

**Milwaukee Public Schools Special Education  
Expenditure Project (SEEP)**

**Final Report**

*Submitted by:*

Jay Chambers  
Thomas Parrish  
Catherine Bitter

*Submitted to:*

Ada Rivera  
Director, Division of Special Services  
5225 West Vliet Street  
P.O. Box 2181  
Milwaukee, WI 53201-2181

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## **Executive Summary**

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### **Background**

This report presents findings from the Milwaukee Public Schools (MPS) Special Education Expenditure Project (SEEP). A major purpose of this study, which began in June 2000, is to better understand the amount spent on special education and the types and quantities of special education services being provided. This information has been compiled by type of school and for the district as a whole. Two additional study purposes are to compare this special education spending information by school to the special education funds they receive and the characteristics of the students they serve, as well as to provide recommendations regarding the allocation of special education funds.

The study was conducted in conjunction with a national study and eleven state studies of special education expenditures.<sup>1</sup> All of these studies share a common core of research questions, although many aspects of this study were designed to address the specific needs of MPS.

### **Research Questions**

MPS sought assistance in determining how funds should be distributed to local schools to meet the needs of its special education students. District administrators were interested in uncovering the patterns of variation in allocation and spending by school, identifying the underlying factors associated with those differences, and understanding how schools were utilizing special education staff. An overarching goal was to consider the characteristics of a resource allocation process driven by the needs of students. The following research questions are addressed in this report:

1. What is the average special education spending per pupil?
2. How does special education spending in MPS compare to allocated funds?
3. Does special education spending and allocation in MPS appear to be aligned with available measures of student severity?

### **Conceptual Overview**

Recommendations regarding the allocation of special education funds to schools within MPS require the development of a conceptual framework for considering what principles should govern these allocations. As with schooling programs everywhere, the resources available to the special education students served by MPS are finite. Given this, the goal of MPS service providers and administrators must be to derive the maximum possible educational outcomes for its special education population.

How might this be best achieved and what information do MPS administrators need to ensure that this is occurring? A top priority must be the maintenance of data that will allow measurement of progress toward meeting this goal. At a minimum, the district must know how much it is spending on special education students in varying programs and in different schooling locations,

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<sup>1</sup> The eleven states contracting for comparable SEEP studies are Alabama, Delaware, Indiana, Kansas, Maryland, Missouri, New Jersey, New York, Ohio, Rhode Island, and Wyoming.

what specific programs and services are being provided with this money, and some measure of the return on this investment. In the case of education, investment return is measured in terms of educational outcomes. In short, a data system is needed that will provide information on how much is being spent, what the funds are spent on, and the extent to which, and in what ways, students are benefiting. Without information of this type, it is unclear how the district will be able to assess whether they are using the resources available to them in the best possible manner, i.e., to the maximum benefit of the students they serve.

At the same time, very few school districts have been able to sufficiently identify and track student performance measures that would allow them to assess program performance. Ideally, districts would know what programs are most effective for varying populations of students and at what cost. This would allow them to invest in programs providing the most return per dollar, freeing up additional dollars for use in the provision of other services.

Thus, for MPS, as with most other school districts, tracking program investments to program outcomes, or funding allocations for individual students to the academic progress they are making, must remain a longer term objective. A more immediately realizable goal, however, is to assess the extent to which there are appropriate linkages between the needs of students, the funding allocated to meet these needs, and the degree to which this funding is being converted into programs that directly serve these students.

The first step is the implementation of a measure of the relative education needs of individual students. For example, MPS currently maintains a measure of the relative severity of each student in special education. Next, the funding allocated to schools to serve the special education students they enroll should be linked to their relative needs, i.e. the greater the needs the more funding. Ideally, special education funding does not just rise in accordance with student needs, but is directly linked to a determination of the combination of services most appropriate to meet these needs and their costs. Finally, once these supplemental revenues arrive at schools, it will be important to know that they are being used to serve the population of special education students for which they were intended.

This conceptual overview, i.e. tying the special education funds received by schools to the needs of the students they enroll and then ensuring that these funds are spent on services appropriate to these needs, guides the analysis contained in this report and the resulting recommendations. Tying this chain to student outcome measures is a subsequent goal for the district. Only when this chain is complete will the district be able to assess the extent to which it is utilizing available resources to best meet the educational needs of the special education students it enrolls.

## **Methodology**

Data collection included surveys and the examination of existing documents and databases collected from the district. Surveys of special education teachers, related service providers, and regular education teachers solicited information on how they spend their time and deliver services to students with disabilities. These questionnaires asked about contact time, class size, group size, and the types of staff who assist in serving the needs of students with disabilities. Extant data collected included fiscal data, funding allocation data, personnel and staffing data, student-level data, and school-level data. Analyses were performed district-wide by merging extant student and fiscal data to derive expenditures presented in this report. It should be noted that the budget categories in the expenditure file were not equivalent to the disability and service categories in the student file. Thus, some categories in the student file were merged, while some categories in the expenditure file were divided into more specific breakdowns. The expenditure

data were then merged with the newly categorized student data to derive the per pupil expenditures presented in this report.

## Summary of Findings

In addition to providing a better understanding of special education spending and the types and quantities of special education services provided, an important purpose of this study was to consider how funds should be distributed to local schools to best meet the needs of special education students. The major analyses in pursuit of this question were based on the principle that the amount of supplemental funding a school receives should be tied to the special education needs of its students and that these funds should then be converted into special education services. Schools enrolling students with the greatest need for special education services should get the most supplemental funding and should consequently be spending the most, on average, per special education child.

The current data collection system in MPS prevented a straightforward analysis of the links between student need, allocation of special education funds, and special education spending. The budget categories currently used by the district contain a broad mix of services including delineations by category of disability, related services such as transportation, and support activities such as fiscal services. While these categories may suffice for strict accounting purposes, this mix of categories of disability, related and support services is not well suited for supporting the district's program administration and monitoring needs. In addition, it should be noted again that adjustments in the categories of students were required in order to match the categories of disability and services provided in the expenditure file to the student file. As described above, some categories in the student file were merged, while some categories in the expenditure file were divided into more specific breakdowns. This process raises questions about the availability of accurate data for this analysis.

Utilizing the data that was currently available and adjusting for the disparities outlined above, this study revealed that while general alignment between special education student need, the revenues provided, and resultant program spending was found for the district as a whole, for many schools these three measures appeared quite disparate. A number of schools showing high student need (in terms of relatively high percentages of students with higher levels of severity of disabling condition) received relatively small amounts of supplemental resources per special education student, suggesting a disparity in the allocation of funds. In addition, these schools with high student need were found, or were not found, to be *spending* larger amounts on special education services per student. Overall, the connection between the special education needs of the students enrolled in each school, the funding received from the district, and the amount spent on special education services appeared not to align well for many MPS schools.

## Recommendations

One of the first steps to achieving an aligned system is to implement a comprehensive data collection system that would allow a straightforward analysis of the links outlined above. Under the current data system, it is not possible to fully determine the extent to which the magnitude of the differences between allocations and expenditures revealed is due to actual disparities, or if the data system did not accurately represent the spending that has occurred in MPS schools. A data system that incorporates measures of student need, allocations of special education funds, and special education spending would allow the analysis of the links between the three measures. In addition, such a system would facilitate the implementation of an allocation system based on

student severity and monitoring to ensure that resources were utilized for the intended students, and ultimately linked to successful outcomes for these students over time.

The challenge is to implement a special education allocation system that is designed with the links between student need, special education resources, and school spending in mind. Sweeping changes in the schooling environment have created many challenges for districts, increasing the importance of such a tracking and monitoring system. For example, student and family choice is much more predominant, with charter, magnet, other forms of public schools, and voucher schools available to students and their families. As a result, planning school services, determining appropriate allocations of resources for each school, and allocating funds in a way that creates incentives for enrolling and appropriately serving students with special needs has become much more difficult.

These processes have been further exacerbated within special education. Under greater choice, schools may not feel the same obligation to serve all of the students in their region regardless of their special needs. Special education has also changed through a new emphasis on mixed groupings of students and increased emphasis on inclusive services. More students with complex needs are now being served in regular education classrooms along with non-disabled students.

It has never been more important that the supplemental resources required by a child with special needs follow them to the school and into the type of service arrangement that is most appropriate to their needs. How might such a system be realized? Supplemental funding would be allocated on an individual student basis. The amount of funding for each student could be based on the specific mix of services (s)he receives, as specified in his/her IEP, or could be based on student characteristics. For the former, expenditure estimates for individual services could be derived by basing total funding on the mix of services assigned to each student. For the latter, allocations could be based on estimates of the student's overall severity (e.g. as summarized in the categories of severity currently used by the MPS) or on a matrix specifically designed to delineate the many student characteristics that should be considered in deriving the relative severity of a child's condition as well as a system for quantifying severity.

One example of such a matrix is the "Abilities Index" developed by Rune Simeonsson and Donald Bailey of the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill.<sup>2</sup> It is a functional assessment where the focus of the measures is the different functional abilities of the student in nine different domains: audition, behavior, intellectual functioning, limbs, intentional communication, tonicity, integrity of health, eyes, and structural status. Once implemented, this index could provide an ongoing check on the alignment between student severity, funding, the services provided, and student outcomes.

In addition to providing the basis of an alternative funding system for the district, such a system based on the needs and characteristics of students could provide the basis for future budgeting. This would replace the current budgeting categories, which appear to be an odd mix of categories of disability, related services, and support activities. The needs and characteristics of the students the schools enroll could provide the basis for a comprehensive system for budgeting, allocating, and tracking special education resources and their use.

A next logical step on the path to a long-term goal of developing efficiency indicators for the district would be to continue to track and measure the alignment of student severity, special education allocations, and special education spending to measures of program results. If

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<sup>2</sup> See Simeonsson, R., et. al (1995).

appropriate education outcomes are not being realized, the students' needs should be reconsidered, as well as the amount of funding and the mix of services being provided.

## ***I. Introduction***

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In June 2000, Milwaukee Public Schools (MPS), Division of Special Services, contracted with the American Institutes for Research (AIR) to conduct this Special Education Expenditure Project (SEEP). A major study purpose is to better understand the amount spent on special education and the types and quantities of special education services being provided. This information has been compiled by type of school and for the district as a whole. Two additional study purposes are to compare this special education spending information by school to the special education funds they receive and the characteristics of the students they serve, as well as to provide recommendations regarding the allocation of special education funds.

This special education study was conducted in conjunction with a national study and eleven state studies of special education expenditures.<sup>3</sup> The national and state studies share a common core of research questions with the Milwaukee Public Schools study, and generate comparable data.

This introductory chapter provides background information for the study, including an overview of the research questions and the current funding method in MPS. Chapter 2 outlines the data collection procedures used for this study, and Chapter 3 presents a summary of findings. Finally, Chapter 4 provides a summary of conclusions and recommendations for funding, based on the findings outlined in Chapter 3.

### **Milwaukee Public Schools SEEP Research Questions**

In contracting for this study, MPS sought assistance in determining how funds should be distributed to local schools to meet the needs of its special education students. More specifically, district administrators were interested in uncovering the patterns of variation in allocation and spending, identifying the underlying factors associated with those differences, and understanding how schools were utilizing special education staff. An overarching goal was to consider the characteristics of a resource allocation process driven by the needs of students. To that end, district administrators desired a straightforward accounting of what is actually spent on special education in the district. Thus, this report addresses the following research questions:

1. What is the average special education spending per pupil for each special education budget category?
2. How does special education spending in MPS compare to allocated funds?
3. Does special education spending and allocation in MPS appear to be aligned with available measures of student severity?

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<sup>3</sup> The eleven states contracting for comparable SEEP studies are Alabama, Delaware, Indiana, Kansas, Maryland, Missouri, New Jersey, New York, Ohio, Rhode Island, and Wyoming.

### *Context for the Study: The National SEEP*

Interest and concern about special education finance policy are not unique to Milwaukee Public Schools or the eleven SEEP states. Indeed, such concerns have increased across the states, as well as at the federal level, in recent years. According to *State Special Education Finance Systems and Expenditures, 1999-00* (Parrish, Anthony, Merickel, & Esra, 2002), “over one-half of the reporting states (29 of 46) have reformed the way they fund special education over the past six years. In addition, 46 percent of the reporting states (21 of 46) are considering future formula changes, and 12 of these are states that have already made changes in the past six years.” In addition, the reauthorized *Individuals with Disabilities Education Act* (IDEA-97) changed special education funding provisions at the federal level.

Special education expenditure data, however, have been generally lacking. Prior to the current national SEEP, the most recent national study on special education expenditures and their relationship to general education was conducted by Decision Resources Corporation for the 1985-86 school year (Moore, Strang, Schwartz, & Braddock, 1988). Reflecting the need for updated, comprehensive, and accurate information regarding special education expenditures and their relationship to general education, IDEA-97 required studies to measure and evaluate the impact of the IDEA and the effectiveness of state efforts to provide a free, appropriate public education to all children with disabilities (per Sections 618 of Part B and 674). Under this authorization, the Office of Special Education Programs (OSEP), U.S. Department of Education, funded the National Special Education Expenditure Project (SEEP)--the first national study of special education expenditures in 15 years.

The first report released from this national study<sup>4</sup> shows per student and total special education expenditures, and explores the relationship between regular and special education spending. Subsequent reports will provide breakdowns by type of state, district, school, and category of disability. They will also examine the relationship between student poverty and the level of spending for students with disabilities, and will examine expenditures relating to inclusion, assessment, and the provision of services to preschool children. Appendix A includes an in-depth list of the research questions addressed by the national SEEP and a listing of the topics to be addressed over the next year by reports from this effort.

### **Conceptual Overview**

Recommendations regarding the allocation of special education funds to schools within MPS require the development of a conceptual framework for considering what principles should govern these allocations. As with schooling programs everywhere, the resources available to the special education students served by MPS are finite. Given this, the goal of MPS service providers and administrators must be to derive the maximum possible educational outcomes for its special education population.

How might this be best achieved and what information do MPS administrators need to ensure that this is occurring? A top priority must be the maintenance of data that will allow measurement of progress toward meeting this goal. At a minimum, the district must know how much it is spending on special education students in varying programs and in different schooling locations, what specific programs and services are being provided with this money, and some measure of the return on this investment. In the case of education, investment return is measured in terms of educational outcomes. In short, a data system is needed that will provide information on how

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<sup>4</sup> Chambers, Parrish, and Harr (2002). Available: <http://www.seep.org>.

much is being spent, what the funds are spent on, and the extent to which, and in what ways, students are benefiting. Without information of this type, it is unclear how the district will be able to assess whether they are using the resources available to them in the best possible manner, i.e., to the maximum benefit of the students they serve.

At the same time, very few school districts have been able to sufficiently identify and track student performance measures that would allow them to assess program performance. Ideally, districts would know what programs are most effective for varying populations of students and at what cost. This would allow them to invest in programs providing the most return per dollar, freeing up additional dollars for use in the provision of other services.

Thus, for MPS, as with most other school districts, tracking program investments to program outcomes, or funding allocations for individual students to the academic progress they are making, must remain a longer term objective. A more immediately realizable goal, however, is to assess the extent to which there are appropriate linkages between the needs of students, the funding allocated to meet these needs, and the degree to which this funding is being converted into programs that directly serve these students.

The first step is the implementation of a measure of the relative education needs of individual students. For example, MPS currently maintains a measure of the relative severity of each student in special education. Next, the funding allocated to schools to serve the special education students they enroll should be linked to their relative needs, i.e. the greater the needs the more funding. Ideally, special education funding does not just rise in accordance with student needs, but is directly linked to a determination of the combination of services most appropriate to meet these needs and their costs. Finally, once these supplemental revenues arrive at schools, it will be important to know that they are being used to serve the population of special education students for which they were intended.

This conceptual overview, i.e. tying the special education funds received by schools to the needs of the students they enroll and then ensuring that these funds are spent on services appropriate to these needs, guides the analysis contained in this report and the resulting recommendations. Tying this chain to student outcome measures is a subsequent goal for the district. Only when this chain is complete will the district be able to assess the extent to which it is utilizing available resources to best meet the educational needs of the special education students it enrolls.

### **Current Milwaukee Special Education Funding Method**

MPS reports that approximately 70 percent of the funds in the district are spent at the school level. In FY2001 (the 2000-01 academic year), special education comprised about 15 percent of the budget – approximately equal to the proportion of special education students.

MPS allocates special education funds using a basic “per pupil” allocation for every student at a school. Funding for special education staff (salaries, benefits, and a small percentage for operation overhead) is based on the number of special education students, the disability categories and severity of the students, necessary services, and the student-teacher ratio for special education students at each school. The student-teacher ratios increase from elementary to middle to high school (e.g., severe students generally have a student-teacher ratio of approximately eight to one at the elementary level and 10 to one at the high school level; mild students have a student-teacher ratio of approximately 16 to one at the elementary level and 20 to one at the high school level). Funding for special education assistants and health care assistants also are allocated based on the disability category and severity level of the special education students at the school.

## II. Methodology

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The AIR research team utilized the data collection methods of the national and state SEEP studies. Analyses based on extant data were performed on all schools district-wide. Surveys were administered to a sample of schools chosen by MPS. A brief description of the methods used in the Milwaukee SEEP follows.

### Data Collection Procedures

The SEEP data collection included surveys and the examination of existing documents and databases collected from the district. To minimize the reporting burden, this study relied heavily on extant documents and materials, in whatever form they were readily available. AIR requested documents from Milwaukee Public Schools in order to obtain information related to the use of special education resources. These materials included fiscal data (the current budget or expenditure database including all programs and services); funding allocation data; personnel, payroll, and staffing data (including pay rates, full-time equivalencies (FTEs), account codes corresponding to pay, benefit amounts or rates, payroll taxes, etc.); student data (schools to which students are assigned; subjects, courses, or services received by each student; background and disability classification of the student); and school level data (lists of schools by name, type, grade levels covered, enrollment and enrollment composition, etc.).

Written surveys for a sample of special education teachers, related service providers, and regular education teachers were administered at seventeen elementary schools, four K-8 schools, five middle schools, six high schools, four citywide schools,<sup>5</sup> and three charter schools. The school sample ensured representation from the district as a whole. The surveys solicited information on how they spend their time and how services are delivered to students with disabilities. These questionnaires asked about contact time, class size, group size, and the types of staff who assist in serving the needs of students with disabilities. The surveys included multiple-choice questions as much as possible, so that they could be completed and summarized easily:

- **Special Education Teacher/Related Service Provider Questionnaire.** This was administered to special education teachers and related service providers within each sample school. The questionnaire was a self-administered survey. The major focus of this questionnaire was to obtain information on the specific structure and characteristics of the service delivery system for special education. We wanted to know how much time special education teachers and related service providers spent outside of their primary school, at the district office, or in other schools, and in what activities they were engaged outside of the classroom (planning/preparation, participation in Collaborative Support Team (CST)<sup>6</sup> or Problem Solving Model meetings<sup>7</sup> or activities, consultation with other

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<sup>5</sup> Citywide schools can be considered magnet schools in that they serve students from all areas of the city.

<sup>6</sup> The CST consists of the student's teacher(s), the student's parent(s) or primary caregivers, and may include the reading resource teacher, learning coordinator, school psychologist, diagnostic teacher, school social worker, speech pathologist, administrator, and/or guidance counselor. According to MPS's Problem Solving Procedural Manual (2000), the team is activated "when a student or specific group of students are involved in a challenging situation that requires more focused interventions and learning supports than informal consultation or teacher peer teams can generate." The teams work to monitor progress and evaluate the effectiveness of selected interventions and learning supports.

<sup>7</sup> The Problem Solving Model is an initiative that MPS has adopted to "(a) [enhance] optimal learning environments for all students; and (b) [support] children's success in schools by directly addressing their

teachers or parents, Individualized Educational Program (IEP)<sup>8</sup> related activities, traveling between school sites). We also wanted to know the class sizes, contact time per week, subjects taught, composition of students (by disability), and additional staff in the classrooms. In addition, the questionnaire asked for current job responsibilities of teachers or related service providers.

- **Regular Education Teacher Questionnaire.** This was administered to a sample of regular education teachers at each sample school. The questionnaire was a self-administered survey. This questionnaire had the same basic items as the **Special Education Teacher/Related Service Provider Questionnaire**, but was customized for regular education classroom teachers. A primary goal was to determine the extent to which special education students are served in the regular education classrooms.

Written surveys were pilot tested prior to administration. Pilot testing involved the distribution of the special education teacher/related service provider survey to eight special education teachers/related service providers across a range of job titles in two schools (one elementary and one high school). The regular education survey was distributed to two elementary classroom teachers and two high school classroom teachers across the same two schools. Pilot testing respondents were asked to complete the questionnaire while on the phone with an AIR researcher. The respondent was asked to complete each section of the survey and then to provide feedback on the survey questions.

In March 2001, surveys were distributed to a sample of special education teachers, related service providers, and regular education teachers in a group of schools approved by the district. A letter from Milwaukee Public Schools accompanied the survey, and surveys were distributed and returned through the Milwaukee Public Schools office. The numbers of respondents are shown in Tables 5-9, which outline the survey results.

## Analysis of Expenditures

The summary expenditure data developed by the research team were based on extant student, fiscal, and school data provided by MPS. The student database maintained by MPS; an approved budget file with actual expenditures (for the 2000-01 school year) and account codes; and a database with a listing of all schools associated with MPS, the grade levels of the schools, school programmatic information, and enrollment were used to develop the expenditure data presented in this report. The student database was used to calculate the full-time equivalency (FTE) that each student spent in the special education programs, and counts of students in each program, by severity level and disability category. Counts of students also were then calculated according to the disability categories used in the expenditure file. Since the budget categories in the

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specific needs” (Problem Solving Procedural Manual, 2000). The following goals are associated with the Problem Solving Model:

- Address student needs at the prevention and early intervention stages of a program whenever possible.
- Create positive learning interventions for regular and special education students.
- Use data-based decision-making to develop effective interventions.
- Develop effective interventions that target the entire situation rather than the individual student.
- Determine special education eligibility using a non-categorical approach that is focused on the identification of special needs and development of specific learning supports.

<sup>8</sup> The IEP is similar to the CST, but interventions and progress monitoring are directly tied to special education eligibility (Problem Solving Procedural Manual, 2000).

expenditure file were not equivalent to the disability and service categories in the student file, some categories in the student file were merged, while some categories in the expenditure file were divided into more specific breakdowns. The expenditure data were then merged with the newly categorized student data to derive the per pupil expenditures presented in this report.

The analysis methods used in this project to measure the special education spending are referred to as the “ingredients” approach, or the *Resource Cost Model* (RCM).<sup>9</sup> The RCM represents a “bottom-up” approach to the collection of data on educational service delivery systems. It organizes information on resources according to the resulting services. These resources include the teachers or paraprofessionals providing these services, the class size or number of students receiving these services at the same time, special equipment, and supplies and materials. Services include classroom instruction, professional development, consultation of resource teachers with regular classroom teachers, pullout programs in resource rooms, integrated services provided in regular classrooms to students with special needs, and overall administration and support.

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<sup>9</sup> For more detailed descriptions of the resource cost model applications, see Parrish (1994) and Chambers & Parrish (1994).

### **III. Findings**

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#### **Introduction**

This section of the report presents results of the MPS SEEP data collection, and is divided into the following five sub-sections:

- Profiles of Milwaukee Special Education Students.
- Profile of Special Education Teachers' Work and Responsibilities.
- Special Education Spending by Budget Category.
- Comparison of Special Education Spending to Allocated Special Education Funds.
- Comparison of Special Education Spending, Allocations of Special Education Funds, and Student Severity.

The first two sub-sections provide a general overview of special education student and teacher characteristics. The following sub-sections then outline spending by budget category and compare expenditures to allocated funds and to student severity.

It should be noted that all tables pertain to the 2000-01 school year, and data for both school-aged and preschool students (when appropriate) are provided throughout the tables. Estimated average expenditures are based on rounded numbers and are not exact.

#### **Profiles of Milwaukee Special Education Students**

Table 1 shows the number of special education students in Milwaukee for the school year 2000-01. These data are derived from Milwaukee Public Schools student demographic data files and special education student data files. These data are broken out by primary disability category, by service category, and by severity in Tables 1 through 3.

As shown, the population of special education students with a learning disability (36.3 percent of special education students) is larger than all other disability categories. Speech or language impairment is the next largest disability category in the district, comprising 16.4 percent of special education students.

**Table 1: Number and Percentage of Special Education Students by Primary Disability Category in MPS, 2000-01**

<b>Disability category</b>	<b>Total number and percentage of special education students in this category</b>
Autistic	325 (2.0%)
Cognitively Disabled	2,568 (16.0%)
Emotionally Disabled	1,569 (9.8%)
Hearing Impaired	208 (1.3%)
Learning Disabled	5,824 (36.3%)
Other Health Impaired	1,759 (10.9%)
Orthopedically Impaired	462 (2.9%)
Significant Developmental Delay	602 (3.7%)
Speech/Language Impaired	2,631 (16.4%)
Traumatic Brain Injury	69 (0.4%)
Visually Impaired	45 (0.3%)
<b>Total</b>	<b>16,062<sup>10</sup> (100%)</b>

Table 2 displays the number and percentage of special education students by service category.<sup>11</sup> The data show that the population of special education students served through a resource room (56.1 percent of special education students) is larger than all other service categories. The second largest category, integrated service in self-contained regular school classrooms, comprises 32.2 percent of special education students.

**Table 2: Number and Percentage of Special Education Students by Service Category in MPS, 2000-01\***

<b>Service category</b>	<b>Total number and percentage of special education students in this category</b>
Consulting Teacher	15 (0.1%)
Itinerant Service to Child in Regular School	747 (4.7%)
Itinerant Service to Child in Home/Hospital	13 (0.1%)
Itinerant Service to Child in Other	37 (0.2%)
Resource Room	9,011 (56.1%)
Self-Contained Classroom in Regular School	778 (4.8%)
Self-Contained Integrated Classroom in Regular School	5,171 (32.2%)
Special School	282 (1.8%)
<b>Total</b>	<b>16,054 (100%)</b>

\* 8 students missing data

<sup>10</sup> This total number of students was derived from MPS’s student database. The total number of students derived from MPS’s expenditure database is slightly different: 16,359.

<sup>11</sup> See Appendix C for definitions of Educational Environments, as defined by the Office of Special Education Programs (OSEP), U.S. Department of Education.

The distribution of special education students in MPS by student severity level is shown below in Table 3. Milwaukee Public Schools classifies special education students using a four-level scale: Mild (1), Moderate (2), Severe (3), and Profound (4). MPS, however, does not typically distinguish between levels 3 and 4 (Severe and Profound). Thus, these two levels have been combined for all analyses. Over half of the students served (58.7 percent) are classified as mild severity (level 1). Approximately one-third (33.6 percent) of special education students are classified as moderate severity.

**Table 3: Number and Percentage of Special Education Students by Severity Category in MPS, 2000-01\***

Severity category	Total number and percentage of special education students in this category
Mild	9,429 (58.7%)
Moderate	5,396 (33.6%)
Severe/Profound	1,234 (7.7%)
Total	16,059 (100%)

\* 3 students missing data

The table below outlines the number and percentage of special education students receiving the following types of related services: physical therapy, psychological, occupational therapy, and social work services. As shown below, the largest percentage of special education students receive occupational therapy services (3.7 percent of all special education students). The second largest related service category is physical therapy, for which 2.6 percent of all special education students receive related services.

**Table 4: Number and Percentage of Special Education Students in MPS Receiving Related Services, 2000-01**

Related service category	Total number and percentage of special education students in this category
Physical Therapy Services	420 (2.6%)
Psychological Services	188 (1.2%)
Occupational Therapy Services	586 (3.7%)
Social Work Services	46 (0.3%)

### Profile of Special Education Teachers' Work and Responsibilities

The tables in this section summarize information derived from the surveys distributed to a sample of special education teachers, related service providers, and regular education teachers. Additional results of the surveys can be found in Appendix B. The number of respondents is provided in each table.

As can be seen in Table 5, sample special education teachers (including diagnostic teachers) and related service providers (physical therapists, psychologists, occupational therapists, social workers, and speech pathologists) report spending a larger percentage of their time in non-class activities than regular education teachers. Diagnostic teachers and social workers spend the largest percentage of their work hours in non-class activities. Special education teachers spend the smallest percentage of time outside of the classroom, comparable to the regular education teachers.

In regard to non-class activities, teachers reported a range, depending on their job title (Table 5). All types of regular education teachers reported spending the largest percentage of their non-classroom time in preparation and related activities. On average, these teachers spent little time (0-9 percent of total actual work hours) in other non-class activities. This held true for special education teachers as well; however, diagnostic teachers and related service providers' non-classroom activities were distributed to a greater extent among other activities. In particular, all related service providers except social workers reported spending the largest percentage of their non-classroom time in Individual Education Program (IEP) related activities. Diagnostic teachers reported spending on average 41 percent of their actual work hours on IEP related activities.

**Table 5: Average and Percentage of Total Actual Work Hours per Week Spent in Various Types of Non-class Activities: Special Education and Regular Education Teachers**

	<b>Job title</b>	<b>Number of observations (N)</b>	<b>Preparation &amp; related activities</b>	<b>Participation in CST activities</b>	<b>Participation in Problem Solving Model activities</b>	<b>Consultation with other teachers/professional staff</b>	<b>Consultation with parents</b>	<b>IEP related activities</b>	<b>Traveling between sites</b>
<b>Special Education</b>	Special education teacher	219	7.2 (16%)	0.8 (2%)	0.7 (1%)	2.4 (5%)	1.4 (3%)	3.5 (7%)	1.9 (4%)
	Diagnostic teacher	12	2.5 (6%)	1.9 (5%)	0.8 (2%)	5.9 (14%)	2.9 (7%)	16.8 (41%)	1.0 (2%)
	Occupational therapist	3	8.7 (20%)	0.0 (0%)	0.0 (0%)	2.0 (5%)	0.4 (1%)	9.0 (21%)	2.8 (7%)
	Physical therapist	2	2.5 (9%)	0.0 (0%)	0.0 (0%)	1.0 (4%)	0.3 (1%)	2.5 (9%)	0.0 (0%)
	Psychologist	12	3.0 (7%)	2.3 (5%)	5.5 (13%)	3.5 (8%)	2.1 (5%)	7.8 (19%)	1.4 (3%)
	Social worker	10	8.8 (22%)	2.5 (6%)	1.8 (4%)	4.4 (11%)	10.5 (26%)	7.4 (19%)	2.4 (6%)
	Speech pathologist	41	5.1 (12%)	0.6 (1%)	0.1 (0%)	1.5 (4%)	0.9 (2%)	6.7 (16%)	1.3 (3%)
<b>Regular Education</b>	Preschool classroom teacher	18	7.2 (17%)	0.3 (1%)	0.1 (0%)	1.5 (4%)	0.8 (2%)	0.5 (1%)	1.6 (4%)
	Elementary classroom teacher	159	8.0 (18%)	0.8 (2%)	0.7 (2%)	1.9 (4%)	1.3 (3%)	0.6 (1%)	1.4 (3%)
	Middle school classroom teacher	38	11.9 (26%)	2.0 (4%)	2.3 (5%)	4.2 (9%)	2.6 (6%)	0.9 (2%)	3.4 (8%)
	High school classroom teacher	29	8.7 (20%)	0.9 (2%)	0.5 (1%)	1.6 (4%)	0.7 (2%)	0.2 (0%)	1.7 (4%)
	Other	15	7.0 (16%)	1.0 (2%)	0.4 (1%)	2.1 (5%)	2.1 (5%)	1.4 (3%)	2.6 (6%)

Special education teachers and related service providers were asked to report the types of direct services they provide to students. The range of services reported reflected the range of respondents' job titles. The options provided on the survey were as follows:

- Special (self-contained) class.
- Pull-out services: teacher/related service provider pulls students out of their regular or special education classrooms to provide instruction or related services in a separate room.
- In-class services: teacher/related service provider goes into regular or special education classrooms of another classroom teacher to provide instructional or related services – this includes team teaching.
- Separate resource classes (NOT pull-out): students are assigned to teacher/related service provider's classroom for specific periods of the day (e.g., departmentalized setting in secondary school).
- Community-based training: generally for students ages 18-22. Does not include vocational classes that are part of the departmentalized schedule of classes.
- Formal before-school, after-school, or weekend programs (e.g., clubs, sports, daycare).

Respondents reported that they provide multiple types of services. As shown in Table 6, the special education teachers in the sample reported the largest range of direct services. Approximately half reported providing services either through special (self-contained) classes (44 percent) or in-class services (55 percent). Thirty-eight percent reported providing pull-out services; 23 percent separate resource classes; and 18 percent services for formal before-school, after-school, or weekend programs. Only six percent reported providing community based training. Diagnostic teachers and all related service providers primarily provided pull-out services and in-class services.

Special education teachers and related services providers also were asked to report the total number of students served in each of these environments. As shown in Table 7, special education teachers reported serving, on average, the largest number of students in in-class services (24.6) and the fewest students in community-based training (10.7). Diagnostic teachers and related service providers reported varying numbers of students served, though all except speech pathologists reported serving the largest number of students through in-class services. The average number of students served through in-class services ranged from 15.0 (diagnostic teacher) to 36.1 (psychologist). Speech pathologists reported on average serving the largest number of students through pull-out services. It should be noted that these numbers reflect the total number of students served, and not class size. One teacher may serve his/her total number of students across two or more classes.

**Table 6: Percentage of Special Education Teachers or Related Service Providers who Provide Certain Types of Services**

<b>Job title</b>	<b>Number of observations (N)</b>	<b>Special (self-contained) classes</b>	<b>Pull-out services</b>	<b>In-class services</b>	<b>Separate resource classes</b>	<b>Community-based training</b>	<b>Extended time programs</b>
Special education teacher	213	44%	38%	55%	23%	6%	18%
Diagnostic teacher	7	0%	57%	71%	0%	0%	0%
Occupational therapist	3	0%	100%	100%	0%	0%	0%
Physical therapist	2	0%	100%	100%	0%	50%	0%
Psychologist	11	0%	91%	73%	0%	0%	0%
Social worker	10	0%	70%	50%	0%	0%	20%
Speech pathologist	41	5%	98%	63%	0%	5%	2%

**Table 7: Number of Students Special Education Teachers or Related Service Providers Serve, on Average, in Various Environments**

<b>Job title</b>	<b>Number of observations (N)</b>	<b>Special (self-contained) class</b>	<b>Pull-out services</b>	<b>In-class services</b>	<b>Separate resource classes</b>	<b>Community-based training</b>	<b>Extended time program</b>
Special education teacher	176	13.6	14.7	24.6	13.9	10.7	19.8
Diagnostic teacher	6	0.0	1.8	15.0	0.0	0.0	0.0
Occupational therapist	3	0.0	8.5	28.5	0.0	0.0	0.0
Physical therapist	2	0.0	6.5	19.0	0.0	5.0	0.0
Psychologist	6	0.0	17.3	36.1	0.0	0.0	0.0
Social worker	7	0.0	25.7	27.0	0.0	0.0	20.0
Speech pathologist	33	11.5	33.7	19.7	0.0	2.0	8.0

The sample of special education teachers was asked to describe the characteristics of the special (self-contained) classes. Table 8 shows these characteristics, sorted by the primary disability category for students in the class. For this analysis, each class was assigned a disability category, based on whichever disability accounted for 50 percent or more students in the class. If there was no disability that accounted for 50 percent of the students, the class was designated “mixed disabilities.” Classes with 50 percent or more of students with learning disabilities had the highest average class size (24.13 students). These classes, however, also had the lowest contact hours per week (12.02 hours). Contact hours include the hours per week that the teacher is in contact with the students. Alternatively, the classes with primarily autistic and speech/language impaired students had the lowest class sizes (7.50 students and 8.00 students respectively), and the highest number of contact hours per week (34.05 hours and 34.80 hours respectively). Respondents also were asked to report the hours per week various types of staff spend in their classroom providing instructional or related services to their students. Classes with primarily students with developmental delay had the highest number of hours per week of special education assistants (33.65), and classes with primarily autistic students had the highest number of hours per week of health care assistants (18.08). It should be noted the sample size for these types of classes is quite small; for example, only two classes had 50 percent or more developmentally delayed students.

**Table 8: Characteristics of the Special (Self-Contained) Classes by Disability Category**

<b>Disability category</b>	<b>N</b>	<b>Average class size</b>	<b>Average contact hours per week</b>	<b>Average hours per week of special education assistants</b>	<b>Average hours per week of health care assistants</b>	<b>Average hours per week of other special education staff/related service providers (in class)</b>
Autism	4	7.50	34.05	14.33	18.08	3.46
Cognitive disability	19	15.47	19.84	13.07	2.26	3.00
Developmental delay	2	17.00	27.63	33.65	0.00	1.00
Emotionally disabled	8	12.38	29.69	19.04	0.00	1.07
Hearing impairment or deafness	8	12.13	25.92	6.08	0.00	2.73
Learning disability	8	24.13	12.02	0.25	0.00	0.06
Mixed disabilities	37	11.81	26.96	13.20	10.52	11.60
Orthopedic impairment	5	12.60	31.11	10.62	1.20	18.73
Speech or language impairment	2	8.00	34.80	15.00	0.00	9.00

Finally, regular elementary and middle school teachers were asked to describe characteristics of their classrooms. These data provide information on the services special education students receive in regular classrooms. As shown in Table 9 teachers reported that on average there were 4.9 students with disabilities in the regular education classrooms. Over half of these classrooms had students with learning disabilities (66.9 percent) or speech or language impairments (66.9 percent). Few classrooms had students with deaf-blindness (1.3 percent), traumatic brain injury (3.1 percent) or visual impairment or blindness (5.6 percent). Classes had, on average, the highest number of assistance hours from regular teaching assistants or aides (9.9 hours per week), in comparison to special education aides (6.9 hours per week).

**Table 9: Characteristics of Regular Elementary and Middle School Classrooms**

Number of observations	160
Average contact hours per week (with all students in the class)	31.0
Average class size	24.6
Average number of students with disabilities in the class	4.9
Minimum number of students with disabilities in the class	0
Maximum number of students with disabilities in the class	16
Percentage of classrooms reporting having students with the following conditions in their regular classes:	
Autism	18.1%
Deaf-blindness	1.3%
Developmental delay	19.4%
Emotionally disabled	24.4%
Hearing impairment or deafness	13.1%
Cognitive disability	33.8%
Orthopedic impairment	12.5%
Other health impairment	41.3%
Learning disability	66.9%
Speech or language impairment	66.9%
Traumatic brain injury	3.1%
Visual impairment or blindness	5.6%
Average hours per week spent in class:	
Regular teaching assistants or aides	9.9
Special education aides	6.9
Health care assistants	4.3
Related service providers	2.9
Other special education teachers	5.8

## Special Education Spending by Budget Category

Table 10 presents total and per pupil special education spending by budget category for students served in MPS for the school year 2000-01. This information was obtained through the merging of student and expenditure databases provided by MPS, as explained earlier. It should be noted again that the budget categories in the expenditure database were not equivalent to the disability and service categories in the student database. Therefore, adjustments had to be made to both the category breakdowns in the student file and expenditure file to calculate spending in the categories shown below.

The number of students served in Table 10 refers to the total number of students who received services from this budget category. The data indicate that the highest per pupil expenditures are associated with the budget category for visually impaired services (\$26,699 per pupil served). The next highest is associated with hearing impaired services (\$15,806 per pupil served). The total expenditure per pupil served is \$8574.

**Table 10: Special Education Expenditures per Pupil by Budget Category**

<b>Budget Category</b>	<b>Total expenditure</b>	<b>Number of students served</b>	<b>Total expenditure per pupil served</b>
Cognitively disabled—mild (severity levels 1 & 2)	\$13,671,140	2,397	\$5,703
Cognitively disabled—severe (severity levels 3 & 4)	\$2,172,772	228	\$9,530
Early childhood (all special education preschool)	\$11,144,779	1,275	\$8,741
Emotionally disturbed & autistic	\$14,457,432	1,889	\$7,653
Homebound/hospital	\$39,418	13	\$3,032
Hearing impaired	\$3,161,219	200	\$15,806
Learning disabled	\$25,319,411	5,970	\$4,241
Speech/language	\$13,405,439	2,107	\$6,362
Other health and orthopedically impaired	\$5,997,967	2,088	\$2,873
Visually impaired	\$1,148,051	43	\$26,699
Health and nursing	\$249,721	16,359	\$15
Occupational therapy	\$1,681,366	592	\$2,840
Physical therapy	\$1,148,976	426	\$2,697
Psychological	\$11,176,785	16,359	\$683
Social work	\$11,790,633	16,359	\$721
School-age parenting program	\$995,271	16,359	\$61
Other pupil services	\$1,646,783	16,359	\$101
Other staff services	\$109,425	16,359	\$7
Program supervision/coordination	\$7,015,139	16,359	\$429
Fiscal	\$107,700	16,359	\$7
Transportation	\$11,918,433	3,412	\$3,493
Staff training	\$1,907,453	16,359	\$117
<b>Total</b>	<b>\$140,265,313</b>	<b>16,359</b>	<b>\$8574</b>

*Distribution of Severity by Disability Category and Service*

To compare the services provided to the needs of the students in MPS, one can first compare the various disability categories and services for students to the severity level of the students. The following tables present the severity breakdown of students in each disability category (Table 11) and for each service category (Table 12). Since this information was derived from the MPS student database, the disability categories differ somewhat from the budget categories shown above for expenditures.

As can be seen below, the distribution of severity level differs by disability category. For example, the majority (>50 percent) of students classified as cognitively disabled, learning disabled, other health impaired, or speech/language impaired are considered to be of mild severity, while the majority (>50 percent) of students classified as autistic are considered to have severe or profound disabilities. As noted earlier, the majority (58.7 percent) of students across all disability categories are classified as mild, whereas only 7.7 percent have severe/profound disabilities.

**Table 11: Summary (Number and Percentage) of Student Severity Level by Disability Category\***

<b>Disability Categories</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe/ Profound</b>	<b>Total</b>
Autistic	46 (14.2%)	104 (32.0%)	175 (53.8%)	325 (100%)
Cognitively Disabled	1,737 (67.6%)	655 (25.5%)	176 (6.9%)	2,568 (100%)
Emotionally Disabled	433 (27.6%)	887 (56.5%)	249 (15.9%)	1,569 (100%)
Hearing Impaired	28 (13.5%)	96 (46.1%)	84 (40.4%)	208 (100%)
Learning Disabled	4,020 (69.0%)	1,733 (29.8%)	71 (1.2%)	5,824 (100%)
Other Health Impaired	1,049 (59.7%)	635 (36.1%)	74 (4.2%)	1,758 (100%)
Orthopedically Impaired	127 (27.5%)	157 (34.0%)	178 (38.5%)	462 (100%)
Significant Developmental Delay	268 (44.5%)	300 (49.8%)	34 (5.7%)	602 (100%)
Speech/Language	1,669 (63.5%)	787 (29.9%)	173 (6.6%)	2,629 (100%)
Traumatic Brain Injury	30 (43.5%)	26 (37.7%)	13 (18.8%)	69 (100%)
Visually Impaired	22 (48.9%)	16 (35.6%)	7 (15.5%)	45 (100%)
<b>Total</b>	<b>9,429 (58.7%)</b>	<b>5,396 (33.6%)</b>	<b>1,234 (7.7%)</b>	<b>16,059 (100%)</b>

\* 3 students missing data

Table 12 shows that the distribution of severity level also differs by service category. The data show that the majority (>50 percent) of students served through a resource room, through itinerant service in a regular school or other setting, or through a consulting teacher are considered to be of mild severity. In comparison, the majority (>50 percent) of students served through itinerant services in home and hospital are considered to have severe or profound disabilities. In addition, the data show that the largest number (507) of students with severe or profound disabilities are served in a self-contained integrated classroom in a regular school, while the greatest number of students with mild (6,099) and moderate (2,663) disabilities are served in resource rooms.

**Table 12: Summary (Number and Percentage) of Student Severity Level by Service\***

<b>Service</b>	<b>Mild</b>	<b>Moderate</b>	<b>Severe/ Profound</b>	<b>Total</b>
Special School	82 (29.1%)	122 (43.3%)	78 (27.6%)	282 (100%)
Self-Contained Classroom in Regular School	154 (19.8%)	256 (32.9%)	368 (47.3%)	778 (100%)
Self-Contained Integrated Classroom in Regular School	2,523 (48.8%)	2,141 (41.4%)	507 (9.8%)	5,171 (100%)
Resource Room	6,099 (67.7%)	2,663 (29.6%)	246 (2.7%)	9,008 (100%)
Itinerant Service to Child in Regular School	527 (70.6%)	198 (26.5%)	22 (2.9%)	747 (100%)
Itinerant Service to Child in Home and Hospital	1 (7.7%)	2 (15.4%)	10 (76.9%)	13 (100%)
Itinerant Service to Child in Other	27 (73.0%)	9 (24.3%)	1 (2.7%)	37 (100%)
Consulting Teacher	10 (66.7%)	5 (33.3%)	0 (0.0%)	15 (100%)
<b>Total</b>	<b>9,423 (58.7%)</b>	<b>5,396 (33.6%)</b>	<b>1,232 (7.7%)</b>	<b>16,051 (100%)</b>

\*11 students missing data

*Mean Percentage of Time Students Receive Special Education Services by Severity Level and Program*

Another method to explore the services received by special education students in MPS is to examine the mean percent time students receive each service by severity level. Table 13 shows that 82 students with a mild disability are served through a special school, and they spend on average 57 percent of their schooling time in this placement, while 77 students of severe/profound disability are served through a special school and spend on average 93 percent of their time in this environment. It should be noted that the remainder of their school day would be spent in other settings, either for other special education services or in a regular education environment. In most cases the mean percent time spent in a particular service increases with severity. The exceptions include resource room placement and itinerant service in a regular school, which either stay constant or decrease from moderate severity to severe/profound.

**Table 13: Number of Students\* and Mean Percentage of Time of Service by Severity\*\***

	Mild	Moderate	Severe/ Profound
Special School	82 57%	120 72%	77 93%
Self Contained Classroom Regular School	154 48%	256 72%	368 85%
Self Contained Integrated Classroom in Regular School	2,513 56%	2,122 68%	507 81%
Resource Room	5,965 27%	2,463 37%	244 37%
Itinerant Service to Child in Regular School	525 26%	196 33%	21 20%
Itinerant Service to Child in Home and Hospital	1 0%	2 23%	10 84%
Itinerant Service to Child in Other	26 25%	9 46%	1 50%
Consulting Teacher	10 13%	5 46%	0 N/A

\*Total number of students in each service category and severity level is lower than that shown in Tables 2 and 3 due to missing severity and/or service data for students.

\*\*Severe/Profound was calculated by taking the simple average of the mean percentage of time of placement for severe students and profound students.

Table 14 shows the number of students by disability category in each placement, and the mean percentage of time that students of each disability category spend in each placement. For example, the table shows that three autistic students are served through a special school, and they spend on average 97 percent of their schooling time in the special school. Once again it should be noted that the remainder of their school day would be spent in other settings. As discussed earlier, the population of special education students with a learning disability is larger than all other disability categories. The majority of these students (4,479 students) are served through a resource room, and on average spend 35 percent of their schooling time there. The next largest disability category is speech/language impairment. The majority of these students (2,244 students) also spend their time in a resource room, but spend on average only 8 percent of their time there.

When the service distribution for visually and hearing impaired students is examined, it can be seen that most visually impaired students are served through itinerant service in a regular school (16 students) or a resource room (14 students). The students spend 19 percent and 35 percent, respectively, of their time on average in these settings. Most hearing impaired students (115 students) spend their time in self-contained integrated classrooms in regular schools. They spend on average 78 percent of their time in this service category.

**Table 14: Number of Students\* and Mean Percentage of Time of Service by Disability Category**

	Autistic	Cognitively disabled	Emotionally disabled	Hearing impaired	Learning disability	Other health impaired	Orthopedically impaired	Significant developmental delay	Speech/language	Traumatic brain injury	Visually impaired
Special school	3 97%	32 73%	149 79%	14 89%	49 56%	25 58%	0 N/A	0 N/A	0 N/A	1 50%	6 74%
Self contained classroom regular school	188 79%	139 78%	230 69%	17 81%	28 55%	67 60%	96 77%	2 90%	6 33%	5 81%	7 35%
Self contained integrated classroom in regular school	110 77%	1,868 69%	715 61%	115 78%	579 44%	719 56%	247 64%	523 70%	226 62%	33 64%	0 N/A
Resource room	23 55%	481 53%	425 53%	33 43%	4,479 35%	829 37%	90 41%	25 53%	2,244 8%	29 37%	14 35%
Itinerant service to child in regular school	1 5%	28 31%	15 59%	21 18%	428 31%	86 29%	16 17%	49 27%	82 6%	0 N/A	16 19%
Itinerant service to child in home and hospital	0 N/A	1 100%	0 N/A	0 N/A	2 8%	2 25%	8 86%	0 N/A	0 N/A	0 N/A	0 N/A
Itinerant service to child in other	0 N/A	3 57%	1 20%	3 27%	21 28%	6 31%	1 5%	0 N/A	0 N/A	0 N/A	1 60%
Consulting teacher	0 N/A	3 73%	0 N/A	0 N/A	2 8%	4 20%	1 5%	0 N/A	0 N/A	0 N/A	0 N/A

\*Total number of students in each service category and disability category is lower than that shown in Tables 1 and 2 due to missing data.

## Comparison of Special Education Spending to Allocated Special Education Funds

Table 15 compares special education spending to allocations of special education funds by type of school. This table presents both average per pupil and total special education expenditures and allocations for each school type, and the differences between these dollar amounts. In addition, it shows the minimum and maximum differences between per pupil and total special education spending and allocated special education funds for each school type. Expenditure data for the 2000-01 school year were derived from fiscal data provided by MPS, which also provided 2000-01 allocation data for individual schools. Since the purpose of this report is to examine systemwide trends in expenditures and allocations, and due to the questionable reliability of current MPS data by school, we report the data summarized by school type and for the district as a whole, rather than by individual schools.

As can be seen in the table, the difference between allocated funds and spending varies according to the type of school. On average, the data indicate that MPS elementary schools spent \$738 more on special education services than what was allocated per special education student. K-8 schools spent on average \$341 per special education student more than what was allocated, and citywide schools<sup>12</sup> spent \$1,047 more than what was allocated. However, the data indicate that at the middle and high school levels, \$938 and \$1006 less was spent respectively on special education services per special education student than allocated. Allocation data for charter schools were unavailable and are therefore not summarized below.

Though these averages show that some types of schools are spending more on special education than allocated while other types are spending less, within each type of school the data indicate that the range of differences between special education allocations and expenditures is large. For example, elementary school spending ranged from \$4,065 more per special education student than allocated funds to \$5,373 less than allocated funds. This range was similar for citywide schools, where one school spent \$3,719 more than allocated, while another spent \$7,435 less than allocated on a per student basis. The range was smaller for middle schools, from \$1,131 over allocated funds per student to \$2,093 under allocated funds per student. Similarly, high school spending ranged from \$1,991 over allocated funds per student to \$3,456 under allocated funds. There are a significant number of schools with such differences between special education expenditures and allocations.

In summary, the data suggest a disconnect between the funds allocated and the funds spent on special education across the district. Although the total average indicates that schools are underfunded by less than \$50 per student, the differences for individual schools are often quite substantial. Variations are also shown by type of school, with middle and high schools appearing over funded and all other types of schools under funded for special education. This raises questions as to whether the data accurately reflect the situations of schools in Milwaukee, and if yes, whether the district special education funds are being directed to where they are most needed. These questions will be further explored in the next sub-section.

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<sup>12</sup> Citywide schools can be considered as magnet schools in that they serve students from all areas of the city.

**Table 15: Special Education Expenditures Compared to Special Education Allocation in MPS**

School type	N	Average special education expenditure per special education student	Average special education allocation per special education student	Difference between average per student allocation and expenditure <sup>5</sup>	Range of differences in per student allocation and expenditure <sup>5</sup>		Total special education expenditure	Total special education allocation	Difference between total allocation and expenditure <sup>5</sup>	Range of differences in total allocation and expenditures <sup>5</sup>	
					Min	Max				Min	Max
Elementary <sup>1</sup>	81	\$7,151	\$6,413	(\$738)	(\$4,065)	\$5,373	\$44,444,575	\$39,859,616	(\$4,584,959)	(\$401,815)	\$268,659
Middle	21	\$5,246	\$6,184	\$938	(\$1,131)	\$2,093	\$14,688,409	\$17,314,060	\$2,625,651	(\$40,729)	\$277,231
High <sup>2</sup>	16	\$5,401	\$6,407	\$1,006	(\$1,991)	\$3,465	\$16,721,627	\$19,835,378	\$3,113,751	(\$79,212)	\$609,881
K-8	9	\$6,940	\$6,599	(\$341)	(\$6,271)	\$1,219	\$6,162,968	\$5,860,058	(\$302,910)	(\$189,725)	\$118,243
Citywide <sup>3</sup>	24	\$6,704	\$5,656	(\$1,047)	(\$3,719)	\$7,435	\$9,854,369	\$8,314,614	(\$1,539,755)	(\$312,382)	\$141,274
Charter <sup>4</sup>	3	\$7,834	N/A	N/A	N/A	N/A	\$2,655,838	N/A	N/A	N/A	N/A
Total	154	\$6,350	\$6,302	(\$48)	(\$6,271)	\$7,435	\$91,871,949	\$91,183,726	(\$688,223)	(\$401,815)	\$609,881

<sup>1</sup> Excluding Congress and Hi-Mount where special education allocation was blended with general fund.

<sup>2</sup> Excluding Milwaukee Entrepreneurship and New School for Community Service, both of which are new schools with special education allocation blended with general fund.

<sup>3</sup> Excluding Career Training and Assessment, a school-to-work program for which special education funds are allocated across high schools.

<sup>4</sup> Excluding Highland Montessori School and Westside I for which expenditure data were unavailable.

<sup>5</sup> Parentheses signify a negative difference. For these schools, spending exceeded allocated funds.

## Comparison of Special Education Spending, Allocations of Special Education Funds, and Student Severity

As explained earlier, MPS classifies special education students using a four-level scale: mild (1), moderate (2), severe (3), and profound (4), but does not typically distinguish between levels 3 and 4 (severe and profound). For each school in MPS, the percentage of students falling into levels 3 and 4 (the two most severe levels) was computed to compare the level of per student spending and allocation at schools with relatively large percentages of these more severe students to the level of spending at schools with lower percentages of severe students.<sup>13</sup> The expectation is that schools with greater percentages of more severe students would receive and consequently spend more special education funds on a per student basis.

Below, we include a table showing all schools in MPS, grouped by the percentage of students who have severe/profound disabilities. Separate tables for each type of school can be found in Appendix D. It should be noted that due to varying sample sizes, the categories of percentage of most severe students differ for each type of school. For smaller sample sizes some categories are aggregated. Charter schools are not included due to the lack of available allocation data.

As mentioned, the hypothesis in evaluating the relationship between special education funds spent and student need is that schools with a high percentage students with severe and profound (levels 3 and 4) disabilities would likely have higher per student allocation and spending levels since these students would be more likely to require additional and more comprehensive services. As shown below in Table 16, for all Milwaukee public schools, per pupil special education allocation steadily rises as the percentage of students with disabilities in levels 3 and 4 increases. In general, per pupil special education spending follows a similar trend. However, for schools in the range of 5.0-19.9 percent of students in levels 3 and 4, average special education spending per student slightly decreases.

Although Table 16 demonstrates generally rising per student spending and allocation amounts with increasing percentages of students in levels 3 and 4 on average, the data indicated a range in per student spending and allocation for individual schools, with some schools spending a higher per pupil amount for students with lower severity levels than for those with higher severity levels. The allocation of funds shows similar deviations from what might be expected. It should also be noted that on average those schools with the highest percentage of severe students show the greatest discrepancy between the special education funds received and what they spend.

When expenditures and allocations are examined by school type, the trends are approximately consistent with those discussed above. Allocation in general increases with severity; however, expenditures do not always show a distinct upward trend. For example, for middle schools, per pupil spending is higher for schools with 10-14.9 percent of students in severity levels 3 and 4 (\$5984) than for schools with 15.0 percent and higher of students in severity levels 3 and 4 (\$5374). For citywide schools, spending and allocation are both lower for the 5.0-9.9 percent range than for the 0.0-4.9 percent range.

Overall, there are upward trends corresponding to the severity level of students served, however the range of expenditures and allocations for each range of severity is quite large. Thus, the data

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<sup>13</sup> The percentage of students in severity levels 3 and 4 was calculated using the total full-time equivalency (FTE) of special education students in each school and the total FTE of special education students for levels 3 and 4 in each school. If a student was considered mild severity and participated in special education programs for 25% of his/her school day, this student would be considered a 0.25 FTE in level 1.

indicate that some schools with relatively high percentages of severe students spend a lower amount on special education, on a per pupil basis, than schools with much lower percentages of the most severe students. In addition, some of these schools are allocated a smaller amount of funds on a per pupil basis than schools with students of lower severity. For example, when elementary schools are examined, it is found that the minimum school expenditure for schools with the highest percentage of most severe students is \$5,371 per pupil. The minimum allocation is \$2,853 per pupil. These amounts are both below the average expenditure and allocation for schools with the lowest percentage of severe students. In addition, the data indicate that the allocation is below the *minimum* allocation of schools with the lowest percentage of most severe students.

This once again raises questions as to whether the district special education funds are being directed to where they are most needed, as well as questions of the ability of Milwaukee's current data to support such analyses. These questions will be further explored in the next sub-section.

**Table 16: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: All MPS Schools\***

Percentage of special education students in levels 3 and 4	Number of schools	Average special education expenditures per special education student	Average special education allocation per special education student	Difference between average per student allocation and expenditures**	Range of differences in per student allocations and expenditures			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-4.9%	57	\$5,642	\$5,583	(\$59)	\$2,001	\$11,397	\$3,124	\$10,148
5.0%-9.9%	32	\$6,220	\$6,199	(\$21)	\$3,887	\$10,334	\$4,396	\$9,351
10.0%-14.9%	24	\$6,198	\$6,363	\$164	\$3,858	\$9,113	\$4,587	\$9,376
15.0%-19.9%	15	\$6,123	\$6,463	\$340	\$3,729	\$10,894	\$4,331	\$10,208
20.0%-24.9%	7	\$7,331	\$7,452	\$121	\$3,690	\$10,234	\$6,229	\$8,423
25% and higher	16	\$8,586	\$7,803	(\$783)	\$5,013	\$12,262	\$2,853	\$11,043

\* Excluding Congress, Hi-Mount, Milwaukee Entrepreneurship, New School for Community Service, Career Training and Assessment, and all charter schools

\*\*Parentheses signify a negative difference. For these schools, spending exceeded allocated funds.

## **IV. Conclusions and Recommendations**

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### *Conclusions*

MPS contracted with AIR for assistance in better understanding the amount spent on special education by school and the types and quantities of special education services being provided. A second purpose was to consider how funds should be distributed to local schools to best meet the needs of its special education students. This study examined the patterns of variation in allocation and spending and the relationship of these variations to the severity level of students served.

From the teacher survey, it was found that diagnostic teachers and social workers spent the largest percentage of their workdays in non-class activities, when compared to other special education teachers and related service providers. Special education teachers spent the largest percentage of non-classroom time in preparation and related activities, while diagnostic teachers spent the largest percentage (41 percent) of their non-classroom time in Individual Education Program (IEP) related activities. All related service providers except social workers reported spending the largest percentage of their non-classroom time in IEP related activities.

To examine how money has been spent on special education students in MPS, per pupil expenditures were examined by budget category. These budget categories contained a broad range of services including delineations by category of disability, related services such as transportation, and support activities such as fiscal services. While these categories may suffice for strict accounting purposes, this mix of categories of disability, related and support services are not well suited for supporting the district's program administration and monitoring needs. It should be noted that adjustments had to be made in the categories of students served in order to match the expenditure files to the student files. Since the budget categories in the expenditure file were not equivalent to the disability and service categories in the student file, some categories in the student file were merged, while some categories in the expenditure file were divided into more specific breakdowns. This process raises questions about the availability of accurate data for this analysis. Nonetheless, the data obtained indicated that the largest of the budget categories was for Learning Disabled services with over \$25 million in expenditures.

We consider measures of student need to be an essential component for considering the appropriate allocations of resources. The data indicated that the majority (>50 percent) of students classified as cognitively disabled, learning disabled, other health impaired, or speech/language impaired are considered to be of mild severity, while the majority (>50 percent) of students classified as autistic are considered to have severe or profound disabilities. The majority (58.7 percent) of students across all disability categories are classified as mild, whereas only 7.7 percent have severe/profound disabilities. If student severity is to become an important component in considering appropriate special education school allocations, which we recommend below, MPS may wish to review their current process for determining student severity to ensure that their methods are accurate and reliable.

Allocations of special education funds by school type were compared to actual spending across the district. The data indicated that the average difference depended on school type: for elementary, K-8, and citywide schools, spending exceeded allocated funds, while middle and high schools spent less than the allocated fund amount. Overall, the district spent \$48 per pupil more on special education than allocated. This relatively small district-wide variation, however, masks differences that were present within individual schools. These results raise questions about the appropriate link between special education allocations and expenditures.

Special education spending and allocation were then compared to the severity level of students served. These analyses revealed a general trend in allocation that corresponded to severity: schools with the highest percentage of most severe students on average were allocated more per pupil than those with low percentages of the most severe students. The trend was less evident with actual spending. Although there was still a general upward trend in average per pupil spending that corresponded to increasing severity of students, the trend was not continuous, and not evident at all levels of schools. In addition, at closer examination, substantial differences in allocation and spending were sometimes revealed at the school level. Thus, although the average of spending and allocation in general increased with severity level, a number of schools varied from this trend.

### *Recommendations*

In addition to providing a better understanding of the amount spent on special education and the types and quantities of special education services provided, an important purpose of this study was to consider how funds should be distributed to local schools to best meet the needs of special education students. We recommend a strong linkage between student need, resource allocation, and spending. Many states and districts in the U.S. currently lack such a distribution system.

The major analyses for this study were based on a conceptual framework for considering the allocation of special education funds to schools, and then comparing the current system against these criteria. This framework can be simply expressed through the comparison of three measures: variations in student need for services, the supplemental funds received at each school to provide these services, and average special education spending. The underlying principle for this conceptual framework is that the amount of supplemental funding a school receives should be tied to the special education needs of its students, and that these funds should then be converted into special education services. To operationalize this principle and to compare current MPS practices in relation to it, supplemental funding equals the special education allocation received by each school, while the best available proxy measure for student need is student severity (as measured by MPS). Special education spending was used to measure the extent to which special education funds were actually used to provide special education services (as opposed to other services). The underlying principle of allocating limited funds where needs are the greatest is best supported to the extent that alignment is observed between the need for special education services, supplemental allocations of funds, and special education spending. Schools enrolling students with the greatest need for special education services should get the most supplemental funding and should consequently be spending the most, on average, per special education child. A future goal would be to link student outcomes to this chain of relationships.

The available data indicated that while general alignment across these three measures was found for the district as a whole, for many schools they appeared disparate. A number of schools showing high student need (in terms of relatively high percentages of students with higher levels of severity of disabling condition) received relatively small amounts of supplemental resources per special education student. In addition, these schools were found, or were not found, to be spending larger amounts on special education services per student. Overall, the links between the special education needs of the students enrolled in each school, the funding received from the district, and the amount spent on special education services do not appear to align well for many MPS schools.

One potential explanation for the results of this study is that the current MPS data system does not allow a straightforward analysis of the links outlined above: student need, allocation of special education funds, and special education spending. The current data system, which consists of disparate files of student data and expenditure data, prevented such a straightforward analysis. Thus, it is not possible to determine if the magnitude of the differences revealed is due to actual disparities in allocations and expenditures, or if the data system does not allow accurate disaggregation of spending across MPS schools. As mentioned

previously, the budget categories in the expenditure file do not currently align with the disability categories and service categories of the student data file. In addition, the budget categories are a mix of various types of categories, ranging from support services to disability categories. A data system that tracks student need, allocation, and special education spending, all based on a common core of services and/or disabilities, would allow the analysis of the links between the three measures, implementation of an allocation system based on these measures, and the monitoring of the links over time.

The challenge is to implement a special education allocation system that is designed with the links between student need, special education resources, and school spending in mind. Such a system should maintain these links despite the changing landscape of education encountered by districts today. The allocation system in MPS, like that of many districts and states in the U.S., was not designed with this conceptual framework in mind.

Marked changes over the past decade in schooling services in general, and special education in particular, have created many challenges for districts, increasing the importance of such a tracking and monitoring system. Before, school attendance zones were much more clearly defined and generally followed. If a student lived at a certain address and was in a certain grade, the student's school assignment, as made by the district, was generally known and was not disputed. Schools could expect the full distribution of students from their attendance zone and plan accordingly. For the majority of special education students, these same principles of school assignment held. Some special education students, generally with more severe disabling conditions and therefore greater needs, were assigned to self-contained classrooms at designated schools, or perhaps to special schools. These were often organized by primary category of disability. Still, however, schooling assignments were generally well known and students with similar categories of disability were grouped fairly homogeneously.

In the current era, many of these rules for determining the school a student will attend have changed. Student and family choice is much more predominant, with charter, magnet, other forms of public schools, and voucher schools available to students and their families. At the same time that greater choice abounds, renewed emphasis is also being placed on the value of attending neighborhood schools. The result is that the school assignment process has become measurably more complex. School enrollment patterns have become much more difficult to predict. At the same time, planning school services, determining appropriate allocations of resources to each school, and allocating funds in a way that creates incentives for enrolling and appropriately serving students with special needs has become much more difficult.

These processes have been further exacerbated within special education. Under greater choice, schools may not feel the same obligation to serve all of the students in their local area regardless of any special needs they may have. In addition, many schools, e.g. charter, magnets, and voucher schools, often will not have clearly established attendance zones. While MPS is still required to meet the special education needs of these children in some school, the choice that is available to other students may not pertain in a meaningful way to those in special education. With greater choice all schools may become increasingly reluctant to serve high need students when the financial support they require does not follow them. Even when resources do appropriately follow students, increased tracking and monitoring is needed to ensure that they translate into appropriate services and educational results.

Special education has also changed through a new emphasis on mixed groupings of students and increased emphasis on inclusive services. More students with complex needs are now being served in regular education classrooms along with non-disabled students. Inclusion can provide considerable benefits to disabled and non-disabled students alike when properly administered. However, it can also perform a considerable disservice to both populations if appropriate support services do not follow children with severe disabilities into inclusive situations.

Thus, it has never been more important that the supplemental resources a child with special needs requires follow the child to the school and into whatever type of service arrangement is most appropriate for the student. Such a system could be designed to create incentives for schools to enroll students with disabilities and to serve them in inclusive settings when most appropriate to the needs of the child. If the system is based on need, the alignment between the needs of students enrolled at a school and the supplemental special education resources available to meet those needs should be strong. With proper tracking and monitoring, it should be possible to also ensure that these resources are converted into the supplemental services for students with disabilities, and ultimately to successful student outcomes.

How might such a system be realized? Supplemental funding would be allocated on an individual student basis. The amount of funding for each student could be based on the specific mix of services (s)he receives, as specified in his/her IEP, or could be based on student characteristics. For the former, expenditure estimates for individual services could be derived by basing total funding on the mix of services assigned to each student. For the latter, allocations could be based on estimates of the student's overall severity (e.g. as summarized in the categories of severity currently used by the MPS) or on a matrix specifically designed to delineate the many student characteristics that should be considered in deriving the relative severity of a child's condition as well as a system for quantifying severity.

One example of such a matrix is the "Abilities Index" developed by Rune Simeonsson and Donald Bailey of the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill.<sup>14</sup> It is a functional assessment where the focus of the measures is the different functional abilities of the student in nine different domains: audition, behavior, intellectual functioning, limbs, intentional communication, tonicity, integrity of health, eyes, and structural status. Once implemented, this index could provide an ongoing check on the alignment between student severity, funding, the services provided, and student outcomes. See Appendix E for a description and example of the Index. Estimates of the funding to be associated with each service or each condition could be created especially for MPS or derived from national SEEP estimates. If MPS is interested in pursuing such options, further research regarding the measures to be used, associated funding, and implementation would be needed.

In addition to providing the basis of an alternative funding system for the district, such a system based on the needs and characteristics of students could provide the basis for future budgeting. This would replace the current budgeting categories, which appear to be an odd mix of categories of disability, related services, and support activities. Category of disability is generally a fairly poor proxy for variations in spending or cost. The needs and characteristics of the students the schools enroll could provide the basis for a comprehensive system for budgeting, allocating, and tracking special education resources and their use.

A logical follow-up to the development of such a student-driven system would be to track and link measures of student performance. This would join the specification of adequate resources, and the extent to which these resources are actually following students, to measures of the academic, social, and physical benefits they may be deriving from these resources. Coupling rational systems of resource allocation to student outcomes could provide information on the relative efficiency of the system. What combinations of interventions work well for children? Which work best for a particular child, type of child, or mix of children? How can the resources available to the district to meet the needs of its special education students be used to derive maximum possible benefit to its beneficiaries?

A next logical step on the path to a long-term goal of developing efficiency indicators for the district would be to continue to track and measure the alignment of student severity, special education

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<sup>14</sup> See Simeonsson, R., et al. (1995).

allocations, special education spending, and measures of program results. If appropriate education outcomes are not being realized, the students' needs should be reconsidered, as well as the amount of funding and the mix of services being provided.

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***Appendix A: National SEEP Report Topics and Research Questions***

***National SEEP Report Topics***

The series of national SEEP reports will provide descriptive information on the following issues:

- What are we spending on special education services for students with disabilities in the U.S.?
- How does special education spending vary across types of public school districts?
- What are we spending on due process for students with disabilities?
- What are we spending on transportation services for students with disabilities?
- How does education spending vary for students by disability and what factors explain differences in spending by disability?
- What role do functional abilities play in explaining spending variations for students with disabilities?
- What are we spending on preschool programs for students with disabilities?
- Who are the teachers and related service providers who serve students with disabilities?
- How are special education teaching assistants used to serve students with disabilities?
- What are we spending on special education services in different types of schools?
- How does special education spending vary across states classified by funding formula, student poverty, and income levels?

*Detailed Description of National SEEP Research Questions*

**1. What are the detailed average special education and general education per student expenditures for special education students, and how do they vary by type of student, school, placement, district, and state?**

- 1.1 How much is spent on the identification and assessment of special education students?
  - 1) What are the various forms of pre-referral activities (i.e., determining the initial eligibility of a potential special education student) currently in practice and what is spent on them?
  - 2) What is spent on developing an IEP?
  - 3) What is spent on maintaining an IEP?
  - 4) What is spent on the assessment of special education students?
  - 5) What is spent on developing standards to assess student performance?
- 1.2 What are the per student expenditures for personnel?
  - 1) What is spent on instructional personnel?
  - 2) What is spent on administrative personnel?
  - 3) What is spent on other staff?
- 1.3 What are the per student expenditures for facilities, supplies, and technological supports?
- 1.4 What are the per student expenditures for transportation?
- 1.5 What are the per student expenditures for mediation and litigation?
  - 1) What are the per student expenditures for implementation of due process, mediation, and dispute resolution?
  - 2) What are the per student expenditures on litigation regarding placement decisions and what potential impact might this have on future expenditures on special education?
  - 3) What is the relationship between expenditures on mediation and expenditures on litigation?
- 1.6 What are the resources devoted to meeting the needs of students diagnosed as severely emotionally disturbed?

- 1.7 What are the average per student expenditures devoted to encouraging parental involvement?
- 1.8 What are the per student expenditures for other indirect costs, administrative and otherwise?
- 1.9 What are the per student general education expenditures for special education students?
- 1.10 What are the expenditures on the various special education programs and services received by special education students (e.g., general education classroom placement, special classrooms, and therapies)?
- 1.11 How do the above expenditures vary by type of student, placement, school, district, and state?
  - 1) Student characteristics:
    - Grade level
    - Age
    - Race/ethnicity
    - Gender
    - SES
    - Disability type
    - Cognitive/physical/behavioral needs
  - 2) Placement type:
    - Integrated public school
    - Regular classroom
    - Resource room
    - Special classroom
    - Related service room
    - Separate public school
    - Private school
    - Residential
  - 3) School characteristics:
    - Size
    - Type (e.g., elementary, secondary, charter, magnet, alternative, cluster)
    - Poverty level

- Urban/suburban/rural status
- Race/ethnicity
- Language fluency
- Quality (e.g., teacher credentials, teacher mobility, teacher-to-student ratios)
- Environment (e.g., violence level, student mobility)
- 4) District characteristics:
  - Size
  - Poverty level
  - Urban/suburban/rural status
  - Race/ethnicity
  - SES (e.g., assessed property values per student, median household income)
  - District-to-school funding allocation formulas
  - District philosophy (site-based decision-making, amount of auxiliary services)
- 5) State characteristics:
  - State-to-district funding allocation formulas
  - State regulations regarding service provision
  - State policies regarding identification
  - State philosophy (devolution to districts)

**2. How do identification rates vary by type of school, district, and state?**

- 2.1 What are the identification rates for students with specific types of disabilities?
- 2.2 How do the above rates vary by type of school, district, and state?

**3. What are the emerging interactions among programs and blending of funds from education and other social service agencies to provide mandated services for students, and how do these vary by school, district, and state?**

- 3.1 How do special education programs and services interact with general education, Title I, programs for limited-English proficient (LEP) students, and programs for migrant populations?

- 3.2 What other kinds of social service agencies (e.g., public health, Medicaid, mental health, law enforcement, or social services) are involved in direct provision or financial support of services to students with disabilities? What specific services are provided? To what extent do these other social service agencies provide financial support for services provided within the schools? For example, to what extent have districts pursued Medicaid billing? What are the implications of the schools being the payer of last resort?
- 3.3 How do these interactions with other programs and other social service agencies vary by level (elementary versus secondary), program (e.g., general education, Title I, LEP), or poverty of students (e.g., percent eligible for free lunch)?
- 3.4 What impact has the new flexibility to blend funds to implement school-wide projects had on resource allocation to special education?
- 3.5 What percentage of federal special education “set aside” funds (Sec. 619) is retained at the state and how are these funds utilized? To what extent are these funds utilized for administration versus technical assistance, professional development, establishment of standards or assessment programs, or coordination with other programs?

**4. What are the expenditure and service implications of the newly reemphasized movement to serve special education students in the least restrictive environment?**

- 4.1 How do integration/mainstreaming practices vary by type of student, school, district, and state?
- 4.2 What are the excess expenditures on special education students in the LRE compared to other environments?
- 4.3 What impact does the movement towards more integrated/mainstreamed placements have on per student expenditures for the population of general education students who are affected?

**5. How does the funding and provision of special education compare to and affect the funding and provision of general education, and how does this vary by type of school, placement, district, and state?**

- 5.1 What is the share of total expenditure that goes to special education?

- 5.2 To what extent are special education resources used to serve general education students?
- 5.3 To what extent are general education resources used to serve special education students?
- 5.4 How do the above shares vary by type of school, placement, district, and state?
- 5.5 How, at the district level, does the amount spent on special education match up with the amount of resources targeted towards special education, and how does this vary by type of district and state?

**6. How has the distribution of resources allocated to special education changed in relation to other resources over time: specifically, how do present findings compare to findings of previous national studies, such as Moore et al. (1988)?**

- 6.1 How have per student expenditures for special education and general education services changed over the past decade, and has the ratio of special-to-general education expenditures per student changed?
- 6.2 How has the percentage of support for special education expenditures from federal, state, local public, and local private sources changed over time?

**7. What are the characteristics of and expenditures on programs and services for preschool special education students?**

- 7.1 What percentage of three-to-five year-old children identified as having special education needs are served in various settings (e.g., segregated public special education preschool, integrated public or private preschools, integrated or segregated public kindergarten)?
- 7.2 What are the per student expenditures for preschool students outlined in Question 1.1-11 above?
- 7.3 What are the differences in the services provided to preschool special education students and K-12 special education students, and what are the implications of these differences for per student expenditures?
- 7.4 How are preschool services organized and funded by states? What are the implications of these provisions for the special education services provided?

7.5 What are state provisions regarding universal preschool, and what are the cost and service implications for the three-to-five year-old special education population?

7.6 How do preschool programs interact with other instructional or related service programs (e.g., Head Start) and how are these services coordinated?

**8. What are the total current and projected costs of special education?**

8.1 What is the total expenditure for special education services by SEAs? What is the total expenditure for special education services by LEAs? What is the total expenditure (in billions of dollars) for special education services in the U.S.?

8.2 What is the amount of fiscal year 1998 increased funding that was offset through states and local districts reducing planned increases in special education funding? Given the exceptions allowed under IDEA 1997 to the LEA requirement to maintain spending at the level of the prior year, what reductions in special education funding occurred in fiscal year 1998?

8.3 What is the expected offset of funding once the amounts appropriated for state grants exceed \$4.1 billion? In addition to the new exceptions to LEA maintenance of effort requirements, what is the expected impact of new provisions allowing localities to treat up to 20 percent of the increase in federal funds over the prior year as local funds once the amount exceeds \$4.1 billion?

***Appendix B: Additional Results of the Teacher Survey***

**Table B-1: Average Paid Hours per Week of Work and Average Actual Hours of Work per Week**

	<b>Job title</b>	<b>Number of observations (N)</b>	<b>Paid hours per week of work</b>	<b>Actual hours per week of work</b>
<b>Special Education</b>	Special education teacher	219	40.0	46.1
	Diagnostic teacher	12	40.0	41.2
	Occupational therapist	3	40.0	42.7
	Physical therapist	2	32.0	27.5
	Psychologist	12	40.0	41.4
	Social worker	10	40.3	40.0
	Speech pathologist	41	40.0	40.8
<b>Regular Education</b>	Preschool classroom	18	40.0	42.9
	Elementary classroom	159	40.0	43.9
	Middle school classroom	38	40.0	45.0
	High school classroom	29	40.0	43.7
	Other	15	40.0	43.4

**Table B-2: Percentage of Special Education and Regular Education Teachers Working in Other Schools or the District Office**

	Job title	Number of observations (N)	Percentage of personnel reporting they serve one school	Percentage of personnel reporting they serve two schools	Percentage of personnel reporting they serve 3+ schools	Percentage of personnel report they serve part of work week in district office
<b>Special Education</b>	Special education teacher	219	100%	0%	0%	1%
	Diagnostic teacher	12	17%	66%	17%	42%
	Occupational therapist	3	100%	0%	0%	0%
	Physical therapist	2	50%	50%	0%	0%
	Psychologist	12	42%	33%	25%	42%
	Social worker	10	10%	70%	20%	20%
	Speech pathologist	41	73%	17%	10%	27%
<b>Regular Education</b>	Preschool classroom	18	100%	0%	0%	0%
	Elementary classroom	159	100%	0%	0%	0%
	Middle school classroom	38	100%	0%	0%	0%
	High school classroom	29	100%	0%	0%	0%
	Other	15	93%	7%	0%	7%

**Table B-3: Percentage of Special Education Teachers or Related Service Providers who Provide Services in Special Classes, Pull-out Programs, In-class Settings (Regular and Special Education Classes): Problem Solving Model Schools Only**

<b>Job title</b>	<b>Number of observations</b>	<b>Special (self-contained) classes</b>	<b>Pull-out services</b>	<b>In-class services</b>	<b>Separate resource classes</b>	<b>Community-based training</b>	<b>Extended time programs</b>
Special education teacher	37	35%	49%	70%	11%	0%	11%
Diagnostic teacher	1	0%	0%	100%	0%	0%	0%
Psychologist	5	0%	80%	80%	0%	0%	0%
Social worker	3	0%	100%	67%	0%	0%	0%
Speech pathologist	8	13%	100%	75%	0%	13%	0%

**Table B-4: Percentage of Special Education Teachers or Related Service Providers who Provide Services in Special Classes, Pull-out Programs, In-class Settings (Regular and Special Education Classes): Non-Problem Solving Model Schools Only**

<b>Job title</b>	<b>Number of observations</b>	<b>Special (self-contained) classes</b>	<b>Pull-out services</b>	<b>In-class services</b>	<b>Separate resource classes</b>	<b>Community-based training</b>	<b>Extended time programs</b>
Special education teacher	176	45%	36%	52%	26%	7%	19%
Diagnostic teacher	6	0%	67%	67%	0%	0%	0%
Occupational therapist	3	0%	100%	100%	0%	0%	0%
Physical therapist	2	0%	100%	100%	0%	50%	0%
Psychologist	6	0%	100%	67%	0%	0%	0%
Social worker	7	0%	57%	43%	0%	0%	29%
Speech pathologist	33	3%	97%	61%	0%	3%	3%

**Table B-5: Characteristics of the Special (Self-contained) Classes by Age Group\***

Age group	Number of observations	Average class size	Average contact hours per week	Average hours per week of special education assistants	Average hours per week of health care assistants	Average hours per week of other special education staff/related service providers (in-class)
3 through 5 years	14	10.79	27.72	17.36	6.43	8.21
6 through 11 years	19	8.63	29.67	22.62	6.20	8.27
12 through 17 years	12	15.00	19.05	6.33	0.00	5.94
18 through 22 years	1	14.00	6.00	30.00	0.00	4.00
Mixed age group	47	16.04	24.38	7.84	6.44	6.32

\*Age group of the class is classified according to the majority of students. If 50 percent or more are in a certain age group then the class is classified by that age group. If no age group accounts for 50 percent of the students then the class is classified as mixed.

**Table B-6: Characteristics of Pull-out Programs by Age Group\***

Age group	Number of observations	Contact hours per week	Average total # of students served from regular ed. classes	Average total # of students served from special ed. classes	Average total # of regular ed. classrooms served	Average total # of special ed. classrooms served	Average # of non-special ed. students served
All age groups combined	81	15.55	12.27	6.22	4.99	1.94	2.42
3 through 5 years	0	N/A	N/A	N/A	N/A	N/A	N/A
6 through 11 years	32	17.86	10.87	4.35	4.07	0.75	2.41
12 through 17 years	15	12.37	11.79	6.57	4.86	3.00	4.53
18 through 22 years	0	N/A	N/A	N/A	N/A	N/A	N/A
Mixed age group	34	14.77	13.90	7.55	5.88	2.42	1.45

\*Age group of the program is classified according to the majority of students. If 50 percent or more are in a certain age group then the program is classified by that age group. If no age group accounts for 50 percent of the students then the program is classified as mixed.

**Table B-7: Characteristics of In-class Programs by Age Group\***

<b>Age group</b>	<b>Number of observations</b>	<b>Contact hours per week</b>	<b>Average total # of students served from regular ed. Classes</b>	<b>Average total # of students served from special ed. classes</b>	<b>Average total # of regular ed. classrooms served</b>	<b>Average total # of special ed. classrooms served</b>	<b>Average # of non-special ed. students served</b>
All age groups combined	117	14.96	20.79	7.84	2.63	0.79	14.68
3 through 5 years	13	22.92	20.92	8.58	1.25	0.80	19.92
6 through 11 years	40	18.12	25.38	7.56	1.92	0.55	19.46
12 through 17 years	21	9.02	15.74	9.31	2.95	0.92	6.42
18 through 22 years	0	N/A	N/A	N/A	N/A	N/A	N/A
Mixed age group	43	12.52	18.69	7.17	3.50	0.95	12.54

\*Age group of the program is classified according to the majority of students. If 50 percent or more are in a certain age group then the program is classified by that age group. If no age group accounts for 50 percent of the students then the program is classified as mixed.

**Table B-8: Ways in which Students with Disabilities Participate in Integrated Classrooms (As Reported by Special Education Teachers)\***

<b>Disability category</b>	<b>N</b>	<b>Percentage of students with disabilities who participate with teacher assistance</b>	<b>Percentage of students with disabilities who participate in modified activities</b>	<b>Percentage of students with disabilities who participate in separate activities</b>
All disabilities combined	117	73.81	25.60	12.41
All other disabilities combined	107	72.72	25.76	11.70
Cognitive disability	3	85.00	90.00	90.00
Emotionally disabled	1	100.00	0.00	0.00
Learning disability	5	83.00	8.33	5.00
Speech or language impairment	1	100.00	0.00	0.00

\*The primary disability of the class is classified according to the majority of students. If 50 percent or more are in a certain disability classification, then the class is classified by that disability.

**Table B-9: Ways in which Students with Disabilities Participate in Integrated Classrooms  
(As Reported by Regular Education Teachers)\***

<b>Disability category</b>	<b>N</b>	<b>Percentage of students with disabilities who participate with teacher assistance</b>	<b>Percentage of students with disabilities who participate in modified activities</b>	<b>Percentage of students with disabilities who participate in separate activities</b>
All disabilities combined	180	71.32	22.96	13.18
All other disabilities combined	147	71.39	24.04	14.51
Classes with learning, emotional, cognitive, or speech/language disabilities	33	71.00	15.00	6.62

\*The primary disability of the class is classified according to the majority of students. If 50 percent or more are in a certain disability classification, then the class is classified by that disability.

***Appendix C: Definitions of Educational Environments***

### Definitions of Educational Environments

The educational environments in this report are placement categories, as defined by the Office of Special Education Programs (OSEP), U.S. Department of Education.<sup>15</sup> The method of classifying students into these educational environments is as follows:

(1) *General Education Class*: A regular class includes students receiving special education and related services outside the general education classroom for less than 21 percent of the school day. Therefore, these students spend a majority of their education program with non-disabled peers inside the general education classroom. This may include children and youth with disabilities placed in: (a) a general education class with special education/related services provided within general classes, (b) a general education class with instruction within the general class and with special education/related services provided outside general classes, or (c) a general education class with special education services provided in resource rooms. Optional placement instructions for 3- through 5-year-olds state that a general class includes children who receive services in programs designed primarily for non-disabled children, provided the children with disabilities are in a separate program (i.e., not served with non-disabled children) for less than 21 percent of the time receiving services. This may include, but is not limited to, Head Start Centers, public or private preschool and child care facilities, preschool classes offered to an age-eligible population by the public school system, kindergarten classes, and classes using co-teaching models (special education and general education staff coordinating activities in the general education setting).

(2) *Resource Room*: A resource room includes students receiving special education and related services outside the general education classroom for at least 21 percent but no more than 60 percent of the school day. This may include children and youth placed in: (a) resource rooms with special education/related services provided within the resource room, or (b) resource rooms with part-time instruction in a general education class. Optional placement instructions for 3- through 5-year-olds state that a resource room includes children who receive services in programs designed primarily for non-disabled children, provided the children with disabilities are in a separate program (i.e., not served with non-disabled children) for 21 to 60 percent of the time receiving services. This includes, but is not limited to, Head Start Centers, public or private preschools or childcare facilities, preschool classes offered to an age-eligible population by the public school system, and kindergarten classes.

(3) *Separate Special Education Class*: A separate special education class includes students receiving special education and related services for more than 60 percent of the school day in a separate class. This may include children and youth placed in: (a) self-contained special classrooms with part-time instruction in a general education class, or (b) self-contained special classrooms full-time on a regular school campus. Optional placement instructions for 3- through 5-year-olds state that a separate class includes children who receive services in programs in which the children are in a separate program (i.e., not served with non-disabled children) for 61 to 100 percent of the time receiving services. It does not include children who receive education programs in public or private separate day or residential facilities.

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<sup>15</sup> Source: "OSEP IDEA, Part B Data Collection History" (September 2001).

(4) *Public Separate Facility*: Public separate facilities include students receiving special education and related services for greater than 50 percent of the school day in a separate special education day school in a public school district, or in a state special education school. This may include children and youth placed in: (a) public day schools for students with disabilities, or (b) public day schools for students with disabilities for a portion of the school day (greater than 50 percent) and in general education school buildings for the remainder of the school day.

Optional placement instructions for 3- through 5-year-olds state that a public separate school facility includes children who are served in publicly operated programs, set up primarily to serve children with disabilities that are not housed in a facility with programs for children without disabilities. Children must receive special education and related services in the public, separate day school for 50 percent or more of the time receiving services.

(5) *Private separate facility*: Private separate facilities include students receiving education programs in these facilities, including children and youth with disabilities receiving special education and related services, at public expense for greater than 50 percent of the school day. This may include children and youth placed in private day schools for students with disabilities or private day schools for students with disabilities for a portion of the school day (greater than 50 percent) and in regular school buildings for the remainder of the school day. Optional placement instructions for 3- through 5-year-olds state that a private separate school facility includes children who are served in privately operated programs, set up primarily to serve children with disabilities that are not housed in a facility with programs for children without disabilities. Children must receive special education and related services in the private separate day school for 50 percent or more of the time receiving services.

(6) *Home/hospital*: Homebound/hospital placement includes students receiving education programs in hospital programs or homebound programs. Optional placement instructions for 3- through 5-year-olds state that a homebound/hospital placement includes children who are served in either a home or a hospital setting. Unlike the other placements, home/hospital placement does not have a percentage of time served associated with it. For children 3-5 years old receiving special education related services in home settings, include children who receive services in the home provided by a professional or paraprofessional who visits the home on a regular basis. Examples include a child development worker or speech services provided in the child's home. For children 3-5 years old receiving special education or related services in a hospital setting, include children who receive services as inpatients or as outpatients. Also include children who receive services in a clinic as outpatients.

The remaining placements provided by OSEP in the Report to Congress (i.e., public residential facility, private residential facility, and correctional facility) are not included in these analyses due to the nature of the SEEP surveys.

***Appendix D: Allocations and Expenditures by Severity Level***

**Table D-1: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: MPS Elementary Schools\***

Percentage of special education students in levels 3 and 4	Number of schools	Special education expenditures per special education student	Special education allocation per special education student	Average per student allocation less expenditures	Ranges of special education per student expenditure and allocation			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-4.9%	25	\$6,125	\$5,410	(\$715)	\$4,300	\$9,821	\$3,259	\$9,005
5.0%-9.9%	18	\$7,159	\$6,288	(\$872)	\$4,798	\$10,334	\$4,536	\$9,351
10.0%-14.9%	15	\$6,503	\$6,231	(\$273)	\$3,858	\$8,932	\$4,587	\$9,376
15.0%-19.9%	6	\$7,308	\$7,169	(\$138)	\$4,835	\$10,894	\$4,331	\$10,208
20.0%-24.9%	6	\$7,969	\$7,537	(\$432)	\$3,690	\$10,234	\$6,229	\$8,423
25% and higher	11	\$9,392	\$7,911	(\$1,481)	\$5,371	\$12,262	\$2,853	\$11,043

\* Excluding Congress and Hi-Mount where special education allocation was blended with general fund

**Table D-2: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: MPS Middle Schools**

Percentage of special education students in levels 3 and 4	Number of schools	Special education expenditures per special education student	Special education allocation per special education student	Average per student allocation less expenditures	Ranges of special education per student expenditure and allocation			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-4.9%	9	\$4,755	\$5,704	\$950	\$2,100	\$5,541	\$3,930	\$6,572
5.0%-9.9%	3	\$5,442	\$5,973	\$531	\$5,136	\$5,925	\$5,285	\$7,425
10.0%-14.9%	4	\$5,984	\$6,659	\$675	\$5,619	\$8,747	\$6,242	\$7,616
15.0% and higher	5	\$5,374	\$6,763	\$1,389	\$3,729	\$6,583	\$5,822	\$7,225

**Table D-3: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: MPS High Schools\***

Percentage of special education students in levels 3 and 4	Number of schools	Special education expenditures per special education student	Special education allocation per special education student	Average per student allocation less expenditures	Ranges of special education per student expenditure and allocation			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-4.9%	3	\$3,259	\$5,526	\$2,267	\$2,001	\$6,027	\$4,036	\$5,860
5.0%-9.9%	6	\$5,403	\$6,391	\$989	\$3,887	\$6,578	\$5,350	\$7,094
10.0% and higher	7	\$5,904	\$6,626	\$721	\$4,114	\$7,163	\$5,399	\$7,920

\* Excluding Milwaukee Entrepreneurship and New School for Community Service, both of which are new schools with special education allocation blended with general fund

**Table D-4: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: MPS K-8 Schools**

Percentage of special education students in levels 3 and 4	Number of schools	Special education expenditures per special education student	Special education allocation per special education student	Average per student allocation less expenditures	Ranges of special education per student expenditure and allocation			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-1.9%	4	\$6,242	\$5,643	(\$599)	\$5,313	\$7,515	\$4,121	\$7,135
2.0% and higher	5	\$7,324	\$7,125	(\$200)	\$5,303	\$11,397	\$5,126	\$7,917

**Table D-5: Per Pupil Special Education Expenditures and Special Education Allocations by Severity Level: MPS Citywide Schools\***

Percentage of special education students in levels 3 and 4	Number of schools	Special education expenditures per special education student	Special education allocation per special education student	Average per student allocation less expenditures	Ranges of special education per student expenditure and allocation			
					Minimum expenditure	Maximum expenditure	Minimum allocation	Maximum allocation
0.0%-4.9%	13	\$6,578	\$5,575	(\$1,003)	\$2,712	\$8,565	\$3,124	\$10,148
5.0%-9.9%	4	\$5,949	\$5,470	(\$479)	\$5,440	\$6,691	\$4,396	\$6,805
10.0% and higher	7	\$7,553	\$5,975	(\$1,579)	\$5,856	\$9,217	\$4,694	\$8,933

\*Excluding Career Training and Assessment, a school-to-work program for which special education funds are allocated across high schools.

**Appendix E: The “Abilities Index”**

### **The “Abilities Index”**

The “Abilities Index,” developed by Rune Simeonsson and Donald Bailey of the Frank Porter Graham Child Development Center at the University of North Carolina at Chapel Hill, is a functional assessment where the focus of the measures is the different functional abilities of the student in 9 different domains: audition, behavior, intellectual functioning, limbs, intentional communication, tonicity, integrity of health, eyes, and structural status.

The Abilities Index is an acronym for a measure covering the nine areas of functioning mentioned above. Below we provide an example of a form that could be used to assess a student’s abilities using this Index. The teacher or person most knowledgeable about the student that fills out the form would rate each domain or area of functioning based upon the student’s characteristics. The maximum rating value on each domain is 5 (implying profound or severe disability) and the minimum is 0 (implying normal functioning in that domain). In order to facilitate comparisons between different students, an Index score would then be developed for each student. To calculate the total score, a specific weight would be assigned to each domain in order to reflect the *relative importance* of that specific domain in the overall measure of functionality (or total Index score) of the student. For example, the domain of intellectual functioning has a weight of 2, and the domain of intentional communication has a weight of 1. The total Index score was calculated as a weighted average, taking into account all the ratings in the different areas. The highest total score a student can obtain is 45, meaning that the student has a severe, profound disability in all the areas measured.

## The ABILITIES Index

Please rate the student's abilities on the table on the following page. Ratings in each area are made on a scale of 0 to 5, with **0 indicating normal ability, 1 (suspected disability) indicating some questions about the child's ability, and 5 indicating extreme or profound disability**. In making each rating, think about the child compared to other children the same age. Guidelines follow to assist you in making each rating.

**Audition (Hearing)** - Think about the child's ability to hear in everyday activities. Score hearing for each ear separately. A score of 5 (Profound Loss) means that the child has no hearing. Rate the child's hearing without a hearing aid. If the child uses a hearing aid, please check this box:

**Behavior and Social Skills** - Two ratings are made in this area, one for social skills and one for inappropriate or unusual behavior. Social skills refer to the child's ability to relate to others in a meaningful manner. Inappropriate and unusual behavior may include fighting, hitting, screaming, rocking, hand flapping, biting self, etc.

**Intellectual Function (Thinking and Reasoning)** - This rating reflects the child's ability to think and reason. Think about the way the child solves problems and plays with toys and compare this to other children of the same age.

**Limbs (Use of Hands, Arms, and Legs)** - Think about the child's ability to use his or her hands, arms, and legs in daily activities. Score left and right limbs separately. A Score of 5 (Profound difficulty) means that the child has no use of a limb.

**Intentional Communication (Understanding and Communicating with Others)** - Two ratings are made, one for the child's ability to understand others and one for the child's ability to communicate with others. This rating includes attempts to communicate in ways other than talking (signs, gestures, picture boards). Think about the child's ability to understand and communicate with others and compare this to other children of the same age.

**Tonicity (Muscle Tone)** - Think about the child's muscle tone. Normal means that the child's muscles are neither tight nor loose. If the child's muscle tone is not in the normal range, place an "X" in each box that indicates the degree of tightness or looseness or both. Two ratings should be made since, in some children, tightness or looseness can vary in different parts of the body or from one time to the next.

**Integrity of Physical Health (Overall Health)** - Think about the child's general health. Normal means the usual health problems and illnesses typical for a child this age. If there is a health problem, ratings should be made indicating the degree to which health problems limit activities. Ongoing health problems may include seizures, diabetes, muscular dystrophy, cancer, etc.

**Eyes (Vision)** - Think about the child's ability to see in everyday activities. Score both the left and right eye. A score of 5 (Profound Loss) means that the child has no vision. Rate the child's vision without glasses. If the child uses glasses, please check this box:

**Structural Status (Shape, Body Form, and Structure)** - This rating reflects the form and structure of the child's body. Normal means that there are no differences associated with form, shape, or structure of the body parts. Differences in form include conditions like cleft palate or clubfoot; differences in structure include conditions like curved spine and arm or leg deformity. Ratings should indicate how much these differences interfere with how the child moves, plays, or looks.

**Student Abilities Index**

In each column, place an X in the space that best describes the child. Please note that multiple Xs should be recorded under A (Audition), B (Behavior), L (Limbs), I (Intentional Communication), T (Tonicity), and E (Eyes).

	A		B		I	L						I		T		E		S	
	Audition (Hearing) Rate Both		Behavior & Social Skills Rate Both		Intellectual Functioning	Limbs (Use of hands, arms, and legs) Rate All						Intentional Communication Rate Both		Tonicity (Muscle Tone) Rate Both		Integrity of Physical health		Eyes (Vision) Rate Both	Structural Status
	Left Ear	Right Ear	Social Skills	Inapprop. Behavior	Thinking & Reasoning	Left Hand	Left Arm	Left Leg	Right Hand	Right Arm	Right Leg	Understanding others	Communicating with others	Degree of tightness	Degree of looseness	Overall Health	Left Eye	Right Eye	Shape, Body Form & Structure
0	Normal		All behaviors typical & appropriate for age		Normal for age			Complete normal use				Normal	Normal	Normal	Normal	General good health	Normal		Normal
1	Suspected hearing loss		Suspected disability	Suspected inapprop. behaviors	Suspected disability			Suspected difficulty				Suspected disability	Suspected disability	Suspected disability	Suspected disability	Suspected health problems	Suspected vision loss		Suspected difference or interference
2	Mild hearing loss		Mild disability	Mildly inapprop. behaviors	Mild disability			Mild difficulty				Mild disability	Mild disability	Mild disability	Mild disability	Minor ongoing health problems	Mild vision loss		Mild difference or interference
3	Moderate hearing loss		Moderate disability	Moderately inapprop. behaviors	Moderate disability			Moderate difficulty				Moderate disability	Moderate disability	Moderate disability	Moderate disability	Ongoing but medically-controlled health problems	Moderate vision loss		Moderate difference or interference
4	Severe hearing loss		Severe disability	Severely inapprop. behaviors	Severe disability			Severe difficulty				Severe disability	Severe disability	Severe disability	Severe disability	Ongoing poorly-controlled health problems	Severe vision loss		Severe difference or interference
5	Profound hearing loss		Extreme disability	Extremely inapprop. behaviors	Profound disability			Profound difficulty				Profound disability	Profound disability	Profound disability	Profound disability	Extreme health problems, near total restriction of activities	Profound vision loss		Extreme difference or interference