Chapter 4: Expenditures

Propositions

- PUBLIC SCHOOLS AT ONE TIME WERE LOCALLY CONTROLLED; THIS IS CHANGING. FUNDING PROVIDES ONE PIECE OF EVIDENCE.
- INCREASED PER-PUPIL EXPENDITURES HAVE NOT BEEN MATCHED BY IMPROVED STUDENT PERFORMANCE.
- **EXPENDITURES MAY NOT MATTER AS MUCH AS ALLOCATION.**
- > SPECIAL EDUCATION IS AN EXPENDITURE, STAFFING, AND CLASSROOM CONUNDRUM.
- WHEN IT COMES TO ACHIEVEMENT, THE LARGEST SOURCE OF FEDERAL AID TO ELEMENTARY AND SECONDARY SCHOOLS HAS NOT MADE A BIT OF DIFFERENCE.

Highlights

- In the 2000–2001 school year, total expenditures for elementary and secondary education in the United States amounted to more than \$420 billion—fully 4.3 percent of GDP. In the 1949–50 school year, total expenditures for elementary and secondary education were \$6.2 billion, only 2.3 percent of GDP.¹
- In the 2000–2001 school year, average per-pupil expenditures were approximately \$7,079; in the 1949–50 school year, they were approximately \$1,380, in constant dollars.²
 - In 1999, the United States was ranked 3rd out of 26 nations in public expenditures per pupil at the elementary level; the U.S. was also ranked 3rd at the secondary level.³
 - In the 1920s, less than 1 percent of public K–12 education funding came from the federal government. States provided 17 percent, and local government provided the vast majority, 83 percent. In the 1930s, state funding increased dramatically, contributing more than 30 percent, and local funding decreased to less than 70 percent; there was little change in the federal contribution.⁴
 - By the late 1970s, the largest source of funding was the state, more than 45 percent. Since the '70s, state funding has fluctuated between 45 and 50 percent. Federal funding reached a high of nearly 10 percent in the late 1970s and wavered between 6 and 7 percent through the '90s.⁵
 - In 1999, 56 percent of public education expenditures were spent on compensation for teachers, 26 percent on compensation of other staff, and 18 percent on other costs.⁶

There is a wide variance when comparing current perpupil expenditures in fall enrollment by state. In the 1998–99 school year, Utah spent less than \$4,000 per pupil, while New Jersey spent close to \$10,000.⁷

According to a recent survey, 76 percent of Americans feel that expenditures on education should increase, 18 percent think they should remain the same, and only 5 percent think they should decrease.⁸

Overview

n the 2000–2001 school year, the cost of public education for K–12 students in the United States amounted to more than \$420 billion—fully 4.3 percent of GDP. No doubt, this is a tremendous amount of money; however, some say it is too little. When surveyed, for example, Americans put education near the top of spending priorities, and the vast majority feels more should be spent.

As remarkable as this expenditure number is, equally and possibly more dramatic is the relative increase in the costs of education during the 20th century. Using the 2000–2001 school year as a base year, per pupil expenditures in the 1919–20 school year were \$367; since then, costs have increased nearly 20-fold. In the 2000–2001 school year, per pupil expenditures were estimated at \$7,079.

Understanding the full cost of public education and how money is spent are among the greatest challenges facing education researchers. Finding a consistent set of data that all parties—politicians, school boards, school administrators, unions, school reformers, teachers, and parents—will agree to is virtually impossible. Those advocating reform of the public school system claim that the administrators, sympathetic politicians, and unions understate the true costs in an effort to get more money. Their antagonists say costs are up. First, teachers are doing more than they were asked to do in previous decades, they are more educated and experienced, and hence are paid more. Second, costly regulations have been imposed by federal, state, and local governments. Third, there have been great changes in American public education. However, explaining how costs have risen so precipitously is a challenge.

The federal government has assumed an increasing role in education, historically a function controlled almost exclusively by local government and school boards. Initially, federal dollars preceded federally mandated programs and regulations. As time has passed, however, growing concern over U.S. students' performance has led to a greater federal role—with associated higher costs and levels of bureaucracy without commensurate funding—not a diminished role.

Across states, there is great variability in how education funds are spent. Student achievement also varies widely from state to state and even district to district. From all appearances, however, there does not appear to be a direct correlation between the expenditures and performance. No matter which data one uses, one phenomenon is inescapable: Over the past 30 years, costs are up while performance is down. To follow the money, one embarks on a serpentine path. In this chapter, we provide some guidance.

PROPOSITION: PUBLIC SCHOOLS AT ONE TIME WERE LOCALLY CONTROLLED; THIS IS CHANGING. FUNDING PROVIDES ONE PIECE OF EVIDENCE.

Throughout U.S. history, local school boards governed public schools, and local control, parental involvement, and accountability were pillars of public education. Local organization allowed for more community involvement; decision making could be tailored specifically to meet local needs and desires.

The setting, however, of public education has changed. In government, function often follows funding; the current status of public education is not exempt from this causal relationship. Over time, the source of public school funding has increasingly shifted from primarily local funding toward state and national funding. FDR's New Deal and LBJ's Great Society, far-reaching domestic programs, both contributed to the swing from local to state and national involvement. During the 1920s, less than 1 percent of public K-12 education funding came from the federal government. States provided 16.9 percent, and local governments provided the vast majority, 82.7 percent. In the 1930s states began to play a much more active role, contributing 30.3 percent, while the local share was reduced to 68 percent. Although the federal role was still small, it increased through the 1960s. By the 1970s local government funding had been replaced by state funding, which provided a plurality of funding, more than 45 percent. The federal government's support rose to 9.8 percent, an all-time high. In the early 1990s federal funding was scaled back, hovering around 6 percent; by the end of the decade, however, federal funding had climbed back into the 7 percent range. (See table 4.1 and figure 4.1.)⁹

Table 4.1:	Public	Elementary	and	Secondary	School	Funding
1919-20-	-1998-99					

Year	Federal government (millions \$)	State governments (millions \$)	Local sources, including intermediate ^a (millions \$)
1919–20	\$2	\$160	\$808
1929–30 1939–40 1949–50	40	684 2 166	1,728
1959–60 1969–70	652	5,768	8,327
1979–80 1989–90	9,504	45,349	42,029 97,608
1990–91	13,776	105,325	104,240
1996–97	20,081	146,434	138,537
1997–98 1998–99	22,202 24,522	157,645 169,298	146,129 153,510

Percent of funding

Federal government	State governments	Local sources, including intermediate ^a
0.3%	16.5%	83.2%
0.4	16.9	82.7
1.8	30.3	68.0
2.9	39.8	57.3
4.4	39.1	56.5
8.0	39.9	52.1
9.8	46.8	43.4
6.1	47.1	46.8
6.2	47.2	46.7
6.6	47.5	45.9
6.6	48.0	45.4
6.8	48.4	44.8
7.1	48.7	44.2
	Federal government 0.3% 0.4 1.8 2.9 4.4 8.0 9.8 6.1 6.2 6.6 6.6 6.6 6.6 6.7 7.1	Federal governmentState governments0.3%16.5%0.416.91.830.32.939.84.439.18.039.99.846.86.147.16.247.26.648.06.848.47.148.7

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 157, p. 178. **Note:** a. Includes a relatively small amount from nongovernmental private sources (gifts and tuition and transportation fees from patrons). These sources accounted for 2.5% of total revenues in 1998–99.



With their increased funding, federal and state agencies have become more involved with administrative and legislative decision making—as one would expect. Supervision is gradually moving from the local community to state capitals and the U.S. Department of Education. Coincident with the reduction in local funding has come a reduction in the number of school districts.¹⁰ One disadvantage, however, is that top-down imposition of rules leads to less flexibility and less ability to mold, shape, on the part of local school boards, families, and the community. Furthermore, a distant locus of decision making often requires extensive reporting and paperwork, adding to administrative costs.

Efficiency and economies of scale are clearly important in a large education system. The decline in local funding distances families from involvement in their children's education, and the added bureaucracy associated with state and federal funding draws school boards' and educators' attention away from teaching, as they must be more responsive to legislators and administrators in state capitals and Washington, D.C.

PROPOSITION: INCREASED PER-PUPIL EXPENDITURES HAVE NOT BEEN MATCHED BY IMPROVED STUDENT PERFORMANCE.

There is a common perception that the way to improve our failing public schools is simply to spend more money on them. According to many public school administrators, the amount we spend per pupil is an excellent way to predict student performance, yet a review of the data for the last 80 years shows clearly that there is not a strong correlation between increased spending and improvements in student performance. In fact, increases in per-pupil expenditures in the past have often not been matched by better student performance. In short, the evidence suggests that we cannot simply buy better schools.

Spending per student has increased markedly over time. According to the U.S. Department of Education, in the 1919–20 school year, expenditures per pupil, in constant 2000–2001 dollars, were \$367. By 1960, real expenditures had more than quintupled. In the 2000–2001 school year, per pupil expenditures were approximately \$7,000—nearly 20 times as high as in the 1919–20 school year. (See table 4.2.)¹¹

Table 4.2: Per-Pupil Expenditures				
1919–20–2000–01				
School year	Current expenditures per pupil in fall enrollment ^a			
1919–20	\$367			
1929–30	734			
1939–40	957			
1949–50	1,380			
1959–60	2,088			
1969–70	3,482			
1979–80	4,710			
1989–90	6,402			
1999–00	7,045 ^b			
2000–01	7,079 ^b			

Source: Thomas D. Snyder, ed., *Digest of Education Statistics*, 2001 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 167, p. 191.
Notes: Data for 1919–20 to 1949–50 are based on school-year enrollment.
a. Constant 2000–2001 dollars, based on the Consumer Price Index, prepared by the Bureau of Labor Statistics, U.S. Department of Labor, adjusted to a school-year basis.
b. Estimated.

Where have the resources gone, and what are the results? Special education is often cited as a primary contributor to increased per-pupil costs. Although special education has grown rapidly in recent years (approximately 13 percent of students are now designated as special education students) and per-pupil expenditures for special education are more than twice the cost of regular education, these expenditures and their growth still do not explain the majority of the increase in school spending. Cost data on special education are difficult to track, but according to recent estimates, special education student expenditures growth between 1980 and 1990.¹²

However, it is clear that there are three additional factors that have contributed to increased expenditures: (1) falling pupil-teacher ratios (i.e., more teachers), (2) rising teacher salaries, and (3) growth in expenditures for things other than instructional salaries.¹³

Between 1970 and 1995, per-pupil expenditures increased by more than three-fourths. During that time period, the pupilteacher ratio decreased by one-quarter, the percentage of teachers with advanced degrees doubled, and the median number of years of a teacher's experience nearly doubled. With more teachers in the system, and with teacher pay linked to increases in credentials and experience, higher per-pupil spending resulted. Furthermore, between the 1969–70 school year and 1995–96 school year, "administration expenditures" increased by more than 80 percent, and "other school services" accounted for nearly 18 percent of total public education expenditures, nearly tripling. (See table 4.3.)¹⁴

1370 @ 1333		
Aspect	1970	1995
Real expenditure per pupil (2000–2001 \$)	\$3,713.00	\$6,447.00
Pupil-teacher ratio	22.3	17.3
Teachers with at least a master's degree	27.5%	56.2%
Median teacher experience	8 years	15 years
Administration expenditures (as % of total education \$)	3.9%	7.1%
Other school services (as % of total education \$)	6.3%	17.4%

Table 4.3: Descriptive Statistics, U.S. Public Schools 1970 & 1995

Sources: Eric Hanushek, "Spending on Schools," in A Primer on America's Schools, ed. Terry M. Moe (Stanford, CA: Hoover Institution Press, 2001); Thomas D. Snyder, ed., Digest of Education Statistics, 2001 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), tables 167, p. 191.

More teachers with advanced degrees and more experience and more teachers per student should lead to better educational outcomes. The evidence, however, does not support that conclusion. During the same quarter-century that these educational resources were being increased, student achievement remained flat. (See table 4.4.)

Table 4.4: Student Achievement U.S. Public Schools, 1970s & 1996				
	1970s	1996		
Average NAEP reading score, 17-year-olds (1971)	285.2	287.6		
Average NAEP math score, 17-year-olds (1973)	304.0	307.2		
Average NAEP science score, 17-year-olds (1970)	305.0	295.7		

Sources: Eric Hanushek, "Spending on Schools," in A Primer on America's Schools, ed. Terry M. Moe (Stanford, CA: Hoover Institution Press, 2001); Thomas D. Snyder, ed., Digest of Education Statistics, 2001 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), tables 112, 124, 130, pp. 133, 143, 149.

The contradiction of increasing resources and flat achievement suggests that resource shortages may not have been the sole culprit for low levels of student performance. This is not to say that resources do not matter, but that there is no simple cause-and-effect relationship between resources and results.

Recent studies reinforce the disconnect between spending and achievement. For example, the American Legislative Exchange Council's (ALEC) *Report Card on American Education: A State-by-State Analysis 1976–2000*, concluded, "It is clear after studying the data and results that the policies of the past have failed to meet the educational needs of our country's children. If we continue to spend more money on the existing educational system in an attempt to buy our way to better student achievement, we will condemn another generation of students to mediocrity."¹⁵

The ALEC study showed no significant correlation between conventional measures of educational inputs (such as expenditures per pupil and teacher salaries) and educational outputs (such as scores on standardized tests). Stated simply, increased funding does not translate into improved achievement. (See figure 4.2.)¹⁶



Figure 4.2: State Per-Pupil Expenditures and Reading Scores Eighth Grade, 1998

Improve Performance," *Daily Policy Digest* (23 April, 2001), available online at http://www.ncpa.org. Note: Some states not indicated due to data inavailability.

An analysis of per-pupil expenditures on a state-by-state basis is illuminating. There is little evidence to suggest that equalizing resources between any two states would equalize achievement. For example, in the 1998-99 school year, Utah spent \$3,807 per pupil (ranking 51st, the least of any state plus D.C.), whereas Maryland spent \$7,059 (ranking 13th). In the 1998 National Assessment of Educational Progress, 31 percent of Utah's eighth-graders scored at "proficient" or better in reading; despite the large discrepancy in per-pupil expenditures, Maryland had the same percentage of eighth-graders who scored at or above proficient, 31 percent.¹⁷

Also, based on several standardized tests, the ALEC report rated Iowa (ranked 32nd in per-pupil expenditures) as having the top-performing public elementary and secondary schools in the nation, followed by Minnesota (ranked 14th in spending) and Wisconsin (ranked 9th). At the bottom of the achievement ratings were Mississippi (ranked 50th in per-pupil expenditures), Washington, D.C. (ranked 5th), and Louisiana (ranked 39th). (See table 4.5.)¹⁸

State	Achievement ranking	Expenditure ranking	Actual per-pupil expenditure ^a	Average NAEP reading score (eighth grade)
	Low e	expenditure state	es	
Utah	12	51	\$3,807	265
Mississippi	35	50	4,377	251
Alabama	31	49	4,584	255
North Dakota	na	48	4,597	na
Arizona	23	47	4,598	261
	High	expenditure stat	es	
District of Columbia	37	5	8,055	236
Alaska	na	4	8,842	na
New York	7	3	8,860	266
Connecticut	2	2	9,184	272
New Jersey	na	1	9,703	na

Table 4.5: Achievement Rankings and Per-Pupil ExpendituresSelected States, 1998

Source: National Center for Policy Analysis, "Alec Study: Increased Education Spending Doesn't Improve Performance," *Daily Policy Digest* (23 April, 2001), available online at http://www.ncpa.org. **Notes:** District of Columbia counted as though a state.

lowa had the highest NAEP eighth-grade math scores in 1992 and 1996. Iowa's 1998 per-pupil expenditures were \$5,725.

There were no data available for eighth-grade reading scores in 1998.

a. Adjusted to 1998–99 dollars.

Expenditures per student have increased over time, and the distribution of the expenditures has been according to popular emphasis: The level of teacher education has increased, teacher experience has increased, and student-teacher ratios have fallen. The last 3 decades, however, do not reflect the desired outcomes—as noted, student achievement has remained flat.

If increased resources are not at the heart of improved student achievement, what is? One possible answer is that resources need to be allocated differently rather than simply increased. Spending more money on teaching and less on other things might be a step in the right direction. Severing the link between teacher compensation and their resumes may be another. For example, the present teacher pay system provides no way to distinguish between a good teacher and a bad teacher. Both can expect the same salary and promotion pattern, regardless of whether the performance of their students is mediocre or outstanding. This is true for most everyone currently employed in the public education system. The evidence suggests that additional resources alone are not the sole solution to poor student achievement; a reallocation of those resources is necessary, as well.

PROPOSITION: EXPENDITURES MAY NOT MATTER AS MUCH AS COST ALLOCATION.

Of late, focus on the amount of resources invested in education has increased. The spotlight is due, in part, to growing economic competition between nations. To compete globally, a well-educated workforce is essential. Nations seek to ensure that they invest sufficient resources in their educational systems to create a workforce that is educated and technically sophisticated.

Investment in education is measured by aggregate investment in education, spending per student, and sources and uses of education funds. Measuring education expenditures as a percentage of gross domestic product (GDP) is often used to determine a country's "fiscal effort" in support of education or, put differently, a country's financial commitment to education relative to other functions and activities in the economy. Compared to other developed nations, in 1999, the United States fell in the middle of the total public direct expenditures on education distribution, allocating 3.5 percent of GDP for public and private primary and secondary education. (See table 4.6.)¹⁹

Table 4.6: Educational Expenditures

Primary, Secondary, and Postsecondary Nontertiary Education, Selected Countries, 1999

Country	Education expenditure as percentage of GDP
Australia	3.8%
Austria	4.1
Canadaa	2.J
Canada -	2.0
Denmark	5.0 4.8
Finland	2.8
France	1.2
Germany	3.0
Greece	2.4
Hungary	2.9
Ireland	3.1
Italy	3.2
Japan ^b	2.7
Korea	3.2
Mexico	3.1
Netherlands	3.1
New Zealand	4.8
Norway	4.3
Poland	3.6
Portugal	4.2
Slovak Republic	3.0
Spain	3.3
Sweden	5.1
Switzerland	4.0
Turkey	2.9
United Kingdom	3.3
United States ^a	3.5
28-country mean	3.5

Source: Organisation for Economic Co-operation and Development, *Education at a Glance: OECD Indicators, 2002* (Paris: Organisation for Economic Co-operation and Development, 2002), available online at http://www.oecd.org/EN/document/0,,EN-document-604-5-no-27-35364-604,00.html. **Notes: a.** Postsecondary nontertiary is counted as tertiary education and excluded from figures for primary, secondary, and postsecondary nontertiary education.

b. Excludes public subsidies to the private sector. Postsecondary nontertiary is counted as both upper secondary and tertiary education.

Education expenditures per student measure the quantity of resources that a country devotes, on average, to each student's education.²⁰ The United States is ranked near the top in expenditures per pupil in public and private primary and secondary grades. Expenditures per pupil for primary grades averaged 6,582 in 1999, 3rd out of 26 countries. Expenditures per pupil for secondary grades averaged 8,157 in 1999, 3rd out of 26 nations. (See table 4.7 and figure 4.3.)²¹

Country	Primary	Secondary
Australia	\$4.858	\$6.850
Austria	6,568	8,504
Belgium	3,952	6,444
Canada	5,981	5,981
Czech Republic	1,769	3,449
Denmark	6,721	7,626
Finland	4,138	5,863
France	4,139	7,152
Germany	3,818	6,603
Greece ^a	2,176	2,904
Hungary ^a	2,179	2,368
Ireland	3,018	4,383
Italy ^a	5,354	6,518
Japan	5,240	6,039
Korea	2,838	3,419
Mexico	1,096	1,480
Netherlands ^b	4,162	5,670
Norway ^a	5,920	7,628
Poland ^a	1,888	1,583
Portugal	3,478	5,181
Slovak Republic	1,811	2,163
Spain	3,635	4,864
Sweden	5,736	5,911
Switzerland ^a	6,663	9,756
United Kingdom	3,627	5,608
United States ^c	6,582	8,157
26-country mean	4,129	5,465

Table 4.7: Educational Expenditures per Student Selected Countries, Public and Private Institutions, 1999

Source: Organisation for Economic Co-operation and Development, *Education at a Glance: OECD Indicators, 2002* (Paris: Organisation for Economic Co-operation and Development, 2002), available online at http://www.oecd.org/EN/document/0,,EN-document-604-5-no-27-35364-604,00.html. **Notes:** Annual expenditure on educational institutions per student, based on full-time equivalents in U.S. dollars converted using PPPs.

a. Public institutions only.

b. Public and government-dependent private institutions only.

c. Public and independent private institutions only.



Source: Organisation for Economic Co-operation and Development, *Education at a Glance: OECD Indicators, 2002* (Paris: Organisation for Economic Co-operation and Development, 2002), available online at http://www.oecd.org/EN/document/0,,EN-document-604-5-no-27-35364-604,00.html. Note: Both public and private institutions.

In the United States, debate has raged over the extent to which education expenditures are related to educational outcomes. Research linking school expenditures to student outcomes has been mixed. The United States' fourth-grade students are ranked in the top third in math and science, according to the 1995 TIMSS results. Eighth-grade students are ranked just below the top 50 percent. By the twelfth grade, U.S. students have fallen to the bottom quartile in rankings. Compared to other nations, on average, the United States actually spends more per pupil at the secondary level, yet its achievement ranking there is far lower than its ranking at the fourth- or eighth-grade levels.²²

One element that may shed some light on the relationship between expenditures and achievement is the apportionment of resources. Denmark and the United States allocate more than 20 percent of staff expenditures to personnel other than teachers. At the other extreme, Belgium and Iceland allocate only 2 percent and 4 percent, respectively. This difference most likely reflects the degree to which educational personnel specialize in nonteaching activities (guidance counselors, bus drivers, school nurses, maintenance workers, etc.), as well as the relative salaries of teaching and nonteaching personnel. At times, the distinction between teaching and nonteaching personnel can be difficult to define; therefore, differences between nations should be interpreted with caution.²³ However, in the United States, there has been a clear shift in allocation. In 1950, 70 percent of instructional staff were teachers. By 1980, only 52 percent of public elementary and secondary instructional staff were teachers; percentages have remained relatively flat since 1980.²⁴ If it is agreed that teachers are the most important input to students' performance in the classroom, then when it comes to expenditures, perhaps a more important question is not how much is spent but how it is spent. (See table 4.8 and figure 4.4.)

	% of total expenditures		% of current expenditures	
Country	Current	Capital	Staff compensation, all	Other current
Australia	93.7%	6.3%	71.9%	28.1%
Austria	93.5	6.5	81.2	18.8
Belgium	97.2	2.8	79.1	20.9
Canada ^a	96.4	3.6	76.8	23.2
Czech Republic	91.9	8.1	62.1	37.9
Denmark	95.1	4.9	75.3	24.7
Finland	92.9	7.1	68.9	31.1
France	91.4	8.6	78.6	21.4
Germany	92.3	7.7	88.8	11.2
Greece ^b	85.8	14.2	96.4	3.6
Hungary ^b	92.6	7.4	75.2	24.8
Ireland ^b	92.2	7.8	84.9	15.9
Italy ^b	94.8	5.2	80.2	19.8
Japan ^a	87.6	12.4	88.1	11.9
Korea	85.6	14.4	83.8	16.2
Mexico ^D	97.6	2.4	94.9	5.1
Netherlands	95.7	4.3	75.9	24.1
Norway	86.3	13.7	82.3	17.7
Polando	92.7	7.3	74.9	25.1
Portugal	95.4	4.6	93.7	6.3
Slovak Republic	96.8	3.2	//.4	22.6
Spain	93.9	6.1	85.6	14.4
Sweden	na	na	61.8	38.2
Switzerland	90.4	9.6	85.3	14.7
lurkey	80.6	19.4	96.8	3.2
United Kingdom	93.9	6.1	67.2	32.8
United States ^{a,b} Country mean	88.1 92.1	11.9 7.9	82.3 80.3	17.7 19.7

Table 4.8: Educational Expenditures

By Resource Category, Selected Countries, Public and Private Institutions, 1999

Source: Organisation for Economic Co-operation and Development, Education at a Glance: OECD Indicators, 2002 (Paris: Organisation for Economic Co-operation and Development, 2002), available online at http://www.oecd.org/EN/document/0,,EN-document-604-5-no-27-35364-604,00.html. Notes: a. Postsecondary nontertiary counted as both upper secondary and tertiary education. **b**. Public institutions only.

c. Public and government-dependent private institutions only.





PROPOSITION: SPECIAL EDUCATION IS AN EXPENDITURE, STAFFING, AND CLASSROOM CONUNDRUM.

Special education is an emotional, controversial issue in education politics today. Special education legislation, which traditionally includes the Individuals with Disabilities Education Act (IDEA) of 1968 and the Education for All Handicapped Children Act (EAHCA) of 1975, sought to ensure that all children have available to them an appropriately free education designed to meet their unique and special needs. Disagreements regarding who is responsible for providing special education, however—local, state, or national government—have made it difficult to evaluate and determine special education's effectiveness.

A look at the origins of special education legislation provides some insight into current ambiguities. When the EAHCA became public law on November 29, 1975, for example, the maximum federal grant to which a state was entitled for special education costs was 40 percent of per pupil expenditures. The starting multiplier, however, was 5 percent; the maximum, 40 percent, was to be reached by 1982. The grant was computed as a predetermined percentage of the average per-pupil expenditure in public elementary and secondary schools.²⁵ If, for example, average per-pupil expenditures are \$7,000 per pupil, then the federal government would contribute at most \$2,800 per child. Many feel that the federal government has not lived up to its commitment; the federal government multiplier for the year 2001 was approximately 15 percent, not even close to 40 percent.²⁶ Although the funding structure was amended in the 1997 renewal of IDEA, the commitment to maximize the multiplier at 40 percent was not removed. (See figure 4.5.)²⁷



Figure 4.5: Proportional Special Education Expenditures Paid by the Federal Government

Unfortunately, this bill promises more than the Federal Government can deliver, and its good intentions could be thwarted by the many unwise provisions it contains. Even the strongest supporters of this measure know as well as I that they are falsely raising the expectations of the groups affected by claiming authorization levels which are excessive and unrealistic. Despite my strong support for full educational opportunities for our

In contrast, even after signing the EAHCA in 1975, President Ford made this statement:

handicapped children, the funding levels proposed in this bill will simply not be possible. There are many features in the bill which I believe to be objectionable and which should be changed. It contains a vast array of detailed, complex, and costly administrative requirements which would unnecessarily assert Federal control over traditional State and local government functions. Fortunately, since the provisions of this bill will not become fully effective until fiscal year 1978, there is time to revise the legislation and come up with a program that is effective and realistic.²⁸

Revisions have been made to the bill; however, they have not been the revisions that President Ford considered necessary. President Ford's fears were not unfounded; the very same debates regarding scope and effectiveness still exist today.

Designations

Since the mid-'70s, there has been a marked increase in the number of students classified as needing special education. As general public school enrollment decreased, special education designations increased. Between 1977 and 2000, the number of disabled students²⁹ increased as a percentage of total public school enrollment from 8.3 percent to more than 13 percent.³⁰ More specifically, the number of students with learning disabilities, a specific classification of special education, increased markedly. In the 1976–77 school year, nearly 22 percent of all students with disabilities served by federally supported

programs were classified as having specific learning disabilities; in 2000, nearly half were classified as such, more than doubling the percentage of students with specific learning disabilities. (See table 4.9 and figures 4.6 and 4.7.)³¹



Table 4.9: **Special Education** By Disability Category, 1977 & 2000

	% of total public school enrollment (K-12)		
Disability	1977 ^a	2000 ^b	
All disabilities	8.32%	13.22%	
Specific learning disabilities	1.80	6.05	
Speech impairments	2.94	2.30	
Mental retardation	2.17	1.28	
Serious emotional disturbances	0.64	1.00	
Physical	0.81	1.35	
Preschool designations	na	1.24	

Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 52, p. 66. Notes: Percentages may not sum to totals due to rounding.

Numbers are based on the enrollment in public schools, kindergarten through 12th grade, including a relatively small number of prekindergarten (preschool) students.

Includes students served under Chapter 1 and IDEA, formerly the Education of the Handicapped Act. Prior to October 1994, children and youth with disabilities were served under IDEA, Part B, and Chapter 1 of the ESEA. In October 1994, Congress passed the Improving America's Schools Act, in which funding for children and youth with disabilities was consolidated under IDEA, Part B.

a. Data include children ages 0-21 served under Chapter 1.

b. Data reflect children ages 3-21 served under IDEA, Part B.



Source: Thomas D. Snyder, ed., *Digest of Education Statistics, 2001* (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 52, p. 66. **Note:** Includes a relatively small number of prekindergarten students.

Chapter 4: Expenditures

The reason for the overall increases in special education designations has been hotly debated. Some critics have questioned whether the number of students being labeled "disabled" has increased substantially in order for school districts to obtain extra funding or to provide an excuse for poorly performing students. Studies have shown that among some children with reading disabilities, for example, there are severe discrepancies between their IQs and achievement; that is, their IQs indicate they should be performing substantially better.³² Others practitioners have proposed that two primary factors have contributed to the documented increases in learning disabilities, (1) The field of learning disabilities is relatively new, and with each new year, experts become more adept at recognizing learning disabilities; and (2) higher levels of poverty and substance abuse among pregnant women lead to more children born with disabilities.33

Personnel

The implementation of IDEA and subsequent laws often required a structural overhaul of administrative and teaching systems, in addition to expanded staff and programs, to meet more and stricter regulations. As a result, the relative number of special education teachers grew much more rapidly than the number of children classified as disabled. For example, in 1977, there were 331,453 staff employed to provide special education and related services for children and youth with disabilities; in 1997 there were nearly 808,000, a 144 percent increase.³⁴ In contrast, the number of children served in federally supported programs for the disabled increased from 3,692,000 to 5,904,000.³⁵ Although a marked increase (60 percent), it certainly does not match the growth in personnel over the same time period. The ratio of the number of students with disabilities per special education teacher serving them has consistently decreased, as well, of course; in 1977, it was 21.0 to 1 (versus 19.7 to 1 mainstream); in 1997, it was less than 16.0 to 1 (versus 16.8 mainstream).³⁶ Furthermore, the primary growth in personnel for special education students has occurred in staff other than teachers,³⁷ a 44 percent increase between 1992 and 1997 alone. In comparison, the number of special education teachers increased 11 percent during the same time period.³⁸

Expenditures

Since the passage of IDEA, the costs of special education have risen consistently. The average cost per student for special education is approximately 2.3 times the cost for a regular education.³⁹ The average per-pupil expenditures for a traditional public school student in the 2000–2001 school year was more than \$7,000, which translates to per-pupil special education expenditures of approximately \$16,000.⁴⁰ Nationwide expenditures are difficult to determine; however, in 1977, nationwide special education funding was estimated at \$5 billion; in the 2000–2001 school year, local education agencies, state education agencies, and Congress spent an estimated \$54.4 billion on special education, a whopping tenfold increase.⁴¹

Some critics of special education growth have actually argued that special education expenditures are to blame for overall public school expenditure increases. It is important to remember that although increases in special education funding have been significant at the federal level, between the period of 1980 and 1990, the increases explain less than 20 percent of total public school expenditure growth; it is not the sole source of public school expenditure increases.⁴²

Special education presents many questions and few quick answers. The diverging viewpoints surrounding legislation at inception are a foreshadowing of current confusion and disagreement. Few comprehensive assessments of special education programs exist, therefore leaving the question of effectiveness unanswered. For example, there are presently no comprehensive and accurate data sources that indicate what public schools in the United States are spending on special education services and what corresponding measurable outcomes there are.⁴³ Without proper substantiation, special education will continue to be a conundrum wrought with confusing results.

PROPOSITION: WHEN IT COMES TO ACHIEVEMENT, THE LARGEST SOURCE OF FEDERAL AID TO ELEMENTARY AND SECONDARY SCHOOLS HAS NOT MADE A BIT OF DIFFERENCE.

Title I of the Elementary and Secondary Education Act (ESEA), 1965, is at the heart of the federal government's role in education. Its annual appropriation of approximately \$9.5 billion makes up more than one-third (38 percent)⁴⁴ of the Department of Education's elementary and secondary education budget each year.⁴⁵ It is by far the largest source of federal aid to elementary and secondary schools. With an ambitious goal to close the achievement gap between advantaged and disadvantaged students, Title I has sent more than \$130 billion to local school districts over the past 3 decades.

Despite this extensive investment, there is scant evidence that these specially designated funds have helped the department achieve its stated goals. Title I is far reaching in scope. The program provides support services to students in schools under two basic models: (1) targeted assistance, which provides specific students with instructional or support services, (2) and the schoolwide approach, which provides funds to an individual school when at least 50 percent of the students in that school are eligible for a free or reduced-price lunch under the U.S. Department of Agriculture's Child Nutrition Program. In the 1997–98 school year, more than 12.3 million public school students were recipients of Title I funds. In the same year, 48,000 schools participated in the Title I program either as schoolwide participants or through targeted assistance. This was more than 50 percent of public schools nationwide. Some 19,000 schools reported operating schoolwide programs, a

28 percent increase from the previous school year. (See table 4.10 and figures 4.8 and 4.9.)⁴⁶

	ie i raiticipation		
Public Schools,	1979–80—1997–98		
Year	Total student recipients ^a	Schoolwide programs ^b	
1979–80	4,973,708	na	
1980–81	4,862,308	na	
1981–82	4,434,447	na	
1982-83	4,270,424	na	
1983–84	4,381,975	na	
1984–85	4,528,177	na	
1985–86	4,611,948	na	
1986–87	4,594,761	na	
1987–88	4,808,030	na	
1988–89	4,777,643	na	
1989–90	5,014,617	na	
1990–91	5,252,141	na	
1991–92	5,594,718	na	
1992–93	6,042,849	2,806	
1993–94	6,198,095	3,903	
1994–95	6,392,372	5,050	
1995–96 ^c	na	na	
1996–97	11,050,384	14,982	
1997–98	12,306,900	19,000 ^d	

Sources: U.S. Department of Education, Planning and Evaluation Service, *High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization* (Washington, DC: U.S. Department of Education, January 2001); Beth Sinclair, *State ESEA Title I Participation Information for 1996–97: Summary Report* (Rockville, MD: U.S. Department of Education, Planning and Evaluation Service, *State ESEA Title I Participation Information for 1997–98: Summary Report* (Washington, DC: U.S. Department of Education, Planning and Evaluation Service, *State ESEA Title I Participation Information for 1997–98: Summary Report* (Washington, DC: U.S. Department of Education, 1998), available online at

http://www.ed.gov/offices/OUS/PES/esed/eseatitle1.html.

Table 4.10. Title | Darticipation

Notes: a. Receiving support through either targeted assistance or schoolwide. Students in schoolwide programs are included in the "Total student recipients" column.

b. Schools receiving support through schoolwide approach.

c. No state performance report was collected for the 1995-96 school year.

d. Estimate.

Figure 4.8: Title I Recipients

Public School Students, 1980–81–1997–98



Sources: U.S. Department of Education, Planning and Evaluation Service, High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization (Washington, DC: U.S. Department of Education, January 2001); Beth Sinclair, State ESEA Title I Participation Information for 1996–97: Summary Report (Rockville, MD: U.S. Department of Education, 2000); U.S. Department of Education, Planning and Evaluation Service, State ESEA Title I Participation Information for 1997–98: Summary Report (Washington, DC: U.S. Department of Education, 1998), available online at http://www.ed.gov/offices/OUS/PES/esed/eseatitle1.html.

Figure 4.9: Title I Schoolwide Participants Public Schools, 1990–93—1997–98



Sources: 0.5. Department of Education, Planning and Evaluation Service, High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization (Washington, DC: U.S. Department of Education, January 2001); Beth Sinclair, State ESEA Title I Participation Information for 1996-97: Summary Report (Rockville, MD: U.S. Department of Education, 2000); U.S. Department of Education, Planning and Evaluation Service, State ESEA Title I Participation Information for 1997–98: Summary Report (Washington, DC: U.S. Department of Education, 1998), available online at http://www.ed.gov/offices/OUS/PES/esed/eseatitle1.html. Note: a. Estimate.

The most recent report prepared by the U.S. Department of Education's Planning and Evaluation Services stated that "trends in NAEP scores depict a widening achievement gap between high- and low-poverty schools (Title I recipients vs. non-recipients) from the late 1980s to 1999."⁴⁷ Between the period of 1973 and 1977, the same students were measured first at 9 years of age and then again at 13. The average score of the 9-year-olds compared with the average score of the same group when they reached 13 showed a 50-point improvement on the mathematics scale. Nineteen years later, a new group

was tested, again first at 9 years of age and then at 13; this test group improved only 44 points.⁴⁸ Moreover, the data show, there was no marginal improvement in science or writing during the same time period; only modest improvement was recorded in reading scores. (See figure 4.10.)



Source: Educational Testing Service, *Growth in School: Achievement Gains from the Fourth to the Eighth Grade* (Princeton, NJ: Educational Testing Service, June 1998), available online at http://www.ets.org.

The Department of Education's 2001 report revealed that the achievement gap between low- and high-poverty schools is substantial, equal to several grade levels.⁴⁹ In fact, between 1988 and 1999, the gap in reading and math NAEP scores between 9-year-old public school students in low- and highpoverty schools increased. Although high-poverty students' scores may have shown improvement, they did not improve by as much as low-poverty schools. In reading, the gap increased from 29 points to 40 points; in math, the gap increased from 20 to 29 points. (See table 4.11 and figures 4.11 and 4.12.)⁵⁰

Table 4.11: NAEP Scale Score Differences betweenLow-Poverty and High-Poverty Public Schools1988–99

Year	Reading	Math	
1988	29	20 ^a	
1990	32	24	
1992	30	28	
1994	36	24	
1996	36	21	
1999	40	29	

Source: U.S. Department of Education, Planning and Evaluation Service, *High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization* (Washington, DC: U.S. Department of Education, January 2001). Note: a. 1986.







Figure 4.12: Math Performance

Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization (Washington, DC: U.S. Department of Education, January 2001).

The Title I program has fallen short of its achievement goals, yet it has still played a role in transforming state and local priorities. Title I has sensitized superintendents, principals, and teachers to the importance of educating the disadvantaged and proved to be a substantial source of supplemental school funding. For example, the highest-poverty districts received an average of \$692 Title I funds per pupil in the 1997-98 school year. While a seemingly small percentage of total funds, Title I funds are flexible and play a significant role in supporting local education improvement efforts.⁵¹ In 1982, Marshall Smith, former U.S. undersecretary of education, and

historian Carl Kaestle wrote, "After almost two decades of intervention, the Title I program stands primarily as a symbol of national concern for the poor rather than as a viable response to their needs."⁵²

In sum, the effectiveness of Title I funds remains questionable. The number of participants and the amount of funding has consistently grown, while the achievement gap between advantaged and disadvantaged students has not diminished.



- Thomas D. Snyder, ed., *Digest of Education Statistics*, 2001 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2002), table 29, p. 33.
- 2. Ibid.
- Organisation for Economic Co-operation and Development, *Education* at a Glance: OECD Indicators, 2002 (Paris: Organisation for Economic Co-operation and Development, 2002), available online at http://www.oecd.org/EN/document/0,,EN-document-604-5-no-27-35364-604,00.html.
- 4. Snyder, Digest of Education Statistics, 2001, table 157, p. 178.
- 5. Ibid.
- 6. Organisation for Economic Co-operation and Development, *Education at a Glance:* OECD *Indicators,* 2002.
- Andrew T. LeFevre and Rea S. Herman, Jr., Report Card on American Education: A State-by-State Analysis, 1976–2000 (Washington, DC: American Legislative Exchange Council, April 2001), available online at http://www.alec.org.
- 8. Public Agenda Online, *Education: Major Proposals* (New York: Public Agenda Online), available online at http://www.publicagenda.org.
- 9. Snyder, Digest of Education Statistics, 2001, table 157, p. 178.
- 10. Ibid., table 89, p. 98.
- 11. Ibid., table 167, p. 191.
- Snyder, *Digest of Education Statistics*, 2001, table 52, p. 66; Eric Hanushek and Steven Rivkin, "Understanding the Twentieth-Century Growth in U.S. School Spending," *Journal of Human Resources* 32, no. 1 (June 1996).
- Eric Hanushek, "Spending on Schools," in A Primer on America's Schools, ed. Terry M. Moe (Stanford, CA: Hoover Institution Press, 2001), pp. 69–86.
- 14. Ibid.
- 15. LeFevre and Herman, Report Card on American Education: A State-by-State Analysis, 1976–2000.
- 16. Ibid.

- 17. National Center for Policy Analysis, "Alec Study: Increased Education Spending Doesn't Improve Performance," *Daily Policy Digest* (23 April, 2001), available online at http://www.ncpa.org.
- 18. Ibid.
- 19. Organisation for Economic Co-operation and Development, *Education at a Glance:* OECD *Indicators,* 2002.
- 20. Per-pupil expenditures are calculated by dividing total expenditures for education in the national currency by the number of full-timeequivalent (FTE) students enrolled at that education level. The result is then converted to U.S. dollars by dividing expenditures by the purchasing power parity (PPP) index between that country's currency and the U.S. dollar.
- 21. Organisation for Economic Co-operation and Development, *Education at a Glance:* OECD Indicators, 2002.
- Harold W. Stevenson, "A TIMSS Primer: Lessons and Implications for U.S. Education," *Fordham Report* 2, no. 7 (Washington, DC: Thomas B. Fordham Foundation, July 1998), available online at http://www.edexcellence.net/library/stevenso.pdf.
- 23. Organisation for Economic Co-operation and Development, *Education at a Glance:* OECD *Indicators,* 2002.
- 24. Snyder, Digest of Education Statistics, 2001, table 82, p. 91.
- 25. Public Law 94-142, available online at http://www.thomas.loc.gov; Public Law 105-17, available online at http://www.ed.gov/offices/OSERS/IDEA/the_law.html.
- 26. American Association of School Administrators, AASA Leadership for Learning, AASA Proposal to Make IDEA Funding Mandatory (Arlington, VA: American Association of School Administrators, 2001), available online at http://www.aasa.org.
- 27. As of July 2000, states now receive a base allocation consisting of the amount of Section 611 funds that the state received in Federal Fiscal Year 1999. After base allocations are made, 85 percent of the remaining funds are distributed to states based on the relative populations of children ages 3 through 21 who are of the same ages as children with disabilities for whom the states ensure the availability of free appropriate public education (FAPE) under IDEA. Fifteen percent of the remaining funds are distributed to states based on the relative populations of children that fall within the age range for which the states ensure the availability of FAPE under IDEA who are living in poverty. Section 611 states, "The maximum amount of the grant a state may receive under this section for any fiscal year is ... 40 percent of the average per-pupil

expenditure in public elementary and secondary schools in the United States."

- 28. President Gerald R. Ford, "President Gerald R. Ford's Statement on Signing the Education for All Handicapped Children Act of 1975," speech delivered December 2, 1975, available online at http://www.ford.utexas.edu/library/speeches/750707.htm.
- 29. "Disabled students" includes students classified with the following: specific learning disabilities, speech or language impairments, mental retardation, serious emotional disturbance, hearing impairments, orthopedic impairments, other health impairments, visual impairments, multiple disabilities, deaf-blindness, autism and dramatic brain injury, and preschool disabled.
- 30. Snyder, Digest of Education Statistics, 2001, table 82, p. 91; U.S. Department of Education, Office of Special Education Programs, Data Analysis System (DANS), Number of Children Served under IDEA by Disability and Age Group (Washington, DC: U.S. Department of Education, September 2000), table AA12, available online at http://www.ideadata.org/tables/ar_aa12.htm.
- G. Reid Lyon and Jack M. Fletcher, "Early Warning System," *Education Matters* 1, no. 2 (Stanford, CA: Hoover Institution Press, summer 2001), pp. 23–29.
- 32. Ibid.
- 33. U.S. Department of Education, Seventeenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (Washington, DC: U.S. Department of Education, 1995), available online at http://www.ed.gov/pubs/OSEP95AnlRpt/ch1b.html.
- 34. U.S. Department of Education, Twenty-second Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act (Washington, DC: U.S. Department of Education, 2000), available online at

http://www.ed.gov/offices/OSERS/OSEP2000AnlRpt/ExecSumm.html.

- Thomas D. Snyder, ed., *Digest of Education Statistics*, 1999 (Washington, DC: U.S. Department of Education, National Center for Education Statistics, 2000), table 53, p. 66.
- 36. U.S. Department of Education, National Center for Education Statistics, *The Condition of Education 1998* (Washington, DC: U.S. Department of Education, 1998), supplemental table 45-6, available online at http://www.nces.ed.gov/pubs98/condition98/c9845d06.html; Snyder, *Digest of Education Statistics*, 1999, table 83, p. 90.

- 37. "Other staff" includes school social workers, occupational therapists, recreation specialists, teacher aides, physical education teachers, supervisors, psychologists, work-study coordinators, audiologists, vocational education teachers, counselors, interpreters, speech pathologists, non-professional staff, and other professional staff.
- 38. U.S. Department of Education, Seventeenth Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act; U.S. Department of Education, Twenty-second Annual Report to Congress on the Implementation of the Individuals with Disabilities Education Act.
- 39. Hanushek, "Spending on Schools."
- 40. Snyder, Digest of Education Statistics, 2001, table 167, p. 191.
- 41. National Center for Policy Analysis, "Alec Study: Increased Education Spending Doesn't Improve Performance"; National Center for Policy Analysis, "Education," *Policy Digest* (January 1996), available online at http://www.ncpa.org; American Association of School Administrators, AASA Leadership for Learning, "AASA Proposal to Make IDEA Funding Mandatory."
- 42. Hanushek, "Spending on Schools."
- 43. Jay Chambers, Tom Parrish, and Joanne Lieberman, "What Are We Spending on Special Education in the U.S.?" *CSEF Brief*, no. 8 (Palo Alto, CA: Center for Special Education Finance, February 1998), available online at http://www.csef-air.org.
- 44. \$8.6 billion goes to Part A of Title I.
- 45. U.S. Department of Education, Planning and Evaluation Service, High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization (Washington, DC: U.S. Department of Education, January 2001).
- 46. U.S. Department of Education, Planning and Evaluation Service, High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization; Beth Sinclair, State ESEA Title I Participation Information for 1996–97: Summary Report (Rockville, MD: U.S. Department of Education, 2000); U.S. Department of Education, Planning and Evaluation Service, State ESEA Title I Participation Information for 1997–98: Summary Report (Washington, DC: U.S. Department of Education, 1998), available online at http://www.ed.gov/offices/OUS/PES/esed/eseatitleI.html. Note: The number of schoolwide participants dramatically increased due to more lax eligibility criteria. Currently, only 50 percent of

students, instead of 75 percent, have to qualify for a free or reducedprice lunch to be eligible.

- 47. U.S. Department of Education, Planning and Evaluation Service, *High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization.*
- 48. Educational Testing Service, *Growth in School: Achievement Gains from the Fourth to the Eighth Grade* (Princeton, NJ: Educational Testing Service, June 1998), available online at http://www.ets.org.
- 49. A 10-point difference in NAEP scale scores can be considered roughly equivalent to one grade level. "High-poverty schools" are defined as schools where more than 75 percent of students receive a free or reduced-price lunch. "Low-poverty schools" are defined as schools where 25 percent or fewer students receive a free or reduced-price lunch.
- 50. U.S. Department of Education, Planning and Evaluation Service, *High Standards for All Students: A Report from the National Assessment of Title I on Progress and Challenges since the 1994 Reauthorization.*
- 51. Ibid.
- Carl Kaestle and Marshall Smith, "The Federal Role in Elementary and Secondary Education, 1940–1980," *Harvard Educational Review* 52, p. 400.