Special Education Finance

Articles

Who's Paying the Rising Cost of Special Education .................................................................4
—Thomas B. Parrish, Ed.D.

The Impact of Census-Based Special Education Funding in Pennsylvania ........................................13
—Willam T. Hartman, Ph.D.

The Ontario Special Education Funding Model .................................................................21
—Nancy Naylor, M.A.

Impact of the Kentucky Education Reform Act on Special Education ........................................27
—Cassandra M. Guarino, Ph.D., and Jay G. Chambers, Ph.D.

The Cost of Inclusive and Traditional Special Education Preschool Services .................................33
—Samuel L. Odom, Ph.D., Thomas B. Parrish, Ed.D., and Christine Hikido, M.A.

CASE IN POINT: The Administrative Predicaments of Special Education Funding ..................................42
—Barbra Moore-Brown, Ed.D.
The Editorial Mission

The primary goal of the *Journal of Special Education Leadership* is to provide both practicing administrators and researchers of special education administration and policy with relevant tools and sources of information based on recent advances in administrative theory, research, and practice. The *Journal of Special Education Leadership* is a journal dedicated to issues in special education administration, leadership, and policy issues. It is a refereed journal that directly supports CASE’s main objectives, which are to foster research, learning, teaching, and practice in the field of special education administration and to encourage the extension of special education administration knowledge to other fields. Articles for the *Journal of Special Education Leadership* should enhance knowledge about the process of managing special education service delivery systems, as well as reflect on techniques, trends, and issues growing out of research on special education that is significant. Preference will be given to articles that have a broad appeal, wide applicability, and immediate usefulness to administrators, other practitioners, and researchers.
Subscriptions
The Journal of Special Education Leadership is published by the Council of Administrators of Special Education in conjunction with Sopris West. Copy requests should be made to CASE, 615 16th Street NW, Albuquerque, NM 87104. Single copies may be purchased. Orders in multiples of 10 per issue can be purchased at a reduced rate. Members receive a copy of the Journal of Special Education Leadership as part of their membership fee. See back cover for subscription form.

Advertising
The Journal of Special Education Leadership will offer advertising for employment opportunities, conference announcements, and those wishing to market educational and administrative publications, products, materials, and services. Please contact the editor for advertising rates.

Permissions
The Journal of Special Education Leadership allows copies to be reproduced for nonprofit purposes without permission or charge by the publisher. For information on permission to quote, reprint, or translate material, please write or call the editor.

Dr. Mary Lynn Boscardin, Editor
Journal of Special Education Leadership
175 Hills-South
School of Education
University of Massachusetts
Amherst, MA 01003

Copyright
The Journal of Special Education Leadership, a journal for professionals in the field of special education administration, is published by the Council of Administrators of Special Education in conjunction with Sopris West to foster the general advancement of research, learning, teaching, and practice in the field of special education administration. The Council of Administrators of Special Education retains literary property rights on copyrighted articles. Any signed article is the personal expression of the author; likewise, any advertisement is the responsibility of the advertiser. Neither necessarily carries CASE endorsement unless specifically set forth by adopted resolution. Copies of the articles in this journal may be reproduced for nonprofit distribution without permission from the publisher.
This issue of the *Journal of Special Education Leadership* is dedicated to the topic of special education finance. When I was writing my dissertation, discussions about funding programs did not command center stage; rather, administrators, teachers, and parents were invested in evaluating the types of programs and services that most effectively would meet the needs of the students with disabilities. These types of decisions represented opportunity costs, where administrators and school board members were able to make choices about the level of funding allocated to support a variety of special education programs. As available revenues have diminished over time, we have seen the emphasis in discussions shift away from effective service delivery models to the availability of funds and the avoidance of litigation. With fewer resources, new tensions have developed. Fiscal choices have become more complex because the federal and state governments mandate services but have not fulfilled funding obligations. This has resulted in the need to use more local dollars to support district level special education services and created a tension between general education and special education. Educators, parents, and school board members have wondered aloud whether or not paying for these mandates is cost effective and the best use of available resources. While some would argue to reduce or remove the mandates that provide services to students with disabilities, this is not an option. One of the largest challenges for school districts in this decade will be garnering the resources necessary to support both general and special education.

Dr. Tom Parrish, the Managing Research Scientist at the John C. Flanagan Research Center of the American Institutes for Research, is guest editor of this issue of the *Journal of Special Education Leadership*. Dr. Parrish presents a series of articles in this special issue intended to challenge our thinking about the different facets of special education finance. The compendium of five articles is certain to generate much discussion and debate. In addition to these articles, Dr. Barbara Moore-Brown contributed a commentary for *CASE IN POINT* representing one administrator of special education’s perspective on the current state of funding special education. CASE is very appreciative of the time, effort, and contribution made to this issue of *JSEL* by Dr. Parrish and the cadre of authors. The CASE Executive Committee and I hope you enjoy this special education finance issue of *JSEL*.

Mary Lynn Boscardin, Ph.D., Editor
mlbosco@educ.umass.edu
A Letter from the Guest Editor

This issue of the JSEL is dedicated to issues of special education finance. Very few JSEL readers may admit to finance as a favorite subject, rather remembering economics as “the dismal science,” if they remember it at all. As a former elementary teacher of children with special needs, who later became a specialist in school finance, special education has become a natural interest of mine. However, I have also noted among my finance colleagues a relatively low level of interest in special education. It seems to be perceived as a mysterious set of services outside the realm of mainstream education.

Clearly there are unique aspects to considering how special education programs should be equitably and adequately funded in ways that will encourage the provision of appropriate and efficient programming. However, to view special education as outside the realm of mainstream instruction and as something apart from general education is at the heart of the problem we face in enacting comprehensive school program and finance reform.

Approximately 12% of all students now receive special education services, which constitute about 13% of total public education spending—numbers which continue to grow. Special education enrollments have risen as a percentage of total enrollment every year since the passage of the IDEA. Special education spending also appears to be increasing at a much faster rate than general education. For better or worse, issues relating to the funding of special education have garnered the attention of the nation. I was reminded of this as former Vice President Gore and Governor Ventura of Minnesota emerged from a lengthy meeting during the height of the campaign to report that the main topic they had discussed was funding special education.

Thus, special education finance is generating attention. At the same time, because it occupies a space between the very disparate worlds of special education and school finance, it does not often generate the thoughtful and scholarly attention it warrants. This is one of the reasons I am especially pleased that JSEL has agreed to publish this set of articles dedicated to special education finance. A few years ago, we edited a similarly dedicated edition of the Journal of Education Finance (JEF). However, my guess is that there are very few readers of both journals. If these articles are to have any chance of affecting policy, they must be read outside the finance community. Ultimately, of course, we must also bridge the gap between special and general education providers and policymakers.

With these goals in mind, we have tried to include five diverse articles in this JSEL. The first presents analyses on special education spending over time and its impact on general education. The three articles that follow analyze the impact of special education finance policies in Pennsylvania, the province of Ontario, and Kentucky. The edition concludes with a cost analysis of mainstream versus more inclusive models of providing preschool for children with disabilities. These articles show varying perspectives on funding special education across North America and also illustrate the range of topics falling under the realm of special education finance. We hope that they may play a small role in increasing the dialogue between those of us specializing in issues of special education finance and those of you who strive every day to provide high quality programming for children with disabilities under difficult resource constraints.

I would like to acknowledge the support of the Office of Special Education Programs within the U.S. Department of Education for their support of this work through the Center for Special Education Finance (CSEF) at the American Institutes for Research (AIR). I would also like to thank Amy Merickel, Phil Esra, and Jean Wolman, of AIR, for the considerable editorial assistance they provided in producing this edition of the JSEL.

Thomas B. Parrish, Ed.D., Guest Editor
tparrish@air.org
Who’s Paying the Rising Cost of Special Education?

Thomas B. Parrish, Ed.D.
American Institutes for Research

From 1988-89 to 1998-99, special education enrollments grew about twice as fast as those of all students (33% versus 15% growth). Special education costs per student also appear to be rising.

Combined federal, state, and local spending on special education is rising an estimated $3 billion per year (including inflation). The unprecedented $1.4 billion increase in federal special education aid allocated for Fiscal Year 2000 is well short of these rapidly rising costs.

Although rising special education costs are a legitimate concern, the evidence does not show a deleterious fiscal effect on general education. Over the past 15 years, general education spending has risen by an estimated 69%.

Over a five-year span beginning with the 1993-94 year, the state share of special education funding decreased (55% to 47%), and the burden on local funding sources increased (39% to 45%).

The majority of new special education enrollments come from students in less severe categories of disability. State and local general and special educators will need to work together to increase the capacity of general education to accommodate a higher degree of learning diversity if special education expansion is to be brought under greater control.

Questions about rising special education costs and their impact on general education are currently among the most contentious issues in public education. Although these rising costs are a legitimate concern, the evidence does not support the claim that they are having a deleterious fiscal impact on general education. In fact, spending on general education has risen considerably since the passage of the Individuals with Disabilities Education Act (IDEA) in 1975. It is just not growing at as fast a rate as special education spending. Available data also suggest that the state share of special education costs is declining, which is requiring increased contributions from school districts. Consequently, the cost impact of special education is increasingly being felt at the local level. New federal contributions have not made considerable inroads in regard to these expenditure trends. Growing special education enrollments are the major factor driving rising costs. Therefore, without comprehensive school reform that encompasses general and special education, these trends of rising enrollments and costs are likely to continue.

One view of the tension between general and special education is presented in “Irreconcilable Differences? Defining the Rising Conflict Between Regular and Special Education,” by Meredith and Underwood (1995). They raise the issue of resource competition between these two groups of students as a major concern and conclude that “the cost of educating disabled students ... is threatening our ability to educate nondisabled students in many districts and, therefore, is placing the entire public education edifice potentially at risk” (213).

Research for this paper was supported through funding from the Office of Special Education Programs (OSEP), U.S. Department of Education, through the Center for Special Education Finance at the American Institutes for Research.
Across the States

The data presented in this article substantiate several predominant themes regarding special and general education. They show rising special education enrollments and costs, varying levels of state effort to curb or offset these rising costs, the general trend of these new costs falling disproportionately on local school districts, and concerns about their effect on general education programming. These themes are illustrated in the following examples from the states.

In Vermont, the Blue Ribbon Commission on Special Education Costs, set up by the Legislature in 1998, concluded that “the cost of special education is rising at a rate that Vermont cannot sustain ... cost-containment must become a system-wide priority.”

In California, a nearly $2 billion claim filed by school districts against the state for insufficiently funding special education was just settled. As described by the Los Angeles Times, “finding ways to pay for special education services has become a crisis in many school districts as the number of qualified students has increased” (Pyle, 1999).

In Michigan, over 300 districts have filed a lawsuit against the state seeking more funding for special education (Special Education Report, 2000). Similarly, Wisconsin’s Evaluation of Special Education Funding (1999) report cites rising special education costs of nearly 37% between 1992–93 and 1997–98 and special education enrollments growing by 19% in relation to public school enrollment increases of just over six percent.

Research Findings

In Where’s the Money Gone? Rothstein and Miles (1995) analyzed spending in nine school districts between 1967 and 1991. They found that expenditures going to general education had dropped from 80% to 59%, while the share going to special education had climbed from four percent to 17%. In a similar analysis of spending in New York, Lankford and Wyckoff (1999) found that the share of resources spent on general education teaching fell from 53% in 1979–80 to 49% in 1992–93, while the share of resources spent on special education more than doubled—from five percent to 11%.

These findings support national concerns about rising special education costs and also suggest deleterious effects on general education. However, to fully understand the implications of this research, it is important to examine their data more closely.

The findings of Rothstein and Miles (1995) and Lankford and Wyckoff (1999) track changes in special education vis-à-vis general education spending from a time close to the passage of the federal IDEA...
in 1975 well into the future (12 to 24 years). At the time IDEA was passed, it was widely acknowledged that this landmark legislation was needed because many students with disabilities were unserved or underserved. IDEA represents a monumental national commitment to provide “free and appropriate public education” to all students with disabilities. No one doubted at the time, or should be surprised later, that this national commitment would require considerable additional investments in public education.

IDEA represents a monumental national commitment to provide “free and appropriate public education” to all students with disabilities.

Despite the magnitude of this commitment, however, the contention that higher special education spending has eroded general education budgets is not borne out by either of these two studies. To the contrary, Rothstein and Miles report that real spending per general education student (factoring out special education dollars) actually rose at an average annual rate (adjusted for inflation) of about one percent over this 25-year period (or about 25% overall). Lankford and Wyckoff (1999) also find gains in real spending for general education students.

In subsequent analyses, Rothstein (1997) revisited these nine districts to track resource allocation patterns across general and special education from 1991 to 1996—a period sufficiently distanced from the initiation of the IDEA to ensure that he was not simply capturing costs associated with previously unserved or underserved students. For this time period, he reports that special education’s share of total spending rose by only 1.2% (from 17.8% to 19%).

**What Do National Data Show?**

Although national expenditure data on special education are not reported annually, it is possible to compare overall changes in special and general education spending over time through data released by the Center for Special Education Finance (CSEF, 2001) at four points in time spanning a 15-year period.

Table 1 shows considerable increases in both special and general education spending over this time period. It shows that special education spending rose more than general education spending (117% versus 69%) and that special education spending rose as a percentage of total K-12 public spending (from 10.5% to 13.1%). However, despite the considerable rise in special education spending during this time period, general education spending also rose considerably (by 69%). In addition, these real gains in general education spending occurred despite the fact that the most costly-to-educate students were increasingly being pulled out of general education to receive customized instruction in special education. Thus, at least from one perspective, general education spending increased at a time when its costs were being reduced.

These findings do not support the argument that special education spending has substantially encroached on general education. Rather, they suggest that despite the considerable expansion of special education programs in the United States over the past 15 years, general education programs have

<table>
<thead>
<tr>
<th>Estimated Inflation-Adjusted Spending</th>
<th>Special Education’s % of Total Spending</th>
<th>Overall Growth in Spending</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Special Education</td>
<td>General Education</td>
</tr>
<tr>
<td>82–83</td>
<td>$21,287,926,365</td>
<td>$181,220,431,306</td>
</tr>
<tr>
<td>87–88</td>
<td>$27,372,449,544</td>
<td>$223,275,663,523</td>
</tr>
<tr>
<td>93–94</td>
<td>$33,711,479,739</td>
<td>$259,851,166,200</td>
</tr>
<tr>
<td>98–99</td>
<td>$46,092,249,389</td>
<td>$305,445,201,770</td>
</tr>
</tbody>
</table>

Table 1: Estimates of Special and General Education Spending Over Time in Constant 1998–99 Dollars
also received considerable additional support. Recent analyses by Chambers and Guarino, using data from Kentucky, and by Hartman, in his analyses of special and general education spending in Pennsylvania, also provide no evidence of substantial special education encroachment on general education.3

What are the Sources of Rising Special Education Expenditures?

Although the data above challenge the allegation that rising special education costs are adversely affecting general education, there are legitimate concerns over the fact that special education enrollments have increased as a percentage of total enrollments every year since the passage of the IDEA nearly 25 years ago. If this pattern continues, special education costs will continue to rise and concerns about special education in relation to general education spending will grow.

In considering appropriate policy interventions, it is important to understand the extent to which increased special education costs are a function of rising special education enrollments as opposed to growing expenditures per special education student. In attempting to distinguish between these two factors, Lankford and Wyckoff (1999) found that in New York (excluding New York City), 90% of rising special education expenditures were due to rising enrollments and only 10% to increasing expenditures per student. However, for New York City, they found an almost opposite pattern with only 15% of rising costs attributable to changes in special education enrollments.

In considering appropriate policy interventions, it is important to understand the extent to which increased special education costs are a function of rising special education enrollments as opposed to growing expenditures per special education student.

In the Wisconsin Department of Public Instruction study (1999), the increase in special education spending was attributed exclusively to rising special education enrollments, with special education expenditures per student reportedly growing at a slower rate than for general education (15% compared to 18%). In the California lawsuit described above, the major factor cited as driving increased special education expenditures was a doubling of the statewide special education enrollment from 1990 to the present.

Over the period 1988–89 to 1998–99, the count of special education students has increased about twice as fast as total enrollment (33% versus 15%; U.S. Department of Education, 1999). At the same time, special education costs per student appear to be increasing. Based on data released by the Center for Special Education Finance (2001), trends in spending per student (in constant dollars) appear in Table 2.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Spending</td>
<td>$5,010</td>
<td>$6,210</td>
<td>$6,453</td>
<td>$7,612</td>
</tr>
</tbody>
</table>

These data seem to support a recently released Massachusetts’ School Superintendents’ Report (2000), which found that:

… the increase in special education has been due to such medical, economic, and social factors as the advances in medical knowledge and technology, the deinstitutionalization of special needs children, the consequences of higher percentages of children living in poverty, and the increase in families experiencing social and economic stress. Due to these factors, more children with more severe special needs are entering public schools. (p. 5)

Based on these findings, the report concludes that “the increase in special education costs has not been a result of school district policy and practice.”

Although national data (Table 3) support the claim from the Massachusetts report that “more children with more severe special needs are entering public schools,” in fact, the major changes in special education enrollment over the past ten years have been in categories of disability that generally enroll students with less severe special needs. These are
Table 3: Special Education Identification Trends by Disability, 1988–89 through 1998–99

<table>
<thead>
<tr>
<th>Disability</th>
<th>1988–89 (1)</th>
<th>1998–99 (2)</th>
<th>Enrollment Growth (3)</th>
<th>% Growth (4)</th>
<th>%-By Disability 98–99 (5)</th>
<th>%-of Enrollment Growth (6)</th>
<th>% of Additional Costs (7)</th>
<th>Estimated Cost/Student** (8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Autism***</td>
<td>54,074</td>
<td>54,074</td>
<td>—</td>
<td>1%</td>
<td>4%</td>
<td>8%</td>
<td>$13,902</td>
<td></td>
</tr>
<tr>
<td>Traumatic Brain Injury***</td>
<td>12,984</td>
<td>12,984</td>
<td>—</td>
<td>0%</td>
<td>1%</td>
<td>5%</td>
<td>$33,500</td>
<td></td>
</tr>
<tr>
<td>Multiple Disabilities</td>
<td>84,480</td>
<td>107,811</td>
<td>23,331</td>
<td>28%</td>
<td>2%</td>
<td>3%</td>
<td>$12,844</td>
<td></td>
</tr>
<tr>
<td>Mental Retardation</td>
<td>576,671</td>
<td>610,739</td>
<td>34,068</td>
<td>6%</td>
<td>11%</td>
<td>2%</td>
<td>$8,393</td>
<td></td>
</tr>
<tr>
<td>Orthopedic Impairments</td>
<td>47,195</td>
<td>69,447</td>
<td>22,252</td>
<td>47%</td>
<td>1%</td>
<td>2%</td>
<td>$9,225</td>
<td></td>
</tr>
<tr>
<td>Developmental Delay</td>
<td>11,910</td>
<td>11,910</td>
<td>—</td>
<td>0%</td>
<td>1%</td>
<td>2%</td>
<td>$13,902</td>
<td></td>
</tr>
<tr>
<td>Hearing Impairments</td>
<td>57,117</td>
<td>70,900</td>
<td>13,783</td>
<td>24%</td>
<td>1%</td>
<td>1%</td>
<td>$9,530</td>
<td></td>
</tr>
<tr>
<td>Visual Impairments</td>
<td>22,461</td>
<td>26,113</td>
<td>3,652</td>
<td>16%</td>
<td>0%</td>
<td>0%</td>
<td>$8,982</td>
<td></td>
</tr>
<tr>
<td>Deaf-Blindness</td>
<td>1,494</td>
<td>1,620</td>
<td>126</td>
<td>8%</td>
<td>0%</td>
<td>0%</td>
<td>$33,544</td>
<td></td>
</tr>
<tr>
<td><strong>Total Severe</strong></td>
<td>789,418</td>
<td>965,598</td>
<td>176,180</td>
<td>22%</td>
<td>17%</td>
<td>13%</td>
<td>25%</td>
<td>$9,805</td>
</tr>
<tr>
<td>Specific Learning Disabilities</td>
<td>1,995,186</td>
<td>2,816,000</td>
<td>820,814</td>
<td>41%</td>
<td>51%</td>
<td>60%</td>
<td>44%</td>
<td>$4,865</td>
</tr>
<tr>
<td>Other Health Impairments</td>
<td>50,321</td>
<td>222,902</td>
<td>171,581</td>
<td>341%</td>
<td>4%</td>
<td>13%</td>
<td>18%</td>
<td>$9,751</td>
</tr>
<tr>
<td>Emotional Disturbance</td>
<td>373,202</td>
<td>462,920</td>
<td>89,718</td>
<td>24%</td>
<td>8%</td>
<td>7%</td>
<td>8%</td>
<td>$8,251</td>
</tr>
<tr>
<td>Speech or Language Impairments</td>
<td>965,385</td>
<td>1,074,368</td>
<td>108,983</td>
<td>11%</td>
<td>19%</td>
<td>8%</td>
<td>4%</td>
<td>$3,286</td>
</tr>
<tr>
<td><strong>Total Non-Severe</strong>**</td>
<td>3,384,094</td>
<td>4,575,190</td>
<td>1,191,096</td>
<td>35%</td>
<td>83%</td>
<td>87%</td>
<td>75%</td>
<td>$5,074</td>
</tr>
<tr>
<td>All Disabilities</td>
<td>4,173,512</td>
<td>5,540,788</td>
<td>1,367,276</td>
<td>33%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>\</td>
</tr>
</tbody>
</table>

*Counts of students, ages 6–21, taken from the 21st Annual Report to Congress, Table AA14.
***Reporting on autism and traumatic brain injury was required under IDEA beginning in 1992–93 and was optional in 1991–92.
****Categories of disability are divided into severe and non-severe based on a classification scheme adopted by the State of California.

students for whom assignment to special education is likely to be more within district control. For example, column 6 shows that 60% of the total increase in special education enrollment over this period was in the Specific Learning Disabilities category.

To examine how increased enrollments are distributed by disability category, we followed a typology of disabilities adopted by California. Using this typology, the data show that 87% of the overall change in student counts over this time period occurs in “non-severe” disability categories. In addition, cost estimates by disability from the last national expenditure study (Moore et al., 1988), expressed in 1996–97 dollars, show an estimated 75% of new costs allocated to the category of “non-severe” disabilities.

These data challenge the Massachusetts report’s conclusion that special education costs have not resulted from school district policies and practices. While increases in the enrollment of students with very severe needs are arguably beyond district control, the predominant categories of rising enrollment are in the less severe categories of disability. For at least some of these students, enhancing the capacity of general education to address a broader range of learning diversity
appears to be what is needed if rising special education costs and enrollments are to be brought under greater control.

Increasing our Knowledge of Special Education Spending

Unfortunately, the spending estimates shown in Table 3 are over 15 years old (Moore et al., 1988). Through funding from the U.S. Department of Education, however, the Center for Special Education Finance (CSEF) is attempting to fill this information gap. CSEF is currently conducting a national Special Education Expenditure Project (SEEP). This vast undertaking will provide updated national special education spending information collected from all 50 states and from approximately 250 school districts. For each state, at least two school districts are included in this national sample. To provide information that does not rely on local accounting conventions and is truly comparable across the nation, expenditure information is constructed from detailed pictures of the resources going to individual students, schools, school districts, and states. To this end, SEEP surveys have been sent to a sample of schools (where teachers are providing information about themselves and about a sample of the students they serve), to district offices, and to state departments of special education. In return, SEEP will provide participating districts with information about how their resource allocation patterns and expenditures on special education compare with those of other districts and states across the nation.

At the same time, nine states have contracted for extended SEEP studies. The sample of SEEP districts in these states is expanded substantially beyond what is included in the federal study, which will allow customized analyses of special education expenditures that are fully representative of each state and unique to its special interests and concerns. This will also allow these states to compare their own state and district expenditures with those of other comparable states and districts across the nation.

In addition, CSEF is also conducting a study for the Milwaukee Public Schools to examine special education resource allocation patterns across the district’s schools. These data will assist future policy decisions about how to best allocate special education resources under a school-based management system. These data will also help inform district funding of special education services in charter schools and in private schools receiving state vouchers.

Moreover, in conjunction with the National Association of State Directors of Special Education (NASDSE), CSEF has administered a special education finance survey to all 50 states. This survey asks questions about special education spending, fiscal reform efforts, and current formula provisions. This information is being used to publish the third in a series of reports about special education finance across the states. Some preliminary results from this survey follow.

Estimated Spending—Who Pays?

From these survey results, CSEF researchers were able to derive estimates of total special education spending for 34 states, as well as the trends in federal, state, and local special education funding shown in Table 4. These data show a relatively recent change in the share of support for special education programs borne by federal, state, and local government. While much media attention has focused on increased federal funding for special education over the past few years, the percentage share of federal special education funding has changed relatively little during the period represented in Table 4 (from seven percent to eight percent). The big shift in this time period is the decreasing state share of funding (56% to 47%) and the increasing burden on local funding sources (37% to 45%).

<table>
<thead>
<tr>
<th>Year Range</th>
<th>Federal</th>
<th>State</th>
<th>Local</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>82–83</td>
<td>7%</td>
<td>56%</td>
<td>37%</td>
<td>100%</td>
</tr>
<tr>
<td>87–88</td>
<td>6%</td>
<td>58%</td>
<td>36%</td>
<td>100%</td>
</tr>
<tr>
<td>93–94</td>
<td>6%</td>
<td>55%</td>
<td>39%</td>
<td>100%</td>
</tr>
<tr>
<td>98–99</td>
<td>8%</td>
<td>47%</td>
<td>45%</td>
<td>100%</td>
</tr>
</tbody>
</table>
How Much Is Needed?

Although growth in federal support for special education appears fairly minimal based on the table above, federal revenues have expanded fairly substantially since 1998–99. However, primarily due to rising enrollments, special education costs are rising substantially faster than new federal funding. Unless the states are willing to substantially increase their share (reversing observed trends over the past five years) or the federal contribution is increased to the allowable allocation of 40% of the nation’s average per pupil expenditure, the additional funds needed for special education will increasingly come from local sources.

Nationally, the count of special education students over the past five years for which data are currently available (1993–94 to 1998–99) has risen an average of 127,000 per year. Over this same time period, estimated special education spending has risen an estimated $3 billion per year (including inflation). If these increases in total special education spending continue—even with the $500 million annual increases in federal special education funding seen over the past few years—states and localities will continue to face an increasing special education revenue burden. Even the unprecedented $1.4 billion increase in federal special education aid allocated for Fiscal Year 2000 is well short of these rapidly rising costs.

Unless the states are willing to substantially increase their share (reversing observed trends over the past five years) or the federal contribution is increased to the allowable allocation of 40% of the nation’s average per pupil expenditure, the additional funds needed for special education will increasingly come from local sources.

Policy Implications

As mentioned, while the federal government has been increasing fiscal support, the state share of special education support appears to be declining. This may seem ironic to states that have undoubtedly seen this segment of their state budget grow. For example, in Hawaii, despite its considerable increase in state spending for special education since 1994, a federal ruling recently found that the state had “failed to significantly improve the care for disabled children first ordered six years ago” (Special Education Report, 2000). In Michigan, where districts are suing the state for lack of special education support, a spokesman for the governor insists that the state is meeting its obligations: “per-pupil spending is at an all time high” (Special Education Report, 2000).

In response to the NASDSE state survey described above, 30 states say their state funding formula has changed over the past six years, and 20 say they are currently considering additional changes. Special education cost control is a likely factor affecting much of this change. However, it appears from the data above that limiting state spending on special education only places greater pressure on local education revenues. It is likely that the states will have to take a more systemic and holistic approach to education change if they really want to stem rising enrollments in special education and their corresponding costs.

Further suggesting the need for systemic change is the evidence cited earlier that the majority of new special education enrollments and costs come from increased numbers of students in the less severe categories of disability. These are the students for whom states and districts may need to seek modes of service other than special education if the growth in rising enrollments and costs is to be brought under greater control.

Conclusion

It is tempting to focus all concern regarding rising special education costs on special education itself. However, since much of the growing expenditures seem attributable to continuously rising identification rates, it seems insufficient to look to special education alone for the solution. For the most part, it is those students not making appropriate progress in general education who are referred to special education for supplemental services. To understand why special education is growing, we need a better understanding of why increasing numbers of
children are not finding success within general education.

The more state and local officials continue to raise the bar for student achievement and heighten the sanctions for school failure, the more likely it becomes that parents will argue for, and educators will agree to, the referral of more students for individualized treatment through special education. Such trends exemplify the concern of Meredith and Underwood (1995), that “current state fiscal legislation is increasingly encouraging an educational ecosystem in which the regular and special education communities become direct competitors for an increasingly narrow resource base” (207).

The reaction of some states to rising special education expenditures is simply to cap state aid for special education. At the same time, they may be adopting statewide accountability measures that single out low-performing students, inadvertently driving them into special education. For example, Wisconsin found that while special education costs increased 37% from 1992–93 through 1997–98, federal support for these programs increased only 30%, and state support increased a paltry six percent (Wisconsin Department of Public Instruction, 1999).

Despite Vermont’s rising costs, the Blue Ribbon Commission concluded that it still “supports the strategic direction’ laid out a decade ago, when the state moved to beef up its special education services.” This 1990 law prescribed “educational support systems to catch and remedy learning problems early on’ and reduce referral to the more costly special education system. ‘We really can’t reduce special education costs unless there are alternative support services for kids’” (Gram, 1999, August 8).

In addition, as shown in Table 3, more children are arriving in the public schools with a need for complex interventions. In response to growing numbers of high cost children, Meredith and Underwood (1995) express concern over an increasing failure to amortize these special education costs. State and federal funding mechanisms need to provide differential funding for these extraordinarily high cost cases. Otherwise, “the risk of random, devastating expenditures striking a particular school budget increases.”

In conclusion, in considering rising special education expenditures and their impact on general education programs, the wisdom of the cartoon character Pogo may apply: “We have met the enemy and it is us.” As educators, we cannot increasingly refer students with diverse learning needs to special education and then look with alarm as this segment of the school budget rises. As state policymakers, we need to support programs that attempt to assist students prior to their referral to more costly special education interventions—especially in light of ever-increasing student standards and high stakes accountability. We also need to target supplementary special education aid to districts serving students with extraordinarily high cost special needs. At the same time, it is essential to begin bridging the gap between general and special education programs and providers to more fully address the educational needs of all children.

Notes
1. General education for this article corresponds to total K–12 public education spending less estimated total spending on special education.
2. See article by Hartman in this volume.
3. See article by Chambers and Guarino and article by Hartman in this volume.
4. The Center for Special Education Finance (CSEF) is located at the American Institutes for Research (AIR) in Palo Alto, California.
5. The extended SEEP study states are Alabama, Delaware, Indiana, Kansas, Missouri, New Jersey, New York, Ohio, and Rhode Island.
6. Additional information about these projects can be found on these web sites: http://www.seep.org and http://csef.air.org

References

About the Author

Thomas B. Parrish, Ed.D., is Managing Research Scientist at John C. Flanagan Research Center, American Institutes for Research, 1791 Arastradero Road, Palo Alto, CA 94304.

E-mail: tparrish@air.org
The Impact of Census-Based Special Education Funding in Pennsylvania

William T. Hartman, Ph.D.
Pennsylvania State University

- In 1991–92 the Pennsylvania Legislature radically changed the state's system of funding special education from an excess cost formula to a census-based approach, representing a fundamental change in the philosophy of financing special education.

- Over the first five years of census-based funding in Pennsylvania, special education costs have risen at a greater rate than general education costs, and state aid increases have not kept up with these rising costs.

- While the presumed percentages of special education students in the state funding formula appear reasonable, the standardized allocations per student have not kept up with rising costs. As a result, local districts now fund the greatest share of special education in the state.

- This diminishing share of state funds, which can occur under any type of formula, is a likely source of dissatisfaction with the state's census-based system.

Census-based funding for special education has been a growing phenomenon in the states over the past decade. It has also been incorporated as the basic principle underlying the allocation of federal special education funds. Pennsylvania was one of the first states to adopt this approach, which substantially departs from prior special education funding methods. Unlike virtually all prior approaches to special education funding, census-based funding is not based on a measure of an individual district's estimated need for special education services or the amount of services it is providing. Rather, it is based on some measure of total enrollment. Under such a system, special education funding is independent of such factors as the percentage of students receiving special education services, the relative severity of their disabilities, or the services they receive. In other words, there is no attempt to link funding to an individual district's special education costs. Because Pennsylvania was one of the first states to adopt this type of approach to special education funding, there is special interest in examining its impact over time.

This article examines the trends in special education expenditures, revenues, personnel, and student enrollments for the period 1993–94 through 1997–98, the first five years of full implementation of the census-based approach. Patterns and changes are presented and analyzed to see the impact of the new approach on school districts and the state over time.

Background

In 1991–92 the Pennsylvania Legislature radically changed the state’s system of funding special education, moving from an allowable excess cost formula to a census-based approach. The new funding formula represented a fundamental change in the philosophy of financing special education.

Before 1991–92 Pennsylvania utilized a dual delivery and funding system for special education (Hartman, 1991). Two-thirds of the students were served in programs operated by the 29 intermediate units (IUs) in the state, with the rest served directly...
by school districts. The IUs received funding directly from the state for these services, and districts were charged for the students they enrolled in IU programs through a deduction from their general state aid. Districts that operated their own programs were reimbursed by the state for 100% of the programs’ allowable excess costs. Districts were responsible for funding an amount equal to the average cost per student for basic education in their district. There were few incentives at the district level for cost control since additional costs were paid by the state. As a result, districts’ special education expenditures increased at an annualized rate of over 13% for the five years prior to changing the funding system.\(^4\)

In the late 1980s, this system, which encouraged district and IU spending beyond state appropriations, approached fiscal meltdown. In 1988–89 the state had a shortfall of $99 million in special education funding obligations that was satisfied by a one-time appropriation in a special legislative session. Two years later, with a new deficit of $148 million, state payments to districts were suspended until additional monies could be appropriated (Hartman, 1995). In the eyes of the legislature and the administration, the system was a black hole with an insatiable thirst for state funds.

### The New Census-Based Funding System

The solution was to implement a completely new funding system that made the “payer of last resort” the district rather than the state. The new formula raised the total amount of state special education funding and put an annual limit on the state aid for special education. The state aid now went almost entirely to districts, which could either operate programs themselves or contract with IUs to serve their students. Any additional expenditures beyond the state aid became the responsibility of districts (Hartman, 1993). There was a clear expectation on the part of state policymakers that this shift would make districts more cost conscious and would slow growing special education expenditures.

The new census-based formula provided state aid on the basis of a fixed percentage of total district enrollment, not just special education students. State aid for special education for 1993–94 was uniformly calculated as:

\[
\text{Mild disability allocation} = 1,025 \times \frac{15\%}{\text{total district enrollment}} \\
\text{Severe disability allocation} = 12,000 \times \frac{1\%}{\text{total district enrollment}}
\]

The same formula remained in place through 1998–99, with gradual increases in the per student allocations to $1,150 for mild disabilities and $13,450 for severe disabilities in 1997–98.

In essence, this state funding formula allocates a categorical lump sum to each district based on total enrollment. The district is free to use these funds to support special education services for school-age students. In Pennsylvania, both students with disabilities and gifted students are eligible for special education, and both are included in the funding formula and in reported expenditures. Consequently, the reported special education expenditures include gifted as well.\(^5\)

From an administrative perspective, the census-based funding approach is considerably simpler for the state. State aid requirements are predictable, appropriations can be made to match the state’s funding obligation for special education, and all districts get the same amount per student. However, there was, and continues to be, substantial controversy over the new funding approach. Districts objected to the possibility of increased costs previously covered by the state and a concomitant impact on their budget and local tax burden. Coupled with this concern was a fear that the state would not maintain its level of commitment to special education funding, and that districts would have to shoulder a larger portion of special education costs over time.

From an administrative perspective, the census-based funding approach is considerably simpler for the state.

However, the most persistent criticism was that there was no relationship between the state aid received and the number of exceptional students or
the cost to educate them. The funding formula assumes a standard percentage of exceptional students in each district. Distribution of exceptional students, particularly the more severely disabled, is unequal across districts, and those districts with larger numbers feel shortchanged by the approach. Further, the per student funding levels were originally created to allocate a specific amount of state aid and were not established with any consideration of the actual cost of serving students in special education. Due to these objections, some supplemental state aid has been provided to districts whose costs are substantially above the state average.6

Impact of the New Formula

After five years of full implementation, what has been the impact of census-based special education funding in Pennsylvania in areas such as special education spending, revenues, staffing, and enrollment?

Special education spending grew steadily during the first five years of full implementation of the census-based funding formula.

In spite of the districts’ responsibility for costs beyond a fixed state amount, expenditures for special education grew at a substantially faster rate than those for general education or current expenditures for elementary and secondary education. The expectation that increased district responsibility for expenditures in excess of state aid would slow down special education costs was briefly fulfilled during the first two transitional years of implementation—there was a two percent increase in 1991–92 and a four percent increase in 1992–93 (Hartman, 1995). However, since 1993–94 when full implementation took effect, special education expenditures for district-operated programs have grown at an annualized rate of 7.8%, which is higher than the growth rate for general education. However, even this growth rate for special education expenditures is much less than the rate of increase prior to the new formula.

Table 1 provides the annual and five-year changes in special and general education instructional expenditures for school-age students for both districts and IUs.7 These expenditures include instructional programs and pupil personnel services. For the first five years of the new formula’s full implementation, school districts’ total special education expenditures have grown substantially, averaging 7.8% per year, a 34.9% increase from the base year. However, some of the reported costs are for district contracts with IUs for services for the districts’ students. Deducting the amount spent on IU contracts, the expenditures for district-operated programs have shown a higher rate of increase, averaging 9.3% over the five years.

With special education spending for district-operated programs increasing by over 40% in five years, it is useful to compare these increases with other changes in education expenditures. With the exception of 1995–96, the annual percentage increases in special education expenditures were consistently higher than comparable instructional expenditures for general education or for current expenditures for all elementary and secondary education. On the other hand, expenditure growth for IU programs has been less than for general education. The 3.5% annualized growth rate for IUs may

<table>
<thead>
<tr>
<th></th>
<th>Total 5-Year Change</th>
<th>Average Annual Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Special Education:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total District Spending</td>
<td>$349,230,057</td>
<td>34.9%</td>
</tr>
<tr>
<td>Net District-Operated Program Spending</td>
<td>$271,192,246</td>
<td>42.6%</td>
</tr>
<tr>
<td>Intermediate Unit Spending</td>
<td>$72,911,924</td>
<td>14.7%</td>
</tr>
<tr>
<td>Total Instructional Spending</td>
<td>$344,104,169</td>
<td>30.4%</td>
</tr>
<tr>
<td><strong>General Education Spending</strong></td>
<td>$1,030,105,345</td>
<td>20.3%</td>
</tr>
<tr>
<td><strong>Total Current Expenditures</strong></td>
<td>$2,125,228,025</td>
<td>20.6%</td>
</tr>
</tbody>
</table>
be a result of reduced state funding, greater use of
district programs, and more careful consideration by
districts of arrangements and amounts in their
contracts with IUs.

As a result of the higher growth in district-operated programs, the balance between districts
and IUs in providing special education programs
has shifted. In 1993–94 district-operated programs
represented 56% of total special education instruc-
tional expenditures, while IUs spent 44% of the
program monies. By 1997–98 the distribution had
shifted to 61% for district-operated programs and
39% for IUs. The change indicates a steady overall
move toward the use of district-operated programs
and continues the shift begun with the initiation of
the new funding formula that allocated the bulk of
state aid for special education to school districts and
away from IUs.

**Special education does not appear to be
encroaching on the total education budget.**

An ongoing public policy concern is that special
education, due to more rapid expenditure increases,
may be taking a larger share of, or encroaching on,
the total education budget. Encroachment is an issue
when special education expenditures represent an
increasing share of current expenditures for elemen-
tary and secondary education from year to year. In
Pennsylvania, the share of current expenditures that
special education represents has remained relatively
constant over the past five years, at about 12%.
However, there are signs that encroachment may
become an issue in the future. Special education has
received increasingly larger shares of additional
educational allocations each year. If this tendency
continues, then special education will take up more
of the total educational budget and encroachment
could become more pronounced.

**Local districts now fund a greater share of special
education than the state.**

The result of increased local spending has been a
shift in the sources of support for special education.
The local share increased from 44% to 51% over this
time, and school districts have again become the
largest source of special education revenues in
Pennsylvania. Concurrently, the state share declined
by an equivalent amount and the federal funding
share has remained fairly constant at around six to
seven percent of total support.

Local districts now fund a greater share of special
education than the state. The result of increased
local spending has been a shift in the sources of
support for special education

After an early infusion of new state funds in the
first three years of the new funding formula, the
state has not maintained its share of total special
education costs. In 1993–94 the state provided the
largest share of funding, at 49%. Since that time,
state funding has not kept up with increases in spe-
cial education expenditures, and districts have been
required to fund a growing share of special educa-
tion costs. As a result, the local share of funding for
special education has steadily increased, while the
state share has declined. By 1997–98 the relative
share of state support of special education had
regressed to where it was before the new formula
was initiated, with 52% from districts, 42% from the
state, and six percent from the federal government.

As shown in Table 2, during the first five years
of full implementation, three-quarters of the new
funding for special education came from districts.
The districts increased their funding by almost $263
million, while the state added nearly $58 million and

<table>
<thead>
<tr>
<th>Funding Source</th>
<th>Funds Added</th>
<th>Percentage Growth</th>
<th>% Share of New Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>School Districts</td>
<td>$262,627,512</td>
<td>51%</td>
<td>76%</td>
</tr>
<tr>
<td>State Funding</td>
<td>$57,636,326</td>
<td>10%</td>
<td>17%</td>
</tr>
<tr>
<td>Federal Aid</td>
<td>$27,037,657</td>
<td>35%</td>
<td>8%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$347,301,495</strong></td>
<td><strong>30%</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

the federal amount rose by $27 million. The districts’
initial fear of assuming a larger burden of funding
has proven to be true.

However, special education was not singled out
in this regard. A similar pattern of reduced state
support for general education was also evident.
Basic Education Funding (BEF) is state aid for general education. Beginning in 1993–94, it provided 61% of districts’ instructional expenditures for general education. By 1997–98, the level of support had dropped to 56%, which paralleled the decreased state share of special education expenditures.

**The number of special education personnel grew steadily.**

Special education teachers and speech therapists increased by about 12%. The new personnel were almost all employed by districts, reflecting both the shift of state aid from IUs to districts and district takeover of programs previously operated by IUs. The new employment pattern represents a substantial change. Previously, the majority of special education programs were operated by IUs, and many districts served few or none of their exceptional students in their own programs. The new funding formula in 1991–92 directed most of the state funding for special education to districts instead of IUs. Districts still had the option of contracting with IUs for services, but an increasing number took over and ran programs previously operated by IUs. Personnel data clearly indicate that districts have increased their position as the dominant service provider and they have been the ones hiring new staff and providing new programs, not IUs.

**Special education enrollments for children with disabilities have grown steadily.**

Pennsylvania characterizes special education students as either mildly or severely disabled. The assessment is based on a combination of the exceptionality and location of the special education intervention. As shown in Table 3, both groups of students with disabilities have increased in the five-year period, 1993–94 to 1997–98, and their growth rates were substantially higher than the growth rate of total public school enrollments. In terms of percentage increases, the count of students with mild disabilities (8%) grew twice as fast as that of the general school-age population (4%), and the count of students with severe disabilities (25%) grew six times as fast.

Students with mild disabilities comprise the bulk of special education students, making up over 90% of this group (excluding gifted). Their increase of 13,949 students represented 81% of new students with disabilities. Although enrollments for students with severe disabilities have been growing at a much faster percentage rate, their increase in number of students (3,239) represented only 19% of the total growth.

Despite the higher overall growth rates shown in Table 3, students with disabilities have continued to be just under 11% of total enrollments. Students with mild disabilities have been around 10%, while students classified as severe, even with their higher growth rate, still represent less than one percent of the total student population. This apparent anomaly of higher growth rates for students with disabilities and their relative stability as a share of the total public enrollment was primarily due to the relatively small proportion of students with disabilities compared to the large base and growth of total public school enrollments.

**The assumed funding formula percentage for students with severe disabilities appears high in relation to state counts.**

As noted previously, the funding formula for state aid for special education is based on two percentages of special education students in relation to total public school enrollment. The state funds a fixed dollar amount times a standard percentage of total district enrollment for both mild (15%) and severe (1%) exceptionalities. Consequently, there is great interest among districts in the actual percentages of these students enrolled in district programs to see how they compare to the standards used in the

<table>
<thead>
<tr>
<th><strong>Table 3:</strong> Changes in the Number and Percent of School-Age Special Education Students in Pennsylvania—Five Years After Special Education Finance Reform</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>5-Year Changes</strong></td>
</tr>
<tr>
<td>Mild Disabilities</td>
</tr>
<tr>
<td>Severe Disabilities</td>
</tr>
<tr>
<td>Total Special Education*</td>
</tr>
<tr>
<td>Total Public Enrollment</td>
</tr>
</tbody>
</table>

*Excluding gifted
funding formula. A strong objection, voiced by many districts since the introduction of the new formula, is that they have more exceptional students than the formula standards and, consequently, that they are being treated unfairly by the formula.

...[T]here is great interest among districts in the actual percentages of these students enrolled in districts programs to see how they compare to the standards used in the funding formula. A strong objection, voiced by many districts ... is that they have more exceptional students than the formula standards and, consequently, that they are being treated unfairly...

To investigate this concern, the distribution of school-age special education students in 1997–98 across the school districts in Pennsylvania is examined in Table 4. For students with mild disabilities and gifted students, over half of the districts (56%) have equal or less than the assumed rate of 15% used in the formula. Enrollments for students with severe disabilities show a similar, but more pronounced, pattern, with 75% of districts at or below the standard one percent utilized in the funding formula. These data suggest that concerns that the presumed percentage rates used in the formula are too low may be misplaced.

The more accurate concern may be that while census-based funding limits the state’s obligation, it has little relationship to district special education spending.

The purpose of Pennsylvania’s census-based funding formula is to provide state aid to school districts to support special education costs. However, the amount of state aid is primarily related to available funds in the state budget, not to any logical, analytical, or policy-driven connection to special education costs, number of special education students, or delivery of services to special education students. Rather, a primary objective of the formula seems to be limiting the state’s financial obligation for special education to a pre-specified amount in the state budget that fits within the state’s economic resources for that year.

Therefore, it appears that the districts’ focus on their actual percentages of mildly and severely disabled students in comparison to the standard percentages in the state formula may be misplaced. The amount of state aid is the product of these standard percentages multiplied by the standard amounts. However, the standard amounts per student associated with each funding category are not related to the actual costs of educating those

<table>
<thead>
<tr>
<th>Table 4: Distribution of School District Incidence Rates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mild Disabilities &amp; Gifted</strong></td>
</tr>
<tr>
<td>Range of % of SE Enrollments</td>
</tr>
<tr>
<td>&lt;10%</td>
</tr>
<tr>
<td>10%-12.5%</td>
</tr>
<tr>
<td>12.5%-15%</td>
</tr>
<tr>
<td>15%-17.5%</td>
</tr>
<tr>
<td>17.5%-20%</td>
</tr>
<tr>
<td>20%-30%</td>
</tr>
<tr>
<td>&gt;30%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
</tr>
</tbody>
</table>
students. Therefore, if the formula is to remain in its current form, it is the standardized funding-amounts that appear to require adjustment rather than the assumed percentage rates for special education students.

**Conclusion**

The fiscal impact on school districts of the census-based formula for state support of special education has been considerable. Special education costs have continued to rise at a much greater rate than costs for general education, and state aid increases have not kept up with cost increases. The result has been an increasing burden for school districts to support special education. One response by districts (and a counter-argument by state officials to district complaints) could be for districts to be more cost-effective in their provision of programs and services. However, this can be problematic in view of growing enrollments (particularly in the more costly and severe categories of disability), state and federal mandates, activities of special interest advocacy groups, and parent demands for additional services. In any event, greater district responsibility for special education costs has not substantially lowered expenditure growth rates.

The second, more typical response for districts is to request additional funding from the state to meet their increased costs and higher local tax burdens. Pressure for more aid to meet high district costs has resulted in the allocation of some additional discretionary funds from the state to districts that were able to document their plight. A more lasting and general solution is currently being sought through legislation to change the formula to provide some linkage between state aid and district costs and to establish a minimum state share of special education costs.

It is not absolutely clear what lessons other states that have, or are contemplating the adoption of, census-based funding can learn from Pennsylvania’s experience. The state’s prior system of funding special education, with 100% reimbursement, was unique, as was its very heavy reliance on IU’s for the provision of special education services. In addition, each version of a census-based funding formula varies—for example, the federal system adjusts aid upward in relation to state poverty.

However, one general finding from Pennsylvania may be universally applicable. A census-based formula alone, or any other state formula that simply fixes state aid to some specified amount designed to control state spending, is likely to be insufficient to hold total special education expenditures in check. While the principle of allocating more of the responsibility for funding special education to districts may help control costs, especially compared to Pennsylvania’s prior system of 100% reimbursement, it is unlikely to fully curb rising costs given the many factors causing them to rise. As seen in Pennsylvania, the result of rigid controls on state spending is often a growing reliance on local funds to support special education.

A census-based formula alone, or any other state formula that simply fixes state aid to some specified amount designed to control state spending, is likely to be insufficient to hold total special education expenditures in check.

This increased reliance on local revenues to support special education is perhaps the major factor driving unrest with Pennsylvania’s census-based formula. However, it should be recognized that growing reliance on local revenues to support special education can occur under any type of state funding system, and appears to be happening in many states irrespective of the type of funding system in place. A state commitment to assist districts directly in controlling rising special education costs and in maintaining its fair share of these costs is likely to be a critical element in local acceptance of any approach to state special education funding.

**Notes**

1. For more on census-based funding, see Parrish, T. (1997).
2. Intermediate units are regional educational entities that provide instructional and support services to school districts. Provisions of special education programs and services forms a large part of their function.
3. Allowable excess costs are defined as any costs beyond the average cost per student for basic education in each district.


5. Most states, and the federal government, do not include gifted students in special education. However, we believe the inclusion of gifted students in many of these analyses has minimal impact on the findings and conclusions presented in this paper, as its main focus is on comparisons over time.

6. Supplemental state funding has been provided to districts that meet a combination of criteria involving a high ratio of special education expenditures to other instructional expenditures, low wealth, high local taxes, and high poverty levels. The supplemental aid is calculated as a fraction (e.g., 20%) of the mildly disabled formula amount.

7. Fiscal data were obtained from the Pennsylvania Department of Education. Adjustments in expenditure and revenue amounts for differences between financial reporting for school districts and IUs, coding errors, and missing data were made in consultation with staff from the department.


9. See Parrish chapter in this volume.

References


About the Author

William T. Hartman, Ph.D., is a Professor of Education at Pennsylvania State University, 302F Rackley Building, University Park, PA 16802. E-mail: wth@psu.edu

Census-Based Funding in Pennsylvania
The Ontario Special Education Funding Model

Nancy Naylor, M.A.
Ontario Ministry of Education

Ontario’s publicly funded elementary/secondary education system has been engaged in large-scale reform with a major focus on a new approach to funding special education.

Special education grants are now allocated in two major components: one is based on the school board’s total enrollment while the other is designed to recognize the variable incidence of highest-need students. The latter component uses a set of student profiles to identify students.

The province funds a validation process, whereby special education experts visit school boards to review the files of a sample of identified students. Severely-disabled student funding is based on the proportion of reviewed claims supported through this validation process.

This new approach to funding was designed to minimize administration, in that only the highest-need students are identified for funding purposes. The highest-need student component of this approach, however, has faced implementation issues. In response, policy work is currently underway.

Over the past few years, the province of Ontario, Canada, has been engaged in large-scale education reform. Beginning in January, 1997, the provincial government amalgamated 129 school boards into 72 districts, creating 12 new French language boards in the process; introduced a completely new elementary and secondary curriculum; initiated a reform of secondary schools that will eliminate the existing Grade 13; introduced standardized testing and an independent Education Quality and Accountability Office to oversee it; and mandated school councils in all schools.

A major aspect of these reforms was the design and implementation of a new funding model, known as “Student-Focused Funding,” to allocate $13 billion1 of local property tax and provincial grant revenue among the 72 new school boards and their two million students. Implemented in the 1998–99 school year, this funding model consists of the Foundation Grant, nine Special Purpose Grants, and the Pupil Accommodation Grants. Table 1 indicates how funds are allocated across these grant categories. Within this model, funding for special education is incremental to the funding provided for all other aspects of a student’s needs. Therefore, it is expected that this special education funding is applied specifically to the additional supports and services required by exceptional students to achieve their educational goals.

Table 1: Allocation of Special Education Funds Under Student-Focused Funding Model

<table>
<thead>
<tr>
<th>Grant</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Grant</td>
<td>$7.3B</td>
</tr>
<tr>
<td>Special Education Grant</td>
<td>$1.3B</td>
</tr>
<tr>
<td>Language Grant</td>
<td>$399M</td>
</tr>
<tr>
<td>Geographic Grant</td>
<td>$155.5M</td>
</tr>
<tr>
<td>Learning Opportunities Grant</td>
<td>$278.8M</td>
</tr>
<tr>
<td>Adult Ed., Continuing Ed. &amp; Summer School Grant</td>
<td>$142.5M</td>
</tr>
<tr>
<td>Teacher Compensation Grant</td>
<td>$656.1M</td>
</tr>
<tr>
<td>Early Learning Grant</td>
<td>$34.5M</td>
</tr>
<tr>
<td>Transportation Grant</td>
<td>$607.7M</td>
</tr>
<tr>
<td>Administration and Governance Grant</td>
<td>$442.3M</td>
</tr>
</tbody>
</table>
Special Education Funding

A major focus of the new funding model and its implementation was a new approach to funding special education. In 1997, when the government announced that a new education funding model would be developed, an expert panel was established to advise on how to design the Special Education Grant. This panel traveled and consulted widely throughout the province, and recommended a two-part grant, based partly on enrollment and partly on measured incidence of high-need students.

The major challenge at that time was to design a basis for identifying and assessing high-need students in a consistent manner. In the first year, eligibility was based on the proportion of time a student required the support of a dedicated educational assistant. This criterion was controversial because it was perceived to provide limited support for students who were in self-contained specialized classrooms, and who relied more heavily on intensive support from specialist teachers. In response, the province established a second expert panel in 1998, which advised on the development of high-need student eligibility profiles.

Special education funding is allocated to school boards in two major components: the Special Education Per Pupil Amount (SEPPA) and the Intensive Support Amount (ISA). These components are discussed below and are followed by preliminary findings from the first three years of implementation.

**Special Education Per Pupil Amount (SEPPA)**

The SEPPA component is allocated on the basis of a school board’s total enrollment (that is, not just their enrollment of special needs students), on the presumption that all school boards have a baseline incidence of special needs students. In the 2000–01 school year, school boards received $500 for each JK2 to grade 3 student; $376 for each grade 4 to grade 8 student; and $243 for each secondary student. School boards have the flexibility to apply this funding based on their own program preferences and do not have to formally identify the benefiting students. At the same time, however, special education funding is “enveloped and protected.” This means that school boards must spend designated funds on special education and must demonstrate that the funds have been expended for such purposes through financial reporting to the public and the province. An estimated $722 million will be provided for this component in the 2000–01 school year.

**Intensive Support Amount (ISA)**

This component provides funding to school boards to recognize the variable incidence of very-high-need students, who require intensive resources and staff supports to achieve their educational goals. School boards must use a set of student profiles to identify the number of high-need students in their enrollment base. Since the establishment of these profiles entailed a significant change in eligibility criteria, ISA allocations were “frozen” at 1998–99 levels for the 1999–00 school year while a province-wide evaluation of high-need students based on the new profiles was conducted. Funding for the 2000–01 school year is based on a claim process that reviews these profiles, although again, school boards are eligible for a “funding floor” based on their previous year’s ISA funding and claim results.

These profiles address the following exceptionalities: behaviour; deaf/hard of hearing; learning/language disabilities; autism/PDD; speech; gifted; intellectual/developmental; blind/low vision; physical/medial; and multiple exceptionalities. For eight of these profiles, three levels of severity are described, while only a low level of severity is included for the speech and gifted profiles. School boards are required to identify students who match the two higher severity profiles and submit the list of identified students as a “claim” to the province. For illustrative purposes, Table 2 shows the profile for the exceptionality category, Behaviour.

The province funds a validation process of school board claims, whereby special education experts (generally retired or inactive special
### Table 2: Example Profile (Behaviour) from Ontario’s Special Education Funding System

<table>
<thead>
<tr>
<th>High Incidence, Low Cost Needs</th>
<th>Low Incidence, High Cost Needs</th>
<th>Low Incidence, High Cost Needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA 2</td>
<td>ISA 3</td>
<td></td>
</tr>
</tbody>
</table>

1.X  A student assessed with behavioural and/or emotional disorder.

**Characteristics:**
- shows a tendency toward compulsive or impulsive behaviour that negatively affects learning
- has poor interpersonal relationships and low self-esteem
- demonstrates low academic achievement for reasons that can best be explained by his or her conduct
- has fears or anxieties
- often deviates from the behaviour that is normally expected in the situation
- often breaks social or cultural norms that are usually quite well established for the age level

*Manifests some of the above characteristics regularly over a period of time such that special education programs and services are required.*

**Support:**
- accommodations to the learning environment and/or modifications are made for up to 50% of the student’s program
- specialized behavioural support is provided (e.g., child/youth care worker, social worker, psychologist, behaviour consultant)

1.2  A student assessed with severe behavioural problems and impulse control, who requires almost constant supervision in some settings in order to maintain safety of the student and others. This student could engage in life-threatening behaviour if left unsupervised.

**Characteristics:**
- compulsive and/or impulsive behaviour that negatively affects learning
- an inability to build or to maintain interpersonal relationships
- an inability to learn that cannot be traced to intellectual, sensory, or other health factors
- excessive fears or anxieties
- regularly breaks social or cultural norms that are usually well established for the age level
- deviates in a significant manner from the behaviour that is normally expected in the situation

*Manifests most or all of the above characteristics regularly and consistently over time such that intensive special education is required.*

**Intensive Support:**
- accommodations to the learning environment are essential in order to fully access the curriculum
- constant supervision in some settings is required in order to maintain safety of the individual and others
- a range of specialized behavioural support is provided (e.g., psychologist, social worker)
- 51-80% of this student’s educational program is modified in order to build on the student’s needs
- assessment and, where required, clinical supervision/support by a regulated qualified professional is provided

1.3  A student assessed with a severe behaviour disorder, who requires constant supervision in all school settings in order to maintain safety of the student and others. This student engages in life-threatening behaviour if left unsupervised.

**Characteristics:**
- severe compulsive and/or impulsive reactions that impact negatively on the learning environment
- an inability to build or maintain interpersonal relationships
- extreme low self-esteem
- an inability to learn that cannot be traced to intellectual, sensory, or other health factors
- excessive anger, fears, and anxieties
- repeatedly breaks social or cultural norms that are usually well established for the age level
- deviates significantly from the behaviour that is normally expected in the situation

*Manifests almost all of the above behaviours regularly and consistently over time such that constant supervision is required by specialized personnel.*

**Intensive Support:**
- 81-100% program modifications are required
- accommodations to the learning environment are essential in order to access the curriculum
- constant supervision in all settings is essential to maintain a safe learning environment
- specialized behavioural/therapeutic support is required
- assessment and, where required, clinical supervision/support by regulated qualified professionals is provided

**Comments:**
Claims made under both ISA Levels 2 and 3 must demonstrate that students display inappropriate behavioural, social, and/or emotional responses that are of such severity in terms of frequency, intensity, or duration that the student’s educational performance and/or the learning of other students is adversely affected. These responses will be observed in more than one setting.

ISA Level 3 reflects the need to address behaviours, which will always occur if not for the constant level of individualized support and supervision required. This differentiates the pupil claimed at ISA Level 3 from the pupil claimed at ISA Level 2, who may have a history and a likelihood of presenting behaviours, but not necessarily in every setting.
education superintendents) are trained on the consistent application of the profiles and assessment standards, then visit school boards to review the files of a sample of the board’s identified students. Based on the proportion of reviewed claims that are supported by the validators, an approval percentage is applied to the total number of identified students. This results in a figure that is used as the proxy or assumed number of ISA 2 and ISA 3 level students for that school board.

The ISA 2 count of students is multiplied by $12,000, and the ISA 3 count is multiplied by $27,000. The board’s total ISA funding allocation is derived in this manner and added to the board’s SEPPA funding to produce its total Special Education Grant. Considerable priority is accorded to maintaining the confidentiality of student data through this process. An estimated $562 million will be provided for the ISA component in the 2000–01 school year.

**Other Special Education Funding**

The ISA component of the Special Education Grant also includes three additional categories of funding:

1. **Equipment Funding**: Application-based funding for individual equipment for exceptional students. The first $800 of annual equipment costs must be covered by the school board; the remaining costs are funded through this category. This equipment is portable, in that it can be retained by the student if he or she changes school boards, if appropriate. The annual allocation for this purpose is $5 million.

2. **Program Funding**: Program funding for education programs operated in care, treatment, and correctional facilities, including hospitals and youth group homes. The annual allocation for this purpose is $67 million.

3. **Special Incidence Portion**: Individually reviewed application-based funding to support a small number of very-high-need students who require two or more full-time staff supports to participate in a classroom setting. The annual allocation annually for this purpose is $2.5 million.

**Portability**

ISA funding is “portable,” a feature that supports the movement of high-need students across Ontario school boards. Both the province and the school boards track which students have been included in boards’ claims of students matching ISA 2 or 3 profiles. When these students change school boards, adjustments can be made in-year to school boards’ Special Education Grant allocations to reflect the net transfer of high-need students. This portability feature supports the ability of school boards, particularly small school boards, to provide supports to high-need students who enroll in-year without major budget accommodations. As noted, students can also bring individualized equipment with them whenever appropriate. Approximately five percent of ISA students change boards each year and require portability adjustments, suggesting a fairly high level of mobility for these students.

[The] portability feature supports the ability of school boards, particularly small school boards, to provide supports to high-need students who enroll in-year without major budget accommodations.

**Early Findings from ISA Implementation**

As noted above, school boards have been required to identify high-need students who match “ISA profiles” and submit a claim to the province, noting the number of students who meet each profile. Through the validation process described above, the percentage of files from a statistically significant sample of claimed students that is approved by expert validators is extrapolated to the total number of files claimed in each board, and a funding level is determined. This process has thus far produced some interesting data, which may be of interest to other jurisdictions.

As Table 3 indicates, the incidence of eligible students has been fairly stable, despite the evolution of the eligibility criteria. These data also illustrate the value of the validation process in distinguishing eligible files from claimed files.
As Table 4 indicates, the range of results amongst boards in their measured incidence of high-need students has been narrowing, largely through a reduction in the number of boards with “outlier” results from the claim and validation processes. However, the results still illustrate a highly variable incidence in the distribution of high-need and high-cost students, a result which continues to justify the administrative effort involved in measuring this incidence and funding boards accordingly.

Table 3: Characteristics of Intensive Support Claims

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incidence of High-Need Students</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of claims</td>
<td>28,726</td>
<td>29,886</td>
<td>31,615</td>
</tr>
<tr>
<td>Claims as a % of enrollment</td>
<td>1.47%</td>
<td>1.52%</td>
<td>1.60%</td>
</tr>
<tr>
<td>Approval Rates</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of eligible files as a % of number of claims</td>
<td>86.5%</td>
<td>75.2%</td>
<td>73.1%</td>
</tr>
<tr>
<td>Number of eligible students</td>
<td>24,860</td>
<td>22,487</td>
<td>23,126</td>
</tr>
<tr>
<td>Eligible students as a % of enrollment</td>
<td>1.28%</td>
<td>1.15%</td>
<td>1.17%</td>
</tr>
</tbody>
</table>

Table 4: Variability of High-Need Students

<table>
<thead>
<tr>
<th></th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA 2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest proportion of eligible students, as a % of board’s enrollment</td>
<td>5.07%</td>
<td>3.79%</td>
<td>1.95%</td>
</tr>
<tr>
<td>Lowest proportion of eligible students, as a % of board’s enrollment</td>
<td>0.12%</td>
<td>0.18%</td>
<td>0.17%</td>
</tr>
<tr>
<td>ISA 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Highest proportion of eligible students, as a % of board’s enrollment</td>
<td>2.65%</td>
<td>2.17%</td>
<td>1.59%</td>
</tr>
<tr>
<td>Lowest proportion of eligible students, as a % of board’s enrollment</td>
<td>0.18%</td>
<td>0.19%</td>
<td>0.17%</td>
</tr>
</tbody>
</table>

As Table 4 indicates, the range of results amongst boards in their measured incidence of high-need students has been narrowing, largely through a reduction in the number of boards with “outlier” results from the claim and validation processes. However, the results still illustrate a highly variable incidence in the distribution of high-need and high-cost students, a result which continues to justify the administrative effort involved in measuring this incidence and funding boards accordingly.

Table 5: ISA Claims by Type of Exceptionality

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA 2 % of Students Validated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Behaviour</td>
<td>7.5%</td>
<td>10.0%</td>
</tr>
<tr>
<td>2.2 Deaf/hard of hearing</td>
<td>1.7%</td>
<td>2.6%</td>
</tr>
<tr>
<td>3.2 Learning/language</td>
<td>8.1%</td>
<td>10.2%</td>
</tr>
<tr>
<td>4.2 Autism/PDD</td>
<td>3.1%</td>
<td>6.1%</td>
</tr>
<tr>
<td>7.2 Development/intellectual</td>
<td>16.2%</td>
<td>14.0%</td>
</tr>
<tr>
<td>8.2 Blind/low vision</td>
<td>0.2%</td>
<td>0.3%</td>
</tr>
<tr>
<td>9.2 Physical/medical</td>
<td>2.2%</td>
<td>3.0%</td>
</tr>
<tr>
<td>10.2 Multiple exceptionality</td>
<td>7.8%</td>
<td>5.6%</td>
</tr>
</tbody>
</table>

Table 5: ISA Claims by Type of Exceptionality

<table>
<thead>
<tr>
<th></th>
<th>1999</th>
<th>2000</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISA 3 % of Students Validated</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.2 Behaviour</td>
<td>5.6%</td>
<td>6.4%</td>
</tr>
<tr>
<td>2.2 Deaf/hard of hearing</td>
<td>1.5%</td>
<td>2.8%</td>
</tr>
<tr>
<td>3.2 Learning/language</td>
<td>2.2%</td>
<td>1.6%</td>
</tr>
<tr>
<td>4.2 Autism/PDD</td>
<td>6.7%</td>
<td>6.0%</td>
</tr>
<tr>
<td>7.2 Development/intellectual</td>
<td>11.9%</td>
<td>8.1%</td>
</tr>
<tr>
<td>8.2 Blind/low vision</td>
<td>1.0%</td>
<td>1.2%</td>
</tr>
<tr>
<td>9.2 Physical/medical</td>
<td>3.8%</td>
<td>6.0%</td>
</tr>
<tr>
<td>10.2 Multiple exceptionality</td>
<td>20.5%</td>
<td>15.3%</td>
</tr>
</tbody>
</table>

exceptional student, and this data is based on the validated sample as opposed to the overall population of eligible students. These data, nonetheless, suggest the probable exceptionality distribution of Ontario’s highest-need students.

Implementation Issues and Next Steps

The design of Ontario’s new Special Education Grant has a number of advantages. Its two major components provide funding on an enrollment basis, and on an identified student basis. It was designed to minimize administration in that only the highest-need students, typically students whose needs are well documented and assessed, are required to be identified for funding purposes.

This high-need student, or ISA, component of the funding approach, however, has faced a number of implementation issues. The administrative workload involved in identifying and documenting
ISA-eligible students has been heavier than anticipated, leading to criticism that school board staff must invest considerable time and resources into preparing their ISA claims and preparing for the validation process. School boards have also contested the design of the ISA profiles, their access to professional assessments (an eligibility requirement for some students), and the gap between their existing program expenditures and the measured need for funding as a result of the ISA validation process.

In response to these concerns, policy work is underway to review a number of aspects of the ISA approach. These include administrative and software supports that can be made available to school boards to administer the accountability aspects of their special education programs; assessment standards that can be applied consistently and credibly by all school board staff; and provisions that will bolster funding stability and the ability to plan programs and staffing.

It is anticipated that the ISA approach to funding special education will undergo annual refinements in response to the experience of school boards in meeting the needs of exceptional students. It is also anticipated that the funding approach for special education will evolve in response to, and in support of, broader policy development in special education. New standards for the development of Individual Education Plans for exceptional students and standards for mandated school board Special Education Plans have also been recently released. In particular, Ontario has launched a major initiative to establish program standards for special education students, with findings scheduled to begin release in 2001–02. It is anticipated that these program standards will address new or refined definitions for each exceptionality; standards for screening and assessment protocols; standards for the level of service to be provided, who provides it, and in what way; and a list of outcomes for each exceptionality consistent with the successful practices upon which the standards are based. These initiatives will undoubtedly influence future refinements in Ontario’s special education funding model.4

Notes

1. All dollar figures presented in this article are expressed in Canadian dollars.
2. Junior Kindergarten.
4. Further information about Ontario’s special education funding model is available through the Ontario Ministry of Education’s Web site at www.ed.gov.on.ca

Documents of interest are located in the finance section and include: (1) Technical Paper: Student-Focused Funding 2000–01, and (2) Resource Manual for the Special Education Grant Intensive Support Amount (ISA) Guidelines for School Boards 2000–01. This manual contains the exceptionality profiles and claim forms referred to in this article. Other information is available through the Education Finance Branch. Available information includes discussion papers on the 1999 and 2000 ISA results. To contact the Education Finance Branch, please write or telephone: Education Finance Branch, Ontario Ministry of Education, 21st Floor, Mowat Block, 900 Bay Street, Toronto, Ontario, M7A 1L2, 416-325-2830.

About the Author

Nancy Naylor is a Director in the Business and Finance Division of the Ontario Ministry of Education, 21st Floor, Mowat Block, 900 Bay Street, Toronto, Ontario, M7A 1L2.
E-mail: nancy.naylor@edu.gov.on.ca
Impact of the Kentucky Education Reform Act on Special Education

Cassandra M. Guarino, Ph.D.  Jay G. Chambers, Ph.D.
RAND American Institute for Research

The Kentucky Education Reform Act (KERA) was enacted specifically to redress the inequities in general and special education.

Findings indicate that KERA had a significant impact on the provision of, and allocation of resources to, special education five years after implementation.

The identification of special education students increased, with the largest growth occurring in the high incidence disability categories.

It does not appear that increased special education spending encroached on general education funds or that special education administration costs increased relative to instruction.

Districts—particularly those with the most revenue growth—appeared to move toward increased placement of special education students in less restrictive settings.

In 1989, the Kentucky Supreme Court ruled that the state’s schools were inequitable and inefficient. In response, the state legislature passed the Kentucky Education Reform Act (KERA). The goals of this major reform to the state’s elementary and secondary educational system included rectifying inequities, increased efficiency, and the creation of an educational system in which students would develop their abilities to communicate, think, and function as responsible, purposeful individuals, workers, citizens, and family members.

Implementation took the form of raising and redistributing revenues, restructuring the organization of primary education, raising standards, and including more students in the educational process.

This reform had a direct impact on special education students by requiring that they be included in statewide assessments, that preschool children be given access to special education, and that the formula allocating state special education funds to school districts be changed. In addition, KERA had an indirect impact on special education.

Districts experiencing the greatest increases in revenue were more open to changing all aspects of their educational system, including special education. Also, the reorganization of the first three elementary grades into all-inclusive primary classrooms encouraged the participation of special education students in mainstream settings.

To measure the impact of KERA on special education in the state, we collected data on all 176 school districts in Kentucky for 1989–90 through 1993–94. Since KERA was enacted in mid-1990, the 1989–90 school year represented a pre-reform context. Information for the following four school years enabled us to track the impact of these reforms after implementation. Most of the data used in this study came directly from the Kentucky Department of Education, with additional information from the 1990 U.S. Census of Population and Housing.

To assess the extent of KERA’s overall impact on special education, we gathered data and performed analyses that would enable us to answer the following questions:

Research for this paper was supported through funding from the Office of Special Education Programs (OSEP), U.S. Department of Education, through the Center for Special Education Finance at the American Institute for Research.
• Did KERA encourage or discourage the identification of special education students?
• Did it move funds from general education into special education?
• How did it affect the growth of administrative and instructional spending relative to each other?
• Did it change the way special education students were served, i.e., were there changes in the types of settings in which these students were taught and were these settings more or less restrictive than before?
• To what extent were these changes in special education related to changes in revenues?

Revenue Changes Resulting from KERA

Taking into account the number of students served, real per pupil revenues grew by 15% in the first year of the reform and continued to grow at a slower pace over the next four years. This overall rise in revenues was accompanied by substantial changes in revenue distribution patterns. To uncover these patterns, we ranked districts according to their level of per capita income in 1990 and then formed three equal-sized groups: high, medium, and low income. A shift in state revenue allocations from richer to poorer districts is evident in the first year of reform. The low income group received a 24% increase in state funds in the first year, while the high income group received a ten percent increase. The shift continued, though at a slower rate, through 1994.

Local revenue levels still reflected unequal tax bases but, in the first year and nearly every year thereafter, poorer districts were able to raise funds at a higher rate (33%) than the middle and high income districts. Poorer districts were, in fact, able to increase local revenues by 75% over the five-year period.

Districts experienced state and local revenue increases from 1989–90 to 1993–94 that ranged from approximately zero to 184%. Districts were divided into thirds based on the percentage of revenue increase. The third saw increases ranging from 24% to 36%. The remaining districts experienced the largest increases, ranging from 36% to 184%. These districts tended to be poorer, smaller, and predominantly rural.

Special Education Identification Rates

Another focus of the study was to examine the impact of the allocation changes introduced by KERA on special education identification rates. Prior to KERA, Kentucky used a “resource-based” system. Resource-based systems allocate funds according to the number of staff or the amount of supplies and facilities that are required to educate students with special needs, with these allocations often varying according to the number of children identified in the various categories of disability. Kentucky’s pre-KERA resource-based formula determined funding amounts according to a system in which the number of children in different categories was adjusted by different weights to produce a total number of resource units allowed to each district. One unit corresponded to one full-time teacher. Severe disabilities generated one unit per six students. Milder disabilities generated one unit per 12 students. Speech and language impairments generated only one unit for 60 students. The number of special education teachers to be hired in each district was determined by the total number of units, with actual funding based on the education and experience of the particular teachers employed. As a statewide cap on the total number of units was in place, districts were funded on a “greatest need,” and then on a first-come, first-served basis. In response to complaints from districts that they were unable to serve all students in need of special education, KERA altered this system.

Through KERA, the state switched to a “pupil weighted” system and removed its special education funding cap. Pupil weighted systems distribute added funds to districts on the basis of the number of special education students identified, with different funding amounts, or weights, applied to different categories of students. Under KERA’s provisions, additional special education funding varied according to the severity of the disability. These weights were chosen to maintain some degree of consistency.
in per pupil revenues with the previous system during the transition. Students with low incidence (severe) disabilities generated base funding (received by all students) plus a supplement equal to 2.34 times the base funding amount. Students with high incidence (moderate) disabilities received a supplement of 1.17 times the base, and speech and language impaired students received an add-on of 0.24 times the base.5

Under KERA’s provisions, additional special education funding varied according to the severity of the disability.

One hypothesis regarding the impact of this new funding formula is that the removal of the cap on funding would lead to the increased identification of special education students. As expected, there was a significant rise in disability identification rates in the first year of reform, from 11.9% to 12.3%. Identification of high incidence disabilities grew the most over the full five years (from 6.4% to 6.9%, statistically significant), while the low incidence disability rate grew from 1.2% to 1.5% (highly statistically significant), and speech and language identification fell from 4.4% to 4.1% (not statistically significant).

The districts experiencing the greatest increase in state and local revenues (i.e., the top third) increased their special education identification rates the most. The count of students with high incidence disabilities in these districts increased from 7.0% to 8.1% (statistically significant) compared to increases from 6.7% to 7.0% and from 5.8% to 6.1% (both not statistically significant) in the two categories of districts with more static revenues. Identification rates for students with low incidence disabilities also rose more in these districts than in others. Speech and language impairment identification rose in this third of districts but declined in the other two-thirds.

**Impact of KERA on Three Additional Areas of Fiscal Policy**

We also looked at special education spending patterns to learn the impact of KERA on three additional areas of policy interest related to special education finance: diversion of general education funds into special education (encroachment), administrative versus instructional costs, and the cost implications of moving special education students into less restrictive settings.

**Encroachment**

Nationwide trends over the last decade have given rise to concerns that spending increases on special education have siphoned off funds from general education, a phenomenon referred to as “encroachment” (Rothstein & Miles, 1995; Parrish, 1996). In order to investigate whether encroachment accompanied KERA, we looked first at the share of certificated salaries devoted to special education, and then at per pupil spending on general versus special education students. To explore this issue of encroachment, we divided the districts into thirds based on the percent change in state and local revenues: high, middle, and low revenue-change districts. In Figure 1, we see that special education consumed a somewhat larger percentage of certificated salary spending as time passed, increasing from 11.7% in 1989–90 to 12.4% in 1993–94. High revenue-change districts rose from 10.7% to 12.0%, whereas low revenue-change districts rose from 12.3% to 12.9%.

In order to obtain a better understanding of whether special education was encroaching upon general education, we looked at changes in general education spending per pupil served versus changes in special education spending per pupil served.6 We found that general education spending on certificated salaries per student rose eight percent in the first year of reform, whereas the growth rate for special education certificated salary spending per student was five percent. The overall five-year growth rates were 10% versus 11% for general versus special education. The changes in both categories were statistically significant. The slightly higher overall growth rate for special education was driven primarily by a small growth spurt in special education spending coupled with a cutback in general education spending in the low revenue-change districts in the 1993–94 school year. Only in these districts was there encroachment with respect to new dollars, and it was only slight.
This finding must be seen in the context of the initial point of departure. Prior to KERA, the high revenue-change districts lagged far behind the others in the amount of spending they devoted to both types of pupils. Their degree of change over the ensuing four years far outstripped that of other districts and was slightly biased in favor of general rather than special education pupils. Overall, encroachment does not appear to have been substantially affected by KERA.

Administration Versus Instruction

We investigated another important fiscal policy issue: the share of special education funding devoted to administration versus instruction. Although the administrative portion grew and the instructional cost portion declined somewhat for special education in the five-year period, we did not find evidence that the shift was significant. Administrative salary costs for special education declined as a percentage of all special education salary costs in the first year of reform, although they rose in 1992–93 and in 1993–94. At the end of the five-year period, they consumed a slightly greater percentage (.57% more) of the special education salary budget than they did initially. Instructional special education salary costs declined accordingly. Again, the high revenue-change districts showed a somewhat greater variation in share, but variations were not statistically significant in any category.

Least Restrictive Environment

Federal law requires that students be educated in the least restrictive environment (LRE) appropriate to their needs. In addition, over the past decade, there has been high interest throughout the country in increasing the amount of contact between special and general education students. In order to assess whether KERA had an impact on LRE in Kentucky, we looked at change over time in the amount of funds devoted to special education instruction in three different settings: special classrooms (i.e., separate or “self-contained” settings), resource rooms (i.e., pullout programs that allowed for special and general education instruction to be carried out simultaneously in segregated settings), and collaborative settings (i.e., settings in which special and general education teachers collaborated within the general classroom setting). These represented a spectrum of more to less restrictive settings within general schools. (We excluded analyses of external placements or separate schools.)
Federal law requires that students be educated in the least restrictive environment (LRE) appropriate to their needs.

Figure 2 suggests that progress toward serving students in the LRE was made in Kentucky in the post-KERA years. The percentage of special education certified salary expenditures devoted to special classroom and resource room instruction fell significantly and continuously throughout the five-year period, and the percentage devoted to collaboration rose significantly and continuously from close to zero to 12%. (“Collaboration” as an assignment code was new at the beginning of the decade. Therefore, it is possible that collaborative teaching assignments may have been under-reported initially due to lack of familiarity with the code.) Districts experiencing high and medium amounts of state and local revenue increases showed the most progress. Since these districts devoted fewer resources to special education at the outset, it was perhaps easier for them to move toward collaboration than it was for districts with more established programs.

Conclusion

It appears from these analyses that KERA had a significant impact on the provision of, and allocation of resources to, special education in Kentucky. Effects were seen on the number of students identified for special education services, on the amount of resources devoted to these students, and on the type of service delivery utilized. KERA was enacted specifically to redress the inequities of the overall educational system, and these existed as much in special education as in general education. Poorer, smaller, more rural districts experienced greater percentage increases in state and local revenues as a result of KERA, and consequently, these districts effected greater changes than others in the level and types of service provided to special education students.

KERA was enacted specifically to redress the inequities of the overall educational system, and these existed as much in special education as in general education.
The identification of special education students increased in the five-year period following the passage of KERA, with the largest growth occurring in the high incidence disability categories. The districts experiencing the greatest state and local revenue growth shifted from the lowest percentage of special education students to the highest. Spending on certified personnel serving special education students also rose after the passage of KERA. Districts with the highest percentage increase in state and local revenues experienced the greatest growth in certified salary spending per special education pupil. At the end of the five-year period, this group outspent other types of districts on certified salaries devoted to general education students, but still lagged behind the overall average on salaries devoted to special education pupils, despite moving closer to parity.

We found virtually no evidence of encroachment or increased administrative costs for special education. In addition, districts appeared to move toward increased placement of special education students in less restrictive settings. Districts experiencing the most revenue growth were at the forefront of the movement toward collaborative instructional settings. Significant increases in revenues, particularly to poor, small, rural districts, offered the opportunity to increase the level of resources devoted to special education students, to change the way in which these students were taught by moving them into collaborative (more inclusive) instructional settings, and to move toward greater equality in the treatment of these students across districts.

Notes
2. Real revenues were obtained by adjusting actual revenue figures for inflation using the Consumer Price Index (CPI).
3. Two districts, Pineville Independent and Hickman County, experienced revenue increases of 181% and 184%, respectively. All other districts experienced increases of 105% or less.
4. KRS 157.360 prior to amendments introduced by KERA.
5. KRS 157.360.
6. Note that our figures for spending per special education pupil are an underestimate of the actual amount spent on these pupils. Our figures represent spending on special education resources per special education pupil. These students benefit from general education resources as well. However, only the changes in, and relative values of, the figures are important to the analysis; therefore the amounts reported are useful.

References

About the Author
Cassandra M. Guarino, Ph.D., is an Associate Economist at RAND, 1700 Main Street, Santa Monica, CA 90407. E-mail: cassie@rand.org
Jay G. Chambers, Ph.D., is a Senior Research Fellow at John C. Flanagan Research Center, American Institutes for Research, 1791 Arastradero Road, Palo Alto, CA 94304. E-mail: jchambers@air.org
The Costs of Inclusive and Traditional Special Education Preschool Services

Samuel L. Odom, Ph.D.
Indiana University

Thomas B. Parrish, Ed.D., and Christine Hikido, M.A.
American Institutes for Research

Increasing the inclusion of young children with disabilities with typically developing children sometimes faces barriers to adoption and implementation. One barrier identified by administrators relates to cost.

This paper examines the costs of different models of inclusion and traditional special education preschool programs in five local education agencies in five states.

Results show somewhat lower costs associated with more inclusive models as compared to traditional forms of special education provision on both an annual and a per hour basis.

Data on who bears the cost show that for school districts, inclusion is less costly than traditional models.

A primary policy shift in early childhood special education during the last decade has been increased inclusive preschool, where educational services for young children with disabilities are provided in settings with typically developing children. As programs have attempted to make this shift to a new form of service delivery, they sometimes encounter barriers. Administrators identify the cost of inclusive programs as one such obstacle (Janko & Porter, 1997). This article presents preschool special education instructional cost estimates from a small sample of inclusive programs and their more segregated counterparts, traditional special education programs, in five states.

Special education services for young children can be divided into two primary types of settings: traditional and inclusive. The traditional setting is one in which students with disabilities attend special education classes containing only other students with disabilities. In inclusive settings, students with disabilities are placed in classes with typically developing children. The impetus for shifting policy toward the provision of more inclusive options for children came from professionals (Strain, 1990; Guralnick, 1990), parents (Miller, Strain, Boyd, Hunsicker, & Wu, 1992), and professional organizations (Division for Early Childhood, 1993). Although the initial impetus was for inclusive services for school-age children, in the last decade these principles have been applied to preschool programs. In 1997, the reauthorized Individuals with Disabilities Education Act (PL 105-17) specified that early intervention programs for infants and toddlers and their families are to be provided to the maximum extent appropriate in “natural environments.” For some children, these natural and least restrictive environments are inclusive childcare settings. For some school administrators, providing inclusive services for young children with disabilities through the school district is complicated because preschool programs for three- to five-year-old children who are typically developing may not be offered in public schools. In those cases, administrators and program developers have had to search.

An initial analysis of the cost data presented in this paper was reported in Odom et al. (in press). The research described herein was supported by Grant No. Ho24K960001 (the Early Childhood Research Institute on Inclusion) from the Office of Special Education Programs, U.S. Department of Education. However, it is not asserted that the findings presented in this paper can be generalized to the nation or that the views expressed in this paper reflect federal policy.
for early childhood programs in the community into which children with disabilities might be included. If classes for typically developing children were present within the school district, then administrators had to establish new intra-system relationships and arrangements to place children with disabilities in those classrooms.

For many school districts, inclusion at the preschool level is, or has been, an innovation (Fullan, 1991). As an innovation, it faces barriers to implementation. A common concern voiced by some administrators is the cost of inclusion as compared with the type of service currently being provided (Janko & Porter, 1997). Administrators often do not know if inclusion is more costly than the current form of service. A review of the literature indicates that some studies examined costs in early childhood special education programs (Escobar, Barnett, & Goetze, 1994; Barnett & Pezzino, 1987) and other studies examined costs of inclusive programs for older children (Halvorsen, Neary, Hunt, & Piuma, 1996; Salisbury & Chambers, 1994). However, there are currently no published studies on the cost of inclusive services for preschool children. Without this information, it is difficult for school administrators to fully consider changing their current form of service delivery to one that is more inclusive.

This study addressed the following questions:

1. How much does preschool special education cost overall (traditional and inclusion)?
2. How much does preschool inclusion cost?
3. Do inclusive preschool programs cost more than traditional special education programs?
4. Who bears the cost under the various models of serving preschool special education students?

Methods

Five sites, each in different states, participated in the study. Inclusion was defined as classrooms in which children with disabilities and typically developing children participate together for over 90% of the time. Inclusive and Traditional Preschool Services

Inclusion was defined as classrooms in which children with disabilities and typically developing children participate together for over 90% of the time.

Inclusive programs also vary in the way educational services are configured or provided. Services include an itinerant teaching or related services provision (i.e., a professional visits the inclusive program to provide either direct service to the child or to consult with the teacher), team teaching (i.e., a special education and an early childhood teacher co-teach the inclusive class), early childhood education (ECE) (i.e., only an early childhood teacher teaches the class), and early childhood special education (ECSE) (i.e., an early childhood special education teacher is the lead teacher).

Each model in this study had a variety of service delivery configurations, but in general the public school inclusion classes had either team teachers or an ECSE teacher. The community-based and Head Start programs employed ECE teachers, with supplemental itinerant, ECSE, or team teachers provided by the school district. In addition, all students received related services from the school district or other public agency.¹

Data were obtained from teachers and children in the inclusion models and the traditional, segregated counterparts from each site. Selection of individual children occurred in a stepwise manner. Because children with more severe disabilities are more likely to be placed in traditional special education classrooms (Buysse, Bailey, Smith, &
Simeonsson, 1994), children from traditional classes with less significant developmental delays and disabilities were selected first. Then, using the profiles of these children, children who were similar in age, sex, and disability from the inclusive programs were selected. All children were between three and six years of age, with the mean age of 4.8 years. Seventy percent of the children were boys.

**Analysis**

This study employed an “ingredients” or resource-based approach (Levin, 1983; Levin & McEwan, 2000; Chambers & Parrish, 1994) to obtain estimates of instructional costs for children with disabilities. To perform the cost analysis, detailed information about the specific services that students receive was collected from teachers. Student data required for the analysis included the types of services received, the amount of time they receive those services from teachers, related service providers, instructional assistants, and other types of staff; the number of students who also receive these services at the same time (group or class size); and the providing agency. Data were also obtained from service providers on how they spend their workday (direct instruction as opposed to instructional preparation/administration and travel), their annual salary or hourly wage, and the number of hours they work per year. An institutional-level survey was administered to obtain information on employee benefits. These data elements were combined to provide cost estimates of specific educational programs or services as they are actually provided to individual students.

To make these cost estimates comparable, standard salary and benefit amounts were used. That is, salary and benefits are averaged across the states by job category before they are used to derive costs for instructional services. In this way, cost differences due to geographic location and teacher tenure are eliminated so that they do not confound the results.

The cost estimates reported in this article only include direct services. They include direct instruction, instructional preparation, associated clerical or administrative activities, service-related travel time of teachers and related service providers, service from instructional or administrative assistants in the classroom, and any other type of direct educational or social service a student may receive. These estimates also include costs associated with specific benefits that employees receive as part of their compensation package such as health, retirement, unemployment, staff development, vacation, holiday, sick leave, and childcare. They do not include administrative costs of principals, district administrators, community-based preschool directors, or other such administrative positions, nor the cost of building space, utilities, building maintenance, transportation of students, transportation of itinerant teachers (in terms of mileage reimbursement), or specialized equipment.

As these cost estimates represent only the instructional portion of the program, they should not be interpreted to represent the full cost of any of the programs included in this analysis. Rather, these cost estimates illustrate the relative instructional costs among different models of inclusion and more traditional approaches to providing special education to preschool children.

Funding for the education of special education students comes from multiple sources. For this reason, cost estimates are also separated to show the cost to the school district, the cost to other public agencies, and the cost to the parents of children in these programs. For example, both Head Start and the school district might provide funds for a team teaching form of inclusion, or the district may pay for itinerant teachers and other service providers to visit children in community-based settings. Who pays for what service has important policy implications. It may respond more directly to concerns of school district administrators about the cost of inclu-
sive services to the public school. In addition, if one approach as currently implemented relies more heavily on financial support from the parents of special education students, important questions arise regarding students’ rights to a free and appropriate public education, as required by federal law.

Findings

All cost estimates presented in this article are annual costs for instructional services per student (unless otherwise noted). The findings are presented in three tables. Table 1 shows overall costs of preschool special education and costs by disability, regardless of whether the student was in an inclusive or traditional setting. Table 2 shows costs by inclusion versus traditional settings. Costs are also shown for the three inclusive models implemented by various public or private entities. Table 3 shows cost estimates for each of the five states in the analysis.

Table 1 shows a cost estimate for preschool special education instruction of $3,847 per student for inclusive and traditional settings combined. Cost estimates by disability range from $2,220 to $6,691. Although the number of students on which the cost estimates by disability are based is small and should be viewed with caution, it is of potential interest due to the relative paucity of data for this age group.

Table 2 shows the cost of inclusion versus more traditional models of service delivery, and also allows a comparison of the three types of inclusion models: public school, community-based, and Head Start. The last row of the table shows the percentage differential between the inclusion and traditional models. The columns of Table 2, shown on page 37, allow a comparison of the costs to various public and private entities; levels of service in terms of hours of service per week and weeks per year; and costs per hour of service.

As shown in Table 2, column 2, the average instructional cost across the three types of inclusion programs is $3,649, which is 11% less than the traditional model at $4,096. All three forms of inclusion (public school-based, community-based, and Head Start) have lower annual costs than the traditional model ($2,415, $3,893, and $3,928, respectively, versus $4,096). Public school-based inclusion appears to be substantially lower cost than community-based and Head Start inclusion ($2,415 versus $3,893 and $3,928, respectively), and is 41% less than the traditional, more segregated, special education classroom model.

<table>
<thead>
<tr>
<th>Number of Students</th>
<th>Annual Total Instructional Cost Per Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>106</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disability Category</th>
<th>Number of Students</th>
<th>Annual Cost Per Student</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learning Disability</td>
<td>7</td>
<td>$3,823</td>
</tr>
<tr>
<td>Speech/Language Impairment</td>
<td>27</td>
<td>$2,642</td>
</tr>
<tr>
<td>Mild/Moderate Mental Retardation</td>
<td>12</td>
<td>$3,475</td>
</tr>
<tr>
<td>Physical/Orthopedic Impairment</td>
<td>10</td>
<td>$4,813</td>
</tr>
<tr>
<td>Other Health Impairment</td>
<td>5</td>
<td>$5,842</td>
</tr>
<tr>
<td>Autism</td>
<td>7</td>
<td>$4,634</td>
</tr>
<tr>
<td>Developmentally Delayed</td>
<td>32</td>
<td>$4,249</td>
</tr>
<tr>
<td>Other Low Cost Disabilities*</td>
<td>4</td>
<td>$2,220</td>
</tr>
<tr>
<td>Other High Cost Disabilities*</td>
<td>2</td>
<td>$6,691</td>
</tr>
</tbody>
</table>

* Children in disability categories for which N<5 were put into the categories of “Other Low Cost Disabilities” and “Other High Cost Disabilities” according to the cost estimates derived from this study. Low cost disabilities for this sample of children includes profound/moderate mental retardation, emotional disturbances, multiple disabilities, and traumatic brain injury. High cost disabilities includes visual impairment/blindness and hearing impairment.
Although it is often useful to present costs per student on an annual basis, particularly to school administrators who work with budgets, annual cost estimates may conceal differences that stem from variations in service levels. Columns 7 and 8 show the length of service for the various models. Inclusion students receive slightly fewer hours of services per week (17.8 versus 18.3 hours), and the public school inclusion students receive substantially fewer hours of service, at only 12.5 hours per week. To account for the varying levels of service (in terms of hours of service per year), the cost per hour is presented in column 9 of Table 2. Total instructional costs per hour are eight percent lower for inclusion than for the traditional model ($5.77 versus $6.28). Public school-based inclusion is the least costly at $5.37 per hour, while the Head Start program is the most expensive of the three inclusion models, similar in cost to the traditional model ($6.23 versus $6.28).

As funding for preschool special education comes from a variety of public and private sources, another interesting comparison is who pays for these services. Columns 3 through 6 of Table 2 show costs to various entities: school district, other public agencies, parents, and the cost to the school and parents combined. The average cost to the school district for inclusive and traditional preschool special education services combined is $2,921 (column 3). Inclusion costs are 37% lower than traditional costs ($2,311 versus $3,688). The three forms of inclusion show roughly the same cost to the school district. As shown in columns 4 and 5, the major difference among the inclusion models is not in total cost, but in who pays. In the Head Start inclusion model, other social services account for approximately 30% of the total instructional cost ($1,142/$3,928), and the parent picks up about 17% of the cost ($672/$3,928). In community-based programs, the parent contributes about 35% ($1,379/$3,893), which is usually in the form of tuition services for childcare.

Other public agencies pay about 2.5 times more per student served in inclusive settings than those served in traditional models ($322 versus $133, column 4). Most of this cost is attributable to the Head Start program, which is federally funded through local public agencies. Parents of inclusion students pay over four times as much as parents with children in traditional models ($1,001 versus $240, column 5), most of which is due to preschool tuition paid by parents in community-based preschool.

---

**Table 2: Preschool Special Education Instructional Expenditures in Inclusion and Traditional Settings**

<table>
<thead>
<tr>
<th>Inclusive and Traditional Preschool Services</th>
<th>Annual Total Instructional Cost Per Student</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Students</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------</td>
</tr>
<tr>
<td>Overall</td>
<td>106</td>
</tr>
<tr>
<td>Inclusion</td>
<td></td>
</tr>
<tr>
<td>Public school-based inclusion class</td>
<td>59</td>
</tr>
<tr>
<td>Community-based preschool inclusion</td>
<td>10</td>
</tr>
<tr>
<td>Head Start inclusion class</td>
<td>37</td>
</tr>
<tr>
<td>Traditional</td>
<td>12</td>
</tr>
<tr>
<td>Inclusion Percentage Difference</td>
<td>47</td>
</tr>
</tbody>
</table>

1 Columns (c), (d), and (e) do not necessarily sum to the total cost (column b) as services paid to unknown entities is not presented in this table because it only ranges from 0%.

2 Costs per hour are derived by dividing the annual cost by the number of hours of service per year.
Inclusion models. Comparing the annual costs to the school district and parent (column 6, which is the sum of columns 3 and 5), inclusion is still 16% less than the traditional model ($3,312 versus $3,928).

In addition to presenting data overall, the major categories of cost are shown by state. Table 3 presents state-by-state results for the categories of annual total cost, annual cost to the school district, and cost per hour. These cost estimates are presented for inclusion and traditional settings combined and separately to compare inclusion versus traditional within each state. Individual state cost estimates show that the traditional and inclusion total annual costs across the sites range from $1,881 in State E to $5,743 in State C.

Although the overall results suggest that inclusion costs less than more traditional services, in terms of total annual costs this pattern only holds in two of the five states. However, in terms of cost to the public schools and overall cost per hour of service, inclusion still appears less costly than the more traditional, self-contained classroom model of service provided in four of the five states.

Discussion and Policy Implications

A study of this size can only suggest answers to important policy questions and identify areas for future research. The question “How much does preschool special education cost?” can be answered by a range of cost estimates that vary by type of disability. Costs also vary based on the type of service the IEP team recommends, the types of services available in the school district, and whether these services are inclusive or more traditional.

“How much does inclusion cost?” does not have a simple answer. Costs range widely across models in this study from $2,415 for the community-based model to $3,928 for the Head Start model. Costs also vary considerably by state, even when hourly compensation is held constant. Overall, community-based programs appear less expensive than the Head Start and public school programs.

However, the public school model has the advantage of having certified teachers serving as lead teachers (i.e., in community-based programs the lead teachers often do not have special education or other public school licensure). In addition, the public school model supports a greater potential for collaboration in planning curriculum where both teachers are in the class the entire time compared to community-based programs where an itinerant teacher visits the class for a shorter period of time each week.

The potential for collaboration between public school and Head Start programs to provide inclusive programs for children with disabilities is also great. Head Start has a mandate to enroll children with disabilities in their programs, and it offers a develop-

Table 3: Findings of Preschool Special Education Instructional Costs, by State

<table>
<thead>
<tr>
<th></th>
<th>Overall</th>
<th>State A</th>
<th>State B</th>
<th>State C</th>
<th>State D</th>
<th>State E</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Annual Cost</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>$3,847</td>
<td>$3,983</td>
<td>$2,401</td>
<td>$5,743</td>
<td>$4,107</td>
<td>$1,881</td>
</tr>
<tr>
<td>Inclusion</td>
<td>$3,649</td>
<td>$4,038</td>
<td>$2,415</td>
<td>$4,774</td>
<td>$4,308</td>
<td>$1,707</td>
</tr>
<tr>
<td>Self-Contained</td>
<td>$4,096</td>
<td>$3,898</td>
<td>$2,385</td>
<td>$6,713</td>
<td>$3,894</td>
<td>$2,228</td>
</tr>
<tr>
<td><strong>Annual Cost to school District</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>$2,921</td>
<td>$2,332</td>
<td>$2,401</td>
<td>$3,636</td>
<td>$2,332</td>
<td>$1,671</td>
</tr>
<tr>
<td>Inclusion</td>
<td>$2,311</td>
<td>$1,801</td>
<td>$2,415</td>
<td>$1,453</td>
<td>$1,801</td>
<td>$1,594</td>
</tr>
<tr>
<td>Self-Contained</td>
<td>$3,688</td>
<td>$3,158</td>
<td>$2,385</td>
<td>$5,819</td>
<td>$3,158</td>
<td>$1,824</td>
</tr>
<tr>
<td><strong>Cost per Hour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>$5.99</td>
<td>$6.38</td>
<td>$4.89</td>
<td>$5.88</td>
<td>$6.71</td>
<td>$4.51</td>
</tr>
<tr>
<td>Inclusion</td>
<td>$5.77</td>
<td>$5.94</td>
<td>$5.37</td>
<td>$5.74</td>
<td>$6.34</td>
<td>$4.04</td>
</tr>
<tr>
<td>Self-Contained</td>
<td>$6.28</td>
<td>$7.94</td>
<td>$4.41</td>
<td>$5.98</td>
<td>$7.20</td>
<td>$5.50</td>
</tr>
</tbody>
</table>

1 Sites for the study were located in California, Maryland, North Carolina, Tennessee, and Washington. Three states are not shown in respect to the columns above, however, because the purpose of this table is to show that the state of origin seems to matter in respect to cost, rather than to suggest that the numbers shown here are representative of these states.
opmentally appropriate curriculum for children who are typically developing but are potentially “at risk.”

From an education policymaker’s perspective, the most salient question may be “How much does inclusion cost school districts?” Here, the answer is different. Estimates of the cost to schools are lower than for the traditional model and are fairly equivalent across the three different inclusion models.

The cost to the school district for community-based programs can vary dramatically depending on who pays the tuition for the preschool setting. In one state, for example, the district paid the tuition, while in the other states the parents were responsible for tuition. In addition, the majority of the cost to the parents in the community-based programs is tuition, and the cost estimates presented in Table 2 ($1,379) underestimate the full fee that parents actually pay. Also note that this tuition estimate is averaged across all community-based programs and some tuition values of $0 may be included when the school district pays the tuition. This has the effect of bringing the average down and may not fully reflect what parents actually pay. Most of the tuition fees that the districts reported paying ranged from $2,500 to $4,000.

Childcare tuition is a significant cost of inclusion, and policies in some states allow school districts to pay for childcare expenses for an educationally relevant part of the day. Other states prohibit this practice, and this portion is paid by the parents or through other agencies.

In their study of preschool inclusion, Cavallaro, Ballard-Rosa, and Lynch (1999) found that parents of children with disabilities were assuming the tuition costs in community-based inclusive programs. One might question whether parents should be required to pay this extra cost for their child’s education, given that the federal law ensures a free appropriate public education (FAPE) for children with disabilities and the community-based option is the school system’s version of FAPE.

Although no definitive policy recommendations can come from a study of this size, these findings seem to point the way to a policy solution with potential benefits for multiple parties. Federal law requires that early intervention programs for infants and toddlers (age zero to three) and their families be provided to the maximum extent appropriate in “natural environments.” At the same time, Head Start, a strong example of a “natural environment,” has a mandate to enroll children with disabilities. Matching these two sets of requirements seems to pave the way to serving more special education preschool children in inclusive environments. For children for whom Head Start is not available or convenient, other community-based options also appear quite feasible from a cost perspective.

If these more inclusive settings are the most appropriate for children, as the law implies will often be the case, they should be provided regardless of cost (as is also required by federal law). The data in this paper, however, suggest that inclusive services do not incur greater cost. The total cost of the more inclusionary models appears to be approximately the same as the cost of more traditional approaches, with the costs borne by school districts being considerably less. To the extent that other public agencies bear these costs, it is within their mandate to provide such services.

The most troubling aspects among these findings are the costs borne by parents and that these costs appear higher under the more inclusive models. Under requirements that children with disabilities receive a free and public education, it seems that parents should not have to pay for the educationally relevant component of the child’s time in these natural settings. At the same time, it seems reasonable that they be responsible for childcare that extends beyond this amount of time. The cost scenarios presented in this paper suggest that school districts could subsidize the component of childcare tuition that is educationally relevant and still provide services in natural settings that are no more costly than more traditional modes of service provision.

Suggestions for Future Research

Although the federal law requires school districts to provide a free appropriate public education to preschool children with disabilities, the willingness of key administrators to embrace inclusion as a needed innovation exerts a strong influence over its ultimate success as a standard practice (Leiber, et al., in press). Little was known about the relative cost of
these programs, and the absence of cost information was one barrier to active adoption of preschool inclusion as an innovative mode of service delivery. Although this study indicates that, in general, inclusion costs less than traditional special education programs, it is just one step in the direction of fully understanding the cost of preschool inclusion. Additional research may increase knowledge and understanding of the benefits and drawbacks of preschool inclusion and facilitate thoughtful approaches to the adoption of inclusive models of service delivery.

The cost estimates of this study only account for the instructional portion of the cost. While instructional costs make up the majority of the total costs, more expansive future cost studies of preschool inclusion should attempt to also incorporate non-instructional costs. Although it is difficult to obtain such information, particularly in the area of transportation, it would allow for complete estimates of the full cost of providing inclusive preschool services. Transportation is often a large portion of a school district’s special education budget and would be greatly affected by changes in the locations at which children are being served.

Perhaps more importantly, children in different model classrooms may have had different levels of instructional needs. As noted, the trend in special education has been to place the children with less severe disabilities in inclusive classrooms, and this study attempted to provide some control for these differences through the purposive sampling of children. From these data, it appears that the children in the traditional programs did have greater instructional needs. Future analyses should determine how instructional needs relate to cost.

Future research should also address the relationship of cost to quality of programs and, in turn, their relationship to outcomes. In the programs in this study, the parents and an IEP team had agreed on the type of program appropriate for individual children. However, a series of questions exist about the quality of classroom environments that occurs in inclusive and traditional programs (Bailey, McWilliam, Buysse, & Wesley, 1998), and the effects of quality on outcomes for children and families. Overall, we need a much better understanding of the relative costs of the respective outcomes associated with different modes of providing special education services. This study has made a small contribution toward this end, but a vast amount of work remains.

Notes

1. More details about individual programs may be found in Odom et al. (in press).
2. Although these costs are germane and would clearly inform a study of this type, capturing them was beyond what was possible within the scope of this work. Their omission is a limitation of this study.

References


The University of Massachusetts at Amherst is pleased to offer special education leadership training grant graduate assistantships, funded by the United States Department of Education. These assistantships will support qualified full-time Ed.D. and post-masters students to engage in diverse and exciting internship, professional development, and research opportunities at the local, state, and federal levels. Course work will lead to certification as both a director of special education and as a principal.

For more information, please contact either:

Dr. Mary Lynn Boscardin
Dr. Preston Green, Esq.
Room 159 Hills-South, Box 34120
School of Education
University of Massachusetts
Amherst, MA 01003
413-545-2705
E-mail: mlbosco@educ.umass.edu
CASE IN POINT:

- The Administrative Predicament of Special Education Funding

Barbara Moore-Brown, Ed.D.
El Rancho Unified School District, Pico Rivera, CA

Special education administrators face a perplexing, and generally frustrating, existence when dealing with the area of funding. Unlike any other administrative colleague in a school district, the special education administrator often finds him- or herself in a predicament that looks (and feels) like this: parents, staff, and general education ask “will you pay for this?” while the business office, the cabinet, and the school board ask: “why does this cost so much?” The many complexities of special education funding do not help when trying to explain to any of these constituencies why the costs for special education continue to rise, and/or why the funds are limited or absent. When examining this experience, attitudes and realities impacting the administrator’s ability to address the problem become apparent.

In an era of school reform that directs efforts for “all” children, the perpetuation of a dual system continues to haunt special education administrators. Even in school systems where integrative service delivery and collaboration are accepted practice, funding issues still create stressors for principals and central office staff. Situations that create fiscal stress are evidenced in any school building or district. These include: increased identification rates, increased severity of disabling conditions, necessary expansion of staff, limited instructional budgets in both general and special education, facilities crises, and the on-going need for professional development of all staff (e.g., administrative, general, and special education teachers and paraprofessionals). While our general education colleagues support special education programs, they look to special education to bring the funding support along with our mandates. Additionally, as new programs and opportunities are presented for general education to expand services to “all” children, special education programs and staff may be affected in different ways, including the physical space displacement of special education programs in favor of newer, more popular programs, and the lure of specialist staff to work in these programs.

Special education administrators are well aware of the factors that contribute to the funding crisis for our programs. The control of the flow of dollars extends beyond that of the special education administrator. Funding discussion always begins by explaining the underfunding of special education at the federal level. After explaining our predicament as an underfunded mandate, the rest of the issues are often so unique to the daily experience of special educators, that it is difficult to outline the cacophony of issues with fellow administrators, school board members, families, or community members. Emotions can also enter into the discussion, which makes the discussion even more difficult.

The list of factors contributing to the funding crisis in special education is both familiar and staggering to consider:

1. Funding formulas which are inequitable, disparate, complex, and inadequate
2. Legal costs which are unparalleled in almost any other areas of education
3. Limitations in funds allocated to hire instructional and administrative staff
4. Costs for unending training needs, including research-based instructional methods, improved diagnostic procedures, legal requirements, and more
5. Uncontrolled cost of nonpublic or private placements
6. Specialized technology and training for students and staff
7. The need for discretionary dollars to recruit and retain qualified staff
8. Negotiated salary raises which reflect on budget sheets as increases the costs of the special education program

When considering all of these factors, the situation may seem overwhelming, and often it is. But special education administrators are by nature optimistic and committed to the children, families, staff, and the system. We certainly can be encouraged by current educational practices that hold promise for our troubled situation. These include: the focus on intervention/prevention in general education, the ability to share resources under the Education and Secondary Education Act (ESEA) and the Individuals with Disabilities Education Act (IDEA), the on-going expansion of service delivery models, the focus on research-based practices for students with special needs, and the hope for full funding of IDEA. In fact, the recently released education proposal of President George W. Bush, gives reference to the need for early literacy in order to prevent students from requiring IDEA services and also to the need for increased IDEA funding (Bush, 2001). Special education administrators will watch this proposal closely.

In the mandate to provide a free appropriate public education (FAPE) to all students, we know that cost is not to be a consideration. The provision of FAPE, however, is not free; and, in fact, is usually very costly in terms of dollars. While the heart of a special education administrator believes that the cost is not the issue when providing services to children, the reality of executing the fiduciary responsibility of our positions shows us that cost is an issue. Every special education administrator must clearly understand the full scope of the complexities of these issues and be prepared to proactively generate solutions as well as carefully watch and react to programs and proposals that offer hope to support special education programs and the students served.

References

About the Author
Barbara Moore-Brown, Ed.D., is the Director of Special and Alternative Education for El Rancho Unified School District, Pico Rivera, CA. Email: bmoorebrown@erusd.k12.ca.us
Manuscript Guidelines
and Editorial Policies

The *Journal of Special Education Leadership*, published by the Council for Administrators of Special Education, seeks articles that capture an administrator’s attention by providing useful information that stimulates new ways of thinking about managing and leading. Only articles that have been validated and accompanied by accepted theory, research, or practice are sought.

The *Journal of Special Education Leadership*’s goals are:
1. To provide fresh ideas and perspectives, grounded in recent advances in administrative theory and research, on contemporary issues that administrators must face.
2. To become a primary source of useful ideas for those who seek to educate present and future administrators of special education programs.
3. To become a forum through which practicing administrators of special education programs can challenge the meaningfulness of translations of administrative theory and research.

Contributors to each issue will include practicing administrators, researchers, policymakers, or others interested in special education administration. The purpose of this arrangement is to encourage interaction among individuals within those roles in developing articles. Interactions may include any of the following: a jointly authored manuscript, an interview preceded or followed by commentary written by the interviewer, and a follow-up article that is specifically linked to the theory and/or research article that provides examples from the field and implications for administrators in similar situations.

A typical article might begin with either a brief case illustrating the primary theme, or posing certain questions and issues that special education administrators need to address. A typical article will also satisfy the academic reader who seeks more than just opinions and wants to see a serious effort at connecting ideas to accepted theory and research.

With respect to style and format, manuscripts should:
- Be accompanied by a letter signed by the author(s),
- Have a separate title page that identifies the authors (the names(s) of the author(s) should not appear anywhere on the manuscript, except on the title page),
- Be written in clear, straightforward language, avoiding jargon and technical terms,
- Conform to APA format (see Appendix B of *APA Publication Manual*, 4th edition, 1994), particularly:
  - Entire manuscript is double spaced, with margins.
  - All pages are numbered in sequence, starting with the title page.
  - All references in text are listed and in complete agreement with text citations.
  - All author identification information, including professional title and affiliation, address, and phone number, is on the title page only.
  - Cover letter states the manuscript is original, not previously published, and not under consideration elsewhere.
- Include at the beginning an Executive Overview of 3-5 bulleted major points made in the article,
- Use subheadings but not the traditional ones such as “Introduction”; use, instead, “The Future Challenge” or “Do Seamless Delivery Systems have a Future?”
- For the purpose of documentation, cite notes in the body of the paper using superscript note numbers, and
- Include a biographical sketch of each author that includes name, title, and place of employment.

Authors are encouraged to get feedback from colleagues and practitioners on early drafts. A paper can be improved dramatically when knowledgeable reviewers are asked for reactions in advance of submission.

Manuscripts should be double-spaced and no more than 15 pages in length, including figures. When questions arise regarding issues of
grammar or style, authors should refer to the
Publication Manual of the American Psychological

The Journal of Special Education Leadership is
published two times per year. The issues vary with
some being thematic. Each issue includes 4-5 articles
and 1-2 administrative briefs/technical notes.

Review Process
Selection of manuscripts for publication is based
on a blind peer review process. However, all
manuscripts are screened first by the editor. Those
manuscripts that do not meet the manuscript
requirements, or that are not consistent with the
purpose of the journal, are not forwarded for peer
review. The author is either notified that the man-
uscript is not acceptable for the Journal of Special
Education Leadership, or requested to make changes
in the manuscript so that it meets requirements.
Copies of the manuscript are not returned to the
author in either case.

Manuscripts that are consistent with the purpose
of the journal are sent out for peer review.
Reviewers will not know the identity of the author.

Based on the blind reviews, the Journal of Special
Education Leadership editor will communicate the
results of that review to the author. The decision
that is communicated to the author will be one of
the following:
• Acceptable, with routine editing
• Acceptable, with revisions indicated by editor
• Unacceptable

When a decision is made that a manuscript is
unacceptable for the Journal of Special Education
Leadership, it may be recommended that it be sent
to a journal of one of the CEC Divisions. This
recommendation does not mean that the manuscript
would be automatically accepted by a Division
journal; the manuscript would have to go through
the review process again.

Author Responsibilities Following
Publication Acceptance
After a manuscript is accepted for publication in
the Journal of Special Education Leadership, the author
is responsible for completing the following:
• Obtaining publication clearance, if needed,
  for a manuscript first presented at a professional
  meeting;
• Acknowledging the funding agency for
  supported research;
• Verifying the authenticity of all quoted material
  and citations and for obtaining permission from
  the original source for quotes in excess of 150
  words or for tables or figures reproduced from
  published works;
• Preparing camera-ready copies of all figures
  included in the article;
• Assigning literary rights to CASE by signing a
  Copyright Transfer Agreement;
• Sending two (2) paper copies of the revised
  manuscript to the Journal of Special Education
  Leadership’s Editorial Office; and
• Sending an exact copy of the revised manuscript
to the Editorial Office on a floppy disk (3 1/2”),
  with the document saved in WordPerfect,
  Microsoft Word, or WordPro format, if possible.
  (Acceptable alternatives are ASCII format, on a
  DOS or Mac platform, however these formats are
  not preferable.)

Author Checklist
Before sending a manuscript, please complete the
Author Checklist below. This will help ensure that
your manuscript is not screened out or returned
before review.
- Manuscript is consistent with the purpose of
  the journal.
- Manuscript is no longer than 15 pages total.
- Manuscript conforms to APA format (see
  Appendix B of APA Publication Manual,

Send 5 copies of manuscript and file copy on a
3 1/2" floppy disk to:
Dr. Mary Lynn Boscardin, Editor
Journal of Special Education Leadership
175 Hills-South
School of Education
University of Massachusetts
Amherst, MA 01003

Acknowledgment of receipt of your manuscript
will be sent to you within 2 weeks. Review of your
manuscript will occur within 6 weeks.

Call for Papers
Looking for **innovative, easy-to-use interventions** for your classroom?

Researching ways to **create more inclusive environments**?

Needing resources to **better meet IDEA mandates**?

Searching for programs to **effectively deliver instruction** to your “tough-to-teach” students?

Lacking information about **schoolwide behavior management**?

---

*Sopris West* has been offering research-based educational interventions for over 20 years. You’ll find over 140 resources that can be used immediately in your classroom, from such noted educators as Hill Walker, Randy Sprick, Scott Poland, Barbara Bateman, William Jenson, James Ysseldyke, and Bob Algozzine. Check out our books, curricula, programs, audiotapes, videos, and interactive software. They’re designed to help you **motivate** your students to learn, **deliver** effective instruction, and **manage** your classroom successfully. All of our strategies and tactics have been field-tested and proven to be effective.

**Come to Sopris** for materials that address special education, IDEA ‘97, assessment, parent and community involvement, and more! We make it easier for you to meet the needs of students at risk for school failure or those with special needs.

**Find out what we can do for you!**

Get your **free** catalog by calling *(800) 547-6747* or visit our website at **www.sopriswest.com**
Meet IDEA Mandates ~ and ~ Reenergize Your IEP Process

Steve Kukic, Ph.D. and Judy Schrag, Ph.D.

In collaboration with National Association of State Directors of Special Education (NASDSE)

Simple, step-by-step guidelines and reproducible supports provide an easy-to-follow IEP framework that makes strong, positive connections among assessment, educational standards, instruction, and coordinated service planning. With IEP Connections, you’ll have everything you need to:

- Strengthen connections between families and schools and between IEP teams and general education staff.
- Determine appropriate curriculum and instructional modifications.
- Build trust among IEP team members.
- Collaborate, solve problems, and resolve conflicts effectively.
- Engage in a successful decision-making process.
- Involve students in the IEP process.

Four components incorporate the new IDEA mandates while keeping the focus on serving individual students:

- The Leader’s Guide provides a decision-making process for determining the modifications that will connect IEPs to general education curriculum, methods for solving problems, and more. Includes reproducibles.
- The Team Member’s Manual provides all the tools and information to fully participate in this reenergized IEP process.
- The IEP Connections Video illustrates the ways in which IEPs connect to assessment, standards, benchmarks, general education curriculum, instruction, coordinated service planning, communication with parents and students, and—most importantly—positive student results.
- The set of four Support Forms (50 of each) make implementation even easier:
  - Portfolio Conference/Assessment Guide
  - Teacher’s Self-Rating Scale
  - Team Member Self-Rating
  - Team Effectiveness Inventory

Complete set of the four Support Forms (50 of each). CA111FOR. $65.
Set of 10 IEP Team Member’s Manuals CA111TMG. $49.
Professional Development is also available.

Order Now!
With MC/Visa: (800) 547-6747 or www.sopriswest.com
Or Fax your PO: (888) 819-7767
Subscribe to the
Journal of Special Education Leadership

Photocopy and mail to:
CASE
615 16th Street NW
Albuquerque, NM 87104

If you are already a member of CASE, you will automatically receive the Journal of Special Education Leadership as part of your membership. However, you can subscribe if you are not a member of CASE.

Subscription Notes:
- The Journal of Special Education Leadership is published by the Council of Administrators of Special Education in conjunction with Sopris West
- Copy requests should be made to CASE at the address above
- For more information on this journal or other Sopris West publications and services, visit our website at www.sopriswest.com
- Single copies may be purchased. Orders in multiples of 10 per issue can be purchased at a reduced rate.
- Call CASE for membership information: (800) 585-1753 or (505) 243-7622.
  Or visit our website at http://members.aol.com/casecec

☐ Yes, I want to subscribe to the Journal of Special Education Leadership!
  ☐ Single Issue: $25
  ☐ Full Subscription: $40 (includes two journals)
  ☐ Institution/Library Subscription: $60 (includes two journals)

Payment Information:
☐ Check/Money Order (payable to CASE, in U.S. dollars)
☐ Please bill my credit card: ☐ MasterCard ☐ VISA
  Card Number___________________________ Exp. Date_______
  Cardholder Signature______________________________________

Ship to:
Name ______________________________________________________
Address ____________________________________________________
____________________________________________________________
____________________________________________________________
Phone ______________________________________________________

For more information on this journal or other Sopris West publications and services, visit our website at www.sopriswest.com

Single copies may be purchased.
Orders in multiples of 10 per issue can be purchased at a reduced rate.

Call CASE for membership information: (800) 585-1753 or (505) 243-7622.
Or visit our website at http://members.aol.com/casecec