95-96	97-98	98-99	99-00	00-01	01-02	02-03	03-04	04-05	05-06	06-07	07-08	08-09	09-10
Current Expenditures	600	726	831	873	918	1009	1051	1089	1160	1251	1356	1392	1447	1474	1507
% growth	4.90%	4.60%	5.30%	5.10%	5.20%	9.90%	4.16%	3.62%	6.50%	7.80%	8.40%	2.65%	3.95%	1.90%	2.2
Enrollment (FTE)	104321	108461	111960	113082	113598	114518	115484	116287	117776	119109	120963	122277	124046	125430	126805
% growth	2.10%	1.50%	1.30%	1.00%	0.50%	0.80%	0.08%	0.07%	1.30%	1.10%	1.60%	1.09%	2.54%	1.10%	1.1
Per Pupil Current Expenditures	5753	6696	7420	7718	8085	8811	9106	9368	9849	10503	11210	12293	12605	12379	11888
% growth	2.80%	3.00%	4.00%	4.00%	4.80%	9.00%	3.30%	2.90%	5.10%	6.60%	6.70%	9.66%	2.54%	-1.20%	-4.1
Inflation Adjusted Per Pupil Current Expenditures	6633	7111	7583	7718	7822	8290	8433	8482	8686	8960	9264				
% growth	-0.20%	0.00%	2.40%	1.80%	1.30%	6.00%	1.70%	0.05%	2.41%	3.14%	3.40%				

Note: Current expenditures in millions of dollars. All sources of revenue. Adjusted expenditures are in 1999 dollars. Current Expenditures excludes State Board of Education. CPI 04 is used to adjust back to 1999. Enrollment and per pupil current expenditures comes from table 48 (not ADA or ADM) of Report of Educational Statistics 2009-2010.

² Any expenditures excluding capital outlay or debt service.

³ Current expenditures adjusted by public enrollment K-12 full time equivalent.

⁴ Full-time equivalent pupils enrolled September 30, grades PK-12. Report of Educational Statistics, 2009-2010, Department of Education and State Board of Education.

Increases in educational spending have not produced equivalent increases in educational attainment. In Delaware, as in the nation, average student achievement has not improved significantly.⁵ Given this apparent disconnect between spending and standards, there is a need to spend wisely. That is, to raise funds and allocate them in a manner that promotes the greatest efficiency. The Report on Education Funding in Delaware published in 2008 by the Lead Committee⁶, highlights the goals for a new funding system to improve the outcomes of student performance. The primary goal is to ensure that resources are allocated based on the different needs of the students and to move away from the current system of funding school systems based on every student having the same needs in the school system.

Three sources fund public education: Federal, state, and local government. These sources finance a variety of operations relating to the provision of public education including wages, benefits, materials, transportation, energy, and capital projects. The sources and allocation of funds will be analyzed in detail in Section 2 of the report.

Briefly, however, here are three primary expenditure types: current, facilities/construction and debt service, and community service and adult non-public education. In Delaware, current expenditures account for 81.9% of total expenditures, facilities/construction for approximately 9.4%, debt service for about 7.6% with community and adult non-public expenses making up the balance.

Federal education grants are available to states via a variety of programs, such as Drug Free Schools, Education for the Disabled, and Pre-School. States receive Federal funds, earmarked for specific programs, and while their application may be at the discretion of the state, they must be used within the scope of the grant's purpose.

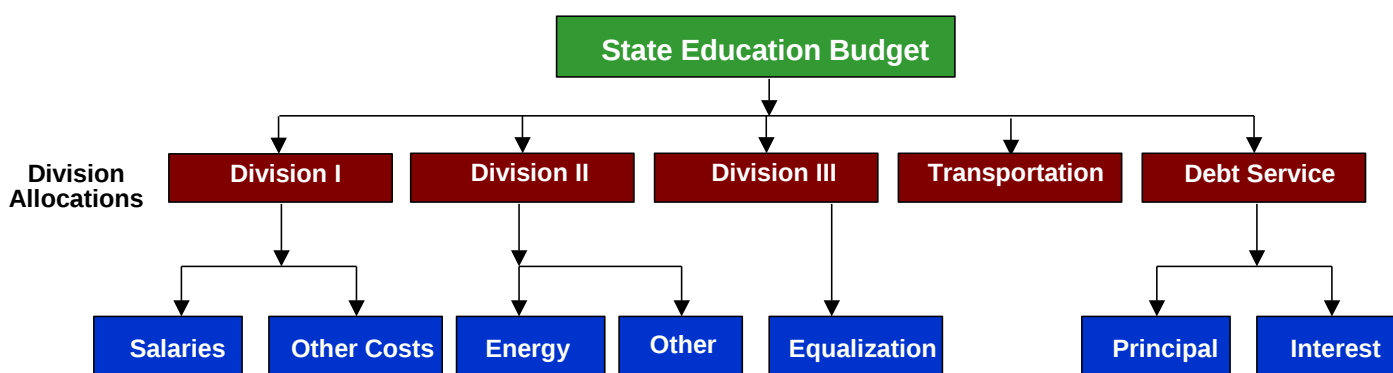
State funding for the operating budget for public education comes from the general fund. The general fund receives money from a multitude of sources, the largest of which are personal income tax, and corporation taxes. Funds are allocated to local school districts via divisions based on enrollment. Each division's funding is designated for particular expenditures: division I is for the purpose of paying employees of the school districts, division II is for the purpose of paying other non-salary costs, and division III is for the purpose of equalizing

⁵ See Delaware Department of Education performance measures. Recent data indicate improvements in Math across grades 3, 5 and 8 while the percentage of points meeting or exceeding Delaware's standards fell for grade 10. For writing, the percentage of students meeting or exceeding Delaware's standards fell for grades 3 and 5.

⁶ Lead Committee, Report on Education Funding in Delaware, November, 19, 2008
http://www.vision2015delaware.org/resources/LEAD_funding_study.pdf

revenue based upon tax efforts of the school districts. Transportation and debt service are the other primary current expenses. State expenditures are discussed in greater detail beginning on page 15. Local funding is raised primarily via property taxes. As described later, property taxes are a solid source of finance.

FIGURE 1.0
ORGANIZATION OF THE STATE EDUCATION BUDGET FOR CURRENT EXPENDITURES



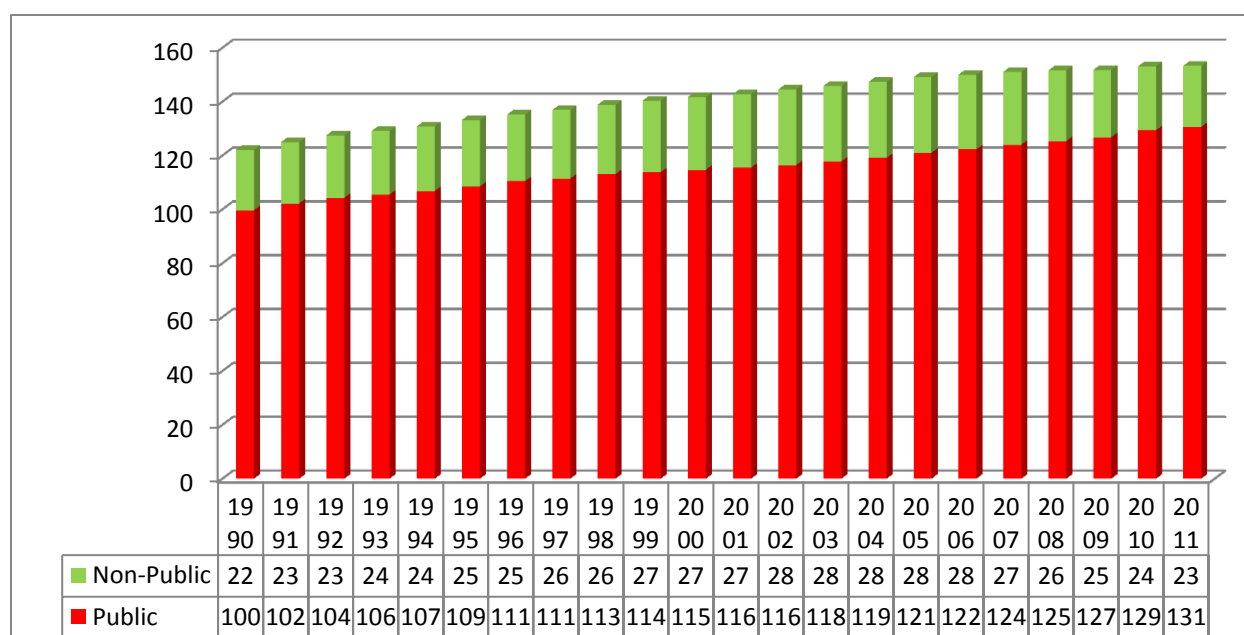
Source: Center for Applied Demography & Survey Research, University of Delaware.

State funds are the largest contributor to public education. Allocation of these funds occurs from a formula, which guarantees a minimum level of funding for public education. The following section discusses the funding mechanism in greater detail. However, it is important to note that, generally speaking, education funding is tied to enrollment levels: the greater the enrollment, the more allocated funding. Since enrollment is a function of the size of the school age population, demographics play a key role in determining the amount of education expenditures. A brief overview of the State's demographics is provided below.

Delaware's population continues to grow. Between 1990 and 2011, the population increase was 36.2%, bringing the total number of residents to 907,135 (2011 Census estimate). The population growth average for the nation was

23.4%. In 2009 Delaware was the thirteenth fastest growing state in the country, and the first in the Northeast region. Between 1990 and 2009, the population aged 5-17 grew 28.9%.⁷ Between 1990 and 2011, public school enrollment grew 30.99%, and non public school enrollment grew by only 1.3%. The historical trend of school enrollment is shown in Figure 1.1.

FIGURE 1.1
DELAWARE ELEMENTARY AND SECONDARY SCHOOL ENROLLMENT
BY SCHOOL TYPE



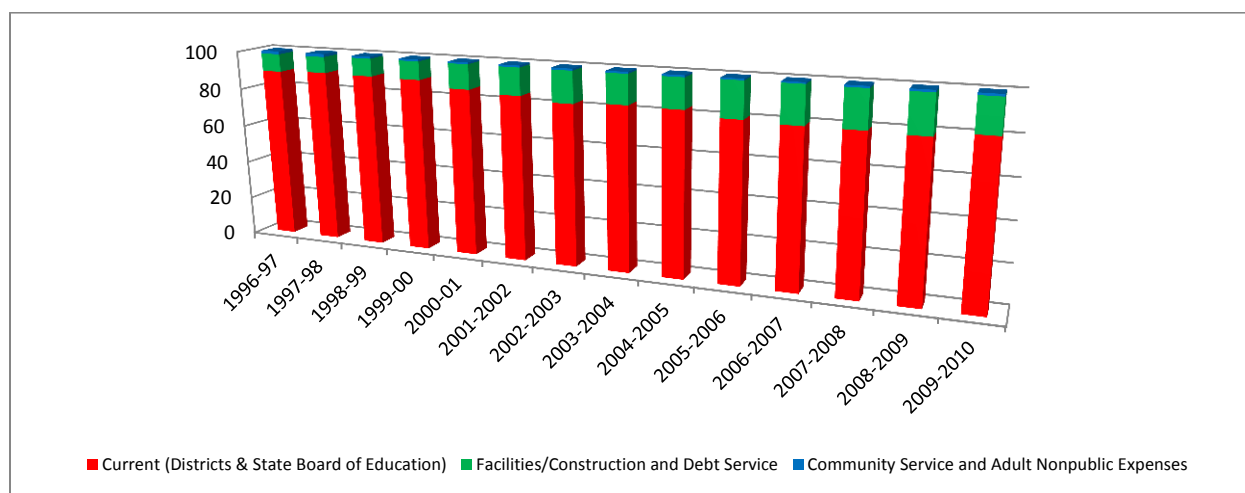
Source: Center for Applied Demography & Survey Research, University of Delaware. Enrollment Report Public Schools in Delaware 2011-2012, Public enrollment includes Charter school enrollment. Private enrollment is enrollment of state residents in private schools.

⁷ Census Bureau Estimates of the Resident Population by Selected Age Groups for the United States, States, and Puerto Rico: Census Count for April 1, 2010 and Census Counts for the U.S. and States by Single Year of Age and Sex: April 1, 1990

State and local districts also fund capital projects or facilities/construction projects and community service and adult nonpublic expenses. These projects range from minor projects (less than \$250,000) to major projects (\$250,000 or more). During 2006 – 2007 capital expenditures accounted for approximately 19% of total expenditures, but are beginning to decrease and comprise only 17% for the 2009-2010 year. See Figure 1.2. An explanation of capital spending is provided on page 50.

FIGURE 1.2

SHARE OF TOTAL EXPENDITURES BY ALLOCATION: 1996-97 TO 2009-10



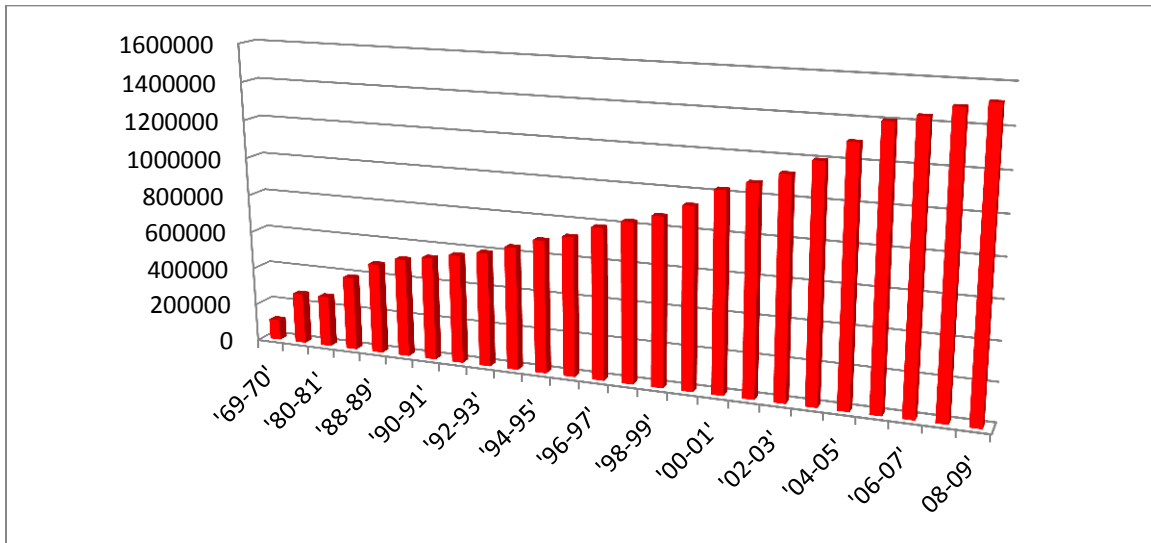
Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics, Table 37 State Board of Education and Department of Education.

As Figure 1.2 illustrates, expenditures for current expenses is the largest category of spending. Therefore, current spending will be the primary focus of this report.

DELAWARE FINANCING

Delaware's financing of public education has steadily increased over the past several decades, as shown in Figure 2.0 below. In the last decade alone, current expenditures for public elementary and secondary schools almost doubled to more than \$1.5 billion.

FIGURE 2.0
CURRENT EXPENDITURES FOR PUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN DELAWARE



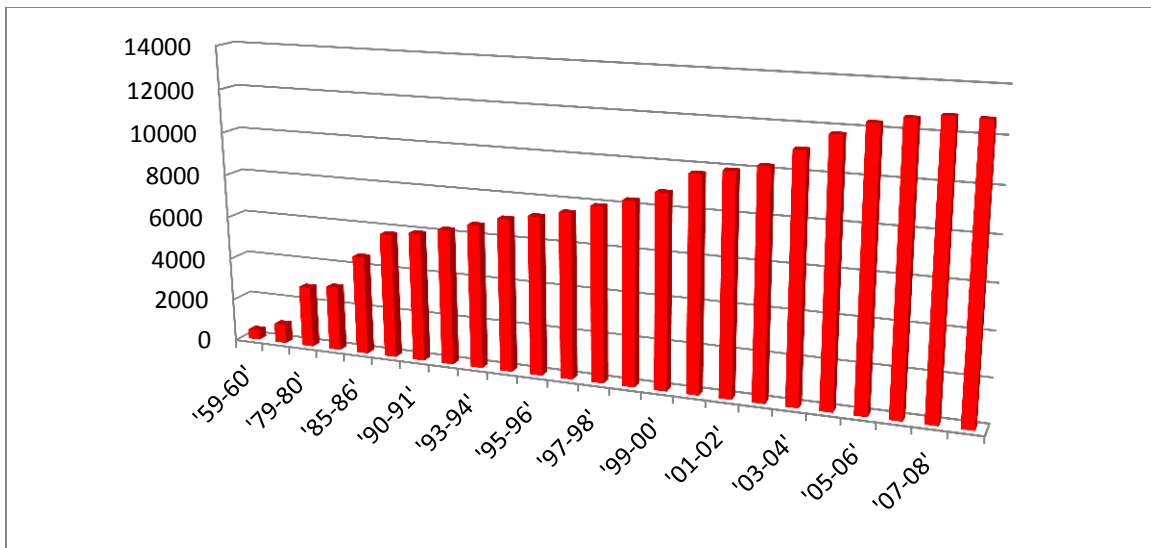
Source: Center for Applied Demography & Survey Research, University of Delaware Digest of Education Statistics, 2011. Table 185 Expenditures include local, State and Federal funds.

Since expenditures rise naturally with enrollment, it is useful to report spending on a per pupil basis. In this way the size of the student population is held constant. Per pupil spending has increased 113.5% since 1990, from \$5,974 to \$12,753. See Figure 2.1.

FIGURE 2.1

**CURRENT EXPENDITURES PER PUPIL IN AVERAGE DAILY ATTENDANCE
IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN DELAWARE**

Unadjusted Dollars



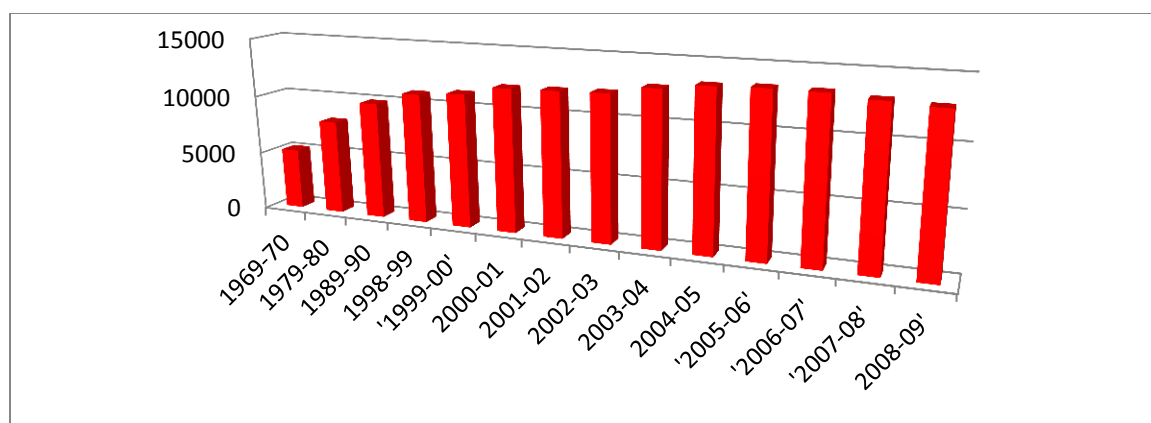
Source: Center for Applied Demography & Survey Research, University of Delaware Digest of Education Statistics. 2011 Table 195 Expenditures include local, State and Federal funds. Membership 1996 and later. Attendance pre-1996.

As with most goods and services, education costs rise over time due to inflation. To remove the effect of inflation from the per pupil statistics, expenditures are reported in constant 2009-2010 dollars. This adjustment reveals a more modest rate of increase in per pupil expenditures, see Figure 2.2. Inflation adjusted expenditures per pupil grew 30.1% since 1990, compared to over 113.5% in unadjusted expenditures for the same period.

FIGURE 2.2

**CURRENT EXPENDITURES PER PUPIL IN AVERAGE DAILY ATTENDANCE
IN PUBLIC ELEMENTARY AND SECONDARY SCHOOLS IN DELAWARE**

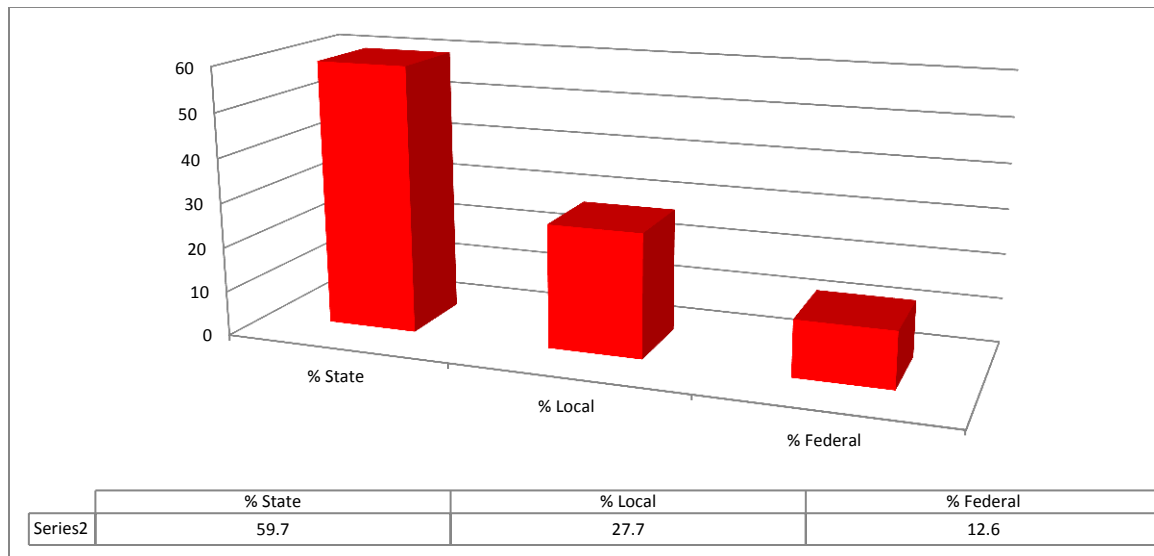
2009-10 Dollars



Source: Center for Applied Demography & Survey Research, University of Delaware Digest of Education Statistics, 2011, table 195. Expenditures include local, State and Federal funds.

As stated earlier, three distinct sources fund Delaware public education: Federal, State and local. These sources vary in the size of their contributions, as well as their means of generating revenue. The relative contribution size is shown in Figure 2.3. Clearly, the State is the largest contributor of funds to public education at 59.7%. Local funds are the next greatest, with 27.7%, and Federal funds account for 12.6%. Despite the wide variation in contributions, the public education system depends upon each source. As will be shown later, each state receives approximately the same share of contribution from the Federal government. However, state and local shares vary from state to state and reflects each state's organization.

FIGURE 2.3
SOURCES OF EDUCATIONAL REVENUE IN DELAWARE
2009-2010



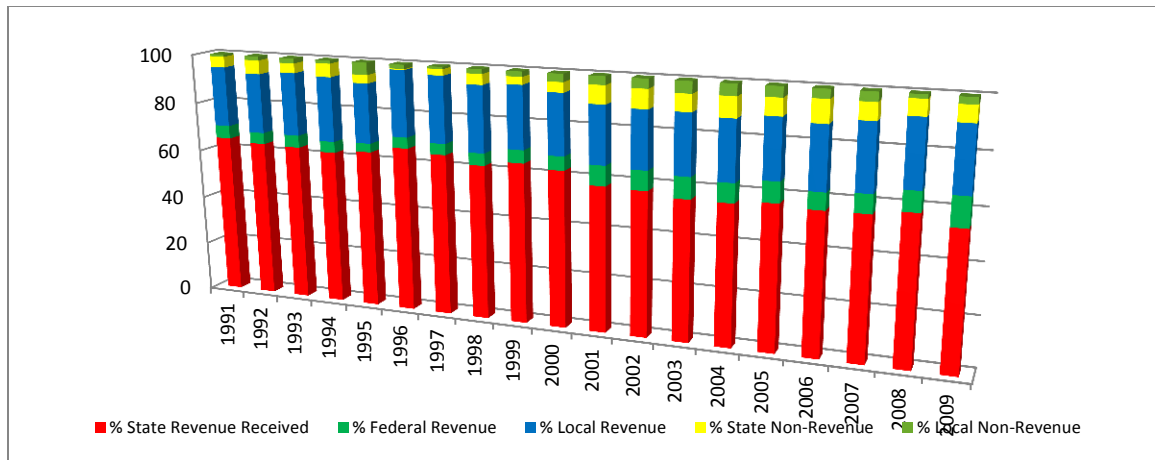
Source: Center for Applied Demography & Survey Research, University of Delaware, Report of Educational Statistics, State Board of Education and Department of Education. Figure 54, Total all districts, plus Charter Schools and State Board of Education. May not sum to one hundred due to rounding differences. Total all districts, State. Including Charter Schools and State Board of Education.

Delaware's public education system is organized as follows: Delaware operates a combination flat grant and tax-base equalizing program. Under a flat grant, the State sets a minimum level of funding and fully pays that amount through the General Fund. Local school districts may supplement the funding if they choose. Funds are apportioned as per capita grants determined by the number of students, and the education and experience of teachers. The latter factors bring variability to the funding mechanism. These allocations are classified under Delaware's Division I and Division II funding. (See discussion on page 15.)

The State also operates a tax-base equalizing program, called Division III funding. The State's role is to equalize school districts' abilities to raise necessary funds. Funds are redistributed from affluent districts to less affluent ones in order to provide a more equitable distribution. Other states operate different systems, which will be discussed in the next section.

FIGURE 2.4
SOURCES OF EDUCATIONAL REVENUE IN DELAWARE AS SHARE OF
TOTAL
1991-2009

Percent of Total Educational Revenue



Source: Center for Applied Demography & Survey Research, University of Delaware, Report of Educational Statistics, Table 30 State Board of Education and Department of Education, State of Delaware. Includes Charter Schools. Includes Department of Education. The 1995 increase in local non-revenue receipts is driven by Brandywine and Christina School Districts. Non-revenue receipts are typically bonds issued to pay for planning, constructing, renovating and equipping schools.

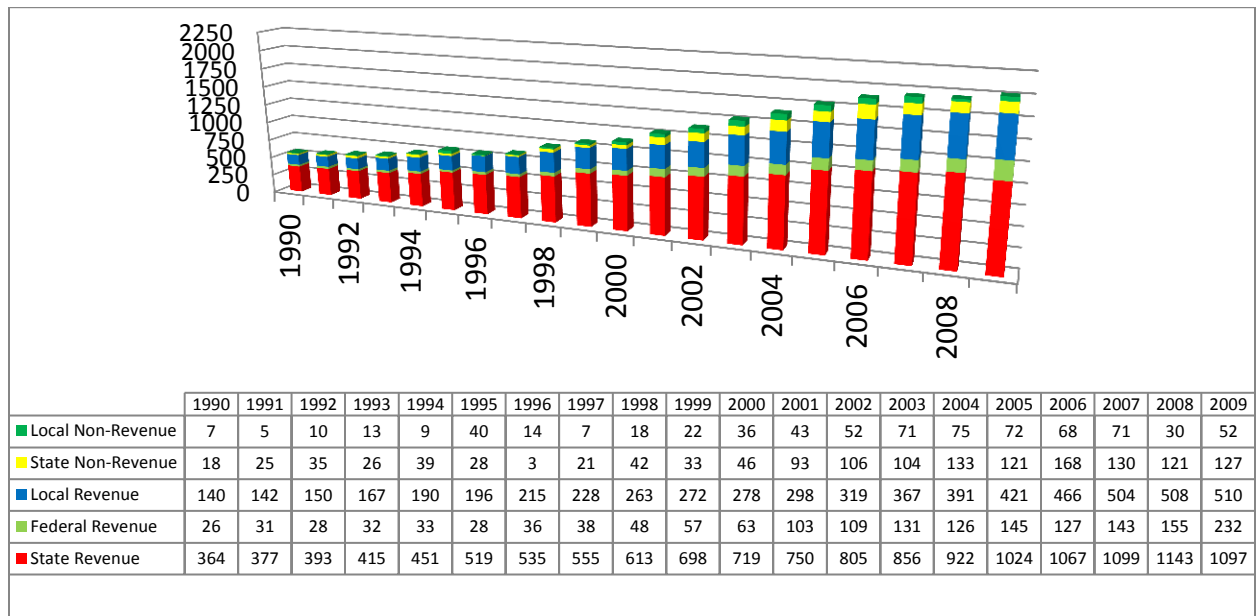
Figure 2.4 illustrates the relative shares of revenue sources. Revenue receipts received allow additions to assets without increasing school indebtedness, reducing school property value or depleting school property. Money from taxes and tuition are examples of revenue receipts. Non-revenue receipts are receipts that accrue to the district as the result of incurring an obligation that must be met at a future date or reducing the value of school properties through the exchange of a property asset into a cash asset. Money obtained from the sale of bonds or school property would be classified as a non-revenue receipt.

There has been some fluctuation in the relative size of these sources over the past decade. The State revenue was about 66% in 1990 and 2009 that number is approximately 54.3%. State non

Financing Public Education in Delaware

revenue increased from about 3% in 1990 to roughly 6.2% in 2009. The associated dollar contribution increased has increase in all areas. See Figure 2.5.

FIGURE 2.5
SOURCES OF EDUCATIONAL REVENUE IN DELAWARE: 1990-2009



Source: Center for Applied Demography & Survey Research, University of Delaware Report of Educational Statistics, Table 30, State Board of Education and Department of Education, State of Delaware. Includes Charter school.

Total spending on public education grew over 200% since 1990.⁸ State contributions more than doubled over this period, growing from \$382 million to over \$1 billion. Public education in Delaware is now a billion dollar per year expenditure, with total state and local contributions combining to approximately \$1.9 billion in 2009-2010.

A discussion of each of these sources follows. Attention will be focused on the state and local sources, since they fall under the direct control of the Delaware's stakeholders. Included are excerpt tables from the Census Bureau's Statistical Tables of Public Education Elementary-

⁸ In nominal, non-inflation adjusted, terms.

Secondary Education Finances: 2009-2010.⁹ Variation in the data between the Census Bureau and the Department of Education may exist due to reporting differences. Nevertheless, the Census Bureau data provides valuable insight into the State's education finance.

Table 2.0 provides an overview of the primary revenue streams and expenditures in Delaware. As stated earlier, the State is the largest source of public education revenue. Non-debt expenditures may be categorized into current spending, capital outlay, and others. In the tables that follow, these overview numbers are disaggregated to highlight the principle revenues and expenditures within each category.

TABLE 2.0
SUMMARY OF PUBLIC SCHOOL SYSTEM FINANCES FOR ELEMENTARY-SECONDARY EDUCATION (THOUSANDS OF DOLLARS)

Revenue				Expenditure				Debt	Cash and Securities
Total	From Federal Sources	From State Sources	From Local Sources	Total	Current Spending	Capital Outlay	Other		
1,695,556	180,584	992,422	522,550	1,695,244	1480,114	192,826	22,304	529,088	132,013

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances: Table 1

<http://www.census.gov> 2009-2010.

⁹ <http://www.census.gov/>

Federal Funds

Delaware received approximately \$105 million from the Federal government for the school year 2008-2009. Allocations of funds are made through a number of Federal programs¹⁰, and are earmarked for specific purposes. The Department of Education provides detailed explanations of these programs.¹¹ School districts receive a degree of discretion in the spending of these funds, contingent upon their use within the scope of the Federal program's design. Federal revenue is either distributed through the state or paid directly. The size of the Federal revenue by function is shown in Table 2.1.

Part of the funding awarded from the American Recovery and Reinvestment Act of 2009 (ARRA) was awarded to the Department of Education in Delaware. Of the total funding awarded for education to Delaware, approximately \$216 million has been earmarked to go to all elementary and secondary level programs. This additional funding from the Department of Education will go towards a variety of programs with a large amount of funding being distributed as ESEA Title I Grants to local educational agencies. Delaware was also awarded approximately \$119 million in Race to the Top Funding in 2009. The goal of the first state is to become the best state public education system in the country.

Additionally in 2011, Delaware received approximately \$50 million for the Race to the Top Early Learning Challenge to improve access and quality of early childhood education.

¹⁰ IASA Title I, IASA Title VI, ECIA Handicap, IDEA-B Basic, IDEA-B Pre-school, IASA Migrant, Public Law 874, IASA Title II, Math/Science Act, Vocational Education, Adult Basic Education, Drug Free Schools, Other.

¹¹ Federal Department of Education website: www.ed.gov

TABLE 2.1
REVENUE FROM FEDERAL SOURCES (THOUSANDS OF DOLLARS)

	Distributed Through State						Direct Federal Aid	
Total	Total	Compensatory	Special Education	Child Nutrition	Vocational	Other and Nonspecified	Total	Impact Aid Only
180,584	180,584	38,259	28,939	27,490	4,458	81,438	-	-

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances: Table 2

<http://www.census.gov/govs/www/school02.html> 2009-2010

State Funding.

The General Fund finances the State's public education spending. The General Fund's sources include, but are not limited to, personal income tax, corporation taxes, gross receipts tax, and franchise taxes.

Using the General Fund to finance public education suggests that public education competes for dollars with all other public services. However, the State employs a funding formula, which ensures a minimum level of provision to public schools, see Table 2.2 below. Furthermore, local school districts may supplement state funds with their own funds.

TABLE 2.2
REVENUE FROM STATE SOURCES (THOUSANDS OF DOLLARS)

	Formula	Compensatory	Special	Vocational	Transportation	Other and Nonspecified	State Payments on
Total	Assistance	Programs	Education	Programs	Programs	State Aid	Behalf of LEA
992,422	763,232	-	521		68,197	160,472	-

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances. Table 3 [2009-2010](#).

The funding formula operates by converting enrollments to units. The pupil to unit ratio differs by grade and type of student. Elementary school pupils typically require small class sizes for effective learning, so the pupil to teacher ratio is low relative to secondary school pupils, for whom larger class sizes are the norm. Special education pupils do require still smaller class sizes, which leads to small pupil to teacher ratios. For example, 20 secondary students equate to one unit, whereas 17.4 elementary students equate to one unit, and 4 to 15 special education students equate to one unit (depending on the requirements of the special education students). The State compensates school districts on a per unit basis. This compensation is split into divisions for classification purposes, which are defined below:

Division I Unit—State appropriations allocated to a school district on a unit enrollment formula designated for the purpose of paying the employees of the various school districts of the state in accordance with the state supported salary schedules. The dollar amount paid per teacher varies with their education and experience.

Division II Unit—State appropriations allocated to a school district on a unit enrollment formula designated for all other non-salary costs, such as energy, except those for debt service and the transportation of pupils.

Division III Unit—State appropriations allocated to a school district based on a tax effort formula, utilized to equalize revenue receipts among school districts.

Broadly speaking, therefore, the student class size drives Division I funding. The other determinants of Division I funds are contingent on the teachers hired. Funds are released based upon teacher experience (years of service), and education. The salary reimbursement occurs in the following manner: Each school district may hire a teacher for each enrollment unit, and then charge the state for that teacher's salary based on the approved state salary schedule. The amount a district may charge is a function of that teacher's experience and education. Local school districts may supplement the state supported salary with their own funds. Indeed, districts often supplement the state funding by as much as 40%.

Linking teacher’s salaries to their length of service and education can lead to “wage creep” in the expenses: as the age of the teaching staff increases, so does experience, leading to higher wages for the existing staff. In general, the average age and education of teachers increased over time.

FIGURE 2.6
SELECTED CHARACTERISTICS OF DELAWARE PUBLIC SCHOOL
TEACHERS

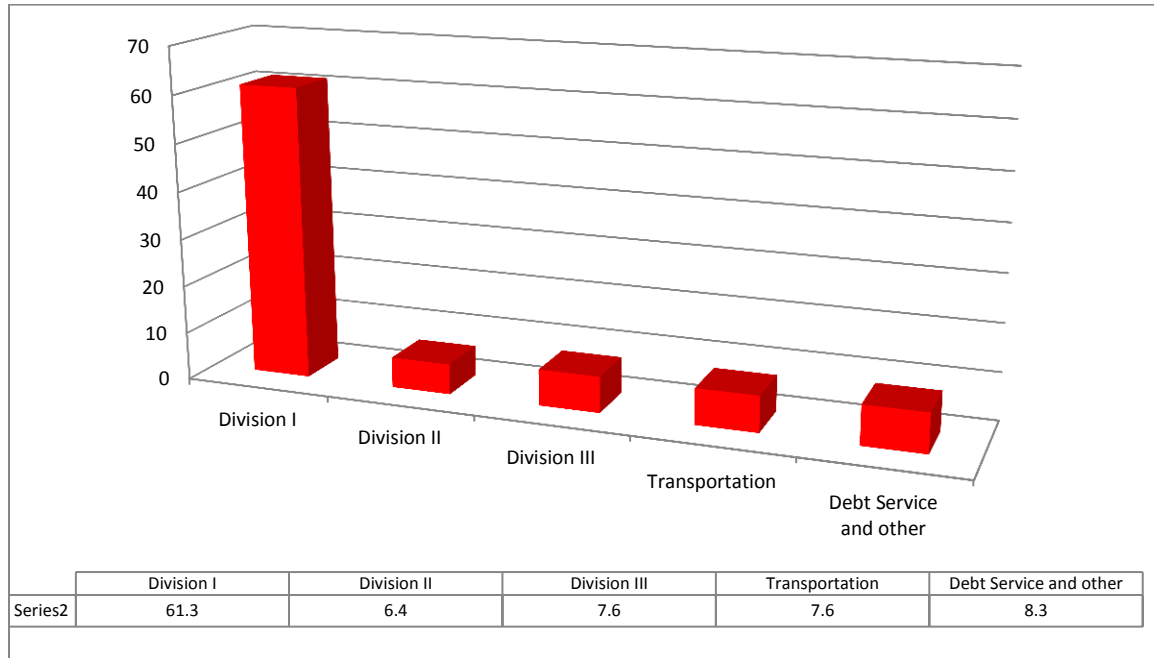
	<u>1981</u>	<u>20011-2012</u>
Average age	39	40.2
Highest degree held (percent)		
Less than bachelor’s	1.0	6.7
Bachelor’s	63.6	35.2
Master’s or specialist degree	34.9	57.13
Doctor’s	0.4	.9

Source: Delaware Department of Education., Detailed School Educational Personnel History 1997-2012

The average age of teachers continues to rise, as does the level of education. These factors cause larger wage bills.

Division I, which is salaries and other costs, is the largest state appropriation. This is to be expected given the labor-intensive nature of education. Division III equalization is the second largest category, albeit far smaller than Division I. Energy and other costs, which fall under Division II financing, receive 6.4% of the budget.

FIGURE 2.7
STATE APPROPRIATIONS 2009-2010
TOTAL ALL DISTRICTS, STATE

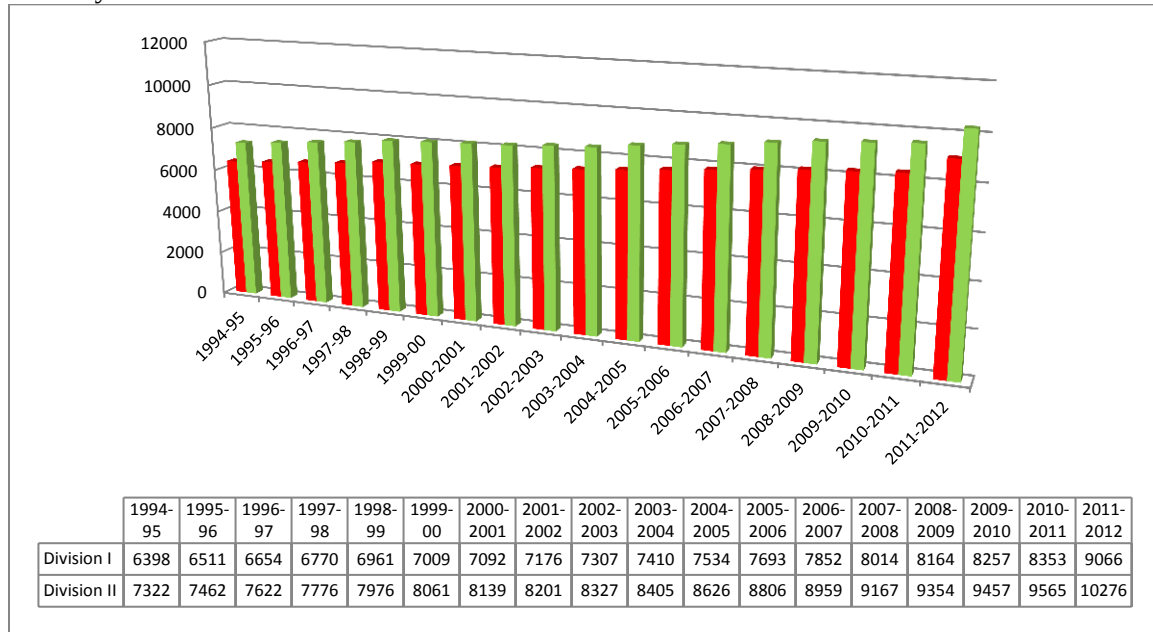


Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics. Figure 55, Total all districts and State Board of Education and Charter schools.

Division units mirror population and enrollment trends. The recent trend in Division I and II units is presented in Figure 2.8.

FIGURE 2.8
DELAWARE FUNDING UNITS BY DIVISION
1994/5-20011/12

Units by Division



Source: Center for Applied Demography & Survey Research, University of Delaware, September 30 Unit Allotment and Unit Report thru 2012 (Including DAFB) State Board of Education and Department of Education, State of Delaware.

Division III State funding seeks to equalize the revenue receipts for school districts. The assessment-to-sales ratio is a critical variable in the formula that allocates Division III funds to school districts in Delaware. Figure 2.9 illustrates the growing importance of these funds to the State's school districts. Division III funds rose from \$7.7 million in the 1983-84 school year to \$79.0 million in the 2010-2011 school year. As a result, Division III as a percentage of total state educational appropriations increased from 3.1% to 7.6% by the 2010-2011 school year.^{12 13}

¹² See The 1999 Assessment to Sales Ratio DOWNLOADABLE Study for a discussion of Division III funding. <http://www.cadsr.udel.edu/DOWNLOADABLE/DOCUMENTS/ASSSAL99.pdf>

¹³ Report of Educational Statistics, Table 31 2008-2009 State of Delaware

FIGURE 2.9
DIVISION III AND TOTAL STATE EDUCATIONAL BUDGET (IN MILLIONS OF DOLLARS, UNADJUSTED)

Fiscal Year	Division III	Total State	Percent of
			Figure 2.9
			Division III and Total
			State Educational Budget
			(in millions of dollars,
			unadjusted)
Fiscal Year	Division III	Total State	Percent of
	<u>Budget</u>	<u>Budget</u>	<u>Total</u>
1983-1984	7.7	247.3	3.1
1984-1985	13.2	265.7	5.0
1985-1986	16.1	293.1	5.5
1986-1987	21.7	309.7	7.0
1987-1988	24.1	329.9	7.3
1988-1989	25.1	358.5	7.0
1989-1990	29.2	377.4	7.7
1990-1991	32.7	401.1	8.2
1991-1992	36.0	422.8	8.5
1992-1993	39.1	431.4	9.1
1993-1994	41.1	457.6	9.0
1994-1995	42.1	475.9	8.8
1995-1996	44.0	530.1	8.3
1996-1997	46.5	554.8	8.4
1997-1998	49.1	609.6	8.1
1998-1999	51.6	637.5	8.1
1999-2000	53.8	666.7	8.1
2000-2001	55.9	720.2	7.8
2001-2002	58.9	773.5	7.6
2002-2003	61.4	795.0	7.7
2003-2004	63.0	816.6	7.7
2004-2005	64.7	887.0	7.3
2005-2006	68.3	966.4	7.1
2006-2007	71.7	1070.9	6.7
2007-2008	74.4	1112.9	6.7
2008-2009	77.3	1150.6	6.7
2009-2010	78.1	1121.1	7.0
2010-2011	79.0	1044.2	7.6

Source: Budget of the State of Delaware

Local Funding.

Local funding is the second most important source of public education finance. These funds make up twenty-seven cents of every public education dollar spent, making this a vital component of the education budget.

Local sources rely on property taxes for the majority of their revenue. Property taxes account for 84% of local education revenue, see Table 2.3.

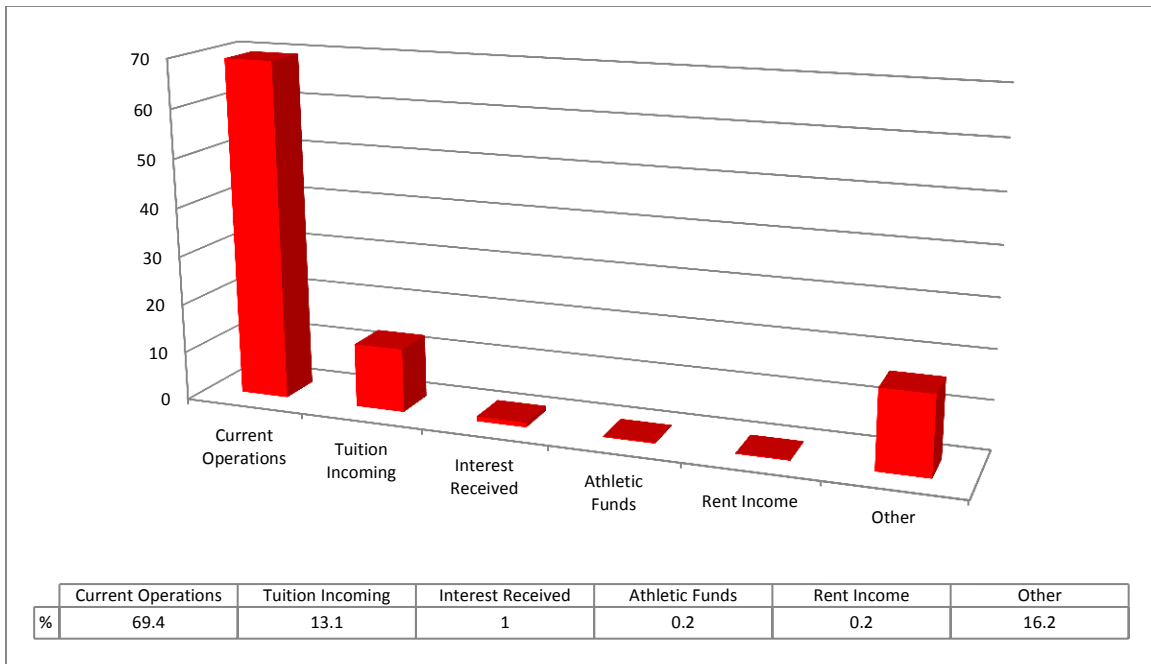
TABLE 2.3
REVENUE FROM LOCAL SOURCES (THOUSANDS OF DOLLARS)

Total	Property Taxes	Other Taxes	Parent Governmental Contribution	Nonschool Local Government	School Lunch Charges	Tuition and Transportation Charges	Other Charges	Other Local Revenue
522,550	439,791	-	-	-	15,813	-	698	66,248

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances Table 4 2009-2010.

Property taxes are the primary means of local funding. Property taxation provides a stable source of revenue irrespective of the economic climate, unlike sales and income taxes, which fluctuate with the economy. Revenue receipts fund 68% of the local districts' current operations.

FIGURE 2.10
ALLOCATION OF LOCAL REVENUE RECEIPTS BY CURRENT EXPENSE
CATEGORY
2009-2010



Source: Center for Applied Demography & Survey Research, University of Delaware, Report of Educational Statistics, Table 33 State Board of Education and Department of Education, State of Delaware. Includes Charter Schools and State Board of Education.

The percentage distribution of revenue sources is presented above, including selected sources.

TABLE 2.4
PERCENT DISTRIBUTION OF ELEMENTARY-SECONDARY PUBLIC SCHOOL
SYSTEM REVENUE BY SOURCE

	Federal sources		State sources		Local sources			
		Compensatory		Formula		Taxes and parent government contribution	Other local government s	Charge s
Total	Total	(Title I)	Total	assistance	Total			
100.0	10.7	2.3	58.5	45.0	30.8	25.9	-	1.0

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances: Table 5 2009-2010.

As mentioned previously, expenditures may be categorized into current spending, capital, and debt service. Current spending is analyzed in Table 2.5. Salaries and benefits comprise a large proportion of current spending (80%). Instruction salaries and benefits account for 60% of current spending. Support services account for 34% and other services 6%.

Support services include:

Pupil support services (Guidance Counselors, Psychologists, Therapists, Nurses),

Instructional staff support services (Directors of Instruction, Supervisors of Instruction, Librarians),

General administration (Chief School Officers, Assistant Superintendents, Administrative Assistants, Clerical),

School administration (Principals, Assistant Principals, Clerical),

Operations and maintenance (Custodians, Maintenance Specialists),

Pupil transportation (School Bus Drivers, Transportation Supervisors, Transportation Specialists, Bus Aides Support Services), and

Other (Directors of Administration, Specialists/Support, Supervisors/Support, Administrative Assistants/Support, Clerical).

TABLE 2.5
CURRENT SPENDING (THOUSANDS OF DOLLARS)

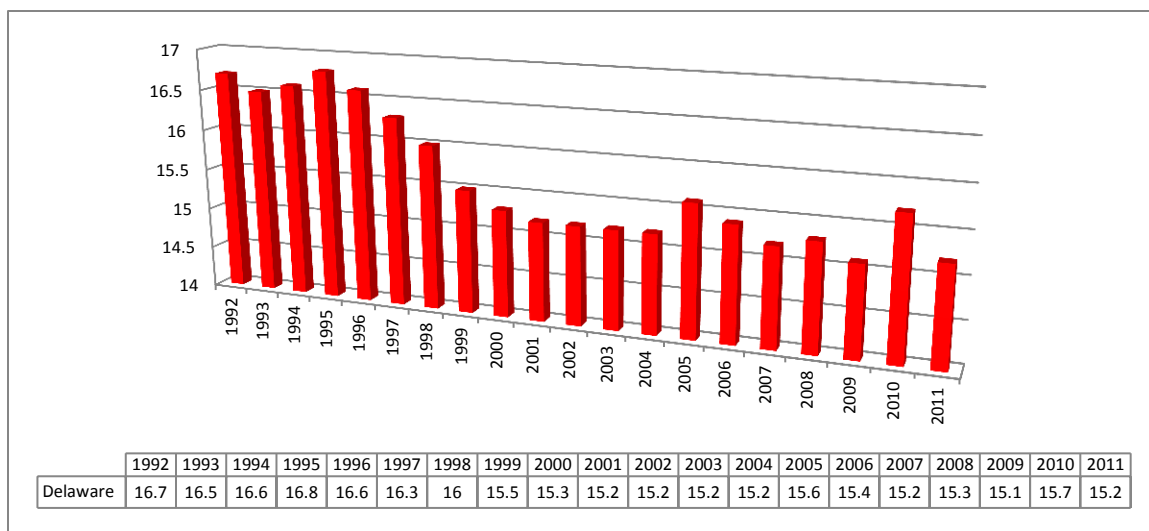
Total	All functions		Instruction			Support services			All other functions
	Salaries and wages	Employee benefits	Total	Salaries and wages	Employee benefits	Total	Salaries and wages	Employee benefits	
1,480,114	816,839	357,027	901,200	575,727	253,348	499,586	215,959	96,883	79,328

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances Table 6 2009-2010

When considering budget allocations, a number of measures may be utilized: spending per pupil, spending per school, spending per category, etc. Pupil/teacher ratios are a useful way to consider the level of staffing, holding enrollment constant. Delaware's teacher/pupil ratio remained the same this past decade at 15.2. see Figure 2.11.

FIGURE 2.11

PUPIL/TEACHER RATIO FOR DELAWARE 1992 TO 2011



Source: Center for Applied Demography & Survey Research, University of Delaware, September 30 Enrollment and Staff Data, State Board of Education and Department of Education, State of Delaware.

Per pupil current spending is deconstructed below. Of the approximately \$12,383 per pupil spending, 81% is accounted for by salaries and wages and employee benefits. Instructional spending is 62% of current spending. General administration and school administration expressed as a percentage of total current spending are 1% and 6% respectively.

TABLE 2.6
PER PUPIL AMOUNTS FOR CURRENT SPENDING (DOLLARS)

			Instruction			Support services				
				Salaries and	Employee		Pupil	Staff	General	School
Total	Salaries and	Employee	Total	wages	benefits	Total	support	support	administration	administration
12,383	6,944	3,035	7,621	4,894	2,154	4,247	633	130	129	718

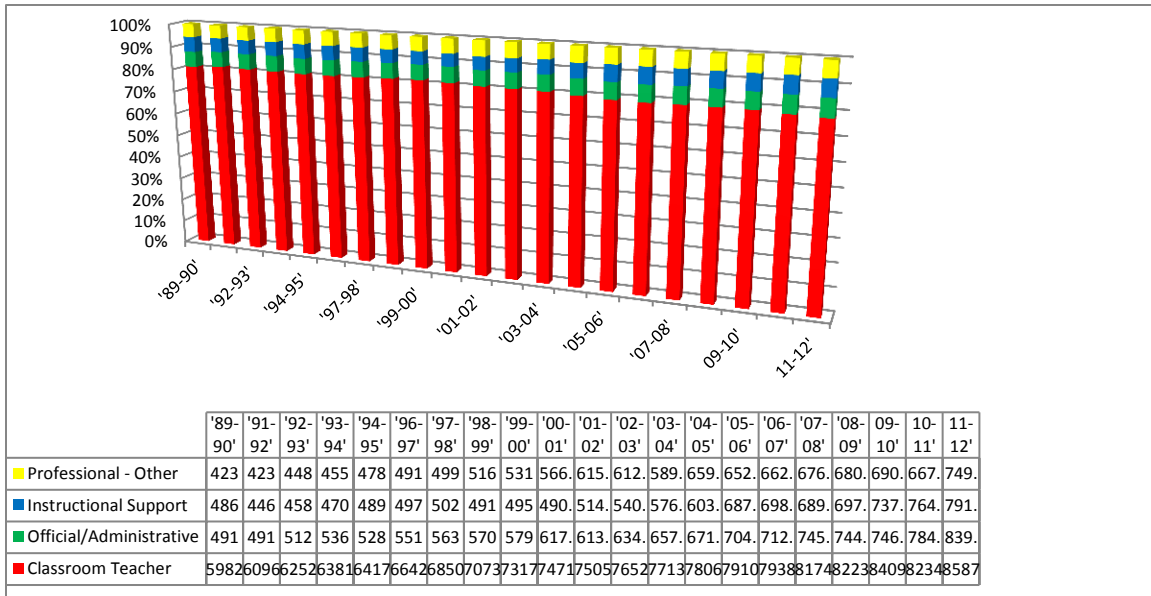
Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances: Table 8
<http://www.census.gov>. Not all items and functions are reported, therefore function sub-totals do not sum to aggregate. 2009-2010

In theory, public funding of any activity is a reflection of the values, priorities, and preferences of elected officials. However, the reality is that the budget or policy process has for decades now been governed by formula. A formula-based approach supports primarily current activities, with new programs approved for funding only through the availability of additional monies above the needs of current activities. This renders the budget system relatively inflexible to changes in the provision of public education.

Classroom teachers are 80% of total professional staff. A total of 2,605 full time equivalent (FTE) teachers have been added since 1994/95. The composition of Delaware's staff experienced little fluctuation in the past decades (see Figure 2.12).

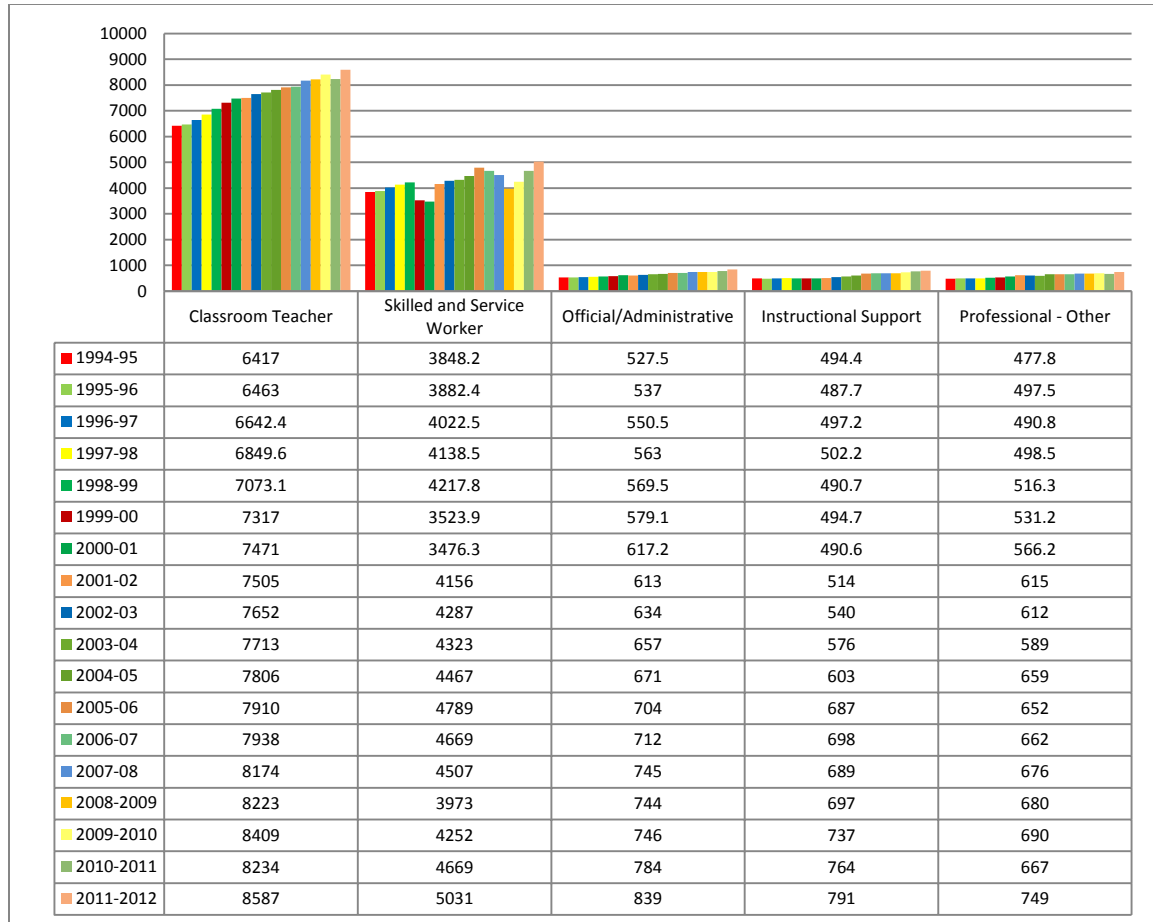
FIGURE 2.12

SHARE OF PROFESSIONAL EDUCATIONAL PERSONNEL FULL-TIME EQUIVALENT BY ASSIGNMENT CLASSIFICATION: 1989-1990 TO 2011-2012



Source: Center for Applied Demography & Survey Research, University of Delaware, Detailed Education Personnel Report, State Board of Education and Department of Education, State of Delaware. Full time equivalent.

FIGURE 2.13
DELAWARE PUBLIC EDUCATION STAFF BY FUNCTION: 1994-95 TO 2011-2012



Source: Center for Applied Demography & Survey Research, University of Delaware, Detailed Education Personnel Report, State Board of Education and Department of Education, State of Delaware. Full time equivalent.

The number of classroom teachers including regular and special grew 43.5% between 1994-95 and 2011-12. The growth in enrollment is driving this growth of teachers. School officials and administrative staff positions are growing at 76.9%. Other professional staff positions are growing at 76.9%.

Table 2.7 below shows the trend in staffing over the 1994-1995 to 2011- 2012¹⁵ period. The fastest growing category is instructional support--an assignment to a staff member who has expertise in a specialized field to provide information and guidance to other staff members to improve the curriculum. The number of officials and administrative staff are growing at a similar pace.

TABLE 2.7
DELAWARE PUBLIC EDUCATION STAFF BY FUNCTION: 1994-1995 TO 2011-2012

	1994- 19 95	1996- 1997	1998- 1999	1999- 2000	2000- 2001	2002- 2003	2003- 2004	2004- 2005	2005- 2006	2006- 2007	2007- 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Growth	% Growth
Classroom Teacher	6,417	6,642	7,073	7,317	7,471	7,652	7,713	7,806	7,910	7,938	8,174	8,223	8,409	8,234	8,587	2,170	33.8%
Skilled and Service Worker	3,848	4,023	4,218	3,524	3,476	4,287	4,323	4,467	4,789	4,669	4,507	3,973	4,252	4,669	5,031	1,183	30.7%
Official/Admi nistrative	528	551	570	579	617	634	657	671	704	712	745	744	746	784	839	311	58.9%
Instructional Support	494	497	491	495	491	540	576	603	687	698	689	697	737	764	791	297	60.1%
Professional – Other	478	491	516	531	566	612	589	659	652	662	676	680	690	667	749	271	56.7%

Source: Center for Applied Demography & Survey Research, University of Delaware, Detailed, Education Personnel Report, State Board of Education and Department of Education, State of Delaware. .Note: Numbers are FTE. Totals may not agree due to rounding differences.

¹⁵ The 2002-2003 data were preliminary, but are included to adjust for the volatility in the skilled and service worker category in 1999-00 and 2000-1. This volatility may reflect changes in reporting.

Table 2.7 above shows positive growth across the staff categories. The strong growth among the non-teaching staff suggests that these positions are growing with enrollment. This implies that they are variable costs, which are not fixed and change with volume.

If a measure is constructed comparing pupils to public school personnel, some interesting patterns arise, see Table 2.8 below. The pupil/teacher ratio has fallen over the period as teacher growth outstripped enrollment growth. The pupil-total personnel ratio has also dropped, principally due to the increased number of teachers. The pupil/non-teaching staff ratio has fallen slightly. This indicates that non-teaching staff are being hired at a slightly faster rate than enrollment is growing. If staff efficiency increases, the same number of staff would service a greater number of students, and the pupil-non teaching staff measure would rise. This would equate with economies of scale. Instead, the measure fell slightly.

TABLE 2.8
DELAWARE PUPIL TO PERSONNEL MEASURES

	1995-96	1997-98	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006 -07	2007-08	2008-09	2009-10	2010-11	2011-12
Enroll ment (FTE)	108461	111960	113598	114518	115517	116444	117777	119108	120938	122261	124041	125430	126801	129395	130610
Total Person nel	11868	12552	12446	12621	13403	13725	13858	14206	14742	14679	14791	14317	14834	15118	15997
Classr oom Teach ers	6463	6850	7317	7471	7574	7652	7713	7806	7910	7938	8174	8223	8409	8234	8587
Non-teache rs	5405	5702	5129	5151	6603	6073	6145	6400	6832	6741	6617	6094	6425	6884	7410
Ratios															
Pupil/ Teach er	16.8	16.3	15.5	15.3	15.3	15.2	15.3	15.3	15.3	15.4	15.2	15.3	15.1	15.7	15.2
Pupil/ Total Person nel	9.1	8.9	9.1	9.1	8.6	8.5	8.5	8.4	8.2	8.3	8.4	8.8	8.5	8.6	8.2
Pupil/ Non-teachi ng staff	20.1	19.6	22.1	22.2	17.5	19.2	19.2	18.6	17.7	18.1	18.7	20.6	19.7	18.8	17.6

Source: Center for Applied Demography & Survey Research, University of Delaware, Detailed, Education Personnel Report and Detailed Enrollment Report, State Board of Education and Department of Education, State of Delaware. .Note: Numbers are FTE. Totals may not agree due to rounding differences.

TABLE 2.9
DISAGGREGATED OFFICIAL/ADMINISTRATIVE STAFF IN DELAWARE

	1998 -99	1999 - 2000	2000 - 2001	2001 - 2002	2002 - 2003	2003 - 2004	2004 - 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008- 2009	2009- 2010	2010- 2011	2011- 2012	Chang e 98- 99 to 11-12
Superintendent	23	21	22	18	17	24	22	22	22	21	21	20	19	20	-3
Assistant Superintendent	12	10	11	15	17	21	23	20	18	18	20	19	18	19	7
Director	41	47	45	55	58	69	60	77	73	74	78	82	84	89	48
Administrative Assistant	11	14	16	18	19	21	21	19	20	20	19	16	16	25	14
Supervisor, Gen. Support	74	74	72	68	65	72	81	81	85	88	92	86	88	88	14
Specialist, Gen. Support	72	75	88.1	70	81	79	84	96	93	112	105	108	132	139	67
Principal	162	157	168	176	175	178	181	185	192	188	188	189	191	197	35
Assistant Principal	160	168	181	183	194	192	191	195	200	213	210	215	223	240	80
Other General Support	14.5	13.1	14.1	10	11	1	8	9	9	11	11	11	13	22	7.5
Total	569.5	579.1	617.2	613	637	657	671	704	712	745	744	746	784	839	269.5

Source: Center for Applied Demography & Survey Research, University of Delaware, Detailed Education Personnel Report, State Board of Education and Department of Education, State of Delaware. Full time equivalent.

The table above disaggregates the official/administrative classification. The greatest number of additions are specialist, general support, assistant principals and director. Simultaneously, the number of schools in the system has expanded, which is affecting the number of principals and assistant principals. It is noteworthy that the number of Charter schools has grown by more than 475% since 1989..

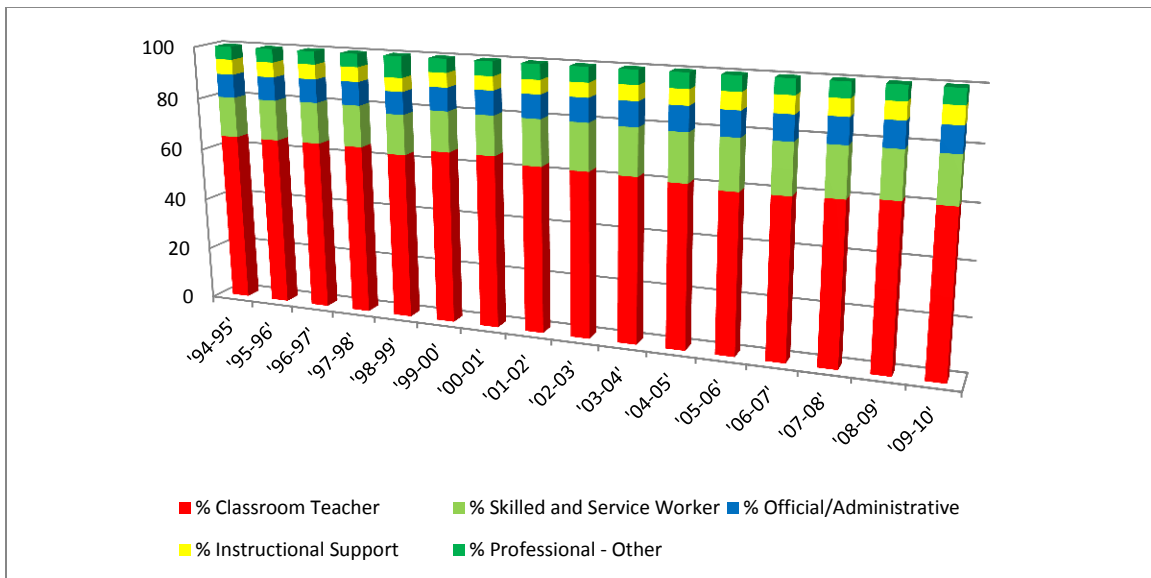
TABLE 2.10
DELAWARE PUBLIC SCHOOLS

	1998-99	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10	2010-11
High Schools	29	29	29	31	31	31	29	31	30	30	30	28	27
Junior High/Middle Schools	30	33	30	33	35	26	31	31	33	39	39	35	34
Elementary Schools	85	82	89	96	95	96	100	99	89	96	96	103	102
Early Education Schools	17	16	14	15	7	7	7	7	14	14	14	5	5
Special Schools	16	16	16	14	13	13	12	20	10	16	16	24	34
Charter Schools	4	5	7	9	11	11	13	13	17	18	18	15	23

Source: Center for Applied Demography & Survey Research, University of Delaware, Department of Education, State of Delaware,
<http://www.doe.k12.de.us/infosuites/schools/charterschools/listofDECS/list.shtml>,

The division of staff salaries is presented in Figure 2.14. Classroom teachers' salaries account for about 60% of total salaries. This has been largely unchanged since 1994-95.

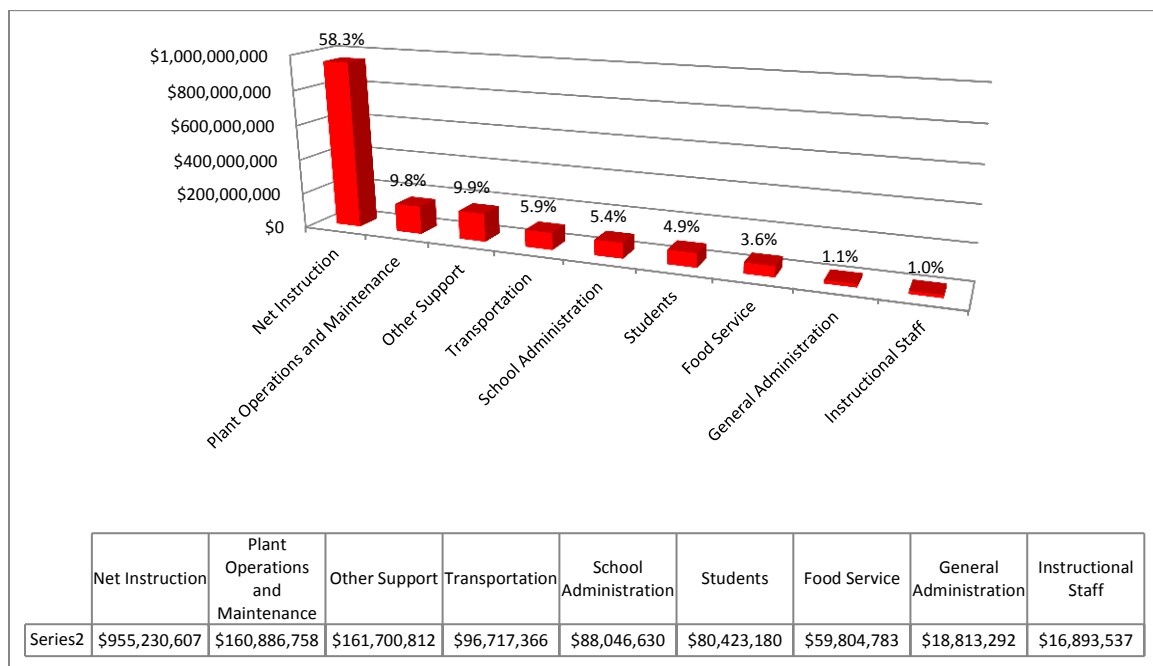
FIGURE 2.14
SHARE OF TOTAL SALARIES BY STAFF: 1994-95 TO 2009-10



Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics 2009-2010 Staff Data, State Board of Education and Department of Education.

Figure 2.15 illustrates the relative share of current expenses. These shares have exhibited little variation over recent years.

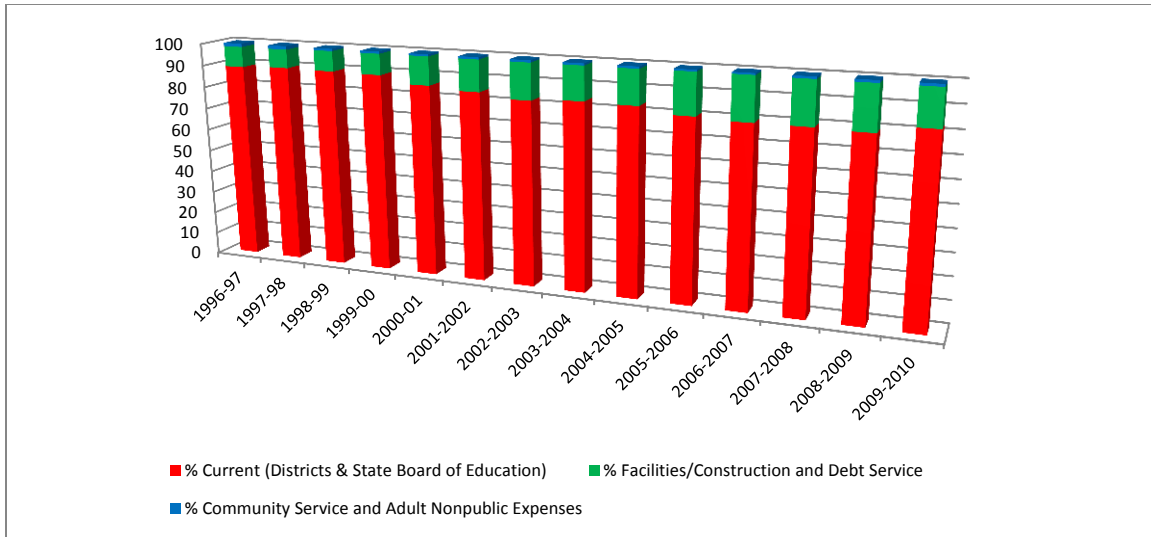
FIGURE 2.15
CURRENT EXPENSES
DELAWARE SCHOOL FINANCE
2009-2010



Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics 2009-2010, Figure 56, State Board of Education and Department of Education. Billions of dollars. Includes State Board of Education.

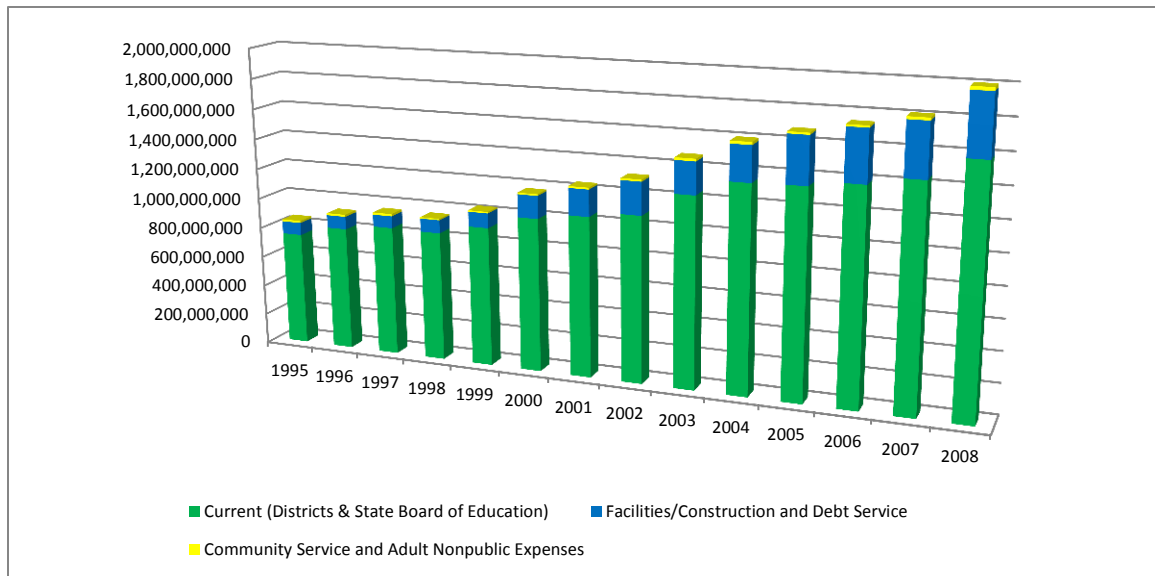
Breaking total expenditures into their broadest categories: current operations, facilities/construction, and community and adult nonpublic expenses, it can be seen that the majority of expenditures go towards current operations (districts and the state board of education). See Figures 2.16 and 2.17.

FIGURE 2.16
SHARE OF TOTAL EXPENDITURES BY ALLOCATION: 1995/6 TO 2009/10



Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics 2009-2010, Table 37 State Board of Education and Department of Education.

FIGURE 2.17
TOTAL EXPENDITURES BY ALLOCATION: 1995 TO 2009



Source: Center for Applied Demography & Survey Research, University of Delaware. Report of Educational Statistics 2009-2010, Table 37, State Board of Education and Department of Education.

The State of Delaware allocates funds for school construction through two programs: Minor Capital Improvements and Major Capital Improvements.

Minor Capital Improvement Program—The Minor Capital Improvement Program provides for the planned and programmed maintenance and repair of school infrastructure. The program’s primary purpose is to keep real property assets in their original condition of completeness and efficiency on a scheduled basis. It is not meant to increase the school inventory or change its composition. Minor Capital Improvement projects should cost less than \$250,000, except in the case of roof repair. The three-year program is submitted annually and should be comprised of work necessary for good maintenance practice. Under the Minor Capital Program, all districts are funded at a 60% State/40% Local cost ratio.

State Board Contingency—State Board Contingency is a funding allocation under the minor capital improvement program. An allocation of \$115,000 is granted annually for use by the Department of Education for emergency repairs. The guidelines for this are the same as the minor capital program guidelines. Under the State Board Contingency fund, all districts are funded at a 60% State/40% Local cost ratio.

Major Capital Improvement Program—The Major Capital Improvement Program is a program to provide for the planned and programmed repairs, renovations, and expansion of existing school facilities. The program also addresses the need for new school construction. Major Capital Improvement projects are those which cost \$250,000 or more. Districts submit to the Major Capital Improvement Program annually if there is a need for school repairs, renovations, expansions, or new construction. A request for a Major Capital Improvement Program project generates a Certificate of Necessity as determined by the Department of Education and enables a district to hold a referendum. The referendum is the mechanism that establishes the local public's desire to raise taxes. Once approved through referenda, the State is obligated to fund its portion of the total cost of a school project. Funding under the Major Capital Improvement Program is based on a school district's taxing ability. Major Capital Improvement projects are funded from between a 60/40 to 80/20 State/Local ratio.

Capital expenditures are primarily construction costs (98%). Equipment is the second largest capital expenditure (2%).

TABLE 2.11
CAPITAL OUTLAY, INTEREST, AND INTERGOVERNMENTAL EXPENDITURES
(THOUSANDS OF DOLLARS) 2008-2009

Capital Outlay						
			Equipment			
Total	Construction	Land and Existing Structures	Instructional	Other	Interest on Debt	Intergovernmental
192,826	183,843	(1)	2,288	6,695	22,304	-

Source: Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances 2009-2010: Table 9

<http://www.census.gov/>

¹Amounts are included in construction.

Delaware's formula-based appropriations ensure an objective distribution of state funds across school districts. Per pupil funds have been rising over time, reflecting the state's continued commitment to education. The state shoulders most of the burden of funding public education, however, this reflects the organization of the budget. Funding favors current operations, and within that category, instruction. Teachers comprise the largest share of professional staff. All categories of staff are expanding. Non-teaching staff are growing with enrollment, which implies they are variable costs. Using per-pupil measures, non-teaching staff growth is fractionally outpacing student enrollment growth, resulting in falling pupil/non-teaching staff ratios.

INTERSTATE COMPARISONS OF PUBLIC EDUCATION FINANCING

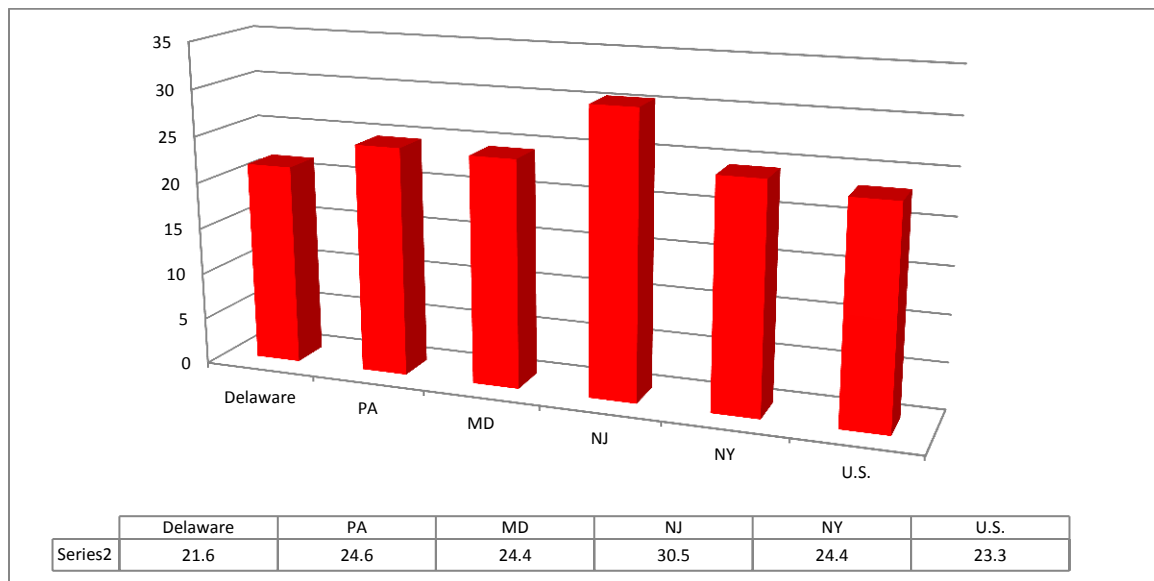
Extending the research to include other states and the national average brings perspective to Delaware's education financing system. The use of interstate comparisons reveals the similarities between Delaware, other states in this region, and the nation as a whole.

Education absorbs a significant amount of general expenditures in most states. The share of total direct expenditures per capita is shown in Figure 3.0 below. Delaware ranks low amongst Mid-Atlantic region states. Public education accounts for approximately 21.6% of direct expenditures in 2002008-2009.

FIGURE 3.0

STATE BUDGET ALLOCATIONS FOR ELEMENTARY AND SECONDARY EDUCATION (DIRECT GENERAL EXPENDITURES)

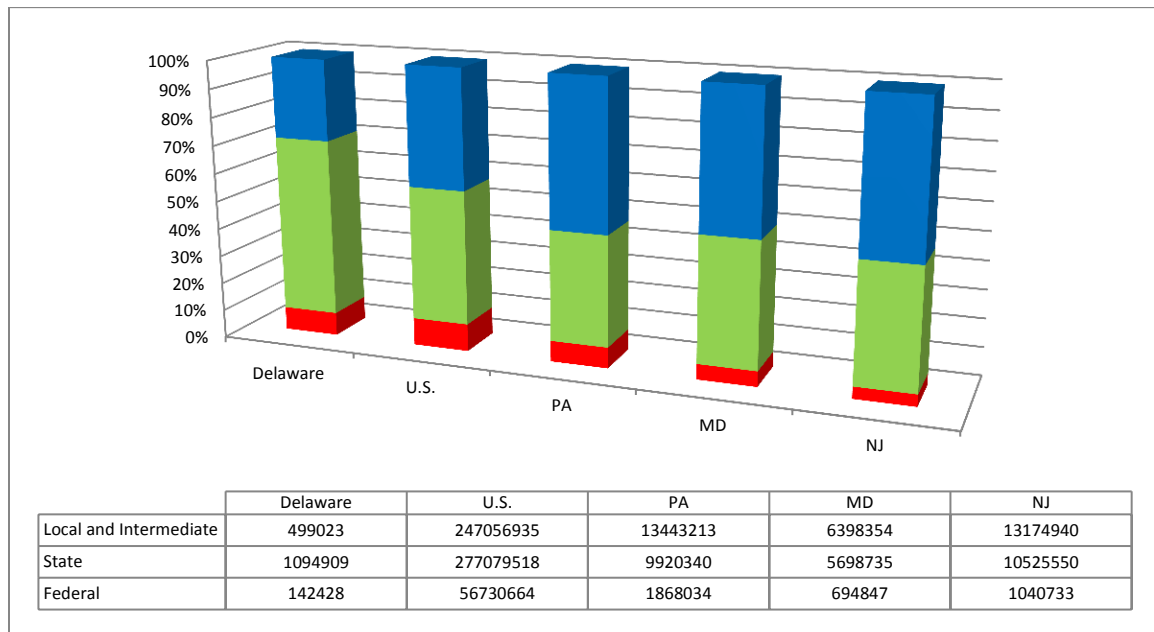
2008-2009



Source: Center for Applied Demography & Survey Research, University of Delaware, Table 32, Digest of Education Statistics 2011

The State of Delaware provides a larger than average share of funds for education compared to other states. This is reflective of Delaware's system wherein the state rather than the district primarily funds teacher salaries. The contributions to public education by state are illustrated in Figure 3.1 below.

FIGURE 3.1
SHARE OF REVENUES FOR PUBLIC ELEMENTARY AND SECONDARY
SCHOOLS
BY SOURCE 2008-2009



Source: Center for Applied Demography & Survey Research, University of Delaware. Digest of Education Statistics, 2011 Table 181 Latest available data.

Per pupil expenditures, adjusted for inflation, continue to rise throughout the nation. Delaware conforms to this trend, as seen in Figure 3.2. Per pupil expenditures for other states in the Mid-Atlantic region also rose over the past decade even after adjusting for inflation. Delaware current expenditures per pupil exceed the national average.

FIGURE 3.2
CURRENT EXPENDITURES PER PUPIL ENROLLED IN FALL SEMESTER
PUBLIC ELEMENTARY AND SECONDARY SCHOOLS
BY SOURCE 1989-90 TO 2008-2009

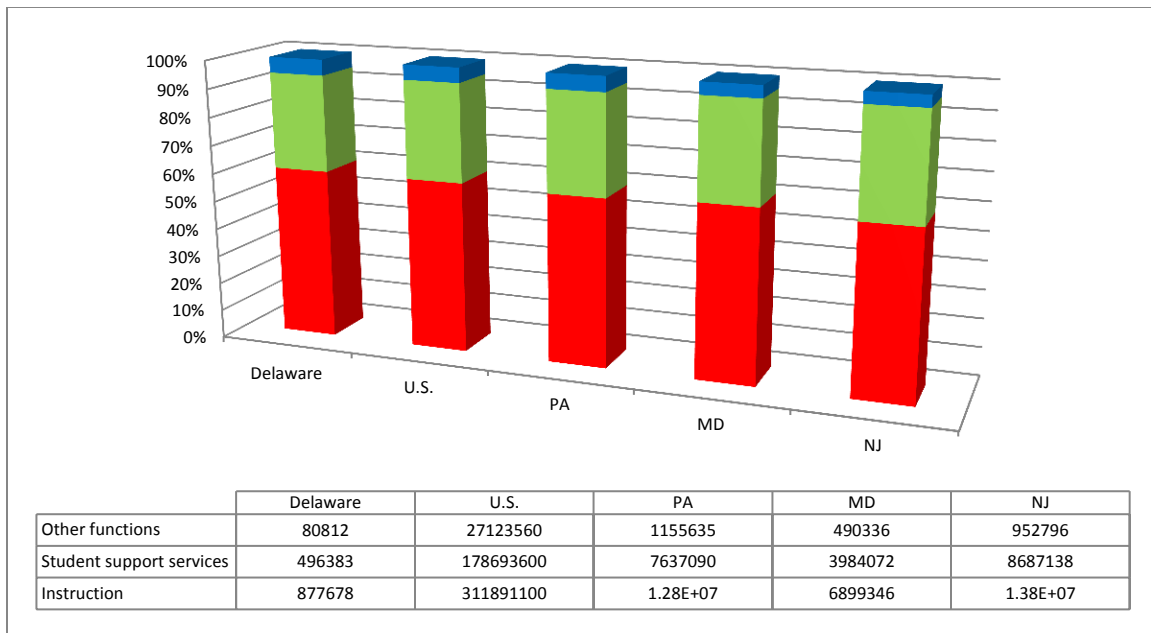
2009-2010 Constant Dollars



Source: Center for Applied Demography & Survey Research, University of Delaware. Digest of Education Statistics, 2011, table 194.

Instruction receives the largest share of expenditures in every state. Approximately 60% of each state's budget is allocated for instruction. Student support services receive the second largest share, approximately 35%.

FIGURE 3.3
SHARE OF TOTAL CURRENT EXPENDITURES FOR
PUBLIC ELEMENTARY AND SECONDARY EDUCATION
BY FUNCTION 2008-2009



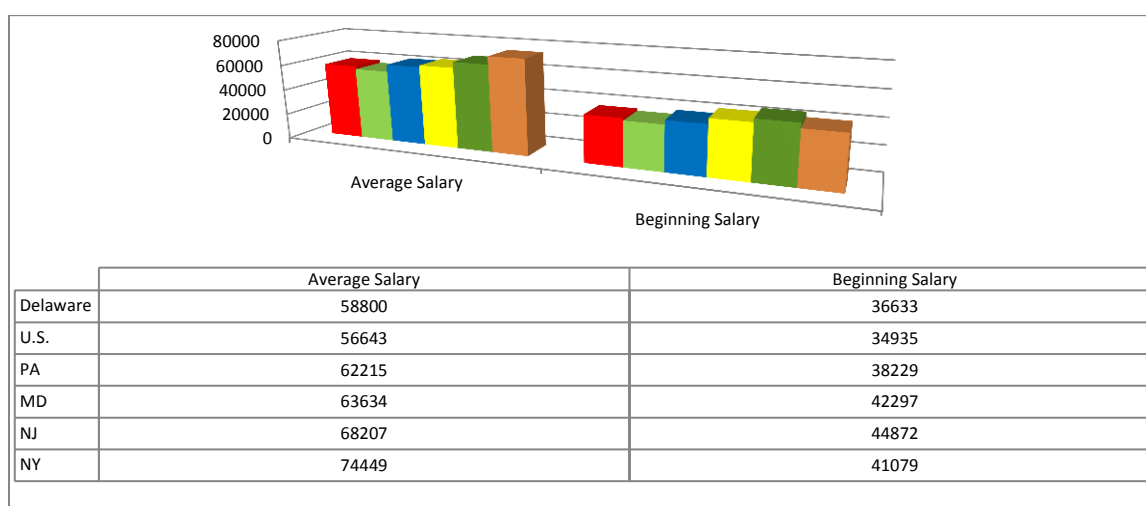
Census Bureau's Statistical Tables of Public Education Elementary-Secondary Education Finances 2008-2009: Table 6
<http://www.census.gov/>

The percentage of funds allocated to student support varies little across these states. However, the amount of available funds varies considerably. Delaware's current spending of public elementary and secondary school systems is approximately \$1.507 million, compared to Pennsylvania's approximately \$21 million.

Two measures of teacher salaries are now presented: average and beginning. Delaware's average teachers' salaries are fractionally lower than other states in the region, but surpass the national average, see Figure 3.4 below. According to the National Education Association, beginning teacher salaries in Delaware are slightly lower than regional averages, and above national averages. Delaware teacher salaries became more competitive vis-à-vis salaries in other Mid-Atlantic States with a sizeable increase in 1998-99. However, state averages mask the underlying district salaries, which can make state-to-state salary comparisons hazardous.

Pennsylvania school districts, for example, are a diverse mix of income levels and urban and rural. Many of Pennsylvania's high paying school districts are in close proximity to Delaware, and in comparison to these districts, Delaware fares poorly (see appendix for a sample salary comparison).

FIGURE 3.4
TEACHER SALARIES
2008-2009 AND 2011-2012



Source: Center for Applied Demography & Survey Research, University of Delaware. National Education Association,. http://www.nea.org/assets/docs/NEA_Rankings_And_Estimates_FINAL_20120209.pdf Average teacher salary statistics are 2011-2012 and beginning salary statistics are 2008-2009

Adjusting teacher salaries for inflation reveals that Delaware's teachers have experienced a slight decrease in salary. Mid-Atlantic states simultaneously exhibit declining teaching salaries. Average teacher salary is the broadest measure available for compensation in public education. It can be said that compensation is not keeping pace with the rate of inflation, so that Delaware's teacher salaries are slightly eroding. In other states, teacher salaries have not kept pace with inflation, leading to a decline in inflation-adjusted salaries.

FIGURE 3.5

ESTIMATED AVERAGE ANNUAL SALARIES OF PUBLIC ELEMENTARY AND SECONDARY SCHOOL TEACHERS BY STATE: 1969-70 TO 2009-10

Constant 2009-10 Dollars



Source: Center for Applied Demography & Survey Research, University of Delaware. Digest of Education Statistics 2011, Table 84

A further way to consider the operation of gathering and allocating revenue is to deconstruct the budget into its component sources, see Table 3.0.

TABLE 3.0
PERCENT DISTRIBUTION OF ELEMENTARY AND SECONDARY PUBLIC
SCHOOL SYSTEM REVENUE BY SOURCE AND SELECTED STATES: 2009-2010

		Federal Sources		State Sources		Local Sources	
	Total	Total	Compensatory Programs (Title 1)	Total	Formula Assistance	Total	Taxes & Parent Gov. Contributions
US	100.0	12.5	2.7	43.5	29.7	44.0	37.9
DE	100.0	10.7	2.3	58.5	45.0	30.8	25.9
MD	100.0	7.5	1.9	41.6	20.8	50.8	47.9
NJ	100.0	9.3	1.3	35.1	17.8	55.6	49.8
NY	100.0	6.7	2.0	41.8	26.6	51.5	46.0
NC	100.0	11.6	0.9	44.8	43.4	43.6	39.4
PA	100.0	11.3	2.7	35.7	18.5	53.1	49.3

Source: U. S. Census Bureau, Public Education Finances, 2009-2010. Agency: Governments Division, Elementary-Secondary Education Statistics Branch, Table 5 <http://www2.census.gov/govs/school/07f33pub.pdf>

State revenue accounts for two-thirds of the public education distribution in Delaware, and almost fifty percent is made through formula assistance. Thirty-one percent of distributions are from local fund allocations, which are generated almost entirely through property taxes. North Carolina, who also operates a flat grant system of education funding, has a similar mix of funding sources and distributions.

Other states (PA, NY, RI, and CT) require localities to determine desired spending levels and taxation, thereby resulting in localities having a dominant role in finance decisions. The states' role is to equalize districts' ability to raise necessary funds.

Some states (MD, NJ, VA, and others) define a level of adequate funding to provide and use a mix of state and local funds. In this case, the state determines a required level of local participation. The required local effort (RLE) serves as a state-imposed property tax. The nuances of each state's system determine the mix of revenues and disbursements. Under one system, the state may appear to be shouldering more than local districts in the expense of public education. Under another system the reverse may appear to be the case. See Table 3.1:

TABLE 3.1
PER PUPIL AMOUNTS FOR CURRENT SPENDING OF PUBLIC ELEMENTARY
AND SECONDARY SCHOOL SYSTEMS BY STATE: 2009-2010

		For Selected Objects		Instruction		Support			
	Total	Salaries and Wages	Benefits	Total	Salaries and Wages	Total	Pupil Support	Gen. Admin.	School Admin.
US	10,615	6,468	2,270	6,478	4,376	3,711	593	199	575
DE	12,383	6,944	3,035	7,621	4,894	4,247	633	129	718
MD	13,738	8,340	3,327	8,427	5,622	4,722	634	124	952
NJ	16,841	10,244	3,834	9,740	6,704	6,541	1,648	353	825
NY	18,618	10,895	4,658	12,984	8,277	5,246	557	309	698
NC	8,409	5,550	1,469	5,288	3,790	2,682	431	92	527
PA	12,995	7,517	2,688	7,904	5,236	4,592	695	381	530

Source: U. S. Census Bureau, Public Education Finances, 2009-2010. Agency: Governments Division, Elementary-Secondary Education Statistics Branch, Table 8 <http://www2.census.gov/govs/school/07f33pub.pdf>

State rankings are another way to represent Delaware's finance system relative to others. An abbreviated table of per pupil elementary-secondary public school system finance amounts is shown in table 3.2.

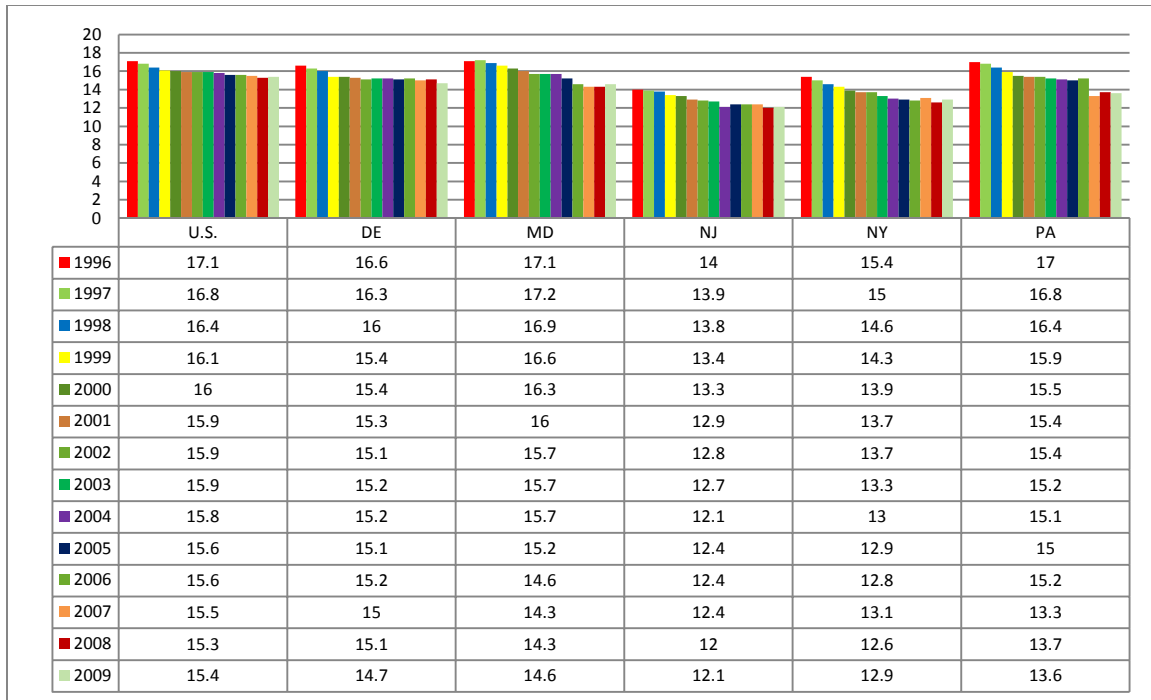
TABLE 3.2
STATES RANKED ACCORDING TO PER PUPIL ELEMENTARY-SECONDARY
PUBLIC SCHOOL SYSTEM FINANCE AMOUNTS: 2008-2009

Revenue			Current Spending for Selected Categories		
				Instruction	
Rank	Total	From State Sources	Total	Total	Salaries Only
1	DC.....	VT.....	DC.....	NY.....	NY.....
2	NY.....	HI.....	NY.....	NJ.....	DC.....
3	WY.....	AK.....	NJ.....	CT.....	NJ.....
4	NJ.....	WY.....	AK.....	VT.....	VT.....
5	CT.....	NY.....	VT.....	MA.....	CT.....
6	VT.....	DE.....	WY.....	WY.....	WY.....
7	AK.....	MN.....	CT.....	AK.....	MA.....
8	MA.....	AR.....	MA.....	MD.....	MD.....
9	MD.....	IN.....	MD.....	DC.....	RI.....
10	PA.....	NM.....	RI.....	RI.....	PA.....

Source: U. S. Census Bureau, Public Education Finances, 2009-2010. Table 11 Agency: Governments Division, Elementary-Secondary Education Statistics Branch

Delaware ranks in the top ten in terms of total revenue raised from state sources per pupil. All states in the region exhibit falling pupil to teacher ratios. Delaware's ratio is lower than the nation as a whole but higher than Maryland, New Jersey, New York and Pennsylvania. See Figure 3.6.

FIGURE 3.6
PUPIL TO TEACHER RATIO
1994-2009

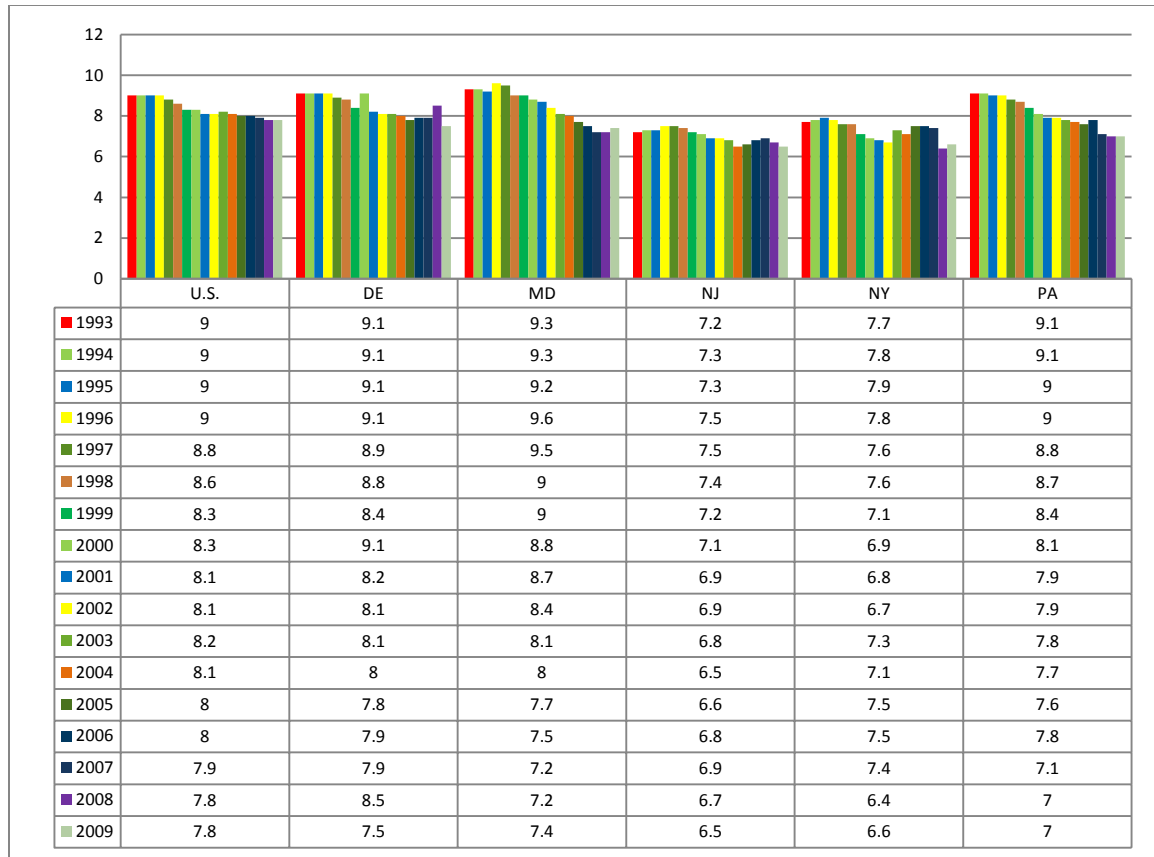


Source: Center for Applied Demography & Survey Research, University of Delaware. NCES Digest of Education Statistics, 2011.
Table 71

Measuring the number of pupils to total school staff (teachers, instructional support, administration, and service personnel) provides insight into the balance between the workforce who supply education and pupils who receive it. This measure continues to decrease both nationally and regionally. This implies that the provision of education requires a greater number of staff than in prior years. This measure is heavily influenced by the downward trend in pupil to teacher ratio, which occurred with the movement toward smaller class sizes. Over fifty percent of staff are teachers, see Figure 3.8.¹⁶

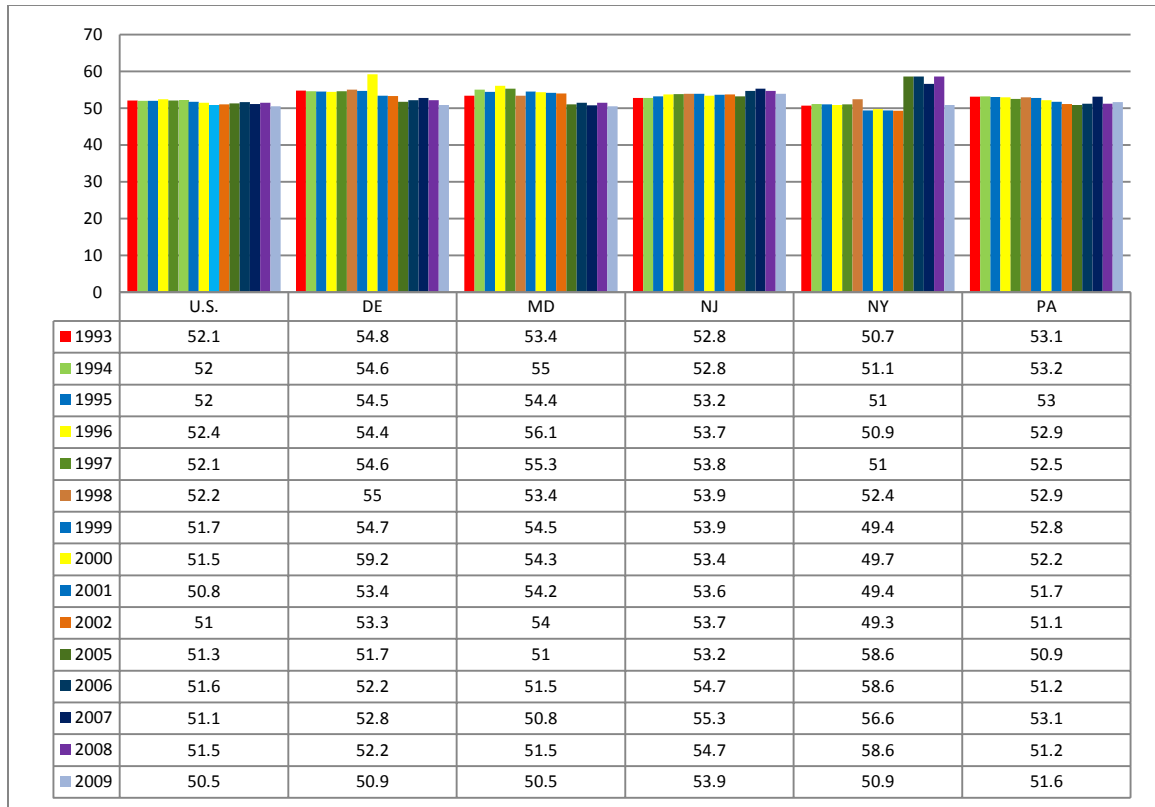
¹⁶ Fall data for 2000 for Delaware are outliers. Fall 2002 (not shown) indicate pupil to total staff ratio of 8.2 and teachers as a percentage of staff ratio of 53.8.

FIGURE 3.7
PUPILS TO TOTAL STAFF RATIO
1993-2009



Source: Center for Applied Demography & Survey Research, University of Delaware
NCES Digest of Education Statistics, 2011. Table 89

FIGURE 3.8
TEACHERS AS A PERCENTAGE OF STAFF
1993-2009



Source: Center for Applied Demography & Survey Research, University of Delaware, Digest of Education Statistics, 2011. Table

88

As mentioned earlier, public education in Delaware is financed primarily by the State (64%) and local funds (27%). This State/Local funding mix varies from state to state. At the low end, South Dakota's State/Local mix is 35/53. At the high end, Vermont's mix is 75/18. Despite this variation, the manner in which spending is allocated varies little. For example, approximately 60% of current per pupil spending is allocated to instruction regardless of the State/Local funding mix. Therefore, Delaware's level of instruction expenditures is neither high nor low.

Delaware's closest peer is Rhode Island (in terms of the size of public school enrollment). Rhode Island's State/Local mix is 42/53. Nevertheless, Rhode Island ranks alongside Delaware in per pupil measures (see table 3.2), suggesting that Delaware is in the mainstream with respect to

public education finance, and particularly among states in the Northeast. Student proficiencies between the two states do not differ significantly.

Delaware's closest peer in terms of funding mix is North Carolina (State 64%/Local 28%). North Carolina's enrollment is ten times that of Delaware, which makes comparisons of total expenditures difficult. On a per pupil basis, however, current spending per pupil in Delaware is significantly higher (\$12,383 versus \$8,409). This implies a far greater level of funding in Delaware. One drawback to this comparison is that education expenditures reflect the income level of that state and its region. For example, all Northeast states are among the highest per pupil spenders. This reflects the high levels of income in these states.

Comparing states in different areas of the country in a meaningful way requires some adjustment for the different income levels. Per capita income is more than \$6,000 higher in Delaware than North Carolina. Starting teacher salaries in Delaware are over \$8,000 higher than in North Carolina, and average teacher salaries are also more than \$8,000 higher. Therefore, public education spending should be adjusted by some factor that captures the income differences.

Adjusting public education spending per \$1,000 personal income removes this income bias. Now, the funding gap between Delaware and North Carolina does not appear so large. Total current spending per \$1,000 personal income is \$42.11 in Delaware and \$38.50 in North Carolina. Moreover, based on this measure, Delaware ranks 27th in the nation rather than in the top ten.

Delaware's public education expenditures are comparable with both neighboring states and the nation. The State's public education spending reflects the higher income of the state, which places Delaware high in the national expenditure rankings. However, adjusting for income levels, Delaware is relatively middle of the road in terms of public education spending.

STATE LEVEL SUMMARY

Many states across the nation are wrestling with the issue of improving public education. Public education consumes a large part of state and local funds, yet, in general, standards are not improving significantly. Therefore, there is a need to ensure the efficient allocation of funds.

Policy-makers must understand the structure and size of finance sources and allocations in order to comprehend the problems of access that can be related to cost. This project is a review of the statewide system of public education funding in Delaware. Its purpose is to inform policy-makers of the structure and size of public education finance sources and allocations. The project is pursued with the following constraints: where possible the most recent Delaware data is used and comparability kept to allow interstate comparisons. There are a number of findings that are worth reiterating from the study.

Public education is a \$1.5 billion investment in Delaware.

Public education consumes more than one-fifth of direct general expenditures per capita, making it the single largest expenditure in the state budget.

Public education expenditures have more than doubled since 1990. However, in per pupil, inflation terms, expenditure growth was 36%.

Public education revenue in Delaware is provided by the State (64%), local school districts (27%), and the Federal government (9%).

Local school district revenue is raised primarily through property taxes (over 80%).

State funding from the General Fund is allocated based upon formula. Funding levels depend on public school enrollment, and the education and experience of the teaching workforce.

Salary and benefits are the largest cost of the public education system.

Instruction receives the largest share of funding by function within the public education system.

Despite the diversity of states in the Mid-Atlantic region, the distribution in percentage terms of public education financing is similar.

The pupil/teacher ratio is falling in Delaware.

The pupil/non-teaching staff ratio is falling, which reflects the fact that growth in non-teaching staff is outpacing public school enrollment growth.

This implies that non-teaching staff are a variable cost (i.e. varying with enrollment sizes).

The fastest growing section of staff is other professionals.

Local revenue, which is raised primarily through property taxes, is a stable source of revenue and is growing in importance in the public education budget.

Delaware ranks thirteenth among all states for per pupil expenditures.

Collectively these data suggest that Delaware is essentially in the mainstream regarding the financing of public education. Even so, there may be room for improvement. All levels of professional staff are growing. The number of classroom teachers has risen to 8587 (a 34% gain since 1994). Student population grew 24% over the same period. Simultaneously, other professional staff have risen 57%. The number of school officials/administrators¹⁷ grew 59%. That the percentage growth of school officials/administrators exceeds the growth in classroom teachers implies that school officials/administrators are a variable cost—a cost that varies with the size of operation. However, could these official/administrator positions be classed as fixed costs—costs that do not vary with the size of operation? If they can, then their growth constitutes an increase in overhead and is a drain on education resources.

¹⁷ The State Board of Education and Department of Education define officials/administrators as a grouping of assignments comprising the various skill levels required to perform management activities.

The funding formula guarantees a certain level of funding for schools each year. This method of funding has the advantage of bringing certainty to the budget process and saves public education from competing for dollars from the general fund. The downside to the funding formula is the rigidity it instills in the public education system. Consequently, there is little evidence of change in the allocation expenditures over the last decade. Current expenses, those expenses that finance the day-to-day running of the school, account for approximately 90% funds. This figure has been relatively static since 1995, which suggests that there has been no significant change in the apportionment of public education funding. Within current expenses, instruction receives the largest share of funds: approximately 60%. This is on par with the funding allocations across the region and the nation. The implication is that as the budget continues to grow, so too do all uses of funds and at similar rates, leaving the relative shares unchanged. That is, the expenditure pie is growing larger, but it is divided into the same shares. Therefore, no one function of public education gains more than another.

The natural extension of this research is to explore the revenue and costs at the district, or even school level. This finer level of analysis may uncover how funding may be more effectively allocated in ways that were not revealed with the system-wide view.

DISTRICT LEVEL ANALYSIS

METHODOLOGY

The principal data source is the annual Report of Educational Statistics; a publication of the State Board of Education and the Department of Education. Peer data used within the report are available from the Federal Department of Education through the National Center for Education Statistics (NCES) and the Digest of Education Statistics. This report includes information on expenditures by major category and staffing levels. Staffing data include counts of professional staff, including administrators, teachers, librarians and counselors, instructional aides, and support staff. Analyzing this data provides a beginning towards understanding the utilization of funds, but the results are several steps removed from the data needed to answer important productivity issues. Nevertheless, these data provide a starting point for identifying spending patterns.

School districts vary in a number of factors including land area, enrollment size, and school size. It is desirable to employ expenditure measures that allow for meaningful comparisons between districts. Constructing spending measures in per pupil terms equalizes expenditures across districts. Also, reporting spending in sub-categories as a share of total expenditures will illustrate the relative allocation of school resources.

Increases in public education expenditures arise due to a number of factors: inflation, enrollment, number of inputs, and real (inflation-adjusted) changes in the price of inputs. To better enable inter-district comparisons, expenditure levels will be adjusted for inflation over both five and twelve year periods, and expressed in per-pupil terms.

Limitations

The primary source of public education expenditure data, the Report of Educational Statistics, is not without shortcomings. District data are the finest level of detail, and expenditures are reported by major spending category only. Therefore, while it remains possible to recognize different spending levels across districts, identifying the root cause for funds disbursement is not. The Report of Educational Statistics also groups together officials and administrators when

reporting full time equivalents and salaries. This prevents detailed analysis between general administration and school administration costs. Nevertheless, the report is the best available source of data at this time.

The Department of Education (DOE) is developing a database of school and district expenditures by object code. Presently this information is not publicly available from the DOE.

All schools and districts record expenditures by object codes. Such information has the potential to permit very detailed inter-district and inter-school comparisons. Until recently, school and district staff performed the coding of expenditures by object code. This limited the usefulness of object code-based comparisons, since schools and districts may record the same expenditures in different object codes. Certain expense items, such as teacher salaries are not prone to misclassification. However, items such as computers, photocopies, supplies, and materials, may be.

The DOE has implemented a system that harmonizes the reporting of expenditure data. Rather than the districts preparing their own expenditure reports for submission to the Department of Education, the DOE will generate that report for the district to then verify. The lack of a uniform standard for expenditure reports across all school districts compromises the usefulness of the object code data.

The National Center for Education Statistics (NCES) is the best single source for expenditure data from all school districts nationwide. All data provided from their reports utilize the same consistent measures. However, a problem arises when comparing data from the NCES with data expressed within the Department of Education's Report of Educational Statistics, as each actor defines the categories for expenditures in different ways. For the state of Delaware analyses, the Department of Education data serves as the primary source. However, the need for consistent methodology for interstate and inter-district comparisons necessitates the use of NCES. The difference in methodology does not detract from the value of the NCES data for cross-state comparison purposes.

Each state in the Mid-Atlantic region utilizes different methods for data collection and reporting, particularly for general and school administration costs. While Delaware's Report of Education Statistics divides general and school administration expenditures into salaries, benefits, contracted

services, supplies, capital outlay and an “other” category, Maryland and Pennsylvania use other reporting methods. The NCES attempts to harmonize these data. However, discrepancies were discovered in the NCES data. For Delaware NCES administrative cost data the measure includes general administrative costs, school administrative costs, deducts capital outlay costs, and includes the “support services: other” costs when determining total administration costs for each school district. The Delaware DOE Report of Educational Statistics would only use general administration and school administration in any administration measure.

The Maryland State Department of Education produces only selected financial data reports for public use. In Maryland, expenditures are classified into administration and mid-level administration categories. The state defines administration as expenditures for the general regulation, direction, and control of the local education agency, including such things as board of education services, office of the superintendent, community relations, business services, and other activities that involve the formulation and execution of educational policy as a whole. Mid-level administration consists of expenditures for district-wide administration, supervision of instructional programs, and school administration. The total costs from these functions include similar categories to Delaware administration and support services, such as salaries, contracted services, supplies and equipment, but spending on benefits for administrative employees falls into a broader category for fixed charges. Furthermore, several smaller enrollment level school districts have cooperative agreements for the operation of special education programs, as well as some administrative data processing.

In Maryland, the state and county governments share the responsibility of financing public education. However, the percentage of revenues by source varies by district, with some receiving greater amounts from local sources, and others from the state. The state program known as APEX provides each district with state funds that creates a floor amount for overall per pupil expenditures. These funds are distributed to the county, and then to the district, which has final discretion for which to dedicate these funds. The majority of local revenues comes from property taxes and income tax surcharges, both of which are paid to the State Department of Assessments and Taxation, and then returned to the county governments. The implication is that the state provides the majority of funds for education if one were to include the funds collected for property and income taxation, which are returned to the counties from the state government for disbursement.

Pennsylvania reports general and school administration costs in three categories; administration, business, and central. Administration includes services related to the school board, superintendent, tax assessment and collection, legal services, principals, and various other administrative activities. Business and related services include financial accounting and reporting, budgeting, accounting, payroll, purchasing, printing and other related activities. Central support services involves planning research and data processing related services. The state board of education attempts to equalize spending per pupil by providing additional funds for lower revenue, and low per-pupil expenditure districts. Districts have the ability to charge income tax up to one percent on citizens within their borders to supplement their revenues. However, all monies collected from an income tax must be evenly divided with the municipalities within the school district.

In summary, there is no consensus regarding the reporting of public education financing among states and districts. Public education reporting by states and districts supports the budget processes, and thus reflects differing priorities, which impair the comparability of district finances across state lines.

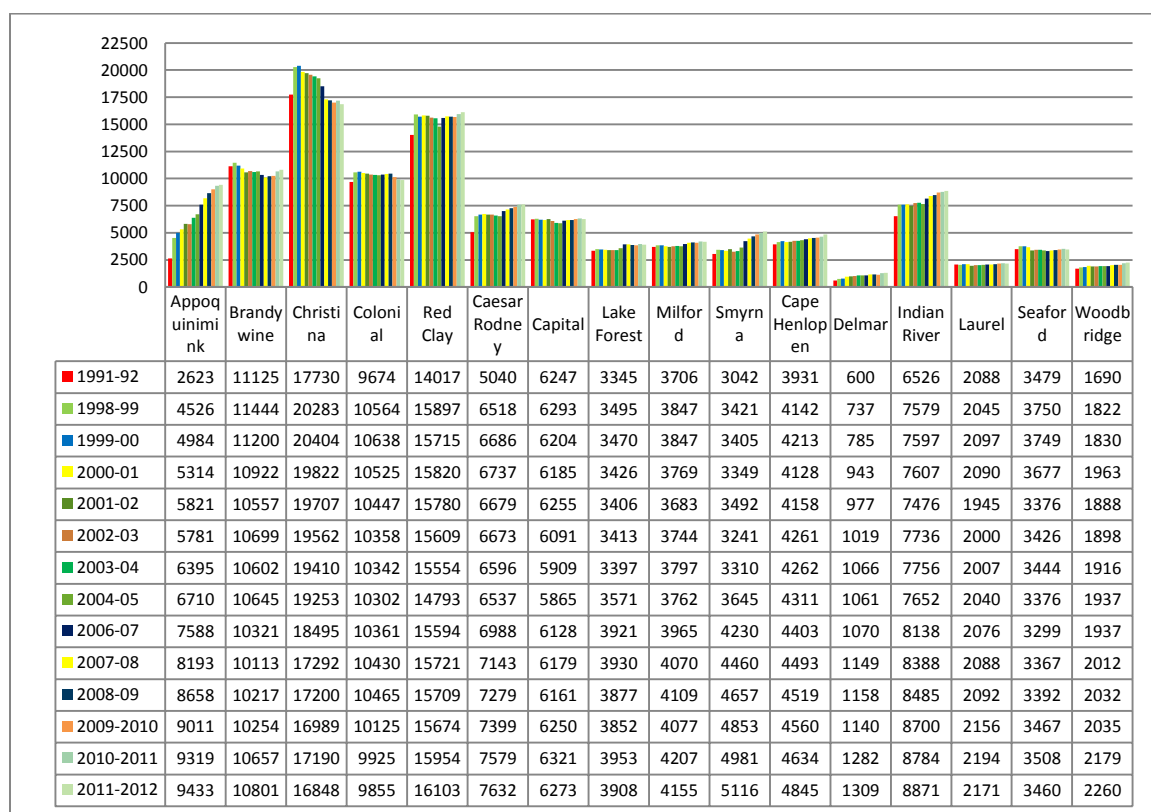
BACKGROUND

The public education system in Delaware is organized into sixteen school districts, plus three vocational districts. The districts are shown in Figure 1.1 below. The three vocational districts, New Castle Vocational/Technical, Polytech, and Sussex Technical, serve New Castle County, Kent County, and Sussex County respectively.

During the 2010-11 school year Delaware's school districts ranged in size from Delmar with 1,309 students to Christina with 16,848 students. District enrollments grew at different rates over the past ten years, as seen in Table 1.1. Figure 4.0 shows the enrollment per district for the 1991-1992 to 2011-2012 school years.

FIGURE 4.0
PUBLIC ENROLLMENT BY SCHOOL DISTRICT

Enrollment



Excluding special schools and Charter schools. CR includes DAFB Delaware Enrollment report thru 2012

FIGURE 4.1

Delaware School Districts



Source: Delaware Department of Education
Vocational Districts (not shown) follow county lines.

**TABLE 4.0
ENROLLMENT BY SCHOOL DISTRICTS**

School District	2011-2012	Pct. Change 1991- 1992 to 2011/12	Pct. Change 1998/9 to 2011/12
Appoquinimink	9,433	259.6	108.4
Brandywine	10,801	-5.3	-5.6
Christina	16,848	-8.5	-16.9
Colonial	9,855	-0.4	-6.7
New Castle Vocational/Technical	4,759	54.2	36.6
Red Clay	16,103	11.4	1.3
Caesar Rodney	7,632	19.4	17.1
Capital	6,273	0.4	-0.3
Lake Forest	3,908	16.8	11.8
Milford	4,155	12.1	8.0
Polytech	1,180	114.5	10.2
Smyrna	5,116	68.2	49.5
Cape Henlopen	4,845	23.3	17.0
Delmar	1,309	118.2	77.6
Indian River	8,871	32.8	17.0
Laurel	2,171	4.0	6.2
Seaford	3,460	-0.5	-7.7
Sussex Technical	1,309	128.0	11.8
Woodbridge	2,260	32.9	24.0
State Totals (exc. Charter schools, special schools, data center, DFAB).	120,288		
Charter School of Wilmington	970	N/A	75.72464
Positive Outcomes Charter School	125	N/A	108.3333
East Side Charter School	401	N/A	401.25
Campus Community School	582	N/A	94
Thomas Edison Charter School	729	N/A	N/A
Sussex Academy Charter School	335	N/A	N/A
Kuumba Academy	260	N/A	N/A
Newark Charter	1,344	N/A	N/A
MOT Charter	677	N/A	N/A

Providence Creek Chart School	688	N/A	N/A
Academy of Dover Charter School	256	N/A	N/A
DE Military Academy	559	N/A	N/A
Pencader Business and Finance Charter HS	507	N/A	N/A
Odyssey Charter School	500	N/A	N/A
Delaware College Prep	276	N/A	N/A
Prestige Academy	300	N/A	N/A
Family Foundations	751	N/A	N/A
Academy		N/A	N/A
Aspira Academy	304	N/A	N/A
Del Academy Public Safety and Security	117	N/A	N/A
Gateway Charter	183	N/A	N/A
Reach Academy	266	N/A	N/A
Moyer Academy	192	N/A	N/A
Charter Total	10,322	N/A	N/A
Grand Total	130,610	N/A	N/A

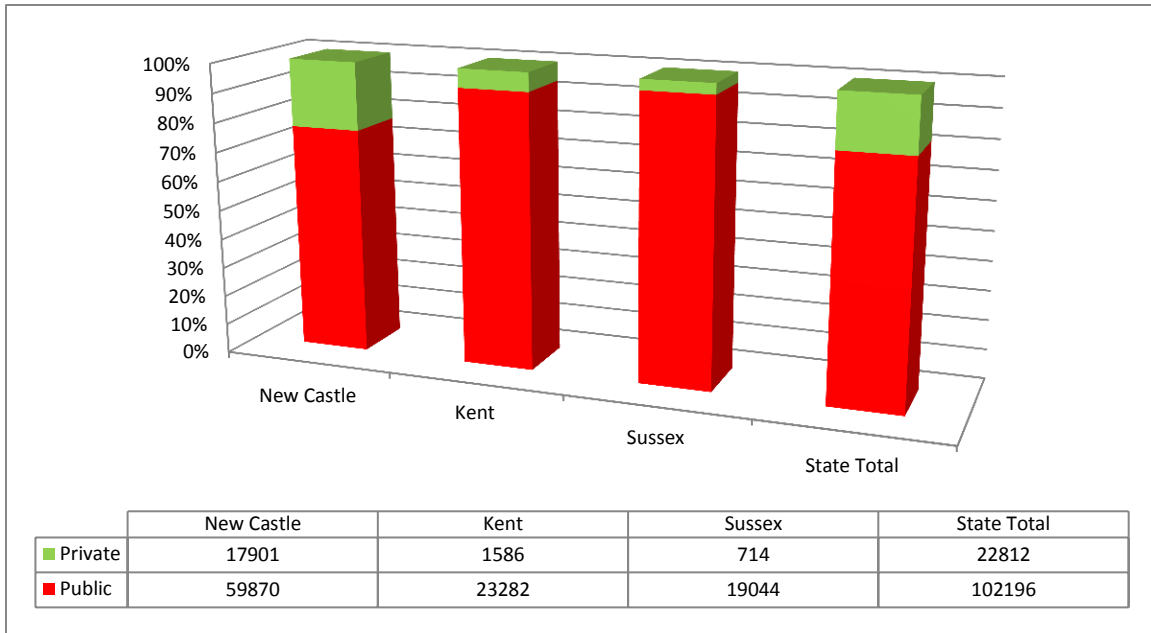
Public School Enrollment For Grades PK-12 By School District; 2011-2012 Common Core of Data

Note: N/A denotes not available or not applicable. National Center for Education Statistics

All districts increased enrollment over the 1991-92 to 2010-11 period, save Brandywine, Christina, Colonial and Seaford. Appoquinimink experienced the fastest growth: more than doubling its enrollment (see Table 4.0). Sussex Technical school district saw the next highest rate of growth at more than one hundred percent for the period.

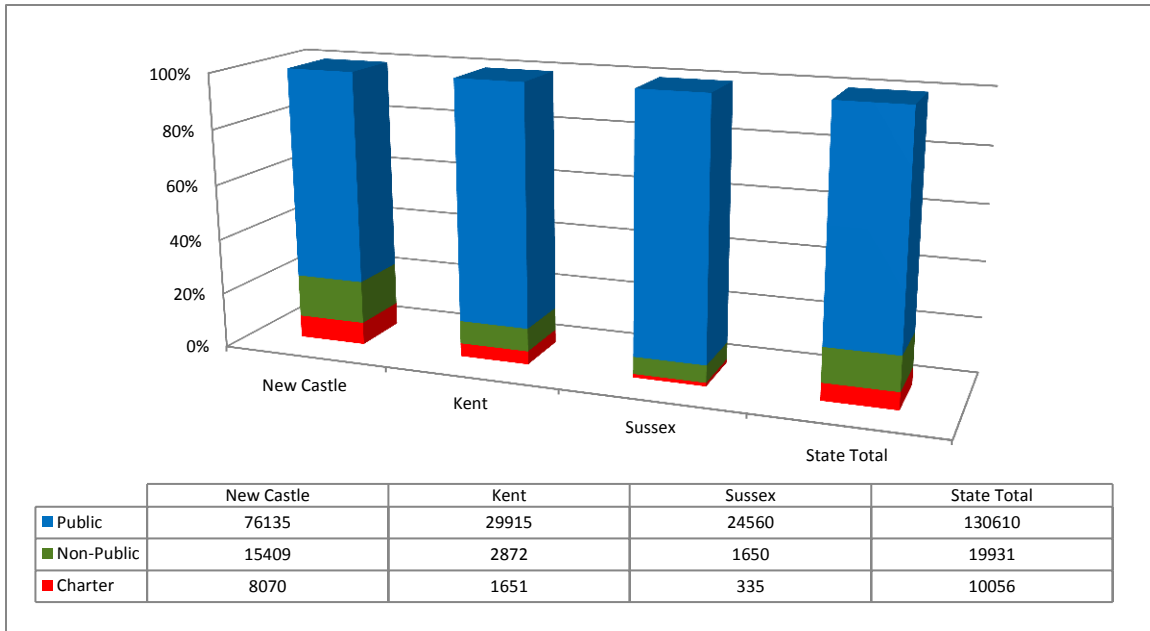
Over the 1998-99 to 2011-12 period, many more districts experienced declining enrollment in public schools, reflecting demographic shifts within the state as well as competition from Charter schools and private schools. Among the districts experiencing declining enrollment over the 1998-99 to 2010-11 period are Brandywine, Christina, Colonial, Capital, and Seaford.

FIGURE 4.2
ENROLLMENT BY COUNTY 1991-1992



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Education Statistics. Private school enrollment is reported by residence of pupil. An additional 3,154 pupils attend private school outside of Delaware.

FIGURE 4.3
ENROLLMENT BY COUNTY 2011-2012



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Delaware Public School Enrollment Trends January 2012 and Enrollment Report Non Public Schools in Delaware 2011-2012. Private and Charter school enrollment is reported resident district. No adjustment is made for resident pupils who attend private school outside of Delaware.

The preceding charts illustrate the composition of enrollment by county for the years 1991-1992 and 2011-2012. In New Castle County, seventy-seven percent of pupils attended public (non-Charter) schools in 1991-1992. By 2011-2012, this figure remained the same at 76%. The impact from charter schools has the potential to increase in the upcoming school years, as additional Charter schools open, and those in place expand to serve additional grade levels.

In Kent County, ninety-four percent of pupils attended public (non-Charter) schools in 1991-1992. By 2011-2012, this figure fell to eighty-seven percent. Driving this change is an increase in the proportion of students in private schools (which increased from six percent to eight percent) and the emergence of Charter schools (which comprise five percent of total pupils in the county in 2011-2012).

TABLE 4.1
DISTRICT ENROLLMENT BY SCHOOL TYPE

School District	1991-1992			2011-2012					
	Total Private	Public Students Enrolled	Private % of Total Students	Total Private	Public Students Enrolled	Charter School Enrollment	Charter % of Total Students	Private % of Total Students	Total all Public (incl. Charter) and Private School
Appoquinimink	407	2,623	13.40%	1,323	9,433	607	5.34%	11.64%	11,363
Brandywine	3,814	11,125	25.50%	2,811	10,801	1,187	8.02%	18.99%	14,799
Christina	4,245	17,730	19.30%	3,847	16,848	2,209	9.64%	16.80%	22,904
Colonial	1,978	9,674	17.00%	1,565	9,855	1776	13.46%	11.86%	13,196
Red Clay	7,457	14,017	34.70%	4,698	16,103	2,488	10.68%	20.17%	23,289
Caesar Rodney	391	5,040	7.20%	531	7,632	125	1.51%	6.41%	8,288
Capital	737	6,247	10.60%	843	6,273	838	10.54%	10.60%	7,954
Lake Forest	127	3,345	3.70%	154	3,908	0	0.00%	3.79%	4,062
Milford	175	3,706	4.50%	223	4,155	0	0.00%	5.09%	4,378
Smyrna	156	3,042	4.90%	288	5,116	688	11.29%	4.73%	6,092
Cape Henlopen	62	3,931	1.60%	333	4,845	0	0.00%	6.43%	5,178
Delmar	27	600	4.30%	9	1,309	0	0.00%	0.68%	1,318
Indian River	106	6,526	1.60%	289	8,871	335	3.53%	3.04%	9,495
Laurel	141	2,088	6.30%	83	2,171	0	0.00%	3.68%	2,254
Seaford	150	3,479	4.10%	99	3,460	0	0.00%	2.78%	3,559
Woodbridge	228	1,690	11.90%	186	2,260	0	0.00%	7.60%	2,446
Total	20,201	94,863	17.60%	17,282	130,610	10,253	6.93%	11.69%	147,892

Source: Center for Applied Demography and Survey Research and Delaware Department of Education, School District Profiles, Enrollment for Public Schools and Enrollment Report Non Public Schools in Delaware 2011-2012 (Students Who Reside in the District)Public and private enrollment is reported by place of residence (out of state private school enrollment excluded). Charter school enrollment is reported by location of school, not district of residence. Vocational/technical schools not shown and not included in totals.

Sussex County experienced a similar decrease in the proportion of students enrolled at public schools. Public (non-Charter) enrollment fell from ninety-six percent to ninety-two percent. Simultaneously, private enrollment's share rose from three percent to six percent, and Charter school enrollment comprised one percent.

All counties experienced growth in total numbers of students. However, with the expansion of school choice, the mix of students attending public, private, or Charter schools altered.

Enrollment has direct bearing on the level of state funding received by school districts in that it generates funding units from the state.¹⁸ Districts then allocate these funds across schools. A '98 percent rule'¹⁹ exists that requires schools to receive 98 percent of the funding they generate through enrollment. School districts can waive this rule only through a public hearing.

Examining the public/private/charter mix at the district level is hazardous. Students may attend private and charter schools irrespective of the school district residency. For example, an increase in enrollment in a private or charter school in Brandywine school district does not necessarily imply that all the additional students are residents of Brandywine School District.

¹⁸ For a detailed description, see <http://www.cadsr.udel.edu/DOWNLOADABLE/DOCUMENTS/Education%20Finance.pdf>

¹⁹ Title 14, Part I, Chapter 17, Section 1704 (4) and is as follows:

(4) Each local school board shall allocate Division I units to schools in its district such that as of the last school day of October each school receives not less than 98% of the Division I units it generates as a result of the actual unit count. A local school board may waive this subsection after voting to waive it at a public meeting noticed for that purpose. Any local school board seeking such a waiver shall do so on or before December 1st of each year. Notice for such a meeting shall be placed in the local newspaper for 2 consecutive weeks before the meeting and shall be posted on the door of any school affected for the same time period, and a copy shall be sent to the principal, teacher association building representative, and Parent Teacher Organization/Parent Teacher Association parent leader of any affected school. The notice shall include the procedures for such persons to provide oral or written comments on the proposed waiver to the local school board. Notice of any approved waiver shall be sent to the same persons. (47 Del. Laws, c. 364, 2E; 48 Del. Laws, c. 250, 1; 14 Del. C. 1953, 1704; 49 Del. Laws, c. 151; 56 Del. Laws, c. 310; 63 Del. Laws, c. 120, I 1, 3; 65 Del. Laws, c. 348, 274; 69 Del. Laws, c. 212, 1; 71 Del. Laws, c. 180, 103; 71 Del. Laws, c. 483, 1.)

It is important to recognize that school choice affects enrollments differently depending on grade level. Vocational/Technical schools typically serve grades nine through twelve. Charter schools vary in their service (see Table 4.2 below). Presently, only Campus Community School serves grades one through twelve. In New Castle County, the Charter School of Wilmington, the Delaware Military Academy, Delaware Academy for Public Safety and Security and The New Maurice J. Moyer Academy serve high school grades. These Charter Schools have been in operation for a number of years now, and their initial effect on public enrollment will become apparent as more years of data are added.

TABLE 4.2
DELAWARE CHARTER SCHOOLS

Charter School	Location	School District	Opened	Grades Served
Academy of Dover Charter School	Dover	Capital	2003	K-4
Campus Community	Dover	Capital	1998	1-12
Charter School of Wilmington	Wilmington	Red Clay	1996	9-12
Delaware Academy for Public Safety and Security	Wilmington	Colonial	2011	9
Delaware College Preparatory Academy	Wilmington	Red Clay	2008	K-4
Delaware Military Academy	Wilmington	Red Clay	2003	9-12
East Side Charter School	Wilmington	Colonial	1997	K-8
Family Foundations Academy	New Castle	Colonial	2006	K-8
Gateway Lab School	Wilmington	Red Clay	2011	3-8
Kuumba Academy Charter School	Wilmington	Christina	2001	K-5
Las Americas Aspira Academy	Wilmington	Christina	2011	K-8
The New Maurice J. Moyer Academy	Wilmington	Brandywine	2012	6-12
MOT Charter School	Middletown	Appoquinimink	2002	K-8
Newark Charter School	Newark	Christina	2001	K-8
Odyssey Charter School	Wilmington	Red Clay	2006	K-5
Pencader Business and Finance	New Castle	Colonial	2006	9-12
Positive Outcomes Charter School	Camden	Caesar Rodney	1996	7-12
Prestige Academy	Wilmington	Christina	2008	5-8
Providence Creek Academy	Clayton	Smyrna	2002	K-8
Reach Academy for Girls	Claymont	Brandywine	2010	K-7
Sussex Academy of Arts and Sciences	Georgetown	Indian River	2000	6-8
Thomas A. Edison Charter School	Wilmington	Brandywine	2000	K-8

Source: Center for Applied Demography and survey Research and

<http://www.doe.k12.de.us/infosuites/schools/charterschools/listofDECS/list.shtml> through April 2012

EXPENDITURES

The annual Education Statistics report, a joint publication of the State Board of Education and Department of Education is the primary source for district-level expenditure data. The most recent data covers the 2009-2010 school year.

There are several questions that need to be addressed when examining the financing of public education. How have funds been allocated in the past? How is new funding allocated? How are school staff allocated across public school functions? To answer these questions, a series of expenditure and staff measures are used.

Per pupil expenditures are used to aid the comparability between districts. Utilizing a seventeen-year time horizon helps to smooth any year-to-year volatility in expenditures. Removing monetary inflation from the expenditures creates real (inflation-adjusted) expenditure levels. This will indicate whether there was real growth in resources to public education.

The effect of inflation on the costs of purchasing inputs absorbs a substantial portion of the increased public education expenditures. Between 1991-1992 and 2009-2010, current public education expenditures in the state (from all sources) rose from \$572 million to over \$1.5 billion, an increase of approximately 150%. During the same period, inflation grew 39%. Therefore, in inflation-adjusted terms, expenditures rose approximately \$463 million (81%).

Table 5.0 illustrates the allocation of school-district spending across expenditure categories in 1992, the allotment of the increase in real per-pupil spending that occurred over the period in dollar terms, and as a percentage of total real per-pupil increase, and finally the apportionment of the share of total spending in 2000-01. On average, school districts spent an additional \$7,035 per pupil between 1991-2009. All categories received more inflation-adjusted dollars per pupil in 2009-10 than was the case in 1991-1992. For certain categories, there is a marked difference between 1991-1992 and 2009-2010 spending levels.

TABLE 5.0
ALLOCATION OF EXPENDITURE INCREASE, 1992-1993 TO 2009-2010, AVERAGE OF
DISTRICTS

	Share of 1992 total (%)	Real per pupil increase in expenditures (\$), 1992-1993 to 2009-10	Share of the change	Share of 2009-10 total
Net Instruction	61.8%	3893	55.3%	58.3%
Student Support	4.6%	363	5.2%	4.9%
Instructional Staff	1.4%	49	.7%	1.0%
General Administration	1.3%	74	1.0%	1.1%
School Administration	5.7%	357	5.1%	5.4%
Operations and Maintenance	9.5%	712	10.1%	9.8%
Student Transportation	6.3%	392	5.6%	5.9%
Other Support	7.4%	840	11.9%	9.9%
Food Services	2.0%	355	5.0%	3.6%
Net Current Expense	100.0%	7035	100.0%	100.0%

Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Education Statistics 2009-2010. Figure 56, 34 & 38 Charter schools not included.

The first column of Table 5.0 shows each category's share of 1992-1993 current expenditures. Net instruction received the largest share of current expenditures in 1992-1993 (62%). The second column of Table 5.0 reports the increase in inflation adjusted per-pupil increase in expenditures from 1992-1993 to 2009-2010. Column three reports the share of the change in real per-pupil expenditures, and column four, the share of 2009-2010 total expenditures.

The data show that instructional expenditures comprise about 58.3 percent of the operating budget, decreasing slightly from 61.8 percent in 1992 to 58.3 percent in 2009-2010. Thus, as schools utilized additional expenditures, more funds were directed towards the instruction category. The share of real per-pupil expenditures on student support and instructional staff support remain unchanged over the period. The data also show what have become typical expenditure distribution patterns: about 6 percent for student and instructional support, 1.1 percent for district administration, 5.4 percent for site administration, 9.8 percent for operations and maintenance, and about 19.4 percent for transportation, food, and other services.

General administrative costs received a relatively small share of new real per-pupil expenditures. This lowered their share of 2009-2010 expenditures to 1.1 percent. School administration costs received a smaller share of new real per-pupil expenditures than their 1992-1993 allocation, falling to 5.4 percent.

Operations and maintenance took up a large share of the new real per-pupil expenditures over the period, raising the share of total expenditures to about 9.8%. Student transportation's share of total current expenditures in 2009-2010 is less than fifteen years ago, decreasing to 5.9%. Other support and food services' share of net current expenses also increased.

Operations and maintenance's share of current expenses continues to grow and student transportation, other support services, and food services each comprise a small share of net current expenses.

Since education services are organized by local education systems-school districts-and provided in schools and classrooms, statewide expenditure patterns need to be disaggregated to these lower levels.

Translating these broad expenditures into staffing patterns is the next step in analyzing what happens to the education dollar (Table 5.1). The DOE's report of Educational Statistics differentiates between general administration, school administration, and specialists.²⁰

Administrators do not appear to represent a large portion of the total staffing. District, or central

²⁰ Specialists may fall into either general or school administration categories. However, it is not possible to allocate these staff into either general or school administration categories due to insufficient information.

office, administrators total 7.64 percent, in the case of Sussex Technical, and 5.66 percent in the case of Appoquinimink.

The highest rate for school administration is in Polytech (7.8 percent), and lowest is in Cape Henlopen (3.36 percent). Combined, general and school support comprised a total of 6.7 percent in the state, on average. This surpasses the national average of 4 percent in 2000-2001.

The table shows that teachers as a percentage of staffing by district ranges from 46.84 percent (Cape Henlopen) to 59.533 percent (Appoquinimink). Teacher aides range from 2.42 percent of staff (Cape Henlopen) to 7.79 percent (Woodbridge). Collectively, teachers and teacher aides account for two-thirds of district staff.²¹ About one-third of staff performs administrative roles, such as secretaries, operation, maintenance, and transportation personnel. When questioning why only 60 percent of expenditures are spent on instruction, one answer is that operations, maintenance, transportation, and administration account for nearly a third of public school expenditures.

²¹ These data reflect staffing from all funding sources: Federal, State, and local.

TABLE 5.1
STAFF EMPLOYED IN PUBLIC SCHOOLS, 2011-2012 (PERCENT DISTRIBUTION)

	Administration (%)	Classroom Teacher (%)	Instructional Support (%)	Pupil Support (%)	Skilled and Service Worker (%)	Total (%)
ACADEMY OF DOVER	2.56	46.15	0.00	10.26	41.03	100.00
CAESAR RODNEY	3.87	51.67	5.44	4.50	34.52	100.00
CAMPUS COMM	7.69	60.00	1.54	6.15	24.62	100.00
CAPITAL	4.07	54.87	5.67	5.18	30.21	100.00
LAKE FOREST	5.73	56.17	4.63	3.74	29.74	100.00
MILFORD	5.29	56.03	2.96	4.23	31.50	100.00
POLYTECH	7.80	60.99	5.67	4.96	20.57	100.00
POSITIVE OUTCOMES	7.14	50.00	3.57	3.57	35.71	100.00
PROVIDENCE CREEK	6.25	65.63	4.69	0.00	23.44	100.00
SMYRNA	5.51	51.92	4.34	3.51	34.72	100.00
APPOQUINIMINK	5.66	59.53	5.05	4.43	25.33	100.00
Aspira Academy	14.29	76.19	0.00	4.76	4.76	100.00
BRANDYWINE	6.84	54.89	4.12	3.16	30.98	100.00
CHRISTINA	4.01	47.92	4.76	6.29	37.02	100.00
CHRT SCH WILM	10.29	69.12	7.35	1.47	11.76	100.00
COLONIAL	4.90	54.20	6.38	5.68	28.85	100.00
Del Acad Public Safety	9.09	72.73	0.00	9.09	9.09	100.00
DEL COLLEGE PREP	4.55	86.36	4.55	4.55	0.00	100.00
DELAWARE MILITARY ACADEMY	9.52	59.52	19.05	2.38	9.52	100.00
EAST SIDE	12.24	57.14	6.12	6.12	18.37	100.00
FAMILY FOUNDATION	7.94	65.08	0.00	9.52	17.46	100.00
Gateway Charter	14.29	71.43	0.00	9.52	4.76	100.00
KUUMBA	13.79	62.07	0.00	3.45	20.69	100.00
MOT	6.06	57.58	1.52	3.03	31.82	100.00
MOYER ACADEMY	13.04	52.17	4.35	17.39	13.04	100.00
NCC VOTECH	6.12	58.67	4.42	2.38	28.40	100.00
NEWARK CHARTER	5.00	60.00	4.17	5.00	25.83	100.00
ODYSSEY CHARTER	4.55	86.36	2.27	4.55	2.27	100.00
PENCADER CHARTER HIGH	8.11	78.38	0.00	2.70	10.81	100.00
PRESTIGE ACADEMY	13.33	66.67	3.33	3.33	13.33	100.00
REACH ACADEMY	5.00	80.00	0.00	0.00	15.00	100.00
RED CLAY	6.19	53.39	6.99	4.43	28.99	100.00
THOMAS EDISON	8.33	54.76	2.38	4.76	29.76	100.00
CAPE HENLOPEN	3.36	46.84	2.42	5.52	41.86	100.00
DELMAR	5.34	58.02	3.82	3.82	29.01	100.00
INDIAN RIVER	4.31	54.22	4.13	4.77	32.57	100.00
LAUREL	6.30	52.76	3.94	2.76	34.25	100.00

SEAFORD	4.37	51.26	5.75	4.14	34.48	100.00
SUSSEX ACADEMY	4.55	68.18	0.00	4.55	22.73	100.00
SUSSEX TECHNICAL	7.64	54.14	5.10	4.46	28.66	100.00
WOODBIDGE	4.22	49.03	7.79	4.55	34.42	100.00
State	5.24	53.68	4.94	4.68	31.45	100.00

Source: Delaware Department of Education, Detailed Education Personnel Reports

The major portion of the education budget goes towards spending on instruction; but a large portion of instructional expenditures occurs outside the regular classroom on services for special-needs students. Districts also provide a host of non-education services. Districts run buses, heat and clean buildings, serve meals, and administer a complex system. The result is that only a small portion of the education dollar goes towards regular education instruction.

The proportion of 60 percent spent on instruction is quite consistent across the districts, and is corroborated by figures from national studies. Research examining spending across a number of different district characteristics, including spending level, rural and urban location, high and low percentages of minority students, as well as students from low-income families, shows that spending patterns are remarkably consistent. The proportion of spending on instruction varied from about 47 to 60 percent for all of the districts in Delaware.

TABLE 5.2
DELAWARE PUBLIC SCHOOLS
EXPENDITURES BY FUNCTION BY LEVEL OF ENROLLMENT.

Component of Current Expenditures	Level of Enrollment		
	Low	Medium	High
Net Instruction	63%	66%	63%
Students Support	6%	5%	4%
Instructional Staff Support	2%	1%	1%
General Administration	1%	1%	1%
School Administration	6%	6%	6%
Operations and Maint.	10%	10%	12%
Student Transportation	6%	6%	6%
Other Support	5%	4%	6%
Food Services	1%	1%	1%
Net Current Expense	100%	100%	100%

Excludes Vocational Districts. 2009-2010 Table 38 and 34 Report of Education Statistics. Low enrollment is less than 5,000 students. Medium enrollment is between 5,000 and 10,000 students. High enrollment is greater than 10,000 students.

Table 5.2 arranges average district expenditures by level of enrollment. The allocation of expenditures has a level of stability across all district sizes. Net instruction receives 63 to 66 percent of expenditures on average. Student support and instructional support comprise 8 percent of expenditures in low enrollment districts compared to 5 percent in high enrollment districts. General administration consumes 1 percent in small, medium and high enrollment districts. Operations and maintenance comprise 10-12 percent across the three district size classes.

Table 5.3 presents expenditure data by school district, categorized by level of spending (quartiles). Net instruction comprises 65 percent of expenditures in low spending districts. This compares with 64 percent in high spending districts. Nevertheless, high spending districts spent 35 percent more on instruction per pupil (\$8,644 versus \$6,391²²). This infers that as per pupil expenditures rise, expenditures per category rise in unison. In general, the pupil/teacher ratios have relative uniformity across the districts. Thus, differences in spending on teachers reflected primarily through the differences in teacher salary levels.

²² 2009-2010.

TABLE 5.3
DELAWARE PUBLIC SCHOOLS
EXPENDITURES BY FUNCTION BY LEVEL OF SPENDING

Component of Per Pupil								
Expenditures	1st quartile		2 nd quartile		3rd quartile		4 th quartile	
Net Instruction	6,391	65%	6,721	64%	7,055	62%	8,644	64%
Students	494	5%	411	4%	667	6%	840	6%
Instructional Staff	114	1%	137	1%	88	1%	243	2%
General Administration	189	2%	116	1%	173	2%	151	1%
School Administration	616	6%	626	6%	643	6%	743	5%
Operations and Maint.	956	10%	1,122	11%	1,213	11%	1,390	10%
Student Transportation	551	6%	654	6%	757	7%	771	6%
Other Support	402	4%	549	5%	632	6%	671	5%
Food Services	101	1%	100	1%	110	1%	126	1%
Net Current Expense	9,814	100%	10,437	100%	11,337	100%	13,578	100%

Excludes Vocational Schools, special schools. Report of Educational Statistics 2009-2010 Table 38 and Table 34

Table 5.4 illustrates the change in the share of current expenditures per-pupil 1991-1992 to 2009-2010. As current expenditures rise, Appoquinimink spent a larger share on net instruction (11%) and less on operations and maintenance and other support (-9% and -8% respectively).

TABLE 5.4
CHANGE IN CURRENT EXPENDITURE SHARES 1999-2000 TO 2009-2010
INSTRUCTION AND SUPPORT SERVICES

District	Net Instruction	Students	Staff	Instruct. Admin.	General Admin. & Maint.	School Operation	Student Trans.	Other Support	Food Services	Net Current Expense
NEW CASTLE COUNTY										
Appoquinimink	11%	0%	0%	0%	4%	-9%	1%	-8%	0%	0%
Brandywine	-5%	1%	-1%	0%	1%	2%	0%	4%	-1%	0%
Christina	-2%	1%	-1%	0%	-1%	1%	2%	0%	0%	0%
Colonial	-5%	0%	1%	0%	1%	2%	0%	1%	0%	0%
New Castle Voc-Tech	0%	0%	-1%	0%	0%	-1%	1%	1%	0%	0%
Red Clay	-1%	0%	0%	0%	1%	-1%	0%	0%	0%	0%
COUNTY TOTALS	-1%	1%	0%	0%	1%	0%	1%	0%	0%	0%
KENT COUNTY										
Caesar Rodney	0%	0%	0%	-1%	0%	-1%	1%	0%	0%	0%
Capital	2%	1%	-2%	0%	-1%	2%	0%	-2%	0%	0%
Polytech	4%	-1%	-1%	0%	0%	-2%	0%	-1%	0%	0%
Lake Forest	-3%	3%	0%	-1%	0%	1%	2%	-2%	0%	0%
Milford	-1%	1%	-1%	0%	0%	0%	2%	0%	-1%	0%
Smyrna	0%	-1%	0%	0%	-1%	0%	1%	1%	0%	0%
COUNTY TOTALS	0%	0%	-1%	0%	0%	0%	1%	-1%	0%	0%
SUSSEX COUNTY										
Cape Henlopen	2%	0%	0%	-1%	0%	-1%	0%	0%	0%	0%
Delmar	-1%	2%	1%	-1%	0%	2%	-1%	0%	-1%	0%
Indian River	0%	0%	-1%	0%	1%	0%	1%	-1%	-1%	0%
Laurel	0%	1%	0%	0%	-1%	0%	0%	0%	1%	0%
Seaford	2%	2%	0%	0%	0%	-7%	1%	2%	0%	0%
Sussex Technical	3%	0%	0%	0%	0%	-1%	0%	-2%	0%	0%
Woodbridge	2%	2%	-2%	-1%	1%	0%	-1%	-1%	0%	0%
COUNTY TOTALS	1%	1%	0%	0%	0%	-2%	0%	0%	0%	0%

CHARTER TOTALS	-2%	2%	-2%	-7%	1%	2%	2%	0%	0%	0%
TOTAL ALL DISTRICTS	-1%	1%	0%	0%	0%	0%	1%	0%	0%	0%
Department of Education	0%	0%	0%	0%	0%	0%	-4%	4%	0%	0%
TOTAL ALL DISTRICTS, STATE	-2%	4%	0%	0%	0%	0%	0%	0%	0%	0%

Report of Educational Statistics 2009-2010 Table 38 & 1999-2000 Table 35,

Excludes special schools and data centers

Summary

Instruction receives 66 percent of per pupil spending on average.

Staffing levels reveal some degree of variation across districts. The percent of staff listed as teachers ranges from Woodbridge with 49 percent, to Appoquinimink with 63 percent.

District administration staff as a percentage of total staff tend to be lower in larger districts, which suggests economies of scale.

All ranges of school districts including low, medium and high enrollment districts spend one percent on current general administration expenditures.

There is little evidence that larger districts dedicate a greater share of expenditures for instruction than smaller districts. The four districts with enrollment greater than 10,000 spend 63% of current expenditures on net instruction. The districts with between 6,000 and 9,000 students enrolled spend 66% on net instruction while the districts with less than 5,000 students enrolled spend 63% of their budget on net instruction.

ADMINISTRATIVE COSTS

A central point of focus for this study is the administrative costs for each school district. The Delaware Department of Education identifies two branches of administrative expenses.

General Administration: Chief School Officers, Assistant Superintendents, Administrative Assistants, and Clerical.

School Administration: Principals, Assistant Principals, and Clerical.

Although not labeled as administrative costs, some activities that could be considered administration are reported as other support services. The definition of other support services is: directors of administration, support specialists, support supervisors, and administrative assistants and clerical staff not classified as general or school administration. The Delaware Department of Education distinguishes between school administration and other support services on the basis that the former is concerned with policies and procedures, while the latter is concerned with the general operation of the school.

School districts earn administration units on the following basis:

TABLE 6.0
UNITS AND PROFESSIONAL STAFF

Employee	Units
Superintendent	1 for every district
Assistant Superintendent	1 per 300 units per district, but not to exceed a total of 2 per district
Principals	1 per 15 or more units per district
Assistant Principals	1 per 30 units with 1 additional assistant added at 55 units. After 55 units, one assistant principal may be employed per every 20 additional units beyond the first 55 units.
Driver Education Specialists	1 per each 125 10 th grade students or 1/5 of a teacher for every 25 10 th grade students

Directors	1 per the first 200 units and 1 for each additional full 100 units, not to exceed a total of 6 per local district
Administrative Assistants	1 per local school district
Supervisors	1 per 150 units. Districts with not enough units will receive a fractional part of the first supervisor
Supervisors of Transportation	1 per 7,000 or more pupils transported
Supervisors of School Lunch (a)	1 per district with less than 500 units having 4 or more schools with lunch programs
Supervisors of School Lunch (b)	1 in any district having 500 units or more. Also, each district shall employ additional supervisors so that the ratio is 1 to 300 units; in which the additional supervisors are paid from receipts of cafeteria funds.
Supervisors of Buildings and Grounds	1 per district if the district has 95 or more building units
Clerical (Section 1308 (a))	1 per 10 units up to the first 100 units and 1 additional for each additional 12 units
Custodial	1 per 12 building units (building units based on space, not units of pupils)
Cafeteria Managers	1 per cafeteria
Cafeteria Workers	1 worker for 7 hours for every 100 meals
Class Aides	2—in lieu of teachers in some education settings ILC

Clearly, school and district enrollment units play a role in the funding of administrative staff. The more units a school and district generate, the more state funding they receive. There is an incentive, therefore, for districts and schools to organize in such a way as to maximize their unit allotments. A unit generates funding based on the state salary scale, where funds vary with education and experience. The state funds then are supplemented with local revenue funds.

Regardless of district size, there must be provisions for a superintendent (the statewide average superintendent salary is \$130,860), along with an administrative assistant. A school principal is funded per 15 units, for which all schools qualify. Enrollment units earn additional assistant principals and assistant superintendents for a district.

Accruing the necessary units for an assistant principal depends on school size. A 500-student high school will earn a $\frac{1}{2}$ assistant principal. A further 100 high school students, will earn a full assistant principal. To earn a further $\frac{1}{2}$ assistant principal requires a high school of 1,000 regular students. Those districts with preferences for smaller schools may therefore be at a disadvantage in accruing the necessary units to qualify for state funding of these positions.

The following series of charts illustrates the general administration and school administration costs per pupil per district.

Within each of these accounts, there are the following sub-accounts:

- Salaries
- Benefits
- Contracted Services
- Supplies
- Capital Outlay
- Other

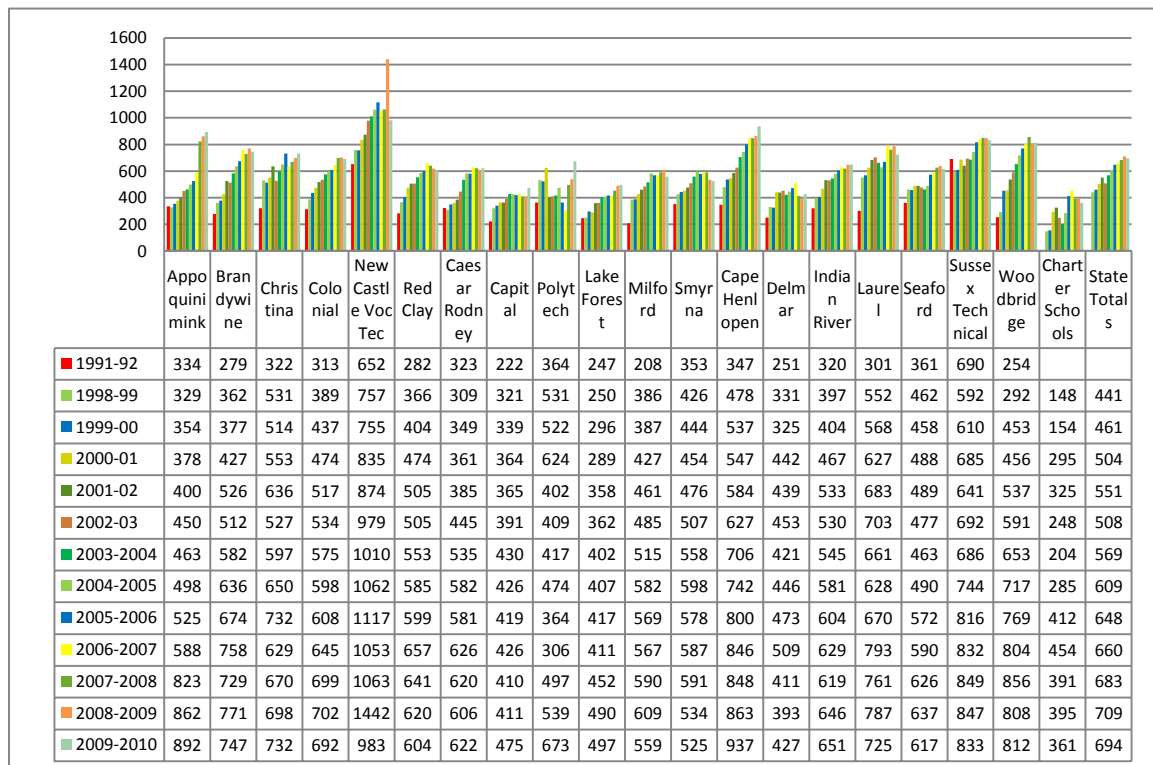
Adjusting administrative costs to per pupil levels aids the inter-district comparisons (see Chart 3.1 below). Among the districts with higher school administrative expenses per pupil are the Vocational/Technical districts. This can be attributed to their relatively large budgets and small enrollment count of only high school aged students.

School Administration

Each district spent more on school administrative costs per pupil in 2009-2010 than 1998-99 save Polytech.

FIGURE 5.0

SCHOOL ADMINISTRATIVE EXPENSES PER PUPIL BY DISTRICT



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009-2010, Table 34 and Table 38.

. Cape Henlopen and New Castle Vo-Tech are among the highest spenders on school administration expenses per pupil. New Castle Vo-Tech spent \$983 per pupil on administrative costs in 2009-2010 and Cape Henlopen spent \$937 per pupil. Appoquinmink, has school administration expenses per pupil greater than \$800. Delmar, itself a relatively small district with just over 12,000 enrollment, has one of the lowest school administrative expenses per pupil at just \$427. Charter schools spend \$615 per pupil on school administration.

Compared to other large enrollment districts such as Christina, Brandywine, and Colonial, Red Clay has relatively low school administration expenses per-pupil. Red Clay and Christina's middle and high schools average enrollments are the largest of any district. While this translates into school administration costs being spread over a large number of pupils, it also suggests that the schools generate many units with which to hire administrative staff.

TABLE 6.1
TOTAL SCHOOL ENROLLMENT BY DISTRICT AND GRADE 2011-2012

	Grade 1-6	Grade 7-8	Grade 9-12	Pre-K & KN
CAESAR RODNEY	3,517	1,258	2,157	700
CAPITAL	3,138	941	1,617	577
LAKE FOREST	1,909	641	899	459
MILFORD	1,934	646	1,154	421
POLYTECH			1,180	
SMYRNA	2,412	838	1,387	479
APPOQUINIMINK	4,509	1,493	2,713	718
BRANDYWINE	4,939	1,667	3,243	952
CHRISTINA	8,518	2,536	3,929	1,865
COLONIAL	5,116	1,754	2,035	950
NCC VOTECH			4,759	
RED CLAY	7,974	2,817	3,839	1,473
CAPE HENLOPEN	2,361	642	1,382	460
DELMAR	327	346	632	4
INDIAN RIVER	4,354	1,292	2,228	997
LAUREL	1,090	328	506	247
SEAFORD	1,812	478	795	375
SUSSEX TECHNICAL			1,309	
WOODBIDGE	1,106	349	592	213

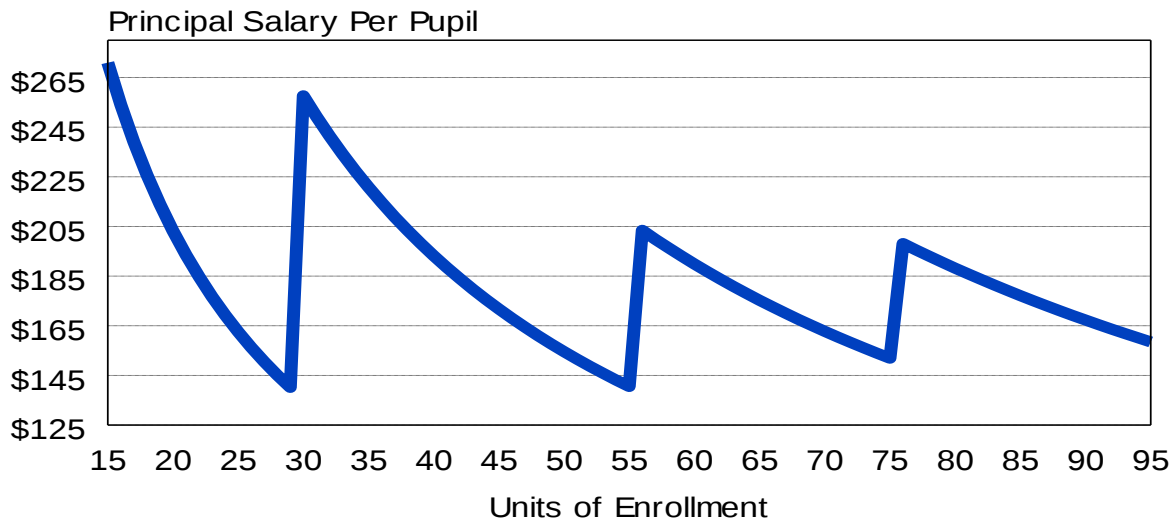
Source: Delaware Department of Education Detailed Enrollment Report through 2012. Charter schools and special schools excluded.

For a school district to receive additional financial support for school administrators above the core level of one principal and administrative assistant, the district must have schools with large enrollments in order to generate funding units. Small schools must always spend a certain floor amount on administration costs, thus their per pupil costs may appear to be greater than schools of medium to large enrollment size that have more students over which to spread the costs. For the smallest schools, rising enrollment works to lower school administration per pupil expenditures. However, once the enrollment level generates enough units to fund another

administrator, the amount of total school administration expenses increases accordingly, raising the per pupil expenses while decreasing the number of pupils per administrator. Thus, the per pupil school administration expense rate declines as enrollment increases until the level when another unit is generated, at which point the process repeats itself as seen in Figure 5.1 below.

FIGURE 5.1

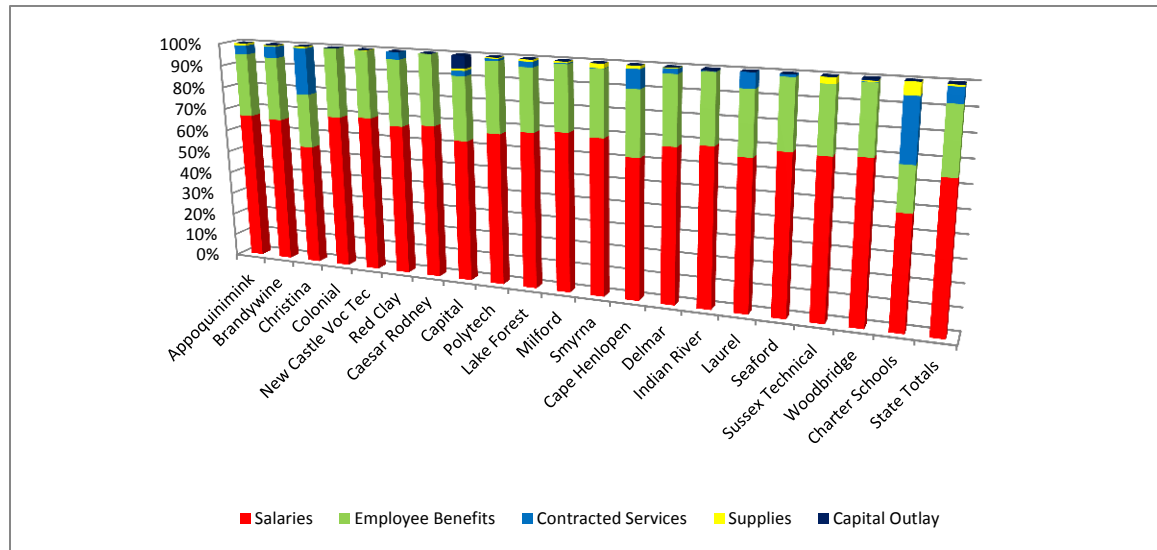
TOTAL PRINCIPAL SALARY PER PUPIL OF ENROLLMENT



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 1999-2000. State average principal and vice-principal salary used in calculations (Table 20). One unit equals twenty enrolled students.

FIGURE 5.2
SCHOOL ADMINISTRATIVE EXPENSES BY DISTRICT

School Administrative Expenses 2009-2010



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009-2010, Table 43.

Figure 5.2 shows the share of school administration expenses by category. Salaries and benefits comprise the majority of administrative expenses. There is not a large degree of variation across many districts. In general, districts' salaries and benefits comprise over 90 percent of school administration costs. However, one example of divergence occurs within the spending on contracted services between the districts. Charter schools spend about 16% of their school administration costs on contracted services. Among regular districts at the high-end, Christina spent 44%, and at the low end Ceaser Rodney, Polytech, Milford, Smyrna, Delmar, Indian River, Seaford, Sussex and Woodbridge spent nothing on contracted expenses during 2009-2010. This impacts the amount spent by each district on other categories, such as salaries and employee benefits. Aside from charter schools, Christina and New Castle Vocational Technical School spend the lowest percentage of school administration expenditures on employee salaries in the state at about 57% and 49% respectively. All other districts spend between sixty-five and seventy percent on salaries. There are insufficient data to discern whether performing functions in-house rather than contracting is more costly, less efficient, or less flexible.

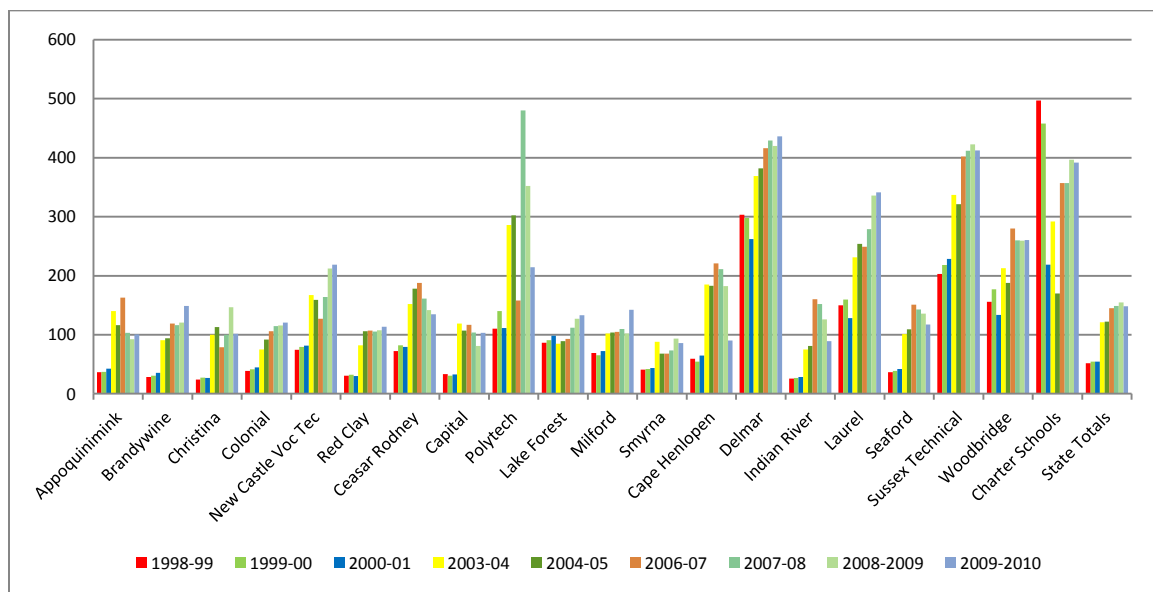
General Administration

General administrative expenses per pupil since 2008-2009 are rising in many districts including Appoquinimink, Brandywine, Colonial, New Castle Vo Tech, Red Clay, Capital, Lake Forest, Milford, Delmar, Laurel and Woodbridge. A handful of districts experienced lower general administrative costs per pupil from 2008-2009 to 2009-10 (Christina, Caesar Rodney, Polytech, Smyrna, Indian River, Seaford and Sussex Technical).

FIGURE 5.3

GENERAL ADMINISTRATIVE EXPENSES PER PUPIL BY DISTRICT

General Admin Salary Expenses Per Pupil



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009 – 2010, Table 34 and Table 42.

Figure 5.3 shows the rate and change of general administrative costs per pupil by district over the ten-year period between 1998-99 and 2009-10. The smaller districts that have low enrollment figures, such as Delmar and the vocational-technical districts, have the highest general administrative costs per pupil rates. This is due to the fact that all districts have the same basic allotment for general administration, no matter what their enrollment size happens to be, i.e. all districts have at least a superintendent and administrative assistant.

The following Figure (5.4) shows the composition of general administration costs by expenditure type. General administration salaries as a percentage of total general administrative costs vary greatly between districts. At one end of the spectrum, Brandywine spends approximately 35% of its general administrative costs on salaries. At the opposite end, Delmar and Woodbridge spends approximately 64%.

Employee benefits by district exhibit a relatively narrower range. At the low end, Brandywine dedicates 16% of general administrative costs to employee benefits. At the high end, Caesar Rodney allocates 31% of their general administrative costs to employee benefits.

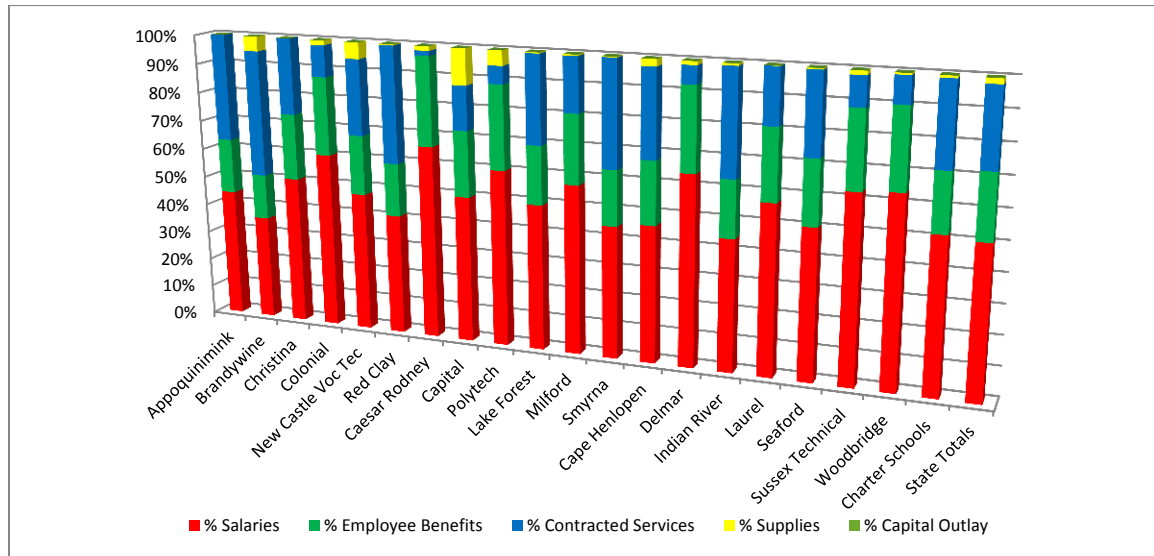
Contracted services exhibit a large degree of variation across districts. The range of contracted services expenditures as a percentage of general administrative costs is 2 percent (Caesar Rodney) to 44% (Brandywine).

A partial explanation for the degree of these variations may lie with the hiring practices of the districts. Some districts rely more heavily on in-house staff for certain activities rather than outsourcing to contracted services. This skews their expenditures towards salaries and away from contracted services. The converse may be true for districts that favor the use of contracted services over in-house employees.

FIGURE 5.4

GENERAL ADMINISTRATIVE EXPENSES BY DISTRICT

General Admin Expenses 2009-2010



Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009-2010 Table 42.

TABLE 6.2
GENERAL ADMINISTRATION COSTS, 2009-10
SHARE OF TOTAL GENERAL ADMINISTRATION COSTS

	Contracted			Capital		Other	Total
	Salaries	Benefits	Services	Supplies	Outlay		
Appoquinimink	44%	19%	37%	0%	0%	0%	906,294
Brandywine	36%	16%	44%	5%	0%	0%	1,524,696
Christina	51%	23%	26%	0%	0%	0%	1,645,075
Colonial	60%	27%	11%	2%	0%	0%	1,209,635
New Castle Voc-Tech	48%	20%	26%	6%	0%	0%	1,013,478
Red Clay	41%	18%	40%	0%	0%	0%	1,721,223
Caesar Rodney	66%	31%	2%	2%	0%	0%	896,645
Capital	50%	23%	15%	12%	0%	0%	646,025
Polytech	60%	29%	6%	5%	0%	0%	252,123
Lake Forest	50%	20%	30%	0%	0%	0%	513,229
Milford	57%	24%	19%	0%	0%	0%	580,584
Smyrna	45%	19%	36%	0%	0%	0%	415,646
Cape Henlopen	46%	21%	30%	2%	0%	0%	410,388
Delmar	64%	28%	6%	1%	0%	0%	497,279
Indian River	45%	19%	36%	1%	0%	0%	763,965
Laurel	57%	24%	19%	0%	0%	0%	735,333
Seaford	51%	22%	27%	0%	0%	0%	406,827
Sussex Technical	63%	26%	10%	1%	0%	0%	528,673
Woodbridge	64%	27%	9%	1%	0%	0%	529,663
Charter Totals	52%	20%	28%	1%	0%	0%	3,592,337
State	51%	22%	26%	2%	0%	0%	18,813,292

Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009-2010 Table 42.

TABLE 6.3
SCHOOL ADMINISTRATION COSTS, 2009-10
SHARE OF TOTAL SCHOOL ADMINISTRATION COSTS

	Salaries	Benefits	Contracted Services	Supplies	Capital Outlay	Other	Total (\$)
Appoquinimink	67%	28%	4%	1%	0%	0%	8,033,349
Brandywine	66%	28%	5%	1%	0%	0%	7,655,783
Christina	54%	24%	21%	1%	0%	0%	11,890,040
Colonial	69%	31%	0%	0%	0%	0%	6,935,682
New Castle Voc-Tech	70%	30%	0%	0%	0%	0%	455,408
Red Clay	67%	30%	3%	0%	0%	0%	9,153,342
Caesar Rodney	68%	32%	0%	0%	0%	0%	413,689
Capital	63%	28%	2%	1%	6%	0%	2,970,263
Polytech	67%	31%	1%	0%	0%	0%	792,339
Lake Forest	69%	28%	2%	1%	0%	0%	1,914,440
Milford	70%	29%	0%	1%	0%	0%	2,278,168
Smyrna	69%	29%	0%	2%	0%	0%	2,548,305
Cape Henlopen	62%	28%	8%	1%	0%	0%	4,271,626
Delmar	68%	30%	2%	0%	0%	0%	487,204
Indian River	69%	30%	0%	0%	1%	0%	5,584,951
Laurel	66%	28%	7%	0%	0%	0%	1,562,456
Seaford	69%	30%	1%	0%	0%	0%	2,137,834
Sussex Technical	69%	28%	0%	3%	0%	0%	1,068,741
Woodbridge	70%	29%	0%	1%	1%	0%	1,652,695
Charter Totals	49%	19%	26%	5%	0%	0%	3,315,763
State	64%	28%	6%	1%	0%	0%	88,046,630

Source: Center for Applied Demography & Survey Research, University of Delaware. State Board of Education and Delaware Department of Education, Report of Educational Statistics 2009-2010, Table 43.

TABLE 6.4
DELAWARE TEACHER SALARY STATE CONTRIBUTION, 1989-1990 TO 2009-2010

School Year	BA Exp	Yearly Increase \$	Yearly Increase %	Masters Exp	Yearly Increase \$	Yearly Increase %	Doctorate Exp	Yearly Increase \$	Yearly Increase %
1989-1990	\$14,789			\$16,858			\$19,226		
1990-1991	\$15,546	\$757	5.12%	\$17,722	\$864	5.13%	\$20,210	\$984	5.12%
1991-1992	\$15,546	\$0	0.00%	\$17,722	\$0	0.00%	\$20,210	\$0	0.00%
1992-1993	\$16,012	\$466	3.00%	\$18,254	\$532	3.00%	\$20,816	\$606	3.00%
1993-1994	\$16,332	\$320	2.00%	\$18,618	\$364	1.99%	\$21,232	\$416	2.00%
1994-1995	\$16,822	\$490	3.00%	\$19,177	\$559	3.00%	\$21,869	\$637	3.00%
1995-1996	\$17,327	\$505	3.00%	\$19,753	\$576	3.00%	\$22,525	\$656	3.00%
1996-1997	\$17,674	\$347	2.00%	\$20,148	\$395	2.00%	\$22,976	\$451	2.00%
1997-1998	\$18,204	\$530	3.00%	\$20,763	\$615	3.05%	\$23,665	\$689	3.00%
1998-1999	\$18,750	\$546	3.00%	\$21,375	\$612	2.95%	\$24,375	\$710	3.00%
1999-2000	\$19,313	\$563	3.00%	\$22,017	\$642	3.00%	\$25,107	\$732	3.00%
2000-2001	\$22,560	\$3,247	16.81%	\$25,718	\$3,701	16.81%	\$29,328	\$4,221	16.81%
2001-2002	\$23,134	\$574	2.54%	\$26,373	\$655	2.55%	\$30,074	\$746	2.54%
2002-2003	\$23,597	\$463	2.00%	\$26,901	\$528	2.00%	\$30,676	\$602	2.00%
2003-2004	\$23,597	\$0	0.00%	\$26,901	\$0	0.00%	\$30,676	\$0	0.00%
2004-2005	\$24,923	\$1,326	5.62%	\$28,325	\$1,424	5.29%	\$32,215	\$1,539	5.02%
2005-2006	\$25,422	\$499	2.00%	\$28,892	\$567	2.00%	\$32,860	\$645	2.00%
2006-2007	\$26,438	\$1,016	4.00%	\$30,047	\$1,155	4.00%	\$34,174	\$1,314	4.00%
2007-2008	\$26,967	\$529	2.00%	\$30,648	\$601	2.00%	\$34,857	\$683	2.00%
2008-2009	\$26,967	\$0	0.00%	\$30,648	\$0	0.00%	\$34,857	\$0	0.00%
2009-2010	\$26,276	(\$691)	-2.56%	\$29,863	(\$785)	-2.56%	\$33,964	(\$893)	-2.56%

Source: Center for Applied Demography & Survey Research, University of Delaware. Delaware Department of Education Salary Schedules 1989-2010.

Table 6.4 above shows the change in state salaries for three different education levels with no experience. The columns describe the base salary for Bachelor's degree no experience, the corresponding yearly increase in dollars, and the yearly percent increase. The same columns describe the master's degree holders and doctoral degree holders.

Each year a new state salary schedule is produced. The schedule describes the state salary payment for teachers at various levels of experience and education. The schedule also serves as a basis for non-teaching state such as superintendents, principals, and administrative staff. The salary schedule is constructed by first setting the salary for a zero experience, no degree teacher. From this value, all other values are calculated. The table above shows the growth in salaries of zero experience teachers at differing levels of education. Very quickly it can be discerned that the same rates of increase were applied at each education level since 1989-1990. The growth rate of teacher salaries during the nineties fluctuated between two and three percent during the nineties, matching the growth of prices for that time period. In nominal terms (non-inflation adjusted terms) salaries grew sixty percent. Inflation grew thirty percent over the period. In the 2000-2001 school year, salaries were raised significantly: seventeen percent. This increase was designed to improve the competitiveness of starting teacher salaries in Delaware vis-à-vis other states. Non-teaching staff salaries are driven by this same salary schedule. Interestingly, 2009-2010 was the first time since 1989-1990 that there was a decrease (three percent) in the state salary payment for teachers with no experience. The increase was applied across all education and experience levels. Superintendent salaries are based on experience, education, and the size of the district. The teacher salary schedule result is increased based on the district size per the table below. The larger of the amount or multiplier determines the superintendent's pay.

TABLE 6.5
SUPERINTENDENT SALARIES

# D1 Units	Amount	Multiplier
Less than 71	\$6,450	0.3
71-149	\$8,370	0.3
150-199	\$10,293	0.3
200-249	\$10,293	0.4
250-399	\$12,219	0.4
400 or More	\$12,219	0.5

Source: Center for Applied Demography & Survey Research, University of Delaware. The above amount or multiplier is applied to the salary schedule result whichever is larger.

Principal salaries follow a similar methodology, but are based on either the number of teachers or the number of Division I units, plus the principals, experience.

TABLE 6.6
PRINCIPAL SALARY SCHEDULE, NUMBER OF TEACHERS BASIS

Experience	# of Teachers in School				
	15-19	20-29	30-39	40-59	60+
0	\$851	\$1,101	\$1,350	\$1,726	\$2,103
1	\$1,101	\$1,350	\$1,601	\$1,976	\$2,352
2	\$1,350	\$1,601	\$1,851	\$2,228	\$2,602
3	\$1,601	\$1,851	\$2,103	\$2,478	\$2,853
4	\$1,851	\$2,103	\$2,352	\$2,728	\$3,103
5	\$1,969	\$2,246	\$2,518	\$2,930	\$3,341
6	\$2,079	\$2,378	\$2,671	\$3,116	\$3,560
7	\$2,183	\$2,502	\$2,816	\$3,292	\$3,767
8	\$2,373	\$2,702	\$3,025	\$3,516	\$4,005
9	\$2,563	\$2,902	\$3,234	\$3,740	\$4,243

Source: Center for Applied Demography & Survey Research, University of Delaware, Delaware Department of Education.

TABLE 6.7
PRINCIPAL SALARY SCHEDULE, NUMBER OF DIVISION 1 UNITS BASIS

Experience	# D1 Units		
	15-24	25-59	60+
0	0.08	0.09	0.1
1	0.09	0.1	0.11
2	0.1	0.11	0.12
3	0.11	0.12	0.13
4	0.12	0.13	0.14

Source: Center for Applied Demography & Survey Research, University of Delaware, Delaware Department of Education.

TABLE 6.8
ADMINISTRATIVE STAFF SALARY SCHEDULE 2009-2010

Years Experience	Clerk	Secretary	Senior Secretary	Financial Secretary	Admin Secretary
0	\$14,824	\$16,309	\$17,116	\$17,562	\$18,302
1	\$15,367	\$16,852	\$17,617	\$18,066	\$18,812
2	\$15,908	\$17,351	\$18,119	\$18,571	\$19,324
3	\$16,452	\$17,851	\$18,621	\$19,074	\$19,833
4	\$16,960	\$18,350	\$19,123	\$19,578	\$20,404
5	\$17,441	\$18,851	\$19,625	\$20,107	\$20,980
6	\$17,920	\$19,350	\$20,156	\$20,677	\$21,558
7	\$18,399	\$19,847	\$20,724	\$21,245	\$22,133
8	\$18,880	\$20,407	\$21,289	\$21,815	\$22,712
9	\$19,360	\$20,971	\$21,856	\$22,383	\$23,287
10	\$19,839	\$21,534	\$22,420	\$22,954	\$23,864
11	\$20,377	\$22,097	\$22,986	\$23,523	\$24,440
12	\$20,918	\$22,660	\$23,553	\$24,090	\$25,018
13	\$21,460	\$23,225	\$24,120	\$24,661	\$25,594
14	\$22,002	\$23,788	\$24,684	\$25,231	\$26,169
15	\$22,544	\$24,353	\$25,251	\$25,798	\$26,749
16	\$23,085	\$24,914	\$25,817	\$26,366	\$27,325
17	\$23,629	\$25,479	\$26,384	\$26,936	\$27,901
18	\$24,169	\$26,042	\$26,950	\$27,504	\$28,478
19	\$24,711	\$26,607	\$27,515	\$28,076	\$29,055
20	\$25,252	\$27,169	\$28,081	\$28,645	\$29,630
21	\$25,806	\$27,746	\$28,659	\$29,226	\$30,220
22	\$26,375	\$28,335	\$29,251	\$29,819	\$30,823
23	\$26,957	\$28,937	\$29,855	\$30,426	\$31,438
24	\$27,552	\$29,551	\$30,473	\$31,045	\$32,067

Source: Center for Applied Demography & Survey Research, University of Delaware. Delaware Department of Education

The state contribution for administrative assistants is provided in the table above. Like teacher salaries, administrative assistant salaries rise with experience and education.

Summary

General administration costs per pupil rose in many districts in Delaware. School administration costs per pupil increased in almost every district. Rising costs reflect increases in both number of staff and salaries.

School size plays an important role in school administration costs per pupil. Districts that opt for smaller schools have larger school administration costs per pupil than their larger-school counterparts.

When school enrollment level reaches a certain point, additional administrator units are generated, increasing the amount spent on administration per pupil. This rate then declines until another administration unit has been generated.

The increase in administration costs by district over the past decade gained momentum by salary increases first, and increases in the number of staff second.

UNIT ALLOCATION

This section considers the unit allocation by districts. Enrollment units are the link to state funding. By examining the pattern of these funding units by district, one can better understand district expenditures.

The following table shows the change in the total of regular and special units allotted to the individual school districts in thirteen and twenty year periods for both regular and special education.

TABLE 7.0
20-YEAR AND 13-YEAR CHANGE IN TOTAL REGULAR AND SPECIAL UNIT
ALLOTMENT

School District	Total Regular & Special Units 2011- 12	Total Regular & Special Units 1998- 99	13 Year % Change	Total Regular & Special Units 1991- 92	20 Year % Change
Appoquinimink	578	253	128	140	313
Brandywine	697	665	5	625	12
Christina	1,276	1,228	4	1,062	20
Colonial	651	630	3	557	17
New Castle Vocational/Technical	282	212	33	188	50
Red Clay	1047	914	15	799	31
Caesar Rodney	519	338	54	290	79
DAFB	32	50	-36	61	-48
Capital	461	375	23	342	35
Lake Forest	249	202	23	185	35
Milford	262	226	16	210	25
Polytech	67	61	10	36	86
Smyrna	334	202	65	171	95
Cape Henlopen	372	260	43	228	63
Delmar	76	43	77	34	124
Indian River	605	465	30	400	51
Laurel	142	119	19	118	20
Seaford	238	223	7	202	18
Sussex Technical	76	69	10	40	90
Woodbridge	149	105	42	97	54
State District Totals	8113	6640	22	5785	40

September 30 Student Enrollment and Unit Allotment Report November 2011 Includes special schools. Excludes Charter Schools.

All districts, except Dover Air Force Base experienced a growth in the amount of units received over the twenty-year period from 1991-92 to 2011-12. Appoquinimink school district experienced the largest amount of growth, at 313%, which is more than seven times the state rate of 40%.

Over the past thirteen years, Dover Air Force Base experienced a decline in their total unit appropriation. Delmar and Appoquinimink saw the largest percentage increase over that time

with 77% and 128% respectively. For Delmar, this increase may be due in part to the addition of middle school grades to the school district. Until recently, those students attended schools in Maryland, as the elementary school students continue to do.

The composition of enrollment varies greatly across districts. Enrollment of students is split into regular and special. Expressing special education enrollment as a percentage of total enrollment reveals that some districts have a smaller regular education enrollment than others (see Table 4.2 below).

In 1991, the state average special education enrollment expressed as a percentage of total enrollment was 10.2%. Caesar Rodney (Dover Air Force Base) had the lowest percentage (4.4%) followed by Delmar (7.7%). Conversely, Polytech had almost a quarter of its enrollment classified as special education. New Castle Vo-Tech had 15.9% and Sussex Technical 16.3%. The larger districts (Brandywine, Christina, Colonial, and Red Clay) had smaller special education enrollment shares.

TABLE 7.1
SPECIAL EDUCATION ENROLLMENT AS A PERCENTAGE OF TOTAL
ENROLLMENT

School District	1991	1993	1994	1996	1998	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Appoquinimink	8.2	8.2	7.5	6.8	7.8	8.1	8.8	9.7	10.2	10.0	9.9	10.1	9.7	9.0	8.9	9.1	10.2
Brandywine	8	8.7	9.2	9.8	10.1	10.2	10.8	10.6	10.2	10.6	9.6	9.0	10.6	9.4	9.3	9.7	11.9
Christina	10.8	11.2	12.7	11.1	11.4	11.5	11.8	13.1	14.1	14.5	14.6	14.8	15.4	15.4	14.9	15.1	16.6
Colonial	9.5	10.3	10.5	11.3	11.5	11.5	11.6	11.7	12	11.7	11.8	12.2	12.4	12.7	12.4	12.4	14.0
New Castle																	
Vocational/Tech																	
nical	15.9	15.2	15	14.7	13.9	11.4	12.3	11.9	11.9	11.9	12.0	11.2	9.4	8.4	7.0	6.5	10.9
Red Clay	8.9	9.1	9.6	9.7	9.8	10.2	10.3	10.4	10.7	10.9	10.6	10.6	10.5	10.7	10.4	10.3	13.0
Caesar Rodney	8.7	8.9	9.8	10.6	11.7	12.6	12.5	13.9	15.4	15.7	15.4	15.8	15.7	16.1	15.9	15.6	15.8
DAFB	4.4	3	2	5	4.9	4.1	5.1	5.3	6.3	5.3	6.3	6.1	8.3	12.5	12.3	12.2	12.4
Capital	7.8	9.3	10.1	11.4	12.2	12	12.3	14.9	15.5	16.1	16.2	16.3	17.9	17.4	17.1	16.6	17.2
Lake Forest	8.8	9.1	9.4	8.2	9.5	9.6	10.4	11.9	12.6	12.8	12.2	12.9	12.5	11.1	11.2	11.3	14.9
Milford	12.2	13.8	13	13.9	12.3	12.4	12.8	14.2	13.4	13.1	12.6	12.0	11.4	11.7	12.9	13.4	14.5
Polytech	23.4	14.7	15.2	12.4	11.8	11.3	11.7	9.4	9.4	7.0	7.6	9.1	9.6	9.0	8.9	7.9	8.8
Smyrna	9.7	9.9	10.5	10.6	12.3	12.3	12	13.2	13.3	12.6	12.5	13.0	12.4	12.9	13.1	12.9	14.9
Cape Henlopen	11.4	11.5	12.5	13	14.5	14	14.1	14.6	13.7	14.1	14.6	14.4	14.5	15.7	16.8	16.2	16.9
Delmar	7.7	8.2	8.3	10.9	8.9	9.3	9.6	10.6	11.3	12.6	10.6	10.0	9.4	10.0	9.2	9.0	10.0
Indian River	14.5	17	18.5	17.6	14.5	13.8	14.2	15.1	15.8	16.2	16.1	16.0	15.7	15.7	15.2	14.4	15.8
Laurel	9.5	11	11.2	12.1	11.2	10.3	9.3	11.1	10.4	11.1	12.0	12.4	13.5	13.9	14.2	14.4	15.1
Seaford	11.5	11.8	13.6	13.6	11.8	11.2	11.1	12.6	11.9	13.4	14.1	14.9	14.9	15.1	14.9	14.1	15.9
Sussex																	
Technical	16.3	21.7	18.6	16.7	11.7	12.7	11	11.3	9.4	9.3	9.7	10.8	9.4	9.5	8.4	8.8	8.8
Woodbridge	9.9	11.8	12.1	10.2	9	8.3	8.7	9.4	9.2	8.7	9.9	9.7	10.0	10.3	11.1	11.3	13.4
State District														12.4	12.7	12.5	14.1
Totals	10.2	10.9	11.5	11.4	11.3	11.3	11.5	12.3	12.6	12.7	12.3	12.3					

Source: Delaware Department of Education, September 30 Student Enrollment and Unit Allotment Report November 2009, 2010 and 2011.

By 2011, special education as a share of total enrollment grew from 10.2% to 14.1%. Many districts contributed to this statewide increase. All New Castle County districts save the vocational/technical schools and Milford saw an increase in special education's share of enrollment. Red Clay's share increased from 8.9% to 13.0%; Brandywine from 8.0% to 11.9%, Christina from 10.8% to 16.6%; Colonial from 9.5% to 14.0%; and Appoquinimink from 8.2% to 10.2%.

Capital school district had the largest increase in special education enrollment (7.8% to 17.2%) over the period. Dover Air Force Base was a close second; increasing from 4.4% to 12.4%. Few districts experienced declining enrollment. All vocational/technical schools saw smaller special education shares in 2011 than 1991.

Since the unit allotment for special education is greater than that of regular education, the former's share of total units exceeds its share of total enrollment. For example, in 2011, 14.1% of public school students were classified as special education. However, 31.8% of total units were special education units (see Table 7.2 below).

TABLE 7.2
SPECIAL EDUCATION UNITS AS A PERCENTAGE OF TOTAL UNITS

School District	1991	1993	1994	1996	1998	1999	2000	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
Appoquinimink	17.1	18.1	17.5	16.3	17.4	17.8	20.5	22.4	23	23.4	22.8	22.6	22.0	20.5	20.3	20.8	21.5
Brandywine	18.1	19.5	20.1	21.8	21.8	22.3	23.2	22.8	21.9	22.6	21.3	20.1	23.6	20.9	21.3	22.5	26.7
Christina	24.9	25.8	25.8	26.3	26.3	26.6	27.4	30.3	32	32.4	32.8	33.6	35.2	35.2	34.4	34.3	40.0
Colonial	21.9	23.6	23.7	25.3	25.4	25.4	25.4	25.3	26.2	25.7	25.8	26.8	26.2	26.9	26.4	25.9	29.2
New Castle																	
Vocational/Technical	30.9	30.2	29.9	29.9	29.2	25	26.4	26.2	26.5	26.1	27.0	24.7	22.2	19.9	16.9	15.6	24.8
Red Clay	20.2	20.2	21	21.2	21.1	21.8	22.1	22.6	23.2	23.7	23.3	23.3	22.9	22.8	22.5	22.3	27.5
Caesar Rodney	20.7	21.2	23	24.5	26	27.8	27.8	30.4	32.7	33.6	33.0	33.9	33.8	34.7	33.7	33.0	28.2
DAFB	9.8	6.5	5	11.3	10	9.8	11.1	10	15.4	13.5	11.5	16.7	16.7	25.8	26.5	27.3	28.1
Capital	17.8	21.2	22.5	25	25.9	25.7	26	31.6	32.5	33.8	33.9	33.2	35.4	35.3	34.8	34.3	38.8
Lake Forest	18.9	19.8	20.4	18.6	20.8	21	22	24.8	26.5	27.3	25.9	27.1	26.8	23.0	23.5	24.2	27.7
Milford	24.8	27.5	27.1	28.4	25.2	25.2	25.9	29.1	27.5	27.8	26.8	26.3	25.4	26.4	27.1	28.5	27.1
Polytech	41.7	29.8	29.5	25.4	23	24.2	25	21.5	21.2	17.2	18.5	22.1	22.4	22.1	21.7	19.1	19.4
Smyrna	21.1	21.6	22.5	22.6	25.2	24.9	25.4	27.8	28.1	27.3	26.7	27.1	26.4	27.2	27.7	27.0	29.6
Cape Henlopen	25.9	26.2	27.7	28.5	31.2	30.5	30.7	32.2	31.9	32.9	33.9	33.0	33.0	35.5	36.9	36.6	41.4
Delmar	17.6	18.9	18.9	23.8	20.9	21.7	21.8	24.6	25	27.7	25.0	22.2	20.9	23.2	21.2	21.3	22.4
Indian River	30.8	35.2	37	36.3	30.3	29.3	30.1	32.1	33.1	34.1	33.5	33.7	33.4	33.3	32.8	31.4	37.0
Laurel	21.2	24.4	24.4	25	22.7	20.8	20	22.2	21.6	22.2	22.5	24.2	25.8	26.2	27.4	27.9	28.9
Seaford	25.2	26.3	28.6	29.3	25.6	24.7	23.9	26.7	26.2	28.6	28.9	30.0	28.6	30.1	30.0	28.8	33.2
Sussex Technical	47.5	40.3	36.8	32.9	24.6	27.1	23.9	25	21.4	21.4	21.7	23.6	21.9	21.9	19.2	20.3	21.1
Woodbridge	21.6	25	25.7	22.4	20	18.1	18	20.9	20.7	20.5	21.2	21.2	22.0	22.6	24.2	23.9	28.9
State District Averages	22.8	24.2	24.7	25.3	24.7	24.7	25.2	27	27.6	28.0	27.1	27.2	27.4	28.0	32.0	27.4	31.8

Source: Delaware Department of Education, September 30 Student Enrollment and Unit Allotment Report November 2009, 2010 and 2011.

Polytech School share of total units from special enrollment is the lowest (19.4 in 2011). Cape Henlopen has the highest with 41.4%. The next table (Table 7.3) shows the total amount of units per school district, along with their change in rate over thirteen and twenty year periods. This

was not the case in 1991, as there was more disparity from the average value, particularly within the vocational districts.

TABLE 7.3
20-YEAR AND 13-YEAR CHANGE IN SPECIAL EDUCATION UNITS

School District	Special Units	Special Units	13 Year %	Special Units	20 Year %
	2011- 2012	1998- 99	Change	1991- 92	Change
Appoquinimink	124	44	-32	24	417
Brandywine	186	145	558	113	65
Christina	510	323	781	264	93
Colonial	190	160	913	122	56
New Castle	70	62	443	58	21
Vocational/Technical	288	193	485	161	79
Red Clay	198	88	58	60	230
Caesar Rodney	9	5	-89	6	50
DAFB	179	91	85	61	193
Capital	69	42	7	35	97
Lake Forest	71	57	189	52	37
Milford	13	14	-282	15	-13
Polytech	99	51	5	36	175
Smyrna	154	81	71	59	161
Cape Henlopen	17	9	-81	6	183
Delmar	224	141	281	123	82
Indian River	41	27	-21	25	64
Laurel	79	57	105	51	55
Seaford	16	17	-372	19	-16
Sussex Technical	43	21	-59	21	105
Woodbridge					
State District Totals	2580	1629	58	1305	98

Source: Delaware Department of Education, September 30 Student Enrollment and Unit Allotment Report, November 2011

Only one school districts; Polytech experienced a decline in the amount of special education units they received over the past twenty years.

All other districts reported an increase in the number of special education units. The rate of unit allotment in each school district is generally much larger than the increase in the percentage of

enrollment of special education students during the seventeen-year time frame. For example, Appoquinimink school district experienced a 417% increase in special education units received from 1991-92 to 2011-12. During the same period, special education enrollment increased by 2.0%. At the state level, the special education percentage of total enrollment increased by 3.9%.

The implication of increased special education enrollment and funding is that a greater share of funds divert into special education settings. Correspondingly, proportionally fewer pupils and funding dollars remain in regular education. Since state/district net instruction expenditures do not split into regular and special education, the ratio of special education units to regular education units can be employed.²³ The result is that net instruction per pupil measures likely appear higher as the result of the combined reporting of regular and special education spending per pupil. If net instruction comprises approximately two-thirds of current expenditures, and special education units comprise one-quarter of division I units, then the proportion of total current expenses directed to regular education is less than 50 percent.

Delaware's unit allocation provides greater units for special education enrollment than regular education enrollment. Therefore, there are clear financial incentives to increase numbers of students labeled "special education."²⁴

In an exercise to address this issue, Brandywine and Seaford school districts agreed to participate in a pilot project that would reform the special education unit allotments. The program requires that children identified as special education in grades K through 3 would not earn additional units. Children in grades 4-12 would earn special education units in relationship to need based on a simplified three-grade classification of special education.

²³ This is reasonable given that special education funding units cannot be used for regular education expenditures.

²⁴ *School Finance: Investing in Student Learning*, Delaware Education Research and Development Center, College of Human Services, Education & Public Policy, University of Delaware.

TABLE 7.4
20-YEAR AND 13-YEAR CHANGE IN REGULAR UNIT ALLOTMENT

School District	Total Regular Units	Total Regular Units	10- Year % Change	Total Regular Units	20 year % Change
	2011- 2012	1998- 99		1991- 92	
Appoquinimink	454	209	117	116	291
Brandywine	511	520	-2	512	0
Christina	765	905	-15	798	-4
Colonial	461	470	-2	435	6
New Castle Vocational/Technical	212	150	41	130	63
Red Clay	759	721	5	638	19
Caesar Rodney	321	250	28	230	40
DAFB	25	45	-44	55	-55
Capital	282	278	1	281	0
Lake Forest	180	160	13	156	15
Milford	191	169	13	166	15
Polytech	54	47	15	21	157
Smyrna	235	151	56	135	74
Cape Henlopen	219	179	22	169	30
Delmar	59	34	74	28	111
Indian River	405	324	25	277	46
Laurel	101	92	10	93	9
Seaford	159	166	-4	151	5
Sussex Technical	60	52	15	21	186
Woodbridge	106	84	26	76	39

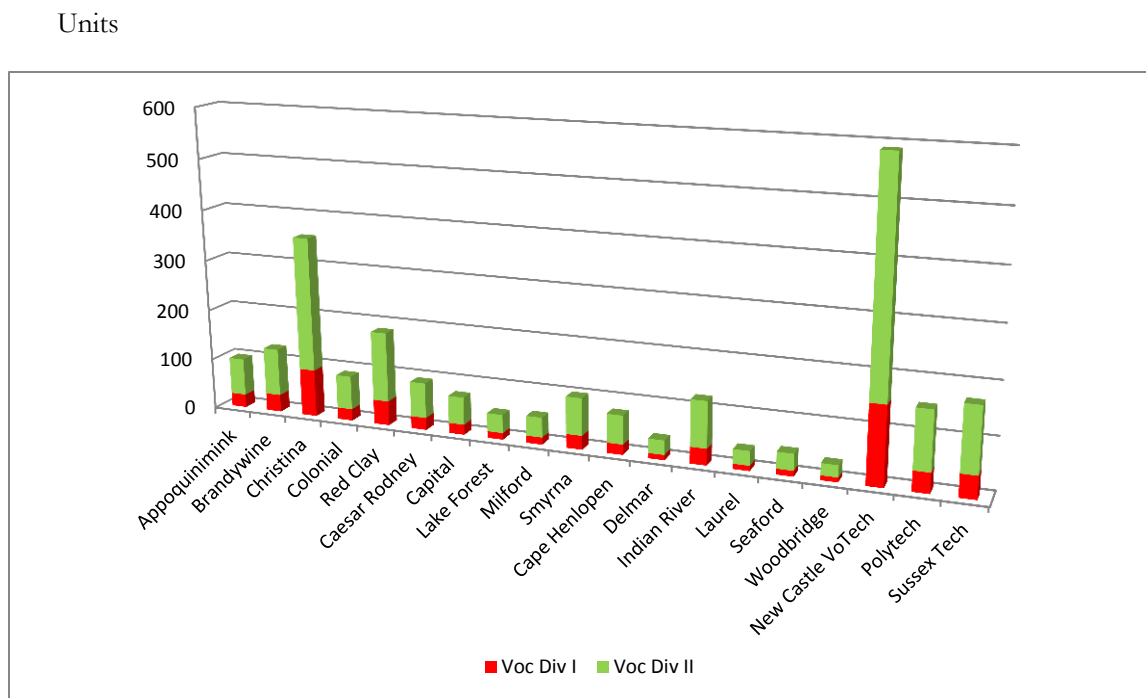
State District Totals	5559	4961	12	4418	26
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Source: Delaware Department of Education, September 30 Student Enrollment and Unit Allotment Report, November 2011.

VOCATIONAL UNITS

Vocational students are a further wrinkle in the unit allotment system. Students enrolled in vocational courses earn units at a faster rate than regular units. For example, a high school student who divides his or her time between regular classes and vocational classes, will earn a regular unit at the rate of 20 students per unit, and a vocational unit at the rate of 15 students per unit. The ‘vocational deduct’ for Division I units reduces the incentive of labeling students as vocational. The deduct formula subtracts one-half unit for every one whole vocational unit. However, an economic incentive remains in the Division II (supplies and materials) funding. Division II units can be earned at different rates depending upon the vocational course. The Division II units range from one per vocational course to three.

FIGURE 5.5
VOCATIONAL UNITS BY DISTRICT



Source: Delaware Department of Education, September 30th Student Enrollment and Unit Allotment Report, November 2011

Figure 5.5 shows the amount of vocational Division I and Division II units by district for 2011-2012. As expected, vocational Division II units outnumber Division I units in every district. For some districts, the ratio of Division II units to Division I units is 3:1. Collectively, there are more vocational units in regular school districts than the three Vocational Technical districts (see Table 7.5).

In the past, vocational districts used to receive learning-disabled students from the regular school districts. However, school districts are increasingly retaining this student group.

TABLE 7.5
VOCATIONAL UNITS BY DISTRICT

School District	Division I	Division II
Appoquinimink	26	72
Brandywine	34	93
Christina	93	263
Colonial	23	66
New Castle Vocational/Technical	152	437
Red Clay	48	136
Ceasar Rodney	24	69
DAFB	1	2
Capital	20	54
Lake Forest	13	36
Milford	14	39
Polytech	39	114
Smyrna	27	73
Cape Henlopen	20	56
Delmar	10	28
Indian River	32	90
Laurel	10	28
Seaford	11	32
Sussex Technical	44	126
Woodbridge	9	23
Total Regular Districts	415	1160
Total Vocational Districts	235	677
State District Totals (exc. DAFB)	649	1835
Charter School of Wilmington	0	0
Delaware Academy of Public Safety and Security	0	0
Delaware College Preparatory Academy	0	0
Delaware Military Academy	3	6
East Side Charter School	0	0

Family Foundation Academy	0	0
Gateway Lab School	0	0
Kuumba Academy Charter School	0	0
Las Americas Aspira Academy	0	0
Maurice J. Moyer Academy	0	0
MOT Charter School	2	6
Newark Charter School	1	4
Odyssey Charter School	0	0
Pencader Business and Finance Charter High School	5	11
Prestige Academy	0	0
Reach Academy for Girls	0	0
Thomas A. Edison Charter School	0	0
Academy of Dover Charter School	0	0
Campus Community Charter School	3	8
Positive Outcomes Charter School	1	2
Providence Creek Academy Charter School	0	0
Sussex Academy of Arts and Sciences	0	0
Charter Total	15	37
State Total Including DAFE	665	1875
State Total Excluding DAFE	664	1873

Source: Center for Applied Demography & Survey Research, University of Delaware. Delaware Department of Education, September 30 Student Enrollment and Unit Allotment Report, November 2011.

A Division II unit equated to \$3,247 in state funds in the 2002-2003 school year. A Division I unit ranges from \$22,209 for a teacher with no degree and no experience to \$41,840 for a teacher holding a doctoral degree with fifteen years of experience. Therefore, the cost of

vocational Division II units in regular districts is \$3,591,182 compared to \$1,792,344 in vocational districts.

Summary

Enrollment levels drive state funding via the unit system. The more units a district generates, the more funding it receives.

All districts with the exception of the Dover Air Force Base experienced growth in total units over the past twenty years. Appoquinimink had the fastest growth, at 313% for total regular and special units.

Special education as a percentage of total enrollment rose in almost all districts. Statewide, the proportion of total students classified as special education rose from 10 percent in 1990 to 14 percent in 2011-2012. The district with the greatest share of special education students is Capital (17.2%).

Special education units account for slightly more than one quarter of total units statewide. This occurs because special education students generate units faster than regular students. While one in ten students classifies as special education, the formula generates one of every four units amassed statewide.

Vocational units are a significant source of funds for non-vocational school districts. Indeed, there are more vocational Division I and Division II units in non-vocational school districts than in the three vocational districts.

There is no data source that will permit the disaggregation of net instruction expenditures into regular education and special education. Based on the rising percentage of students who classified in the special education category, and the rising share of special education units, one can infer that although the percentage of resources dedicated to instruction is significant, the percentage dedicated to regular education continues to diminish.

PEER COMPARISONS

This section compares Delaware districts with other districts in the Middle-Atlantic region and as well as others across the country.

The National Center for Education Statistics (NCES) identifies national peer districts based on the following criteria:

Total students

Student/teacher ratio

Percent children in poverty

District Type

Locale Code

NCES serves as a clearinghouse for district-level data for all districts in the nation, which is advantageous for this analysis. One drawback of the data is the most recent available data set for the school year 2008-2009. Data sets for the 1998-99 school year can be found in the appendix.

The following data tables examine the NCES data in different subsets. To begin, the first two tables compare the school districts within the state of Delaware. Two more tables that follow set the Delaware districts against a random sampling of school districts from Mid-Atlantic counterparts Maryland, New Jersey, and Pennsylvania.

****It is important to note that in previous years data was randomly selected from the Public School District Finance Peer Search. Starting with the 2008-2009 finance data that data is no longer updated in that tool. The data is now available through the Build-a-table tool which requires that the data be manually selected. In keeping with past years randomly selected school districts we updated 2007-2008 school districts with data with similar data. However the tables have been slightly modified. Instead separating administration and operations/food service/other in individual categories, those areas are combined under support. According the NCES, Support services per student are the expenditures for activities that support instruction divided by fall membership as reported in the district finance file. The support services include operation and**

maintenance of buildings, school administration, student support services (eg. Nurses, therapists and guidance counselors) student transportation, instructional staff support (eg. librarians, instructional specialists) school district administration, business services, research and data processing.

TABLE 8.0
DELAWARE SCHOOL DISTRICTS: PUBLIC EDUCATION EXPENDITURES PER-
PUPIL

AGENCY NAME- BY SURVEY YEAR (DISTRICT)	TOTAL CURR EXPENDITURES	TOTAL CURR INSTRUCTION EXPENDITURES	TOTAL CURR EXPENDITURES SUPPORT	TOTAL CURR EXPENDITURES - OTHER
APPOQUINIMINK SCHOOL DISTRICT	9,899	6,267	3,238	394
BRANDYWINE SCHOOL DISTRICT	14,178	8,177	5,339	663
CAESAR RODNEY SCHOOL DISTRICT	10,901	6,722	3,704	475
CAPE HENLOPEN SCHOOL DISTRICT	15,420	9,633	5,165	622
CAPITAL SCHOOL DISTRICT	12,374	7,934	3,924	516
CHRISTINA SCHOOL DISTRICT	13,755	8,387	4,915	454
COLONIAL SCHOOL DISTRICT	10,957	6,770	3,617	570
DELMAR SCHOOL DISTRICT	10,234	6,118	3,551	565
INDIAN RIVER SCHOOL DISTRICT	11,569	7,044	3,917	608
LAKE FOREST	11,762	6,645	4,489	629

SCHOOL DISTRICT				
LAUREL SCHOOL DISTRICT	11,510	6,808	4,098	604
MILFORD SCHOOL DISTRICT	10,242	6,425	3,376	440
NEW CASTLE COUNTY VOTECH SCHOOL DISTRICT	15,228	8,795	6,013	420
POLYTECH SCHOOL DISTRICT	14,191	8,158	5,353	680
RED CLAY CONSOLIDATED SCHOOL DISTRICT	11,760	7,290	3,969	501
SEAFORD SCHOOL DISTRICT	11,766	7,396	3,726	644
SMYRNA SCHOOL DISTRICT	9,828	5,830	3,385	613
SUSSEX TECHNICAL SCHOOL DISTRICT	15,203	9,051	5,694	458
WOODBIDGE SCHOOL DISTRICT	12,600	7,331	4,581	688
Peer Averages	12,283	7,410	4,319	555
Averages without Vocational Districts	11,900	7,244	4,111	545

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics.
Education Finance Statistics Center 2008-2009, Public School District Finance Build a Table Tool Current Expenditures per Student.

Table 8.0 above shows how the three vocational school districts skew the average per-pupil expenditure data for all of the expenditure categories within the state of Delaware. The higher averages for the Vo-Tech schools can be attributed to their relatively low enrollment rates.

Of the non-vocational school districts, Brandywineschool district has the highest student support per pupil spending rate in the state at \$5,339, while Appoquinimink has the lowest rate at \$3,238 per pupil.

TABLE 8.1
DELAWARE SCHOOL DISTRICTS: PERCENTAGE EXPENDITURES BY CATEGORY

AGENCY NAME- BY SURVEY YEAR (DISTRICT)	TOTAL CURR INSTRUC TION EXPENDI TURES	TOTAL CURR EXPENDITU RES SUPPORT	TOTAL CURR EXPENDITUR ES - OTHER
APPOQUINIMINK SCHOOL DISTRICT	63	33	4
BRANDYWINE SCHOOL DISTRICT	58	38	5
CAESAR RODNEY SCHOOL DISTRICT	62	34	4
CAPE HENLOPEN SCHOOL DISTRICT	62	33	4
CAPITAL SCHOOL DISTRICT	64	32	4
CHRISTINA SCHOOL DISTRICT	61	36	3
COLONIAL SCHOOL DISTRICT	62	33	5
DELMAR SCHOOL DISTRICT	60	35	6
INDIAN RIVER SCHOOL DISTRICT	61	34	5
LAKE FOREST SCHOOL DISTRICT	56	38	5
LAUREL SCHOOL DISTRICT	59	36	5
MILFORD SCHOOL DISTRICT	63	33	4
NEW CASTLE COUNTY VOTECH SCHOOL DISTRICT	58	39	3
POLYTECH SCHOOL DISTRICT	57	38	5
RED CLAY CONSOLIDATED SCHOOL DISTRICT	62	34	4
SEAFORD SCHOOL DISTRICT	63	32	5

SMYRNA SCHOOL DISTRICT	59	34	6
SUSSEX TECHNICAL SCHOOL DISTRICT	60	37	3
WOODBRIIDGE SCHOOL DISTRICT	58	36	5
Peer Averages	60	35	4
Averages without Vocational Districts	61	34	5

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics. Education Finance Statistics Center 2008-2009, Public School District Finance Build a Table, Current Expenditures per Student.

Table 8.1 above shows differences in the overall state district averages with and without the vocational school districts.

The NCES defines administrative costs as “expenditures for the board of education, and administration of local education agencies, expenditures for the office of the principal, full time department chairpersons, and graduation expenses.” The equivalent within the State Board of Education’s Report of Educational Statistics is general administration, school administration and other expenses.

According to the NCES data, Capital School District spends the most expenditures on current instruction costs within the state at 64%. In comparison, Lake Forest School District spends the lowest percentage on current instruction costs at 56%.

Conversely, Capital and Seford School Districts spend the lowest percentage on student support costs at 32%, while New Castle County Vocational Tech School District spends the highest percentage at 39%. Red Clay Consolidated and Caesar Rodney school district dedicate equal dollar amounts to instruction at 62% .

The following table (8.2) illustrates sample Delaware school districts expenditures in comparison to others in the region (MD, PA, NJ), with a total of **twenty-two** districts in all. There are a multitude of measures available to assess the financial effectiveness of a school district. Adjusting expenditures for the enrollment size of a district is a common way to compare districts of various sizes. With this in mind, the following tables list per pupil expenditures.

Even within this random subset of Mid-Atlantic districts, there is quite a variety of expenditure levels. For example, total current expenditures per pupil ranges between **\$17,669 in Salem School District, NJ to \$9,2497 in Oxford Area School District, PA.**

The discussion that follows makes observations about the relative expenditures across districts. **Six Delaware districts fall above the regional peer averages for total current expenditures per pupil. These are Brandywine, Cape Henlopen, and Christina along with the three vocational/technical school districts.**

The vocational/technical school districts follow county lines, and therefore encompass multiple non-vocational districts. This is not unique. For example, NJ and PA operate a similar system of sub-county school districts feeding into a countywide vocational district.

TABLE 8.2
PEER COMPARISON: EXPENDITURES PER PUPIL

AGENCY NAME- BY SURVEY YEAR (DISTRICT)	Sta te	TOTAL CURR EXPENDITURE	TOTAL CURR INSTRUCTIONAL EXPENDITURE	TOTAL CURR EXPENDITURE SUPPORT	TOTAL CURR EXPENDITURE OTHER
APPOQUINIMINK SCHOOL DISTRICT	DE	9,899	6,267	3,238	394
BRANDYWINE SCHOOL DISTRICT	DE	14,178	8,177	5,339	663
CHRISTINA SCHOOL DISTRICT	DE	13,755	8,387	4,915	454
COLONIAL SCHOOL DISTRICT	DE	10,957	6,770	3,617	570
DELMAR SCHOOL DISTRICT	DE	10,234	6,118	3,551	565
NEW CASTLE COUNTY VOTECH SCHOOL DISTRICT	DE	15,228	8,795	6,013	420
RED CLAY CONSOLIDATED SCHOOL	DE	11,760	7,290	3,969	501

DISTRICT					
CECIL COUNTY PUBLIC SCHOOLS	MD	11,733	7,322	3,893	518
ELSINBORO TOWNSHIP	NJ	15,929	9,071	6,449	408
MANNINGTON TOWNSHIP	NJ	16,122	9,750	5,924	448
OLDMANS TOWNSHIP	NJ	16,614	9,749	6,208	657
PENNSVILLE TOWNSHIP	NJ	14,458	8,216	5,669	574
SALEM CITY	NJ	17,669	9,642	7,391	635
AVON GROVE SD	PA	9,874	5,744	3,799	331
CHICHESTER SD	PA	13,591	8,480	4,694	417
COATESVILLE AREA SD	PA	14,477	8,259	5,787	430
GARNET VALLEY SD	PA	13,573	8,896	4,238	439
KENNETT CONSOLIDATED SD	PA	12,406	7,106	4,964	336
OXFORD AREA SD	PA	9,249	5,299	3,579	372
PENN-DELCO SD	PA	10,995	6,514	4,090	391
UNIONVILLE-CHADDS FORD SD	PA	13,413	8,025	4,996	393
Peer Averages		13,148	7,804	4,873	472

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics. Build a Table Tool 2008-09.

While three districts within Delaware rates above the peer average in total current expenditures, none of the selected districts within the state of Maryland lie above the average. Thus, school districts within New Jersey and Pennsylvania have the highest total current expenditure rates within the subset, increasing the average to such a high rate. The higher rates in these two states

may trace back to their relatively small districts in both enrollment and geographic size. Maryland, conversely, has large districts, which encompass the entire county.

In contrast, when looking at the student support spending per pupil, three Delaware school districts lie above the peer average for this subset. New Castle County Vocational Tech school district has the highest student support per pupil expenditure rate of all the listed districts, and the that school including Brandywine and Christina represent the top three in this category. Cape Henlopen has the highest total current expenditure per pupil of non-vocational districts in Delaware, according to the 20078-2009 NCES data. The Salem School District, NJ, is the highest among the selected neighboring counties. Cape Henlopen spent \$15,420 in total current expenditures per pupil compared to \$17,669 in Salem School District in Salem County, NJ.

TABLE 8.3
PEER COMPARISON: PERCENTAGE EXPENDITURES BY CATEGORY

AGENCY NAME- BY SURVEY YEAR (DISTRICT)	State	TOTAL CURR INSTRUCTIONAL EXPENDITURES-	TOTAL CURR EXPENDITURES SUPPORT	TOTAL CURR EXPENDITURES- OTHER
APPOQUINIMINK SCHOOL DISTRICT	DE	63	33	4
BRANDYWINE SCHOOL DISTRICT	DE	58	38	5
CHRISTINA SCHOOL DISTRICT	DE	61	36	3
COLONIAL SCHOOL DISTRICT	DE	62	33	5
DELMAR SCHOOL DISTRICT	DE	60	35	6
NEW CASTLE COUNTY VOTECH SCHOOL DISTRICT	DE	58	39	3
RED CLAY CONSOLIDATED SCHOOL DISTRICT	DE	62	34	4
CECIL COUNTY PUBLIC	MD	62	33	4

SCHOOLS				
ELSINBORO TOWNSHIP	NJ	57	40	3
MANNINGTON TOWNSHIP	NJ	60	37	3
OLDMANS TOWNSHIP	NJ	59	37	4
PENNSVILLE TOWNSHIP	NJ	57	39	4
SALEM CITY	NJ	55	42	4
AVON GROVE SD	PA	58	38	3
CHICHESTER SD	PA	62	35	3
COATESVILLE AREA SD	PA	57	40	3
GARNET VALLEY SD	PA	66	31	3
KENNETT CONSOLIDATED SD	PA	57	40	3
OXFORD AREA SD	PA	57	39	4
PENN-DELCO SD	PA	59	37	4
UNIONVILLE-CHADDS FORD SD	PA	60	37	3
Peer Averages		60	37	4

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics Build a Table Tool 2008-2009.

Among this random sample of Mid-Atlantic school districts, Garnet Valley School District, has the lowest percentage of spending dedicated towards Student Support functions at 31%. Conversely, Salem City School District allocated 42% of its funds for student support costs costs.

The NCES attempts to harmonize public finance expenditures across districts. The inclusion of other support services expenditures may cast Delaware districts in a poor light, as these expenditures may not be strictly administration costs. Without more detail information, however, it is not possible to draw a conclusion.

Summary

The vocational-technical school districts skew the Delaware peer averages by \$400 per pupil for total current expenditures. Smyrna school district spends the least amount per pupil in total current expenditures at \$9,828.

There is great disparity in total current expenditure levels for the random subset of Mid-Atlantic school districts. Eight of nineteen Delaware school districts lie above the peer average for total expenditures per pupil. These districts are the three vocational districts and Brandywine, Cape Henlopen, Capital, Christina and Woodbridge

New Castle County Vocational-Technical school district has the highest administration per pupil spending rate in Delaware..

ADMINISTRATION PER PUPIL SPENDING: NATIONAL COMPARISON

This section extends the peer comparison of Delaware school districts beyond the Mid-Atlantic region. The NCES is again the primary data source, and the peer districts are identified based on the following factors; total students, student/teacher ratio, percentage of children in poverty, district type, and location type.

Numerous peer districts exist for each Delaware school district from across the nation. This portion of the report lists the top ten peer districts for three school districts in Delaware including Appoquinimink, Brandywine and Seaford. The vocational school districts do not meet the criteria needed to run this search.

The NCES search produced the top ten peer districts for Brandywine School District. Among the peer districts, New Rochelle City School District, NY ranks highest in terms of current instructional spending per pupil (\$12,452). William Floyd Union Free School District, NY is second highest with \$12,069 and Cabot School District, AK is the lowest with \$4,469 per pupil.

TABLE 9.0
SAMPLE PEER DISTRICT COMPARISONS FOR BRANDYWINE
EXPENDITURES PER PUPIL

District Name	<u>Total</u>		<u>Total</u>	
	<u>Total</u>	<u>Current</u>	<u>Total</u>	<u>Current</u>
	<u>Current</u>	<u>Instruct.</u>	<u>Cur. Exp</u>	<u>Expenditures</u>
	<u>Expend.</u>	<u>Exp.</u>	<u>Support</u>	<u>Other</u>
<u>BRANDYWINE SCHOOL</u>				
<u>DISTRICT, DE (grades PK – 12)</u>	<u>\$14,178</u>	<u>\$8,177</u>	<u>\$5,339</u>	<u>\$663</u>
<u>BRISTOL TWP SCHOOL</u>				
<u>DISTRICT, PA (grades PK – 12)</u>	<u>\$14,610</u>	<u>\$8,553</u>	<u>\$5,589</u>	<u>\$468</u>
<u>CABOT SCHOOL DISTRICT 4, AK</u>				
<u>(grades PK – 12)</u>	<u>\$7,215</u>	<u>\$4,469</u>	<u>\$2,394</u>	<u>\$352</u>
<u>EASTON AREA SCHOOL</u>				
<u>DISTRICT, PA (grades KG – 12)</u>	<u>\$10,834</u>	<u>\$6,906</u>	<u>\$3,570</u>	<u>\$358</u>
<u>HAVERHILL CITY SCHOOL, MA</u>				
<u>(grades PK – 12)</u>	<u>\$11,409</u>	<u>\$6,650</u>	<u>\$4,355</u>	<u>\$405</u>
<u>MARANA UNIFIED DISTRICT NO</u>				
<u>6, AZ (grades PK – 12)</u>	<u>\$7,482</u>	<u>\$4,922</u>	<u>\$2,830</u>	<u>\$353</u>
<u>NEW ROCHELLE CITY SCH,</u>				
<u>NY (grades PK - 12)</u>	<u>\$19,668</u>	<u>\$12,452</u>	<u>\$6,938</u>	<u>\$279</u>
<u>NORTH SYRACUSE CENTRAL</u>				
<u>SCHOOL DIST, NY (grades PK -</u>				
<u>12)</u>	<u>\$13,816</u>	<u>\$9,027</u>	<u>\$4,442</u>	<u>\$348</u>
<u>PATTONVILLE SCHOOL</u>				
<u>DISTRICT R 3, MISSOURI (grades</u>				
<u>PK – 12)</u>	<u>\$12,997</u>	<u>\$7,148</u>	<u>\$5,474</u>	<u>\$375</u>
<u>WILLIAM FLOYD UNION FREE</u>				
<u>SCHOOL DIST, NY (grades KG -</u>				
<u>12)</u>	<u>\$18,362</u>	<u>\$12,069</u>	<u>\$5,979</u>	<u>\$314</u>
<u>Peer Averages</u>	<u>\$13,057</u>	<u>\$8,037</u>	<u>\$4,691</u>	<u>\$392</u>

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool 2008-2009.

TABLE 9.1
SAMPLE PEER DISTRICT COMPARISONS FOR BRANDYWINE SCHOOL DISTRICT
SHARE OF CURRENT EXPENDITURES PER PUPIL

District Name	<u>Total</u> <u>Current</u> <u>Instruct.</u> <u>Exp.</u>	<u>Total</u> <u>Cur.</u> <u>Exp</u> <u>Support</u>	<u>Total</u> <u>Current</u> <u>Expenditures</u> <u>Other</u>
<u>BRANDYWINE</u> <u>SCHOOL</u> <u>DISTRICT, DE</u> <u>(grades PK –</u> <u>12)</u>	<u>58</u>	<u>38</u>	5
<u>BRISTOL TWP</u> <u>SCHOOL</u> <u>DISTRICT, PA</u> <u>(grades PK –</u> <u>12)</u>	<u>59</u>	<u>38</u>	3
<u>CABOT</u> <u>SCHOOL</u> <u>DISTRICT 4,</u> <u>AK (grades</u> <u>PK – 12)</u>	<u>62</u>	<u>33</u>	5
<u>EASTON</u> <u>AREA</u> <u>SCHOOL</u> <u>DISTRICT, PA</u> <u>(grades KG –</u> <u>12)</u>	<u>64</u>	<u>33</u>	3
<u>HAVERHILL</u> <u>CITY SCHOOL,</u> <u>MA (grades</u> <u>PK – 12)</u>	<u>58</u>	<u>38</u>	4
<u>MARANA</u> <u>UNIFIED</u> <u>DISTRICT NO</u> <u>6, AZ (grades</u> <u>PK – 12)</u>	<u>66</u>	<u>38</u>	5
<u>NEW</u> <u>ROCHELLE</u> <u>CITY SCH,</u> <u>NY (grades PK</u> <u>- 12)</u>	<u>63</u>	<u>35</u>	1

<u>NORTH SYRACUSE CENTRAL SCHOOL DIST, NY (grades PK - 12)</u>	<u>65</u>	<u>32</u>	3
<u>PATTONVILLE SCHOOL DISTRICT R 3, MISSOURI (grades PK – 12)</u>	<u>55</u>	<u>42</u>	3
<u>WILLIAM FLOYD UNION FREE SCHOOL DIST, NY (grades KG - 12)</u>	<u>66</u>	<u>33</u>	2
Peer Averages	<u>62</u>	<u>36</u>	3

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool, 2008-2009.

Of the top ten peer districts, New Rochelle City School, NY has the highest per pupil expenditure share for student support.

Of the top ten schools in the Appoquinimink school district three have higher current instructional expenditures per pupil spending (Monticello School District, MN, Mukwonago School District, WI and Seneca Valley School District, PA). Instructional expenditure spending in Appoquinimink is \$6,267. The least amount spent on current instructional expenditures is \$4,601 in the Midlothian Ind School District, TX.

TABLE 9.2
SAMPLE PEER DISTRICT COMPARISONS FOR APPOQUINIMINK SCHOOL
DISTRICT
EXPENDITURES PER PUPIL

District Name	Total	Total	Total
	<u>Total</u>	Current	Current
	<u>Current</u>	<u>Instruc.</u>	Exp.
	<u>Expend.</u>	<u>Expend.</u>	<u>Sup.</u>
APPOQUINIMINK SCHOOL DISTRICT, DE (grades PK - 12)	<u>\$9,899</u>	<u>\$6,267</u>	<u>\$3,238</u>
HASTINGS IND SCHOOL DISTRICT, MN (grades PK-12)	<u>\$9096</u>	<u>\$6,062</u>	<u>\$2,599</u>
HUDSON CITY JT SCH DIST, WI (grades PK - 12)	<u>\$9696</u>	<u>\$5,819</u>	<u>\$3,456</u>
MARYSVILLE EX VILLAGE SCH DIST, OH (grades PK - 12)	<u>\$9,177</u>	<u>\$5,267</u>	<u>\$3,559</u>
MEDINA CITY SCHOOL DISTRICT, OH (grades PK – 12)	<u>\$9,875</u>	<u>\$5,946</u>	<u>\$3,682</u>
MIDLOTHIAN IND SCHOOL DISTRICT 908, TX (grades PK – 12)	<u>\$7,487</u>	<u>\$4,601</u>	<u>\$2,576</u>
MONTICELLO SCHOOL DISTRICT 882, MN (grades PK-12)	<u>\$10014</u>	<u>\$7,341</u>	<u>\$2,270</u>
MUKWONAGO SCHOOL DISTRICT, WI (grades PK-12)	<u>\$9,982</u>	<u>\$6,571</u>	<u>\$3,023</u>
SENECA VALLEY SCHOOL DISTRICT, PA (grades PK-12)	<u>\$10416</u>	<u>\$6,910</u>	<u>\$3,157</u>
WEST BEND JOINT SCHOOL DISTRICT1, WI (grades PK – 12)	<u>\$9,881</u>	<u>\$6,226</u>	<u>\$3,241</u>
Peer Averages	\$9,552	\$6,101	\$3,080

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool, 2008-2009.

TABLE 9.3
SAMPLE PEER DISTRICT COMPARISONS FOR APPOQUINIMINK SCHOOL
DISTRICT
SHARE OF CURRENT EXPENDITURES PER PUPIL

District Name	Total Current Instruc. Expend.	Total Current Exp. Sup.	Total Current Exp. other
APPOQUINIMINK SCHOOL DISTRICT, DE (grades PK - 12)	63	33	4
HASTINGS IND SCHOOL DISTRICT, MN (grades PK-12)	67	29	5
HUDSON CITY JT SCH DIST, WI (grades PK - 12)	60	36	4
MARYSVILLE EX VILLAGE SCH DIST, OH (grades PK - 12)	57	39	4
MEDINA CITY SCHOOL DISTRICT, OH (grades PK – 12)	60	37	3
MIDLOTHIAN IND SCHOOL DISTRICT 908, TX (grades PK – 12)	61	34	4
MONTICELLO SCHOOL DISTRICT 882, MN (grades PK- 12)	73	23	4
MUKWONAGO SCHOOL DISTRICT, WI (grades PK-12)	66	30	4
SENECA VALLEY SCHOOL DISTRICT, PA	66	30	3

(grades PK-12)			
WEST BEND JOINT SCHOOL DISTRICT1, WI (grades PK – 12)	<u>63</u>	<u>33</u>	4
Peer Averages	<u>64</u>	<u>32</u>	8

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool 2008-2009.

Recall that Appoquinimink’s low share of current expenditures per pupil dedicated to instructional expenses may be a function of the district’s relative high pupil/teacher ratio. In dollar terms, Appoquinimink’s total current spending is \$9,899, which is not low for its peer group.

One school district in the top ten random peer set has a higher percentage rate for student support expenditures, Marysville Ex Village School District, OH 39% compared to Appoquinimink (32%).

Of the top ten peer school district comparisons to Seaford School District, WINDHAM TOWN SCHS, CT has the highest per pupil expenditure rate for student support at \$4,788. Of the top ten peer districts, CARTERSVILLE IND SCHOOL DISTRICT, GA has the lowest per pupil rate for student support costs at \$2732.

TABLE 9.4
SAMPLE PEER DISTRICT COMPARISONS FOR SEAFORD SCHOOL DISTRICT
EXPENDITURES PER PUPIL

District Name	Total			
	<u>Total</u>	Current	<u>Current</u>	<u>Current</u>
	<u>Current</u>	<u>Instruc.</u>	<u>Exp</u>	<u>Exp.</u>
	<u>Expend.</u>	<u>Expend.</u>	<u>Support</u>	<u>Other</u>
<u>ALLIANCE CITY SCH DIST, OH (grades PK - 12)</u>	<u>\$9,485</u>	<u>\$6,108</u>	<u>\$2,955</u>	<u>\$422</u>
<u>CARTERSVILLE IND SCHOOL DISTRICT, GA (grades PK – 12)</u>	<u>\$9,739</u>	<u>\$6,409</u>	<u>\$2,732</u>	<u>\$598</u>
<u>EAST LIVERPOOL CITY SCHOOL DISTRICT, OH (grades PK – 12)</u>	<u>\$9,261</u>	<u>\$5,170</u>	<u>\$3,703</u>	<u>\$388</u>
<u>LEXINGTON CITY SCHOOLS, NC (grades PK – 12)</u>	<u>\$8,949</u>	<u>\$5,535</u>	<u>\$2,856</u>	<u>\$558</u>
<u>MACON COUNTY SCHOOL DISTRICT, AL (grades PK – 12)</u>	<u>\$9,203</u>	<u>\$4,631</u>	<u>\$3,832</u>	<u>\$740</u>
<u>NEW CASTLE AREA SCHOOL DISTRICT, PA (grades PK – 12)</u>	<u>\$10,503</u>	<u>\$6,973</u>	<u>\$3,048</u>	<u>\$482</u>
<u>PICAYUNE MUN SEP SCHOOL DISTRICT (grades PK – 12)</u>	<u>\$8,774</u>	<u>\$4,978</u>	<u>\$3,258</u>	<u>\$538</u>
<u>SEAFORD SCHOOL DISTRICT, DE (grades PK – 12)</u>	<u>\$11,766</u>	<u>\$7,396</u>	<u>\$3,726</u>	<u>\$644</u>
<u>WEST ORANGE-COVE IND SCHOOL DISTRICT 906, TX (grades PK – 12)</u>	<u>\$9,864</u>	<u>\$5,584</u>	<u>\$3,760</u>	<u>\$520</u>
<u>WINDHAM TOWN SCHS, CT (grades PK - 12)</u>	<u>\$14,697</u>	<u>\$9,283</u>	<u>\$4,788</u>	<u>\$626</u>
Peer Averages	\$10,224	\$6,207	\$3,466	\$552

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool 2008-2009.

TABLE 9.5
SAMPLE PEER DISTRICT COMPARISONS FOR SEAFORD SCHOOL DISTRICT
SHARE OF CURRENT EXPENDITURES PER PUPIL

District Name	<u>Total</u> <u>Current</u> <u>Instruc.</u> <u>Expend.</u>	<u>Total</u> <u>Current</u> <u>Exp</u> <u>Support</u>	<u>Total</u> <u>Current</u> <u>Exp.</u> <u>Other</u>
<u>ALLIANCE CITY</u> <u>SCH DIST,</u> <u>OH (grades PK -</u> <u>12)</u>	<u>64</u>	<u>31</u>	4
<u>CARTERSVILLE</u> <u>IND SCHOOL</u> <u>DISTRICT, GA</u> <u>(grades PK – 12)</u>	<u>66</u>	<u>28</u>	6
<u>EAST</u> <u>LIVERPOOL</u> <u>CITY SCHOOL</u> <u>DISTRICT, OH</u> <u>(grades PK – 12)</u>	<u>56</u>	<u>40</u>	4
<u>LEXINGTON</u> <u>CITY SCHOOLS,</u> <u>NC (grades PK –</u> <u>12)</u>	<u>62</u>	<u>32</u>	6
<u>MACON</u> <u>COUNTY</u> <u>SCHOOL</u> <u>DISTRICT, AL</u> <u>(grades PK – 12)</u>	<u>50</u>	<u>42</u>	8
<u>NEW CASTLE</u> <u>AREA SCHOOL</u> <u>DISTRICT, PA</u> <u>(grades PK – 12)</u>	<u>66</u>	<u>29</u>	5
<u>PICAYUNE</u> <u>MUN SEP</u> <u>SCHOOL</u> <u>DISTRICT</u> <u>(grades PK – 12)</u>	<u>57</u>	<u>37</u>	6
<u>SEAFORD</u> <u>SCHOOL</u> <u>DISTRICT, DE</u> <u>(grades PK – 12)</u>	<u>63</u>	<u>32</u>	5

<u>WEST ORANGE-COVE IND SCHOOL DISTRICT 906, TX (grades PK – 12)</u>	<u>57</u>	<u>38</u>	5
<u>WINDHAM TOWN SCHS, CT (grades PK - 12)</u>	<u>63</u>	<u>33</u>	4
Peer Averages	<u>61</u>	<u>34</u>	5

Source: Center for Applied Demography & Survey Research, University of Delaware. National Center for Education Statistics, Build a Table Tool 2008-2009.

Seaford school district spends slightly less than the average school district for student support expenditures than the average school district table 9.5 shows the district dedicates close to the average among its peers (32%) towards student support services.

Summary

Brandywine school district ranks higher than the peer average in student support costs per pupil spending \$5,339 in the 2008-2009 school year.

Appoquinimink school district ranks slightly lower in its peer group of nationwide top ten school districts with regards to the percentage rate spent on current expenditures for student support per pupil. Appoquinimink, Colonial, Cecil County and Garnet Valley School districts within the peer group dedicate the lowest percentage of expenditures per pupil towards student support.

Seaford school district ranks highest school district in its top ten NCES defined peer group when considering administration per pupil expenditures. Seaford ranks higher than the average in percentage of current expenditures dedicated to administration.

DISTRICT LEVEL SUMMARY

Numerous agents are involved in the process of providing public education in the state. These agents include the Federal government, state government, local government, school districts, households (through property taxes), and school education boards.

Recognizing that education revenues and expenditures reflect the choices and priorities of each of these agents is important. However, data availability preempts the evaluation of each agent's individual impact. The data compiled by government agencies are geared towards measuring specific items. Greater focus is given to enrollment than expenditures: how many students are enrolled in each district? How many students are in each grade? How many special education students are in each district?

Financial data is reported at only the district level, by broad revenue category (Federal, state, local) and expenditure category (instruction, instructional support, pupil support, general administration, school administration, transportation, and other). While these data are useful, they are still several steps removed from the necessary data to answer questions such as how efficiently and productively resources are being used in the provision of public education. Some pertinent questions that cannot be answered with currently available data include: how many resources are being dedicated to regular education versus special education? What are the class sizes? What resources are being dedicated to core instruction of English, math, and science?

The financial data permit the identification of differing spending patterns among school districts within the state and across the country. Discerning the cause and impact of these differences involves going beyond the routine publications of government agencies. Nevertheless, the data present in the report provide a starting point in identifying spending patterns among Delaware school districts and their peer groups. It is hoped that data availability will evolve over time to allow greater transparency in school districts finances, and permit more detailed research into public education finance.

The emergence of Charter schools in Delaware is bringing greater education choice to the marketplace. However, given their short history in the state, the full effect of Charter schools has yet to be realized. Eighteen charter schools have opened since 2000. In the future, more Charter

schools may be established, and existing ones may expand grade coverage (this is a typical practice of at least one Charter school, Thomas A. Edison). Given the relatively short existence of Charter schools in the state, is it likely that an equilibrium enrollment has not yet been established, making hazardous predictions of their long-term impact on districts and district financing.

Larger districts allocate a smaller proportion of their current expenditures to general administration than do smaller districts. Low enrollment districts (less than 5,000) apply 1% of their current expenditures to general administration. Medium and high enrollment districts apply 1%. Therefore, while economies of scale are possible, the potential savings may not be significant.

School administrations' share of current expenses varies across districts. School size is the primary determinant of school administration unit entitlement. Despite being a large enrollment district, Brandywine's schools are not the largest in the state. Therefore, their schools do not earn additional school administrators as larger schools, which limits their school administration costs.

General administration costs per pupil are rising in many districts in Delaware. School administration costs per pupil are rising in all districts. However, as a share of current expenditures, general administration costs per pupil are falling. School administration costs per pupil as a share of total current expenditures are rising, but not as fast as expenditures on net instruction.

Changes in full-time equivalent (FTE) staff and changes in salaries drive the growth of expenditures on official and administrative staff by district. Approximately 60% of expenditure increases on official and administrative staff are due to salary increases. Changes in FTE account for 40%.

One in every eight students in the state is labeled a special education student. This increased from one in every eleven students a decade ago.

Special education accounts for over one-quarter of Division I units in the state. This equated to \$172,320,313 Division I costs on special education in FY 2007-2008.²⁵

The majority of districts report increased numbers of special education students. Among the fastest growth of special education students are Appoquinimink, Capital, Delmar and Caesar Rodney.

There are more vocational units allotted to regular school districts than the vocational districts.

School size plays an important role in school administration costs per pupil. Districts that opt for smaller schools have larger school administration costs per pupil than their larger counterparts.

The Vocational-Technical school districts skew the Delaware peer averages by more than \$500 per pupil for total current expenditures.

There is great disparity in total current expenditure levels for the random subset of Mid-Atlantic school districts. Eight Delaware districts lie above the regional peer averages for total current expenditures per pupil. These are Brandywine, Cape Henlopen, Christina, Red Clay, Woodbridge along with the three vocational/technical school districts.

This outcome may connect with the smaller sized school districts, both geographically and in population/enrollment, within Pennsylvania and New Jersey.

In Pennsylvania and Maryland, local funds pay for a majority of operating expenditures, meaning the districts have the opportunity to allocate funds in different ways, rather than a set system of state funds, which Delaware school districts utilize. With school districts in the neighboring states having this control over the majority of their funds, there is greater variability between the districts in expenditure patterns, influencing, among other areas, the number of administration staff hired at the district and school level.

Another driver in this scenario is the number of staff hired by the school district. Maryland and Pennsylvania districts have the ability to hire as many administrators deemed necessary for which

²⁵ Includes formula salaries, cafeteria funds, and other employment costs. FY 2007-2008.

funds are available. Delaware districts are dependent upon the state unit formula for the majority of their funding, and have only a small amount of local revenue over which they have discretion to use to supplement employee incomes, or hire additional staff. Thus, a school district like Charles County, with a larger number of administrators per school, can allocate a greater percentage of their overall budget on administration costs than a district like Downingtown, with a much smaller administrator to school ratio.

Case studies from high performing schools suggest that directing greater resources to regular education improve productivity.

Areas to consider for further research include:

A detailed analysis of public education expenditures on regular education and special education.

Classroom level analysis of pupil-teacher ratios

OBSERVATIONS ON DELAWARE PUBLIC SCHOOL DISTRICT EDUCATION SPENDING 2011

The Lieutenant Governor's office recently produced a report on Delaware Public School District Education Spending in 2011. Based on nationwide comparisons the report determined that Delaware spends a smaller percentage of money on direct educational expenditures than Connecticut, New Jersey, Pennsylvania or Rhode Island. The data used to define this statement was pulled from the National Center for Education Statistics (NCES) Report titled Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2007-2008. In the Delaware Public School District Education Spending Report direct educational expenditures included: instructional expenses, instruction support and student support. While instruction expenses refers to activities related to the interaction between teachers and students, instructional staff support refers to training for instructional staff, educational media and other support services for this group. Student support services includes: attendance and social work, guidance, health psychological services, speech pathology, audiology etc.

One of the primary conclusions from the Lieutenant Governor's Education Spending report was that "if all of the state's school districts were spending on direct educational services at the average rate of the states five top performing districts in this category, the state could direct an additional \$26.2 million to \$28.9 million annually into direct educational services." Based on the Lieutenant Governor's findings, the schools that spent the highest percentage on administrative costs were the following Delaware school districts: Appoquinimink and Laurel. The lowest percentage of funds spent on administrative costs among Delaware school districts were the Capital School District and the Red Clay School District.

In contrast, The University of Delaware's, Center for Applied Demography and Survey Research report on Financing Public Education in Delaware found that when looking only at direct instructional expenditures as categorized by NCES within Delaware, the amount spent per pupil is mainstream when compared to surrounding states. After including the additional categories of Instructional Staff Support and Student Support in the Lieutenant Governor's Delaware Public School District Education Spending 2011, Delaware direct education spending is noticeably less when compared to other states in close proximity. Instructional staff support is the areas that has the greatest degree of disparity when looking at other states surrounding

Delaware. At first glance it seems logical to use the FY11 budget to broaden district –level funding flexibility and increase the amount of funding in instructional staff support to schools with the greatest need, and determine if there is an improvement in student performance. However, after further analysis and comparing the rate of performance of other states in the region that do receive higher amounts of instructional staff support, it does not appear that this additional spending automatically correlates to increased student performance (see Figures 10.4 and 10 .5).

It is important to clarify the categories that are considered direct educational expenditures within the Lieutenant Governor’s report due to that fact that after including these education expenditures the differences in cost among states and in some cases districts with regards to instructional support staff is quite significant.

TABLE 10.0
ASSUMED METHOD FOR ANALYSIS OF DIRECT EDUCATIONAL
EXPENDITURES
AMOUNT OF EXPENSES PER PUPIL IN DELAWARE PUBLIC SCHOOL DISTRICT
EDUCATION SPENDING REPORT

	Instruction	Instructional Staff Support	Student Support Services	Total (Instruction, Instructional Staff Support and Student Support)	Total (Instructional Staff Support and Student Support Services)	Total (Student Support and Instruction)	School Administration
Delaware	7317	157	623	8097	780	7940	691
Connecticut	9166	463	888	10517	1351	10054	832
New Jersey	10471	577	1666	12714	2243	12137	1186
Pennsylvania	7131	455	584	8170	1039	7715	520
Rhode Island	8726	721	1711	11158	2432	10437	695

Source: National Center for Education Statistics Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2007-2008, Table 3 <http://nces.ed.gov/pubs2010/2010326.pdf>

Table 10.0 highlights the areas specified as educational expenditures in the NCES Revenues and Expenditures for Public Elementary and Secondary Education Report. When looking at the areas that are listed as relating to instruction, Delaware is not very far off from states in close proximity. However after comparing student support services, Delaware spending is relatively low per student at \$623, but Pennsylvania spends even less per pupil at \$584. In contrast Rhode Island spends \$1711 per pupil on student support services while New Jersey spends \$1666.

When looking solely at the column for instructional staff support, it is clear that Delaware does spend significantly less compared to other states in close proximity. While Delaware spends only \$157 per student on instructional staff support, Rhode Island spends \$721 per pupil in this area. Student achievement scores show another sharp contrast between these two states. When looking at student performance on the National Assessment of Educational Progress (NAEP), despite spending significantly less on instructional support staff, Delaware scores higher than Rhode Island on both the 4th grade science NAEP and the 8th grade math NAEP (tables 10.4 and 10.5).

TABLE 10.1
PERCENT DISTRIBUTION OF CURRENT EXPENDITURES FOR PUBLIC
ELEMENTARY AND SECONDARY EDUCATION

	Instruction	Instructional Staff Support	Student Support Services	Total (Instruction, Instructional Staff Support and Student Support)	Total (Instructional Staff Support and Student Support Services)	Total (Student Support and Instruction)	School Administration
Delaware	60.2	1.3	5.1	66.6	6.4	65.3	5.7
Connecticut	62.7	3.2	6.1	72	9.3	68.8	5.7
New Jersey	59.4	3.3	9.5	72.2	12.8	68.9	6.7
Pennsylvania	60.7	3.9	5	69.6	8.9	65.7	4.4
Rhode Island	60.3	5	11.8	77.1	16.8	72.1	4.8

Source: National Center for Education Statics Revenues and Expenditures for Public Elementary and Secondary Education: School Year 2007-2008, Table 4 <http://nces.ed.gov/pubs2010/2010326.pdf>

Table 10.1 highlights the percent distribution of current expenditures for public elementary and secondary education in Delaware, Connecticut, New Jersey, Pennsylvania and Rhode Island. Direct educational expenditures are relatively mainstream without the inclusion of instructional staff support and student support services. When looking only at instructional staff support, Delaware (1.3%) spends a much smaller proportion on these expenses than any of the identified surrounding states with the largest difference being Rhode Island (5%)

No Child Left Behind

With the passage of No Child Left Behind, requirements were set that stated that all students should be proficient in Math and English Language Arts by 2014. The Delaware Department of Education has been increasing their Adequate Yearly Progress (AYP) targets each year to assist in reaching the federally mandated goal of 100% of students proficient in Math and English. The AYP is the federal standard for school districts making academic progress. Within Delaware, the schools that do not meet their AYP goals for five or more years are required to undergo restructuring. Nationally, targets to meet the NCLB requirements are increased each year and unfortunately Delaware schools have not been meeting these increased goals.

Part of the challenge is that oftentimes low performing schools are in areas where there are high proportions of special needs students including: low income, English as a Second Language and special education. Because of NCLB requirements that must be reached by 2014, it is more important than ever to reallocate funding from schools where there is less of a need to schools where there is a greater need. Race to the Top Funding awarded to Delaware discussed later in this report is assisting with the goal to improve education performance. Reallocating funding refers to adding additional funding to the areas where Delaware is contributing a significantly smaller proportion when compared to other states in close proximity, specifically in the areas of instructional and student staff support.

A report titled “Delaware’s Plan to Strengthen Our Schools” produced in December 2009 highlights areas that will be targeted to improve student performance. The areas that will be focused on to improve school performance include: improve teacher effectiveness and ensure equal distribution of teachers to all students, enhance systems to track a student’s individual progress and include rigorous college and career ready standards in schools. These goals combined highlight the areas that Delaware education policy is working to achieve.

Delaware's Progress Toward AYP Goals

As evidenced by the Delaware Education Policy Institute Resource Book, it is clear that policy makers see the significance of evaluating where Delaware is with regards to education performance of its students prior to determining how funding should be allocated. Adequate Yearly Progress (AYP), measures produced by the Delaware Department of Education (DDOE) is a good place to start to determine how the state is educating its student population. The measures looked at in the AYP compare at Delaware Student Testing Program (DSTP) testing in the state. The testing scores achieved among students at each grade level determines if schools are meeting the goals of both the federal government as well as the State of Delaware. Delaware tracks the progress of all of the schools and measures the amount of progress at both the State and at the Federal level.

According to Delaware Kids Count Fact Book 2011, in 2010 the percent of students meeting the standard on 3rd grade reading on the DSTP was 77.3% while math was 78.5%. Among 5th graders the percentage of students meeting the standard on the reading exam was 81.3 percent while the percent of 5th graders meeting the standard on the math exam was 76.4 percent. Of eighth, graders who took the DSTP reading exam 78.6 percent met the standard in reading while 68.8 percent met the standard in math. Finally among tenth graders who took the DSTP exam 65.5 percent met the standard in reading while 57.9 percent met the standard in math. The 2010 statewide test results for the DSTP found that in 2010 the majority of students in the state has shown improvement or remained constant in mathematic scores since 2009. Reading scores among students in the second through tenth grade have decreased in some cases significantly since 2009.

Overall when comparing the schools within each school district in Delaware, this state is falling short of AYP goals both at the Federal and at the State level. Table 10.2 below lists the percent of the schools in the listed school districts that are below target for both the federal standard for the AYP and the state progress level. Below target means that the school district listed did not meet the goals for reading and mathematics among its population.

TABLE 10.2
ADEQUATE YEARLY PROGRESS IN DELAWARE 2009

	Number of public schools that do not meet federal adequate yearly progress goals (AYP) (Below Target)	% of schools that do not meet Federal AYP Goals	Number of public schools that do not meet state progress goals (Below Target)	% of schools that do not meet state progress goals	total number of public schools within the district
Appoquinimink	3	23.1	0	0.0	13
Brandywine	5	29.4	5	29.4	17
Christina	11	42.3	12	46.2	26
Colonial	6	42.9	11	78.6	14
New Castle Voc-Tech	2	50.0	3	75.0	4
Red Clay	9	29.0	16	51.6	31
Caesar Rodney	3	23.1	2	15.4	13
Capital	3	25.0	4	33.3	12
Polytech	0	0.0	1	100.0	1
Lake Forest	0	0.0	1	14.3	7
Milford	2	33.3	3	50.0	6
Smyrna	2	25.0	2	25.0	8
Cape Henlopen	3	37.5	1	12.5	8
Delmar	0	0.0	2	100.0	2
Indian River	2	14.3	1	7.1	14
Laurel	4	80.0	2	40.0	5
Seaford	4	66.7	3	50.0	6
Sussex Technical	0	0.0	1	100.0	1
Woodbridge	1	33.3	1	33.3	3

Source: Center for Demography & Survey Research, Delaware Department of Education, School Accountability Ratings for 2009

TABLE 10.3
ADEQUATE YEARLY PROGRESS 2009 COMPARED TO RESULTS OF DELAWARE
PUBLIC SCHOOL DISTRICT EDUCATION SPENDING 2011 REPORT (DIRECT
INSTRUCTIONAL SPENDING TOTAL AND ADMINISTRATIVE SPENDING TOTAL,

District	% Not Meeting Federal AYP Goals	% Not Meeting State Progress Goals	Total Number of Schools in School District	Instr.	Instr. Support	Student Support	Total	Admin.	Capacity
Caesar Rodney	23.1	15.4	13	67.93	1.37	4.96	74.26	7.22	-----
Cape Henlopen	37.5	12.5	8	65.11	2.52	6.48	74.11	6.35	-----
Seaford	66.7	50	6	66.39	1.58	6.08	74.05	6.12	-----
Delmar	0	100	2	66.49	1.27	5.67	73.43	7.79	-----
Capital	25	33.3	12	66.99	1.51	4.23	72.73	4.61	-----
Indian River	14.3	7.1	14	66.24	0.67	4.86	71.77	6.8	\$1,724,495.00
Red Clay	29	51.6	31	67.17	0.8	3.66	71.63	5.98	\$3,898,261.00
Milford	33.3	50	6	66.75	1.52	3.18	71.45	6.56	\$950,938.00
Colonial	42.9	78.6	14	65.75	2.06	3.4	71.21	7.49	\$2,581,441.00
Smyrna	25	25	8	64.39	1.67	5.01	71.07	7	\$1,205,780.00
Brandywine	29.4	29.4	17	63.13	1.24	6.34	70.71	6.49	\$4,187,465.00
Woodbridge	33.3	33.3	3	61.64	1.6	7.15	70.39	8.45	\$841,720.00
Appoquinimink	23.1	0	13	66.68	0.12	3.56	70.36	10.21	\$2,900,771.00
Christina	42.3	46.2	26	64.76	0.45	3.7	68.91	6.71	\$8,924,928.00
Laurel	80	40	5	62.42	0.53	5.17	68.12	9.65	\$1,335,128.00
									\$28,550,927.00

* Source Center for Applied Demography & Survey Research, University of Delaware, Delaware Department of Education School Accountability Ratings for 2009 and *Source: State of Delaware, Office of the Lieutenant Governor. Prepared using 2009-2010 School Year Statistics compiled by Delaware Department of Education, 2011 Spending Data

Based on the AYP reports for school districts in Delaware, 80 percent of the schools in the Laurel School District did not meet the federal AYP goals while approximately 67 percent of the students in the Seaford School District did not meet federal AYP goals. Interestingly, the progress indicators differ at both the federal and state level. At the state level, approximately 100 percent of schools in the Delmar School District do not meet the state progress goals, while 78.6 percent of the students in the Colonial School District do not meet state progress goals.

Budgeting for Education Improvement

Additional data produced by the Delaware Public Policy Institute (DPPI) highlights that Delaware is among the top 10 states nationally with regards to public school spending, although students are performing near the center of the pack. Much of what was discussed in a report titled “Estimating the Cost of an Adequate Education in Delaware” produced by the DPPI points out that it makes sense to incorporate a weighted formula to determine where is the greatest need for educational school districts. This option could be used instead of having a one size fits all approach to education spending. Due to the fact that some school districts have higher proportions of special education students, English Language Learners (ELL) students and low income students, it makes sense to consider funneling additional education funding to districts where there is the greatest need. If one school district has 19% of students at risk of failing while another school district has 10% at risk of failing, it makes sense to have a higher baseline for spending on direct instructional spending to the school districts that have a higher percentage of students who are at risk of failing using the weighted formula approach suggested by the DPPI. This method of allocation of funding has recently been applied to the State of Delaware for students who have been classified as needing special education. In 2011, House Bill 1 addressed the issue of allocating funding by providing needs based funding for children with disabilities based on their Individualized Education Program (IEP) rather than categories. The IEP is designed for a student who has difficulty learning or functioning and been identified as special needs. The IEP identifies goals set for the year for each child and any special support that might be needed for the student to achieve goals set by their educators and parents. In Delaware, currently 13.5 percent of students are in special education and have an individual education plan. Of the 13.5 percent of students, 9.5 percent are considered to have a mild disability, 3 percent are considered to have a moderate disability while 1 percent are considered to have a severe disability. The allocation of funding for these students will not be based solely on their level of disability. Rather, funding will be based on the needs of each individual child.

According to the Delaware Education Policy Resource Book 2010, Governor Markel proposed an initiative for the FY 2011 budget with a goal to broaden district-level funding flexibility.

Additionally, there is a plan to add school level flexibility for the lowest performing schools.

With the proposed eight district pilot to broaden district level funding flexibility, it would have also made sense for the districts to also look at the schools' individual funding and identify the schools that have the highest number of ESI, low income and special education students and cross reference the performance on the schools DSTP and AYP and state student progress reports.

Additional funding could be allocated using the weighted approach to target high needs schools based on students' learning needs and challenges.

TABLE 10.4
2011-2012 SPECIAL NEEDS STUDENTS IN DELAWARE

	English Language Learner	Low Income	Special Education
Capital	4.6%	47.0%	16.4%
Cape Henlopen	3.9%	49.0%	16.0%
Caesar Rodney	1.8%	45.1%	14.4%
Christina	7.0%	59.8%	14.8%
Indian River	10.5%	63.4%	13.9%
Seaford	10.0%	70.9%	14.2%
Laurel	5.0%	67.6%	14.0%
Colonial	9.2%	59.9%	12.8%
Smyrna	1.3%	43.6%	13.5%
Milford	7.7%	57.7%	13.2%
Woodbridge	7.3%	55.7%	12.6%
Lake Forest	1.3%	58.4%	12.2%
Red Clay	8.7%	46.7%	10.8%
New Castle Vocational Tech	1.5%	43.2%	11.5%
Brandywine	3.4%	42.7%	10.7%
Delmar	0.3%	33.2%	9.7%
Appoquinimink	1.3%	21.7%	9.3%
Polytech	0.0%	23.1%	8.8%
Sussex Technical	0.20%	29.9%	8.8%

Source: Center for Demography & Survey Research, Delaware Department of Education School District Profiles 2011-2012

Improve Student Performance

Currently Delaware is working towards the goal to improve teacher effectiveness in the state with the end result being improved student performance. In their 2010 Resource Book, the Delaware Education Policy Institute (DEPI) identified four primary areas that surround the issue of teacher effectiveness in Delaware. These areas include: teacher and leader preparation, teacher certification, and induction, recruitment and hiring and equitable distribution of effective teachers and leaders, incentives, compensation and advancement and teacher evaluation professional development and accountability.

The DEPI report looked in depth at the role of teacher and leader preparation, certification, licensure and induction. Policy makers in Delaware identified the following areas as issues in teacher and leader preparation: teacher preparation admission requirements, teacher and administrator preparation program accountability (colleges and universities are held accountable for courses offered but not the effectiveness in the school), determining the effectiveness of the teacher before granting tenure and providing well-trained and effective teachers to high needs schools. Policy makers compared Delaware to other states with regards to what is currently being done to promote teacher and leader effectiveness in the schools. Four areas were looked at in the DEPI resource book with regards to teacher preparation programs. In 2009, Delaware was not applying three out of the four items identified as effective for enhancing teacher preparation. The methods not being used to enhance teacher preparation among Delaware school systems in 2009 included testing teacher candidates in basic skills prior to admission to a program, making data publically available on the website and setting minimum standards for program performance. As of 2011, some of the areas to enhance teacher effectiveness have begun to be implemented as a result of the influx of Race to the Top Funds. To improve deficiencies observed in the DEPI Resource Book, certain policies have been enacted to improve the preparation, certification and licensure of teachers and principals. Some of the most notable policies that are under way include the development of a grant program to reward effective teacher preparation programs. Legislation has also been passed to require teachers to show student growth prior to receiving continuing licenses and tenure protections.

While it is important to put controls in place to ensure enhanced teacher effectiveness and thus student performance, it is important to remember that teaching is oftentimes a thankless job. While teachers know that they have responsibilities as employees of the school district, they often work long hours with a difficult “clientele” and do not receive compensation for additional hours

worked or money spent on classroom supplies. It is critical that when requiring teachers to show student growth these same teachers know that student growth equals acknowledgement of a job well done. For many individuals, this can be demonstrated with enhanced compensation and opportunities for enhanced work life balance. Another point to consider is that placing too much emphasis on achieving specific test scores can lead to teachers teaching to the test and in worst case scenarios systematic cheating. This was revealed in Atlanta as a result of a statewide investigation report released in July 2011.

Pay for Performance

The primary area of direct educational funding is in the area of teacher compensation. With student performance falling far short of No Child Left Behind, Delaware is looking for new and innovative methods to improve student performance. An option shown to be effective for recruitment of highly effective teachers is to incentivize teacher compensation based on performance. This pay-for-performance method of reimbursement has been shown to improve performance in public schools where there are high poverty rates.

Research has shown that one of the most effective methods to improve student performance is to ensure that they are taught by highly qualified teachers. Other research has shown that one effective method to get teachers to teach in low performing schools is to increase compensation. If Delaware wishes to improve student performance in the school system, it makes sense to begin to offer incentives for highly qualified teachers to provide instruction in schools where there is the greatest need. In 2009, Delaware did not provide incentives to encourage teachers to teach in high needs schools. At the time that the DEPI Resource Book was published, twenty-five other states had policies in place to provide incentives for teachers to work in high needs schools while twelve states had policies that provided incentives for highly qualified teachers to work in high needs schools.

Comparing teacher roles to working within a highly effective corporate structure helps to demonstrate how incentives for teachers can improve student performance. Typically within corporations, employees receive salaries based on how effectively they produce for their company. If an employee brings in an account worth a significant amount of money, he can expect to receive a bonus or pay increase for his effort. Increased pay for an above average performance provides an incentive for employees to continue to improve their work performance. While the day to day work of teachers is different than for individuals working in a corporation,

the impetus to do a good job at work has striking similarities; perform better and you will be compensated.

Race to the Top Funding is allowing a shift in the traditional teaching compensation paradigm and allowing the inclusion of additional financial incentives in the education budget for highly qualified teachers to teach in certain school districts. Delaware is currently working to improve recruitment, hiring, and equitable distribution of qualified teachers among school districts in Delaware. Prior to the awarding of Race to the Top Funding, funding to support incentives or programs to improve teacher distribution was only a consideration and not actively being used as a recruitment tool.

Race to the Top

Race to the Top funding received by Delaware was a significant step in reaching the goals to improve current education progress in Delaware. Delaware was awarded approximately \$119 million in Race to the Top Funding to reach a number of goals. These goals include “more than half of Delaware’s students will be proficient or advanced on the National Assessment of Educational Progress (NAEP); the achievement gap will decrease by 50% no later than the 2014-2015 school year; all students will meet state standards; graduation rates will rise; and more students will enter and be successful in college.” Additionally, funding will be used to provide fellowships and retention bonuses for highly effective teachers in some high needs schools. Of the funding awarded, 50% will be allocated to local education agencies (LEA) for distribution. An example of one such program officially began its first class in July 2011. Delaware began a new program titled the Delaware Leadership Project to train educators to work in persistently low performing schools. This program will place seven individuals in a yearlong placement in schools around the state to work with teachers and make improvements to high needs schools. The funding for the Delaware Leadership Project includes \$1.09 million from the Department of Education, \$1.16 million from the private sector, and approximately \$849,000 from the schools districts and charter schools.

The funding that has been provided for teachers and leaders highlights one of the areas that was identified as being considered for implementation by Governor Markel. The bonuses provided for highly effective teachers and leaders will be for those who choose to work in high poverty or high minority schools. These teachers will be eligible for retention bonuses that will

range from \$8,500 to \$10,000 per year. Additionally, a Delaware Fellows program will begin in 2011 that will provide bonuses of \$5,000 to highly effective teachers who are willing to work in certain high poverty or high minority schools. Race to the Top Funding will also allow funding through an Academic Achievement Award Program that will provide a \$150,000 bonus to each of five schools who exceed their AYP progress for two or more years. Ideally this potential bonus will encourage school administrators to focus on implementing measures that are highly likely to improve student performance.

It is important to note that although the Race to the Top Funding will award additional retention bonuses to highly effective teachers, according to the National Education Association (NEA), currently Delaware's beginning and average salaries are noticeably less than surrounding states. Delaware's beginning salary is \$36,633 while the average salary in the state is \$60,746. In Pennsylvania the beginning is \$38,229 while the average salary for teachers is \$62,664 while in Maryland the beginning salary is \$42,297 while the average salary is \$64,838. Increasing the amount of the average and beginning salaries would also do much to attract highly effective teachers to Delaware.

Some schools are considered persistently low achieving schools. These schools have been designated as "partnership zones" with a goal to implement one of four intervention models to help promote rapid achievement among the schools. Each school has the option of selecting one of the school intervention models to transform the school. The intervention model options include: turnaround schools (principal and at least 50% of the staff should be replaced), transformation (the principal is replaced and steps should be taken to increase teacher and school leader effectiveness), restart (convert a school to a charter school), closure (close a school and send students to higher achieving schools)

With the influx of Race to the Top Funding, the average amount spent on direct educational instruction will significantly increase until 2014 when the funding is expected to be spent. This funding will allow for a unique way to track how student progress changes during the time period that funding is being awarded. School districts will be able to incorporate new data tracking tools, including data coaches that were hired to assist teachers to develop lesson plans designed to address areas in need of improvement.

COMPARISON OF EDUCATION QUALITY AMONG MULTIPLE STATES

Although it is important to look at educational performance in our state it is also important for our legislators to look at the education quality of other states in close proximity. By looking at both education performance and the cost of direct instructional expenses in other states it is easier to get a picture of whether the additional resources that are being spent on education is making a difference in the educational performance of children. As previously mentioned in this paper the primary disparity in terms of direct educational expenditures between Delaware and other surrounding states is in the area of instructional staff support.

We will look at the states identified as being in close proximity to Delaware and determine if the students are performing worse when compared to states where additional funding is spent on instructional support services. It is easy to say that more education funding should be directed to direct instruction to improve the performance of students. By utilizing The Nation's Report Card and analyzing scores and proficiency on the National Assessment of Educational Progress (NAEP), we will look at the performance of students in Connecticut, New Jersey, Pennsylvania and Rhode Island to determine if the additional funding that they are receiving is impacting the students in these states (see Figure 1.4). Interestingly Rhode Island spends the most per pupil (721) and the largest proportion (5%) on instructional staff support compared to all of the states that have been identified being within close proximity to Delaware. Although Rhode Island spends the most in this area with regards to average fourth grade performance on the Science NAEP, this state's average scores (150) are the lowest when compared to Delaware (153) and other states located nearby. When looking at eighth grade mathematics results on the NAEP, the results also demonstrate that Rhode Island's average score is less (278) than Delaware (284). Twenty-five percent of Delawarean eighth graders scored below proficient on the eighth grade Math NAEP, while thirty-two percent of Rhode Island eighth grade students scored below proficient on this exam.

TABLE 10.5
AVERAGE FOURTH-GRADE NATIONAL ASSESSMENT OF EDUCATIONAL
PROGRESS (NAEP) SCIENCE SCORES AND PERCENTAGES OF STUDENTS AT
EACH ACHIEVEMENT LEVEL, 2009

	Average Score	Below Basic	Basic	Proficient	Advanced
Delaware	153	23	77	34	0
Connecticut	156	22	78	40	1
New Jersey	155	22	78	39	1
Pennsylvania	154	24	76	38	1
Rhode Island	150	26	74	34	0

Source: Center for Applied Demography & Survey Research, The Nation's Report Card, State Results 4th Grade, 2009

TABLE 10.6
AVERAGE EIGHTH-GRADE NATIONAL ASSESSMENT OF EDUCATIONAL
PROGRESS (NAEP) MATH SCORES AND PERCENTAGES OF STUDENTS AT EACH
ACHIEVEMENT LEVEL, 2009

	Average Score	Below Basic	Basic	Proficient	Advanced
Delaware	284	25	75	32	6
Connecticut	289	22	78	40	10
New Jersey	293	20	80	44	14
Pennsylvania	288	22	78	40	10
Rhode Island	278	32	68	28	6

Source: Center for Applied Demography & Survey Research, The Nation's Report Card, State Results 8th Grade, 2009

Analyzing the percentages of special needs students (i.e. special education, English as a Second Language and Low Income) will allow us to determine if these numbers in surrounding states are comparable to Delaware. This will also give us an indicator of whether or not we are comparing like populations to similar populations. In essence, we are attempting to discern if the comparison between school districts in the states surrounding Delaware are “apples to apples” or “apples to oranges”. Any differences will also affect how we can look at how funding is being allocated in the school system.

Early Childhood Education Funding

The state budget does not provide early childhood education funding, however some school districts can and do allocate a portion of their Title 1 funding to early childhood education. This section of the report will determine what school districts allocate federal funding to early childhood education. We will then answer the question of if administrative funding is included for early childhood education from the Title 1 funding used for early childhood education in the individual school districts. Can spending on administration come out of the Title I funding used by individual school districts for early childhood education

Conclusion

Education spending clearly is one of the main topics of current policy in Delaware. Race to the Top funding puts a spotlight on Delaware with regards to the methods that have been taken and are planned to improve underperforming schools. Determining how to apply direct education is an area that has been debated over time, which is why in this report we chose to include comparisons of Delaware schools' average yearly progress to education expenditures. We found that when just looking at instruction expenses and support services, Delaware spends less than other states regionally located. However, after factoring in average yearly progress compared to some states, Delaware surpasses their level of performance even though the amount spent on direct instructional expenses in some cases is less. It is also important to consider upcoming policy changes that will lead to a reduction in funds to technical schools. It is not yet clear what this impact will be on Delaware technical schools. However, because Race to the Top Funds will no longer be available after 2014, and it is expected that the overall budget of technical schools will be reduced, it is important that the First State develops clear and concise measures to improve student performance. By using current funds to improve school districts, schools will ideally have methods in place that will continue to work to improve schools after Race to the Top funds are no longer available.

LITERATURE REVIEW

The following is a review of materials from several literary sources dealing with public education financing. The different proposals describe several suggestions for change in this area; however, there is a lack of definitive conclusions regarding the outcome of these measures. Several case studies reviewed the efforts by states and local school districts to alter the means of resource collection and allocation.

Improving Efficiency and Cost-Effectiveness

Concerns about equitable and adequate distribution of educational opportunities are matched by equally pressing worries about productivity and efficiency in public schooling. Although historically the productivity problem has been "rising resources with flat or only slowly rising student achievement," the future challenge will be to produce substantially higher student achievement with flat or stable resources (Odden and Clune 1995).

Researchers Positions on the Issue

David Sjoquist and James Alm (2009) examined the recession during 2001 and looked at how it affected spending among grades K-12 primarily in the state of Georgia. The authors of this study found that although state revenue fell following the 2001 recession local real revenue per student was not likely to fall. It also found that the majority of post recession cuts in state real revenue per student varied across the local school systems in Georgia. Weak evidence existed that local real revenue per student was lower when the state real revenue was higher. There was also no data to support the belief that school systems in Georgia responded to the 2001 recession by making immediate changes in state revenue. During the 1990's Georgia experienced an increase in revenue however after the 2001 recession there was a slowing and slight decrease in revenue at the state level. Sjoquist and Alm found that Georgia experienced a more severe and continuous fall in state plus local real revenue per student after 2001 than other states. Data from the Georgia Department of Education showed that a recovery period began in 2006 with state plus local real revenue per student improving in 2006 and 2007.

Response to states dealing with budgetary issues varies and with that variation comes the necessity to adapt to the changing dynamics of available funding according to Andrew Reschovsky (2004). Reschovsky points out that during the 2000-2001 school year with the exception of Hawaii, state governments provided about half of the revenue of public and elementary schools. This article points out that although the majority of politicians in different states place a high priority on the financing for K-12 education this funding is at risk. The majority of state government intergovernmental expenditures which are directly impacted during a recession are the same revenue that finances K-12 education (Reschovsky 2004) funding that goes to these schools.

Other researchers are also divided on the productivity/money matters issue. Some, like Eric Hanushek (1996), find little advancement in student achievement over the years that can be traced to increased funding. Others are more optimistic, claiming that some expenditures are tied to improved student achievement (Hedges and associates 1994, Kazal-Thresher 1993). Experts do agree on three points: available resources are shrinking; research should uncover how funds are actually spent; and schools will have to discover more cost-effective ways to use existing resources (Hadderman 1998).

Allan Odden and William Clune dismiss "wasteful administration" and high teacher salaries as culprits, pointing instead to poor resource distribution, unimaginative use of existing funds, schools' bureaucratic structure, and focus on services and labor-intensive practices that drive up costs. Others attribute low productivity to schools' unstable governance structure, lack of incentives, inefficient budgeting and reporting practices, and tendency to backload, or overspend, on veteran teachers' salaries (Consortium on Productivity in the Schools 1995, Hanushek 1994, Lankford and Wyckoff 1997).

Some researchers claim that regardless of available funding, "school districts tend to utilize their resources in the same basic proportions," with 60 percent earmarked for instruction and about 40 percent going for support services (Picus 1996). Others have shown that most new funding dollars have gone for specialists and services, not the core instructional program (Odden 1996).

Other researchers point to increasing concerns about the availability of enough adequately trained and experienced teachers in the teaching profession to properly educate students. One of the primary messages gained from this article is that teacher salaries which have a direct effect on teacher attrition. Statistics clearly state that salaries make up the majority of the education budget in all schools. This article points out that it is important to explore how increasing teacher salaries might improve the attrition of teachers. Even though the education expenditures portion of the budget would increase with an increase in teacher salaries, the risk benefit is worth exploring how this would impact educational finance (Imazeki's 2005)

Resource-Allocation Practices

Another kind of efficiency research explores schools' resource-allocation practices. David H. Monk's (1996) study of the New York State K-12 system found a 55 percent increase in secondary-level special-education instructional resources between 1983 and 1992, alongside modest increases in allocations for science and math teachers. These findings raise questions concerning the proper, most efficient distribution of teacher resources across different programs and subject areas.

Linda Hertert's 1995 resource-allocation study of 1,000 California schools in thirty districts disclosed similar findings. Besides uncovering considerable disparities among districts and among schools within the same district, Hertert found that "the distribution of teacher-pupil ratios, teacher experience, teacher education, and course offerings in higher-level math and science was less equitable across schools than was the allocation of money used to buy these resources" (Picus 1996). However, Nakib's study of sixty-seven Florida counties found "remarkably stable allocation patterns for both expenditures and staff allocation practices" (Picus).

Another look into the increasing inequities in the educational system was conducted throughout Patricia First's 2007 study of the Arizona school systems and the vast disparities among many of the districts in this state. This study found that the taxable valuation among Arizona's districts ranged immensely from \$5.8 million per pupil to \$749 per pupil. There was also evidence that while wealthier schools had amenities such as indoor swimming pools and television studios poorer schools were often times in violation of building codes and lacked basic facilities such as

libraries. First discusses the first case in Arizona that challenged the rule of only providing funding for capital items. This court battle between Roosevelt Elementary School District v. Bishop ultimately led to the passage of the Assistance to Build Classrooms Fund Act of 1997. This legislation provided some equalization in funding for capital items between high and low property wealth districts. (First)

School-Level Data-Collection Initiatives

The growing demands for accountability, the shift to school-level equity analysis, and the limitations of state education data systems underscore the need "to create new, detailed, and comprehensive school-level data systems" (Busch and Odden 1997). Constructing these new databases will be a costly yet beneficial endeavor that cannot succeed unless complex issues such as relevance, accessibility, comparability, capacity, and reliability are resolved (Busch).

States' Pioneering Efforts

Although many school districts currently track financial operations at the school level, few states require uniform accounting measures, making across-district comparisons very difficult (Picus 1996). Florida, with twenty years' experience, has a school-level data-collection system that furnishes the state with financial, student, and staff data via online, onsite computer terminals (Picus).

Texas has a dual fiscal reporting and accountability system, the Academic Excellence Indicator, to provide information on teachers, student demographics and performance, and expenditures for each of 6,000 separate campuses.

Ohio, which made school-level data collection mandatory in 1994-95, tracks expenses via individually assigned school codes. Using Bruce Cooper and colleagues' model (1994), user-friendly Expenditure Flow Model data are aggregated to district and state levels and divided into instruction, pupil support, staff support, administration, and operations support functions; these, in turn, are divided into central-office and school-site expenditures (Picus).

School Case Studies of Teaching Resource Allocation

An analysis of staffing and spending patterns from 1967 to 1991 in nine different districts from across the country showed only a small portion of new teaching staff went towards reduction of class sizes for regular education students. Virtually all of the increase in staff per pupil went towards special education, in an effort to provide small class sizes for students with special needs (Miles, 1997a and 1997b; Rothstein and Miles, 1995). Since 1950, the proportion of school staff classified as teachers dropped from 70 to 53 percent, of whom three-fourths are engaged in classroom instruction (National Commission on Teaching and America's Future, 1996).

Analysis of the allocation of teaching resources in Boston, MA public schools identified six educational and management practices in an effort to explain the difference between the apparently rich potential and reality in American schools. The relative impact of these practices on the use of teaching resources differs to some extent between districts, but the practices were highly consistent across districts and over time. These practices include:

- Separate, specialized programs for small subsets of students and teachers
- Instruction-free time for teachers spread throughout the student day
- Formula driven school assignment
- Fragmented high school schedules and curriculum
- Large high schools
- Inflexible teacher workday and job definition

The analysis of traditional allocation of teaching resources highlights these practices that offer opportunities to realign teacher resources to provide more individualized attention and planning time for teachers. Miles and Darling-Hammond utilized these six characteristics for their conceptual framework from understanding and quantifying teacher resource allocations. Only through the consideration of these practices as a group could alternatives become possible.

These opportunities include:

- Reduction of specialized programs and creation of more generalized roles for teachers
 - More flexible student groupings targeted for individual student needs
 - Structures that enable personal relationships
 - Longer and more varied blocks of instruction time
- Creation of more usable common planning and professional development time for teachers
 - Creative definition of staffing roles and workday

Miles and Darling-Hammond extended these criteria to five sample schools, three elementary and two high schools from across the country to examine their use of teaching resources. All of the schools worked to redevelop their means for teacher resource allocation in ways to best meet student needs as defined by the schools, along with creation of additional time for teachers to implement their vision of schooling. The framework of this analysis provides a means for researchers to systematically examine possibilities of reallocating teacher resources while also measuring their impact. The model schools suggested that resource reallocation and the design of an instructional vision are “inextricably intertwined.” Restructuring resources and allocation makes no sense without a clearly defined educational strategy.

The five schools in the study by Miles and Darling-Hammond only touched the potential for rethinking school resources, due to their constraints to present salary structures and lack of exploration into technology within the classroom. However, the authors believe these outcomes shown in these schools foreshadow the ways schools must rethink existing resources in order to create more personalized education for students and more professional responsibility and growth for teachers (Miles and Darling-Hammond, 1997).

Benefits and Limitations of School-Level Data

Picus's (1997) ongoing study of school-level data collection in four states (California, Minnesota, Florida, and Texas) explores whether such systems offer researchers and practitioners a boundless opportunity or a bottomless pit. The most significant gleaning: it is as hard to analyze data as it is to obtain them. States set up systems in response to legislative requirements, not researchers' needs. This situation might be remedied by setting up a licensing system similar to that used by the National Center for Education Statistics (Picus 1997). Researchers' patience and willingness to develop strong personal relationships with data-production staff are essential.

One limitation on school-level data is the difficulty of comparing data across states (Picus 1997). Some researchers believe equity and effectiveness would be better served if a national system of student-level resource measures could be developed (Berne and Stiefel 1995). Others insist that a student-poverty factor be added to funding analyses (Berne 1995, Consortium 1995, Biddle 1997). Hertert (1995), addressing national equity concerns, sees the NCES and Census Bureau's jointly developed Common Core of Data (containing standardized, comparable revenue and expenditure data for the nation's 15,000 districts for 1989-90) as a good first step for measuring interstate disparities.

In sum, school-level data systems are no magic bullet for measuring or maximizing available resources. They do have great potential to enhance understanding of the relationship between financial resources and student outcomes and to provide a richer, more in depth picture of schools' expenditure patterns (Picus 1997).

APPENDIX

Delaware Teacher Salary Schedule, 2009-10 School Year

Years of Experience	No Degree	Bachelors Degree	Bachelor Plus 15	Bachelor Plus 30	Master Degree	Master Plus 15	Master Plus 30	Master Plus 45	Doctoral
0	25,251	26,276	27,301	28,326	29,863	30,887	31,912	32,940	33,964
1	25,506	26,534	27,558	28,583	30,120	31,145	32,170	33,194	34,219
2	25,737	26,788	27,813	28,838	30,375	31,400	32,425	33,452	34,477
3	26,660	27,684	28,709	29,737	31,274	32,298	33,323	34,348	35,373
4	27,430	28,378	29,300	30,249	31,631	32,553	33,707	34,732	35,756
5	28,378	29,300	30,249	31,171	32,553	33,502	34,424	35,373	36,295
6	29,300	30,249	31,171	32,094	33,502	34,424	35,373	36,295	37,217
7	30,249	31,171	32,094	33,042	34,424	35,373	36,295	37,217	38,166
8	31,171	32,094	33,042	33,964	36,757	37,680	38,626	39,551	40,497
9	32,094	33,042	33,964	34,887	37,680	38,626	39,551	40,497	41,419
10	33,042	34,020	34,887	35,835	38,626	39,551	40,497	41,419	42,344
11			35,835	36,757	39,551	40,497	41,419	42,344	43,290
12			36,810	37,680	40,497	41,419	42,344	43,290	44,212
13				38,626	41,419	42,344	43,290	44,212	45,134
14				39,595	42,344	43,290	44,212	45,134	46,083
15					43,290	44,257	45,134	46,083	47,005
16							46,075	47,052	47,946

Source: Delaware Department of Education

Sample District Salaries, 2001-2002.

	School District	Starting B.A.	Top MA+45 15 Yrs.	Top Salary MA+45
DE	Brandywine	\$31,716	\$64,353	\$68,500
DE	Appoquinimink	\$30,786	\$58,965	\$58,965
DE	Christina	\$31,537	\$67,488	\$68,688
DE	Colonial	\$30,801	\$67,009	\$68,009
DE	Red Clay	\$31,049	\$65,624	\$65,624
DE	NCCVTSD	\$31,305	\$64,300	\$66,672
PA	Chester Upland	\$32,000	\$67,550	\$67,550
PA	Chichester	\$31,142	\$72,027	\$72,027
PA	Garnet Valley	\$32,725	\$78,513	\$78,513
PA	Haverford	\$32,000	\$78,800	\$78,800
PA	Interboro	\$34,368	\$82,791	\$82,791
PA	Marple Newton	\$34,396	\$73,954	\$76,859
PA	Penn Delco	\$33,150	\$64,934	\$71,004
PA	Radnor Twp	\$38,325	\$83,405	\$83,405
PA	Rose Tree Media	\$35,600	\$78,404	\$78,404
PA	Southeast Delco	\$32,223	\$74,806	\$74,806
PA	Springfield	\$32,500	\$60,664	\$76,450
PA	Upper Darby	\$33,648	\$77,017	\$77,017
PA	Wallingford	\$35,000	\$72,644	\$81,450
PA	William Penn	\$32,998	\$69,139	\$69,139
PA	Avon Grove	\$30,000	\$63,250	\$72,774
PA	Coatesville	\$32,500	\$55,400	\$68,300
PA	Great Valley	\$34,692	\$73,462	\$80,250
PA	Downingtown	\$32,600	\$59,750	\$71,450
PA	Kennett	\$34,800	\$75,000	\$78,350
PA	Oxford	\$31,422	\$56,102	\$62,602
PA	Tredyffrin-Easttown	\$38,850	\$78,405	\$82,525

PA	Phoenixville	\$34,500	\$68,110	\$75,410
PA	Unionville Chadds Ford	\$33,000	\$67,481	\$76,949
NJ	Clayton Boro	\$33,439	\$56,669	\$59,927
NJ	Deptford Twp	\$38,715	\$60,225	\$65,496
NJ	East Greenwich	\$34,015	\$53,573	\$58,312
NJ	Logan Twp	\$37,000	\$57,571	\$64,002
NJ	National Park Boro	\$32,280	\$57,883	\$58,378
NJ	Wenonah Boro	\$34,000	\$56,925	\$62,000
NJ	Woodbury City	\$35,000	\$66,200	\$76,603
NJ	Franklin Twp	\$34,150	\$56,610	\$60,560
NJ	Woodbury Heights	\$33,000	\$58,250	\$65,950
NJ	Alloway Twp	\$34,009	\$48,332	\$53,026
NJ	Lower Alloway's Creek	\$32,700	\$49,450	\$61,100

Source; Delaware Department of Education. Latest available data.

Interstate Comparison of Beginning and Average Salaries 1996-97 to 2006-07

Beginning Salary	DE	PA	NJ	MD
1996-97	\$24,349	\$29,426	\$28,039	\$26,548
1997-98	\$25,493	\$29,581	\$28,319	\$27,010
1998-99	\$29,981	\$29,793	\$29,112	\$27,605
1999-00	\$30,945	\$30,185	\$30,480	\$28,612
2000-01	\$32,281	\$31,127	\$30,937	\$30,321
2001-02	\$32,868	\$31,866	\$35,311	\$31,828
2002-03	\$33,811	\$32,897	\$35,673	\$32,939
2003-04	\$34,566	\$34,140	\$37,061	\$33,760
2004-05	\$35,854	\$34,976	\$38,408	\$37,125
2005-06	\$38,547	\$35,782	\$43,068	\$38,649
2006-07	\$39,941	\$36,599	\$44,523	\$40,849
Source: American Federation of Teachers.				
Average Salary	DE	PA	NJ	MD

1996-97	\$41,436	\$47,147	\$49,786	\$41,257
1997-98	\$42,439	\$47,542	\$50,284	\$41,404
1998-99	\$43,223	\$48,457	\$51,692	\$42,545
1999-00	\$44,435	\$48,321	\$50,878	\$43,720
2000-01	\$47,047	\$49,528	\$51,955	\$45,963
2001-02	\$49,011	\$50,599	\$50,115	\$48,251
2002-03	\$50,441	\$51,425	\$52,243	\$49,679
2003-04	\$51,122	\$52,640	\$53,663	\$50,303
2004-05	\$52,924	\$53,281	\$56,635	\$52,330
2005-06	\$52,493	\$54,043	\$58,270	\$54,333
2006-07	\$54,537	\$54,977	\$59,730	\$56,927
Source: American Federation of Teachers.				

Profile of Full-time Classroom Teachers

2003-04 Through 2006-2007

	2003-2004		2004-2005		2005-2006		2006-2007	
	Numb er	Perce nt	Numbe r	Per cent	Numb er	Perce nt	Numb er	Perc ent
TOTAL	7720	100.0	7833	100.0	7920	100.0	7,926	100.0
TEACHERS								
GENDER								
Male	1,909	24.7	1878	24.0	1878	23.7	1,900	24.0
Female	5,811	75.3	5937	76.0	5937	75.0	6,038	76.2

RACE

Black	880	11.4	867	11.0	11.0	867	10.9	10.9	886	11.2
White	6,708	86.9	6811	86.3	86.3	6811	86.0	86.0	6,874	86.7
Other	132	1.7	137	1.7	1.7	137	1.7	1.7	178	2.2

AGE

Under 25	493	6.4	526	5.4	5.4	521	6.6	6.6	467	5.9
25-34	1,181	15.3	2,521	25.8	25.8	1,380	17.4	17.4	2,441	30.8
35-44	1,678	21.7	2,197	22.5	22.5	1,822	23.0	23.0	1,920	24.2
45-54	2,259	29.3	2,969	30.4	30.4	2,077	26.2	26.2	1,992	25.1
55 and over	1,109	14.4	1,569	16.0	16.0	1,120	14.1	14.1	1,164	14.7

EDUCATIONAL LEVEL

Bachelor's	2,003	25.9	2,085	27.1	27.1	2,085	26.3	26.3	2,174	27.4
B+15, B+30	1,701	22.0	1,602	20.8	20.8	1,602	20.2	20.2	1,439	18.2
Master's	1,361	17.6	1,462	19.0	19.0	1,462	18.5	18.5	1,845	23.3
M+15, M+30, M+45	2,542	32.9	2,482	32.2	32.2	2,482	31.3	31.3	2,296	29.0
Doctorate	58	0.8	66	0.9	0.9	66	0.8	0.8	77	1.0

EXPERIENCE

0-4	2,155	27.9	2,435	24.9	24.9	2,247	28.4	28.4	2,187	27.6
5-14	2,503	32.4	3,182	32.5	32.5	2,859	36.1	36.1	2,988	37.7
15-24	1,634	21.2	2,160	22.1	22.1	1,549	19.6	19.6	1,592	20.1
25 and over	1,428	18.5	2,005	20.5	20.5	1,265	16.0	16.0	1,217	15.4

SALARY

Under \$34,000	838	10.9	464	4.8	4.8	155	2.0	2.0	155	2.0
\$34,000 - \$39,999	1,390	18.0	1,573	16.	16.1	1,543	19.5	19.5	1,173	14.8
				1						
\$40,000 - \$45,999	1,124	14.6	1,400	14.	14.3	1,403	17.7	17.7	1,402	17.7
				3						
\$46,000 - \$51,999	1,025	13.3	1,192	12.	12.2	1,050	13.3	13.3	1,153	14.5
				2						
\$52,000 - \$57,999	1,121	14.5	1,281	13.	13.1	967	12.2	12.2	929	11.7
				1						
\$58,000 and over	2,222	28.8	3,872	39.	39.6	2,802	35.4	35.4	3,173	40.0
				6						

AVERAGES, FULL-TIME**TEACHERS**

AGE (Years)	41.2	42.1	40.6	40.6
EXPERIENCE (Years)	13.0	13.8	12.2	12.2
SALARY (Dollars)				
State	\$31,45	\$28,53	33,63	\$35,43
	4	9	4	7
Local	\$15,49	\$14,67	16,05	\$16,61
	5	9	1	0
Federal	\$2,711	\$2,773	2,801	\$2,456
Total	\$49,66	\$45,99	52,48	\$54,49
	0	1	6	8

Source: Center for Applied Demography and Survey Research, University of Delaware. Delaware Department of Education, Delaware Educational Personnel Reports - Executive Summary 2006-2007, Profile of Full-time classroom teachers

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GLOSSARY

Assessed Valuation -The value of real estate for purposes of taxation as determined by an assessor.

Average Daily Attendance (ADA) -For a given school year, the average daily attendance of a school is the sum of days present of all pupils when the school was in session divided by the total number of days the school was in session.

Average Daily Membership (ADM) -For a given school year, the average daily membership of a school is the sum of days present and absent of all pupils when the school was in session divided by the total number of days the school was in session.

Bonded School Debt -The part of the school district debt which is covered by outstanding bonds of the district.

Capital Outlay -An expenditure which results in the acquisition of fixed assets or additions to fixed assets, including land, existing buildings, improvement of grounds, construction of buildings, additions to buildings, remodeling of buildings, initial equipment, or additional equipment.

Classroom Teacher -A staff member assigned the professional activities of instructing pupils in classroom situations for which daily pupil attendance figures for the school system are kept.

Combined Tax Rates -The combination of both real estate and capitation taxes (converted into equivalent real estate tax rates) based upon assessed and full value of real estate.

Community Services -Expenditures for programs other than the regular day school, including evening programs and summer programs.

Current Expenses -Any expenditure except for capital outlay and debt service. Staff categories included in the Current Expense tables are:

Instruction: Teachers, Instructional Aides

Support Services: Students

Guidance Counselors, Psychologists, Therapists, Nurses

Support Services: Instructional Staff

Directors of Instruction, Supervisors of Instruction, Librarians

Support Services: General Administration

Chief School Officers, Assistant Superintendents, Administrative Assistants, Clerical

Support Services: School Administration

Principals, Assistant Principals, Clerical

Support Services: Operations & Maintenance

Custodians, Maintenance Specialists

Support Services: Student Transportation

School Bus Drivers, Transportation Supervisors, Transportation Specialists, Bus Aides Support Services

Support Services: Other

Directors of Administration, Specialists/Support, Supervisors/Support, Administrative Assistants/Support, Clerical

Food Services: Cafeteria Managers, Cafeteria Supervisors, Cafeteria Workers

Debt Service -Expenditures for the retirement of debt and expenditures for interest on debt, except principal and interest on current loans.

Diploma -A document indicating graduation of a pupil from a Delaware high school.

Division I Unit -State appropriations allocated to a school district on a unit enrollment formula which are designated for the purpose of paying the employees of the various school districts of the state in accordance with the state supported salary schedules.

Division II Unit -State appropriations allocated to a school district on a unit enrollment formula that are designated for all other non-salary costs, except those for debt service and the transportation of pupils.

Division III Unit -State appropriations allocated to a school district based on a tax effort formula, which is designated to equalize revenue receipts among school districts.

Document of Secondary Attainment -A document awarded by the Delaware State Board of Education after satisfactory completion of the requirements of the General Education Development Testing Program (GED) to serve as sufficient evidence of levels of secondary educational attainment as revealed through these tests for purposes of employment, licensing, military service requirements and admission to post-high school educational institutions.

Enrollment September 30 -Delaware law requires a total enrollment report for each school district as of September 30. This enrollment count is used as a basis for calculation of units of pupils for school funding purposes.

Equalized Assessment -Tax assessment figure based upon full property value, rather than upon the assessed property value.

Fiscal Effort -A measure of relative tax effort among school districts in the state. Higher tax rates indicate greater tax efforts.

FTE Staff -Derived by dividing the amount of time a person is employed by the time normally required for a corresponding full-time position.

FTE Student -Derived by formula to aggregate full-time students and part-time special education students for unit computation.

Full Valuation -The true or market value of real estate.

Instructional Support -An assignment to a staff member who has expertise in a specialized field to provide information and guidance to other staff members to improve the curriculum.

Non-revenue Receipts -Receipts which accrue to the district as the result of incurring an obligation which must be met at a future date or reducing the value of school properties through the exchange of a property asset into a cash asset. Money obtained from the sale of bonds or school property would be classified as a non-revenue receipt.

Official/Administrative -A grouping of assignments comprising the various skill levels required to perform management activities.

Professional/Other -A grouping of assignments requiring a high degree of knowledge and skills required through at least a Baccalaureate Degree (or its equivalent obtained through special study and/or experience) but not requiring skills in the field of education.

Property Tax -A tax levied on real estate, at a rate per \$100, on the assessed valuation of such property within the school district.

Record of Performance -A document granted to students who have completed at least twelve years of school beyond kindergarten and who have been enrolled in a Delaware public school at least one year prior to the granting of the record. The record lists the credits earned and the minimal performance requirements met by the students.

Revenue Receipts -Receipts which produce additions to assets without increasing school indebtedness and without reducing the value or depleting school property. Money from taxes and tuition are examples of revenue receipts.

Salary-Average salary is the arithmetic mean of teacher salaries, state and local funds only. Beginning, middle and top salaries are schedule steps for teachers with a Bachelor's Degree and no experience, a Master's Degree and thirteen years experience, and a Master's Degree plus thirty credits with maximum years' experience.

Skilled and Service Worker-A grouping of assignments such as secretarial, technician, cafeteria, and custodial worker that requires a varying level of skills.

Special- Class for exceptional (handicapped) children for whom a program of special education is provided.