Many argue that infusions of money have not helped to improve schools and that the American system of public education has failed. This paper describes the problems and puzzles posed by existing data and research on public school spending over time, with a focus on instructional spending. It compares 1990 current account spending to 1960 spending, based on a review of data from three sources: (1) the National Center for Education Statistics (NCES); (2) organizations that collect information on staffing, schools, and working conditions—the Educational Research Service, the American Federation of Teachers, and the National Education Association; and (3) studies of programs at the state, school district, and local levels. The data show that spending on instruction accounted for over 70 percent of the total growth in spending since 1960. Current account expenditures rose from a nationwide average of $1,700 per pupil in 1960 to $5,193 in 1990, which represents an average growth rate of 3.8 percent per year over inflation. No single explanation for the increase in education spending exists. Compensation for teachers and growth in staff were both important contributors to cost per unit. Rising levels of teacher experience and education appear to have pushed teachers to higher average salaries. Pupil-teacher ratios may not square with teacher-reported classroom sizes because of the growing use of teacher aides, teacher time outside of the classroom, growth in programs for students with special needs, and changes in the allocation of teaching resources by school level or subject. One table is included. Contains 63 references. (LMI)
Understanding the Rising Cost of Public Schooling: Exploring the Growth in Instructional Costs

Karen Hawley Miles  
Harvard University

Comments and Suggestions would be Appreciated at:  
8530 Camargo Road  
Cincinnati, OH 45243  
513-794-9105 (Home)  
513-794-9738 (Fax)  
75317.621@compuserve.com
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The Problem

"There must be a great deal wrong with a system that, despite steady infusions of money, produces deteriorating results." (Forbes, October 12, 1992)

"Ten years, untold laws, and programs and billions of dollars later, I think we have to work very hard to make a persuasive case that American education is doing a significantly better job than in 1983." (Chester Finn. Governing, September 1993.)

The United States spends approximately three times more, adjusted for inflation, for each student in public schools today than in 1960. Many argue that over the same period of time, student performance has not significantly improved. It has become commonplace to assert that the combination of these "realities" prove that infusions of money have not helped to improve schools and that the American system of public education has failed. Without a better understanding of the programs and purposes for which new money has been spent in public education, such conclusions are questionable. This paper will describe the problems and puzzles posed by existing data and research on public school spending over time, with a focus on instructional spending and highlight areas for further inquiry.

Speculations about why school spending has increased have varied implications for policy and practice. The popular claim that additional funds have disproportionately gone to support a vast "bureaucratic blob", if true, would offer a neat explanation as to why additional spending has not generated higher student performance (Bennett as cited in Kirst). The assertion, made prominently by researchers from Sandia National Laboratories, that many new dollars have gone to support special education students, who do not all take standardized tests, might also help explain why more dollars

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1 This calculation adjusts spending using the consumer price index. This number varies depending on the index used.
have not led to more quantifiable results (Carson, C.C., 1993). Others argue that spending has grown because school districts have had to raise teacher salaries to remain competitive with other professions. If real salary increases merely kept pace, but did not raise relative teacher salaries, then this theory would also explain why increased spending has not necessarily increased the quality of education. Finally, a claim that a huge increase in public education union membership has led to costly improvement in working conditions, such as shorter working hours, which have little educational consequence would also illuminate the lack of outcome gains (Forbes, Peltzman, 1992).

Each of these theories leads to different prescriptions for policy and practice. For example, if the "bureaucratic blob" theory were true, then improving productivity would require redirecting dollars back to the classroom. Policy could be designed to encourage this restructuring of school spending and to restrict the use of funds for administrative purposes. If true, it would suggest that potential competitors, such as the Edison Project and Education Alternatives, could design schools which cost the same as public schools, yet focused resources more directly on children. On the other hand, if the bulk of increased spending has gone to keep teachers' salaries competitive with those of other professionals, then no one should expect improved productivity. Without confidence that we understand the relative truth of these theories, educational reform movements become ideological crusades rather than reasoned applications of lessons learned from facts.

What do we know?

A review of available research and data provide no definitive answer to what the increase in dollars has bought, but does pinpoint areas for further inquiry (Barro, 1989, Odden, 1992, Kirst, 1988). Three types of data and research help to sketch the outlines of why spending has grown over the last three decades. First, the National Center For Education Statistics (NCES) provides the only consistent data on national public school spending since the 1960s. Most of the analysis of spending trends and levels uses these data as its base. Second, a number of organizations have collected data on staffing, salaries and working conditions over time. The Educational Research Service, an independent clearinghouse for research on school management, has conducted a national survey of salaries and wages annually since 1973. In addition, both the American
Federation of Teachers and the National Education Association have collected information on salaries and working conditions over the years (Nelson, 1993). Third, numerous studies focus on a short period of time in a few states or districts, or look at the cost of specific programs, such as special education. The following review combines these sources to explore how much of the growth in expenditures per pupil we can explain and to clearly define research needs.

Assertions about how much spending has increased vary widely depending on the details of the numbers being used. When examining calculations of spending increases, at least four factors must be considered. First, the numbers should adjust for inflation. The growth rate varies enormously depending on the inflation index used. Because, this paper does not intend to examine the relative merits of different indices, it relies on the CPI, the index used by the National Center for Education Statistics. Second, one should compare expenditures per pupil rather than totals, as the number of students has moved in cycles through the last half century. Third, analyses should be clear about exactly which expenditures the numbers include. For example, total public education expenditures reported by NCES include capital expenditures as well as spending on adult, summer and vocational education. The inclusion of capital spending, mainly used to support school construction, may distort snapshot comparisons of spending as enrollment trends and age of buildings move in cycles, thus requiring larger expenditures over some decades than others. Including spending on adult, summer and vocational education also complicates the comparison. Therefore, this analysis will compare only current account spending on elementary and secondary schooling during the school year.

Finally, calculations of spending increases should be set in historical context, as spending has grown in spurts over this century. While it makes for dramatic effect to assert, as Sam Peltzman does, that the growth rate of resources from 1965 to 1980 is "historically unprecedented ...for education or for any enterprise," it is simply not true (Peltzman, 1992). In fact, per pupil operating expenditures for education have grown

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2 This simple calculation of expenditures per pupil for that year helps to adjust for swings in enrollment, but does not fully capture the effect of enrollment swings on schools. Schools cannot instantaneously adjust spending with the addition or subtraction of students as many of their costs are fixed or only semi-variable.
50% on average each decade since the 1920s with the rate of growth declining in the 1970s and 1980s. Table 1 shows that the largest increases this century occurred in the 1920's when per pupil operating expenditures doubled between 1920 and 1930, and the 1960s when spending rose by 67%.

Table 1
Per Pupil Current Account Public Elementary and Secondary Education
1920 to 1990
(1992-93 Dollars adjusted with CPI)

<table>
<thead>
<tr>
<th>Year</th>
<th>Percent Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>1920-30</td>
<td>100</td>
</tr>
<tr>
<td>1930-40</td>
<td>30</td>
</tr>
<tr>
<td>1940-50</td>
<td>44</td>
</tr>
<tr>
<td>1950-60</td>
<td>51</td>
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<tr>
<td>1960-70</td>
<td>67</td>
</tr>
<tr>
<td>1970-80</td>
<td>36</td>
</tr>
<tr>
<td>1980-90</td>
<td>35</td>
</tr>
</tbody>
</table>

Source: NCES, 1993 Digest of Education Statistics, Table 162, p.160, Calculations
Miles

This analysis compares 1990 current account spending to 1960 for three reasons. First, the most recent spike in spending growth occurred in the 1960s. Second, the 1965 Elementary and Secondary School Act, signed into law in 1965, targeted new dollars to special populations of students. Third, unions gained their foothold in American schools in the 1960s, with the percentage of teachers belonging to unions growing from near zero to 50% by 1969. Unionization may have had a significant effect on school spending and staffing patterns as unions have focused on raising salaries and improving working conditions by reducing teaching and administrative loads and creating more time for teacher planning and professional development (McDonnell and Pascal, 1988).

Using these guidelines, current account expenditures in 1992-93 dollars (adjusted CPI to reflect school year) on elementary and secondary school students have tripled, rising from a nationwide average of $1,700 per pupil in 1960 to $5,193 in 1990. This represents an average growth rate of 3.8% per year over inflation (NCES, Digest of Education Statistics, 1993, Table 165, p. 164). Every state in the union experienced significant growth, ranging from a doubling of expenditures per pupil in Utah, to an
increase of nearly five times in New Jersey and Washington D.C. (NCES 1993, Table 164, p. 163)

Available data suggest that the broad patterns of spending haven't changed much over the years (Hanuskek, 1994, Odden, 1992). NCES reports that instruction, administration and operations have stayed at roughly 60%, 3.5% and 10% of the total respectively from 1960 to 1988-89. Only two broad categories of spending have increased significantly; "fixed charges", which includes benefits, and support services. Fixed charges have grown from 2% of the budget to over 12% in 1980 while support services have grown less dramatically from 6.6% in 1960 to over 8% in 1980 (NCES, 1993, Table 162, p. 160 and NCES, 1990).

Many have pointed out that these data provide only sketchy evidence of how school systems allocate their money because NCES relies on state reported data and category definitions differ by state and have changed over time (Barro, 1992, Odden 1992). Recently, NCES commissioned work to create comparable figures across states for the year 1988-89 which confirmed the allocations reported above (NCES, 1990). Others have replicated this kind of categorization of school expenditures for discrete periods of time. In an earlier paper, I detail 1990-91 spending in Boston public schools showing that teachers and aides account for 61%, student support accounts for 7%, central and school administration for 13% and operations for 18% of total spending (Miles, 1993). Bruce Cooper's work in a diverse group of 8 districts also finds that, at the least at this summary level, school systems across the country, big or small, rural or urban, allocate their money in remarkably similar ways with the percent spent on classroom instruction varying only slightly from 58 to 63% (Center for Workforce Preparation, 1992). More recent work along these lines, in California and Florida, confirms this consistent allocation of 60% of current expenditure to "instruction" (Nakib and Picus, 1994, Picus and Van Kirk, forthcoming).

Thus, no single explanation for the increase in education spending exists since spending has grown in every category of school operations. The evidence refutes critics who suggest additional money has gone disproportionately to support a theoretical "bureaucratic blob", but confirms that administrative spending has grown faster than
inflation. Spending on fixed costs, presumably driven by employee benefits and on support staff appears to explain some of the growth in spending. However, because instruction represents the bulk of spending and has grown at a steady rate since 1960, it will explain the majority of the spending increase since 1960. Chart 2 shows that even though instruction did not grow as fast as some other categories, its growth accounts for 60% of the total change in spending from 1960 to 1990. A more accurate measure of the costs of instruction would include the benefits which instructors received, since this is part of compensation. Existing data do not allow this calculation, but apportioning fixed charges to instructional costs using the 67% of staff instructors represent, suggests that spending on instruction will account for over 70% of the total growth in spending.

Explaining the Growth in Instructional Spending

The growth in instructional spending per pupil is composed of changes in compensation and "instructional intensity", or the number of instructors per pupil. Three questions which explain how much each of these components grew and why:

1. **What grew: Staffing or Compensation?**
   To what extent has compensation for teachers and other instructors, including salaries and benefits, risen as compared to the numbers of instructional staff per student?

2. **Why? Compensation:**
   a) How much did teacher benefits grow relative to salary.
   b) Looking more closely at salary, how much of the rise in instructional salaries is due to the growing experience and education of the teaching workforce as opposed to a rise in salaries at any given experience level?

3. **Why? Staff:** What are the reasons for the growth in instructional staff per pupil?

Existing data and research provide inconclusive answers to these questions, but highlight information needs.

**What Grew: Staffing or Compensation?**

The relative importance of staff versus compensation in explaining increases in the growth in instructional cost provides a critical perspective on the productivity of public education. Nearly 30 years ago, economist William Baumol pointed out that one of two things must happen to sectors of the economy such as education where productivity grows
much more slowly than in other sectors: either the sector withers away because consumers won't pay for the cost increases, or costs per unit of output must rise. The logic is that the sector must compete for labor with other sectors that have experienced productivity increases and so pay workers more over time. Thus, it is no surprise that the per unit costs of education have risen because there is very little substitution of capital for increasingly expensive labor. The question is, how much of the increase has come from the rising cost of labor and how much from adding instructional staff per student (Baumol, 1967)?

A factor analysis of NCES data suggests that compensation accounted for roughly 60% of the inflation adjusted growth in per pupil instructional expenditures from 1960 to 1990, while growth in instructional staff contributed 40%. Based on NCES figures, 1960 instructional spending per pupil totaled $1088 and had risen to $3115 in 1990, a total growth of just over $2,000. Since we know the total cost per pupil and the numbers of staff per pupil, we can calculate the missing piece, compensation. According to this calculation, salaries and benefits for instructors averaged $26,220 in 1960. Isolating the two effects on growth by holding compensation constant from 1960 to 1991, shows that without compensation growth, per pupil instructional spending would have increased only $854 or 42% of the actual $2,00 increase. This leaves compensation to account for 58% of the growth. Hanushek and Rivkin calculate a similar balance between staff and compensation growth from 1970 to 1990 (Hanushek, 1994). However, these conclusions are diluted by at least three data limitations:

1. The total expenditures category is not consistently defined over time.
2. The category of instructors does not distinguish between teachers, aides and other support staff. A large growth in the number of instructional aides, who earn significantly less than teachers, distorts the salary calculations.
3. Total instructional spending does not include spending on benefits, as these are included in a category called "fixed charges" and cannot be broken out by type of employee.

While NCES summary data indicate that over the long term new dollars have gone for compensation and staff at a rate of 60% and 40% respectively, a group of studies using
more specific data, report that staff growth outweighs salary increases in the short term. Two studies look at this balance by comparing the use of resources between higher and lower spending districts. Barro and Carroll found that 63% of the higher expenditures on teachers paid for more teachers rather than for higher salaries (Barro, 1975, Odden 1992). In a similar study using California districts, Alexander found that one third of the higher spending went to support salary premiums (Alexander, 1974). While these studies are sometimes cited as evidence of how schools use new money over time, (Odden, 1992, Picus, 1994), they do not directly address this question as they compare different school districts at only one point in time. Kirst looked at how districts in Los Angeles County spent a 15% increase in revenues. He too, found that districts used the bulk of new funds to hire more staff (Kirst, 1977). This balance toward hiring in the short term is not surprising because raising teacher salaries often implies a negotiated, long term commitment to higher salaries for a large number of teachers, an expensive proposition with limited short term impact. In contrast, hiring more staff gives a school or program immediate help, and can be reversed if funding disappears later.

Gaining a more precise understanding of changes in instructional spending over the long term will reconcile these differing findings and shed light on the degree to which this short term approach to resource allocation has dominated school district practice. Thus, NCES data can only confirm that while compensation has been an important contributor to cost per unit, growth in staff appears nearly as important.

Why it Grew: Compensation

Less certainty exists regarding the reasons for compensation growth. I have not found any analysis of total instructional compensation which details either benefits or non-teacher personnel over time. But, a look at the salaries of teachers, who make up over 90% of instructional personnel, sheds some light on the components of salary growth. As described above, average teacher salaries could have risen because salary scales rose to make teaching more attractive relative to other occupations. Alternatively, rising teacher experience and education may have pushed teachers to higher average levels on the salary scale. The AFT reports that average teacher salaries grew 43%, from $24,498 in 1960 to $34,934 in 1991, in 1993 dollars (AFT, 1993, Table II-3, p. 36). From 1961 to '91,
the average years of teaching experience had grown from 13 to 15.4 years (AFT, Table II-3, p. 36). If teachers in 1961 were as experienced as those in 1991, leaving only rising salary scales and education to influence average salary growth, then average salaries would have risen more than half as much, 26%, as compared to the actual growth of 43% (AFT, 1993, Table II-3, p. 36). Completing this picture will require:

1. Data on teacher benefits separate from salaries
2. Breaking out the salaries for instructional aides from those of teachers
3. Detail on the salary scales and averages for teachers and instructional aides

Scholars debate whether this absolute rise in teacher salaries has made teaching salaries relatively more attractive. The AFT notes that teacher salaries have risen relative to all workers and to government workers (AFT 1993, Table II-2, p. 35). Further, when compared against salaries for comparable professional positions such as accountants, college professors and attorneys, teachers appear to have gained ground. For example, in 1962, an accountant with three years of experience earned 1.3 times more than a teacher with equal experience, in 1991, an accountant still earns more, but the gap has narrowed to 1.1 times more (AFT, 1993, Table II-4, p. 39). This contrasts with Hanushek and Rivkin's finding that teacher salaries have declined relative to the average salaries of other college graduates (Hanushek, 1994).

Why it Grew: Instructors per Pupil

Understanding the growth in the number of instructors per pupil completes the puzzle. The number of instructors per pupil grew from 1 instructor for 26 in 1960 to 1 for 14.7 in 1991 (NCES, 1993, p. 81). While this appears to be a dramatic decrease in potential class sizes, teachers reported an average class size of 25 in 1991, 10 students higher than the NCES ratio implies (AFT, 1993, Table IV-2, p. 61). Trying to explain both the increase and the apparent gap between potential class sizes and teacher reports raises five questions not adequately addressed by current data:

1. How much of this growth can be explained by the addition of aides?

2. How much of the growth can be explained by an increase in non-teaching time spent outside the classroom in planning, development and administrative activities?

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3. 1961 is the first year for which AFT reports this data.
4. This total includes, teachers, instructional aides and other instructional personnel.
3. How many of the new instructors work with *special needs students* in special education, compensatory, or bilingual programs?

4. Has instructional intensity grown equally at the elementary and secondary *school levels*? Does adjusting for enrollment by level change the calculations of growth?

5. Have staffing allocations changed by *subject*, between academic and other courses?

The growing use of *aides* could explain as much as 25% of the growth in staff per pupil. Although NCES did not report the number of instructional aides in 1960, they grew from 1.7% of all staff in 1970 to 9% in 1990-91. Without including aides in the 1991 ratios, the pupil/teacher ratio fell 25% less, from 26 to 17.3, instead of to 14.7 with aides.\footnote{This estimate assumes that aides represent a negligible % of staff in 1960.}

Unfortunately, no data exist on how these aides are used and whether these positions represent full or part time positions or on their salaries over time. Without this detail, we cannot be sure of their impact on instructional spending or on student's opportunity for individual attention.

*Teacher time outside the classroom* represents a second reason that pupil-teacher ratios do not square with teacher reported class sizes and may also help explain the increasing instructional intensity over time. The NEA reports a 36 hour average required teacher work week in 1990. Primary teachers taught an average of 85% of these school hours, 6 of 7 hours a day; while secondary teachers devoted approximately 60%, or 4 of 7 hours at school instructing (Nelson, 1993, Table IV-2, p. 61). Adjusting the 1991 NCES ratios to account for teacher time outside the classroom helps explain much of the gap between teacher reported class sizes of 25 and the NCES pupil-teacher ratios of 17.3. For example, assuming that half of the three hours secondary school teachers spend out of class does not overlap with student breaks from class such as lunch, the remaining hour and a half would need to be covered by other instructors. This would suggest that each secondary teacher taught 4 of 5.5 student instructional hours per day, or 72%. If this were the only factor influencing the difference in the secondary school ratio of 17.2 students per teacher and actual class sizes, then NCES data suggests actual class size
would average 24, (17.2 divided by .72) very close to the 25 which teachers report. The NEA does not report instructional hours for 1961. However, the 1961 difference between the NCES pupil-teacher ratio of 26 and teacher reported class sizes of 29 is significantly smaller than that reported in 1991. One explanation for this increasing gap, impossible to prove with existing data, is that teachers now instruct for a smaller portion of the school day. Evaluating this hypothesis will require learning more about the specifics of changes in teacher instructional time

The growth in programs for students with special needs also explain part of the growth in staffing intensity, but estimates vary widely on how much. Schools have devoted new resources to three groups of students since the 1960s: special education, bilingual and Chapter 1. Research on special education costs provides the first example of the difficulty of tracing spending increases by type of student. Since the 1977 passage of Federal law PL 94-142 mandated that public schools provide "a free appropriate education" to all handicapped children, the number of students classified as requiring special education has grown 30%, from 8.3% in 1976 to 11.4% in 1990. No national data exist documenting these numbers prior to the 1970s. Two sources provide limited information on special education expenditures over time; national expenditure data and geographically representative studies of special education costs. The U.S. Department of Education reported total incremental special education spending by state from 1983-84 through 1986-87. From 1984 to 1987, real per pupil special education spending grew twice as fast as average per pupil spending during this time (Chaikind, 1992).

But, detailed studies of resource allocation to special education students suggest that special education costs per student have remained stable over the decades. These studies estimate all of the resources special education students receive including, time from regular education teachers, special support services and transportation. Three studies, one in each decade, have used nationally representative samples to conclude that schools spent roughly twice as much on the "typical" special education student as on a regular education student and that roughly half of this difference could be attributed to higher cost of instructors (Moore et al., 1988, Kakalik et al., 1981 and Rossmiller, et al, 1970). A fourth study, conducted by Singer and Butler of five metropolitan school
systems, also found that special education costs per pupil averaged twice the cost of regular education during the 1983-84 school year (Singer and Butler, 1988).

The above sources of data provide contrasting evidence on how much the growth in special education spending has contributed to the rising cost of education. The detailed spending studies suggest that special education expenditures have remained roughly stable per pupil but have grown as a result of the 30% increase in enrollments since 1976. Combining these "facts", Hanushek and Rivkin calculate that special education spending could represent only 5.6% of total spending (Hanushek and Rivkin, 1994) On the other hand, the limited data available for the 1980's shows spending on special education growing twice as fast as spending on regular education. If this held true from 1960 until today, special education costs would account for a more significant portion of the total change in per pupil spending.

Even less information is available on how schools have allocated resources to compensate for the disadvantages of poverty. With the passage ESEA in 1965, the federal government began targeting fund to students of poverty. Some states provide additional assistance for these students and many districts add their own programs. Federal funding has grown from nothing in 1965 to over $5.5 billion in 1990-91 and most of this has gone to pay for teachers and aides (U.S. Department of Education, 1990, and 1994). While this growth is huge, the total represents less than 5% of total spending on elementary and secondary education. If Chapter 1 funding did not exist, current per pupil spending would still have grown by nearly 200%. But, because states and school districts may have their own compensatory programs, this may underestimate the resources which have gone to support these students.

Bilingual spending represents a similar situation, where federal, state and local programs all provide assistance to these students, but no comprehensive information exists regarding the level of these resources. The dollars spent on bilingual programs are significantly lower than compensatory education and are concentrated in a handful of states. Title VII funds demonstration, data collection, research and evaluation projects related to bilingual education, but not the ongoing cost of providing bilingual education. In 1991, 22 states funded bilingual programs providing $563 million dollars to support the
additional cost of bilingual education (Sevilla, 1992). No studies examine district resources to these programs over time, but like special education, several have attempted to calculate the extra cost of providing bilingual education. These estimates range, as the programs which serve bilingual students do, but average 35% additional cost, most of which again is instructional (Sevilla, 1992).

Thus, understanding how schools have allocated resources to special populations of students represents perhaps the most controversial and underexplored contributor to spending growth. Doing this requires understanding the number of students in each program and the staffing patterns and number of instructors by program.

Changes in the allocation of teaching resources by school level or by subject may also help explain increased instructional spending. NCES does not provide detail on resources by subject, but they do report some information by school level over time. Class size data for elementary and secondary schools show that though instructional resources per pupil are still higher at the secondary level, elementary schools have received an increase. Average class sizes for elementary schools dropped from 29 in 1961 to 24 in 1991 while secondary school average class sizes moved from 28 to 26. Thus, not only did secondary school class sizes decline less, they are now higher than elementary schools. However, class size averages do not reflect relative teaching resources as teachers do not instruct students all day. The AFT reports that elementary school teachers instruct students 30.5 hours of 36 in a school day or 85%. Secondary school teachers instruct students for a smaller portion of the day at 21 hours or approximately 60%. Including these numbers in the calculations means that the actual teaching resources devoted to secondary education are still higher. (Footnote calculation 24*.85%=20 for elem and 26*65%=17) Collecting better information in this area would require detail on staff and spending by school level and by subject.

Research Required

Piecing together the disparate sources of information gives us some clues as to how instructional spending has grown, but ultimately does not allow an understanding of programmatic or organizational changes. We do not know how spending on regular education has changed, nor how schools have responded to the growth in the number of
students requiring special services. Chart 1 shows how these questions combine to help explain the growth in spending.

Addressing these questions would require more detailed consistent data over time from a single source than appears to exist. One study, conducted by Sandia Labs, looks at a single school district from 1976 to 1990. This study finds the following growth rates:

<table>
<thead>
<tr>
<th>Category</th>
<th>Growth Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Education</td>
<td>8%</td>
</tr>
<tr>
<td>Special Education</td>
<td>340%</td>
</tr>
<tr>
<td>Fixed Costs/Benefits</td>
<td>86%</td>
</tr>
<tr>
<td>Operations and Maintenance</td>
<td>4%</td>
</tr>
<tr>
<td>Other</td>
<td>-24%</td>
</tr>
</tbody>
</table>

Adjusting for the percentage of the budget that each of these categories represents, Sandia Labs finds that nearly one half of the total growth in per pupil spending came from special education expenditures. Another third of the growth came from the growth in "fixed costs" which include benefits and fringes. "Fixed Costs" grew from 10% of the budget in 1976 to nearly double that in 1990. They attribute 20% of the growth to regular education (Carson, C.C., 1993., Miles Calculations).

Because this study uses only one district and a unique methodology, it is impossible to compare these findings to those reported above. However, it seems vital to conduct such comparisons and to do so in an even more detailed fashion. If it is true that one half of the nations tripling of spending has gone to support special education programs, a reassessment of public school performance and reevaluation of priorities in light of the facts seem in order.
References


1


Harp, Lonnie. (1993). Dollars and Sense: Reformers seek to rethink school financing to make it a powerful lever of change. Education Week, March 31, 9-14.


