This paper analyzes trends in education expenditures in elementary and secondary schools, especially the extent to which special education costs are responsible for the overall upward expenditure trends. It reports on the limited national data available and on a longitudinal analysis of special education costs in Milwaukee, Wisconsin, from 1982-83 to 1990-91. Analysis of national data over a 4-year period (1982-83 to 1985-86) suggests that aggregate expenditures for special education rose about 22 percent whereas total aggregate expenditures for elementary and secondary education rose only 14 percent. Analysis of the Milwaukee data indicates that during this period total enrollments increased about 10 percent, whereas special education enrollments increased over 25 percent. However, despite the increased enrollment, special education instruction and support costs were 16 percent of total expenditures in 1989-90 compared with 15 percent in 1983-84. Analysis also indicates that beginning in 1987-88, instructional expenditures per pupil for special education actually dropped in constant dollars while those for regular education continued to rise. Among suggested reasons for the discrepancy between the Milwaukee data and the national data are that the big growth years for special education enrollments and program development were in the late 1970s or that special education costs have flattened due to economies of scale. (Contains 17 references.) (DB)
Special Education Costs and Rising School Expenditures: A Review of the Evidence

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Special Education Expenditures and Rising School Costs:

A Review of the Evidence

Introduction

It is a widely accepted fact that per pupil expenditures for elementary and secondary education in the United States have been rising largely unabated for many decades. Figure 1 indicates this trend in the most recent decade of the 1980s. The data demonstrate that nationally between 1981-82 and 1989-90 there was an aggregate increase exceeding 30% and per pupil increase exceeding 25%.

However, a considerable debate has arisen over how to interpret these expenditure trends. Critics (e.g. Hanushek, 1981) are alarmed that they signal profligate spending by school officials. The overall rise in teachers salaries can be pointed to as a principal source of cost increases (Peterson, 1991), inasmuch as salaries account for roughly 85 percent of operating expenditures in many school districts. It is also true that there is little convincing evidence that these expenditure increases have been targeted principally at education reform initiatives (Inman, 1986) or that they will be sustained (Odden, 1990; Verstegen and McGuire, 1988).
The principal response to this interpretation that rising costs reflect unproductive use of resources is that public schools funded many school improvements in recent decades. Reduced class size is one, although this approach to improvement is, of course, widely criticized as well. Also, services have been expanded to new populations and previously underserved ones, such as children with special education needs, language minorities, young children, gifted and talented children, and others. Special education is widely regarded as the most significant development in this regard, or at least the one having the most widespread impact in terms of total numbers, as well as impact on virtually all school districts. Special education also is regarded as a significant influence on school district costs, both because of the growth in the number of students served and the cost differentials involved.

Indeed, the environment surrounding funding of special education services has become highly politicized. Advocates for special education have mobilized at local, state, and federal levels to garner increased funding for special education services, sometimes through the courts and in other cases through direct lobbying of public officials. The opposition to increased spending on special education has been less well-organized, but considerable resentment has emerged in some communities about special education costs and services. Such opposition has been abetted to a degree by the controversy surrounding the appropriateness and effectiveness of placing
children in special education programs. For example, research does not demonstrate that mildly handicapped children experience substantial academic, social, or psychological growth when served in separate programs (Bogdan and Knoll, 1988; Gartner and Lipsky, 1987; and Lilly, 1986). Yet it remains conjectural whether special education is, in point of fact, encroaching on revenues available for regular education, despite the political perception that this has occurred. For example, an unpublished analysis for the U.S. Department of Energy by the Sandia National Laboratory concluded that purported expenditure increases can be almost entirely accounted for by increases in special education costs (Education Week, October 9, 1991).

Previous research on special education costs has focused principally on the costs of serving different kinds of special education pupils. The major studies in this tradition have been Kakalik, Furry, and Carney, 1981; Moore, Strang, Schwartz, and Braddock, 1988; Raphael, Singer, and Walker, 1985; Rossmiller, Hale, and Froelich, 1970; and Stultz, 1976. Some of this research (e.g., Moore et al., 1988) has examined which level of government bears special education costs, as well as costs associated with alternative delivery models. This research has established unequivocally the added costs of special education; in the Moore study the cost differential between educating a special education student and a regular education student was found to be 2.3. Some research also speaks to alternative state funding mechanisms (Haftman, 1980; Odden and Picus, 1992).
Unfortunately, the existing research does not document clearly the extent to which special education costs are responsible for overall upward trends in education expenditures or whether their costs are rising disproportionately to those in regular education.

The Present Study

The purpose of the present study is to bring evidence to bear on this issue. In particular, we ask:

1. Have special education costs been consuming a larger portion of total expenditures, over time? It should be pointed out that if the answer to this question is affirmative, one would have to analyze why this is occurring. Alternative explanations would be increasing percentages of special education children served, shifts in the composition of special education children served toward more or less expensive disability categories, changes in the delivery system costs for special education, including placement and transportation, or some combination of these factors.

2. Have per pupil expenditures for special education been rising faster than those in regular education programs?

The national data which are available to answer this question are extremely limited. Data are available only since 1982-83, due to federal data collection practices for special education costs and the many problems of consistent cost ac-
counting at state and local levels. Longitudinal data also are complicated by the fact that in some states services to special education children in earlier years were reported for other units of state and local government and eventually moved over to elementary and secondary education. Enormous problems exist in tracking these funding shifts between the late 1970s and early-1980s. Thus, any longitudinal analysis of special education costs must be interpreted with these cautions in mind.

The present paper reports on the limited national data. It also provides a more detailed longitudinal analysis of special education costs in Milwaukee, Wisconsin. The advantage of working with one district is that one can track reporting practices over time with greater confidence. The authors also are working on an analysis for the State of Wisconsin, which will be reported in a separate paper.

**National Trends in Special Education Expenditures**

Figure 2 reports on the limited time frame of four years

_INSERT FIGURE 2 ABOUT HERE_

for which we have national data on special education costs. Between 1982-83 and 1985-86 aggregate expenditures for special education rose slightly over 22%. This exceeds the rise in total aggregate expenditures for elementary and secondary education between 1982-83 and 1985-86 (see Figure 1), which approximated 14% but increased sharply thereafter. (Note that special educa-
tion costs are reported only in aggregate rather than per pupil expenditure trends. The problem here is that there are not reliable special education enrollment figures for children in all programs receiving federal, state, and local revenues.) Nonetheless, it does not appear that special education expenditures in the mid-1980s substantially influenced overall expenditures for elementary and secondary education.

Special Education Expenditures in Milwaukee

We turn now to data on Milwaukee. Figure 3 provides descriptive information on the enrollment trends for special education in the Milwaukee Public Schools. Between 1982-83 and 1990-91, special education enrollments increased from 9.8% of total enrollments to 11.1%, a very modest increase.

In Figure 4 special education enrollment changes are compared to changes in total enrollments. This indicates that while total enrollments increased in this period at slightly over 10%, special education enrollments increased by over 25% between 1983 and 1991. In other words, while both total and special education enrollments rose in that period, the increase in special education enrollments outstripped overall growth.
From this fact we might expect special education costs to be consuming a larger portion of the school district's budget. However, Figure 5 shows only a very modest effect on total costs in the Milwaukee Public Schools. In 1989-90 special education instruction and support costs were 16% of total expenditures (9% for instruction and 7% for support), compared with 15% in 1983-84. (1) Regular instruction costs (which we define here as all non-special education costs allocated to non-special education pupils, less support costs) expressed as a percent of total costs, did not change at all in this same period, remaining at 52% of total costs.

Another way of looking at the issue is to compare cost trends for special instruction versus regular instruction, as is reported in Figure 6. This graph shows that expenditures in special education have not risen proportionately to those in the regular education program. Beginning in 1987-88, instructional expenditures per pupil for special education actually dropped in constant dollars, while those for regular education have continued to rise and in 1989-90 were 29% above 1982-83 levels. Put differently, regular education has contributed to the growth in per pupil expenditures in the Milwaukee Public Schools far more than special education. (2)
Conclusion

The limited national data which are available indicate that special education expenditures rose more rapidly in the mid-1980s than overall expenditures. However, the foregoing longitudinal analysis of expenditures in the Milwaukee Public Schools does not support an interpretation that special education is the principal cause of rising educational expenditures. The Milwaukee data show that special education costs have not been consuming a larger and larger portion of the school district's budget, nor have special education expenditures risen in constant dollars, while instructional expenditures for regular education rose quite dramatically (29%) in the 1980s.

There are a number of ways to interpret these findings. First, the Milwaukee data may be atypical of the nation as a whole, and this can only be answered with additional data.

Second, one might assert that public perceptions about the encroachment of special education costs on school budgets lags behind reality. The big growth years for special education enrollments and program development were the middle and late 1970s extending to perhaps 1982. This argument is hard to confirm or disconfirm because of the limited financial data available, although it has intuitive appeal.

A third explanation, not necessarily inconsistent with the first, is that the growth line for special education costs has flattened due to economies of scale. When there were small num-
bers served, the costs of support services such as administration had to be spread over fewer children. As numbers served increased, the marginal costs of adding children decreased. This does not explain why instructional expenditures for special education, exclusive of support services, have been flat (Figure 6), but it may be part of the picture.

A fourth interpretation is that new delivery models such as mainstreaming, better diagnosis and placement, and the like, have introduced new efficiencies which were not present in the early years. There is little systematic research evidence on this question.

A fifth explanation is that political pressures mobilized against special education have mounted in the 1980s, counterbalancing the effective pressure that special education interest lobbies generated in the 1970s and early 1980s. While research documents the political dimensions of diagnosis and placement (e.g., Hagarty and Abramson, 1987; Skrtic, 1986), the politics of spending on special education are less well studied.

In the end then, while the findings quite clearly disavow a myth about spiraling special education costs, the reasons for its inaccuracy require additional evidence we are unable to provide here.

Critics of current school spending levels and advocates of higher spending are likely to read these findings, not surprisingly, wearing very different eye lenses. Critics might merely respond that special education is as inefficiently administered
as regular education programs, even if special education costs are not rising as rapidly. Defenders of school spending may take reassurance that special education—one of the largest educational equity efforts of the last two decades—cannot be used to blame schools for spending too much. Yet if equity is not responsible for rising expenditures, defenders will be forced to make their defense on other grounds, such as the greater efficiency or productivity of schools in the face of rising expenditures. Of course, it is precisely in this area that schools are under sharp attack. In this regard, the debate on special education reemerges, for it is not clear, as was discussed earlier, that the benefits children experience from special education services can be measured easily, much less subjected to a cost-benefit calculus. In short, there is little prospect that the debate about special education costs will be resolved in the foreseeable future.
NOTES

1. 1983-84 is used as the base year rather than 1981-82 because of difficulty in accurately apportioning psychologist, social worker, and transportation costs among "special education support" versus "other support" in earlier years.

2. Support services are excluded from these figures because unlike Figure 5, all calculations are per pupil. Some support services (e.g., special education supervisors) can be allocated specifically to special education, while others (general administration, building maintenance, etc.) are not easily divided among the two categories.
REFERENCES


Figure 1
Change in Aggregate and Per Pupil Education Expenditures for the United States
1981-82 to 1989-90

Note: Expenditures in constant dollars

Figure 2
Change in Aggregate Special Education Expenditures for the United States
1982-83 to 1985-86

Note: Expenditures in constant dollars

Figure 3

Special Education Enrollments as a Percentage of Total Enrollments

Milwaukee Public Schools 1982-1983 to 1990-91

Source: Milwaukee Public School District Records
Figure 4

Change in Special Education and Total Enrollments

Milwaukee Public Schools 1982-83 to 1990-91

Source: Milwaukee Public School District Records
Figure 5

Comparison of Special Education Instruction, Regular Education Instruction, and Support Costs as a Percent of Total Expenditures

Milwaukee Public Schools 1981-82 to 1989-90

Note: Prior to 1983-84, special education support costs were not fully identified in the financial records. As a result, these costs are reflected in "Other Support" for 1981-82 and 1982-83.

Source: Milwaukee Public School District Records
Figure 6
Change in Per Pupil Expenditure for Regular and Special Education Instruction
Milwaukee Public Schools 1982-83 to 1989-90

Note: Expenditures in constant dollars

Source: Milwaukee Public School District Records
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