January 9, 1992

TO: Commissioner's Cabinet

FROM: Wayne Erickson
Manager, Special Education Section

Attached is a copy of a recently completed report on the availability of educational services to students with vision, hearing and physical disabilities. We plan to send a copy of the report to all Directors of Special Education and only the executive summary to Superintendents.

If you have any questions about this report, please contact me or Tom Lombard (297-4681).

cc: MDE staff with related assignments
Availability of Educational Services to Students with Vision, Hearing and Physical Disabilities

An Evaluation of Staff and Parent Perceptions

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December 31, 1991
# Table of Contents

<table>
<thead>
<tr>
<th>Chapter Title</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Executive Summary</td>
<td>i</td>
</tr>
<tr>
<td><strong>Chapter 1. Introduction</strong></td>
<td>1</td>
</tr>
<tr>
<td>Low Incidence Disabilities</td>
<td>1</td>
</tr>
<tr>
<td>Schools Provide a Variety of Services</td>
<td>3</td>
</tr>
<tr>
<td>Low Incidence Delivery Problems</td>
<td>4</td>
</tr>
<tr>
<td><strong>Chapter 2. Explanation of Evaluation Procedures</strong></td>
<td>6</td>
</tr>
<tr>
<td>Subjects</td>
<td>7</td>
</tr>
<tr>
<td>Methodology</td>
<td>8</td>
</tr>
<tr>
<td>Limitations of this Evaluation</td>
<td>9</td>
</tr>
<tr>
<td><strong>Chapter 3. Service Availability to Students with Visual Handicaps</strong></td>
<td>12</td>
</tr>
<tr>
<td>Availability of Direct Instruction (VH)</td>
<td>12</td>
</tr>
<tr>
<td>Availability of Other Services (VH)</td>
<td>12</td>
</tr>
<tr>
<td><strong>Chapter 4. Service Availability to Students with Hearing Impairment</strong></td>
<td>14</td>
</tr>
<tr>
<td>Availability of Direct Instruction (HI)</td>
<td>14</td>
</tr>
<tr>
<td>Availability of Other Services (HI)</td>
<td>14</td>
</tr>
<tr>
<td><strong>Chapter 5. Service Availability to Students with Physical Handicaps</strong></td>
<td>16</td>
</tr>
<tr>
<td>Availability of Direct Instruction (PH)</td>
<td>16</td>
</tr>
<tr>
<td>Availability of Other Services (PH)</td>
<td>17</td>
</tr>
<tr>
<td><strong>Chapter 6. Parent Responses</strong></td>
<td>18</td>
</tr>
<tr>
<td>Open-Ended Comments</td>
<td>19</td>
</tr>
<tr>
<td><strong>Chapter 7. Principal Findings and Recommendations</strong></td>
<td>20</td>
</tr>
<tr>
<td>Principal Findings</td>
<td>20</td>
</tr>
<tr>
<td>Recommendations</td>
<td>21</td>
</tr>
</tbody>
</table>
Executive Summary

Minnesota schools currently provide an array of educational services to 80,510 students with disabilities. About 4% of these students (n=3,395) are reported as having primary disabilities which are considered "low incidence," i.e., conditions which are sparsely distributed among the state's school districts. These disabilities include: visually handicapped, hearing impaired, physically handicapped, autism, deaf-blind and other health impaired. There is also a larger group of students, perhaps as many as 12,000, who are reported under different primary disability categories but who have some low incidence service needs.

Students with low incidence disabilities often require highly specialized and multiple services to meet their educational needs. There are four principal problems for schools in meeting the educational needs of these students:

• Specially trained and licensed staff are often in short supply.

• Large distances between students make it difficult for available staff to reach all students as often as needed.

• Students frequently need multiple specialized services.

• Per student costs are consequently higher for low incidence programs.

Since 1981, the Minnesota Department of Education (MDE) has provided annual funding for regional projects to assist schools in meeting low incidence needs. Periodic evaluations have shown that these projects have had some success toward easing service problems, particularly for assessment and consultation services. However, accumulating information suggests that some services have serious gaps in availability over large geographic areas. In 1991, MDE staff surveyed local school staff and parents to determine the availability of various services to students with visual handicaps (VH), hearing impairments (HI) and physical handicaps (PH). This survey did not evaluate the quality of services nor study individual cases to validate the respondents' perceptions. The findings only represent parent and staff perceptions at the end of the 1990-91 school year.

A representative sample of 96 Directors of Special Education and 207 teacher specialists, plus a sample of 207 parents, responded with their perceptions of the availability of various instructional and related services. Survey questions were limited to direct instruction, indirect consultation, assessment,
transition/vocational planning and the pertinent related services for VH, HI and PH programs (physical therapy, occupational therapy, audiology, sign language interpreting, orientation and mobility and Braille). Respondents rated these services as either sufficient, available on a limited basis, or not available. The results were analyzed by region and type of disability to indicate where serious gaps in availability might occur. Following are the major findings from the MDE survey:

- No single region was reported as having sufficient availability of the full array of services associated with VH, HI or PH programs.

- Since services were widely considered available on only a limited basis, it appears that many low incidence programs only partially met perceived student needs in 1990-91.

- The availability of direct instruction across the state's 9 regions was reported as sufficient to limited for HI, limited for VH and widely unavailable for PH.

- Transition and vocational planning services are widely perceived as limited for VH, HI and PH programs (only 1 of 27 instances indicated sufficient availability).

- Occupational Therapy was the only related service generally viewed as sufficient (6 of 9 regions).

- The remaining related services (physical therapy, audiology, sign language interpreting, orientation and mobility and Braille) were primarily viewed as available on a limited basis.

- Parent responses tended to be somewhat more positive than staff reports, but in most instances the same trends were seen on the perceived availability of the array of services.

It is recommended that MDE continue supporting regional service projects, but with a substantially different format and funding mechanism intended to reduce service gaps. It is suggested that directors of special education be asked to prepare a three-year plan that will be tailored to meet the perceived low incidence service needs of their respective regions. MDE staff have proposed a means for regional hosts to use state and federal special education funds to provide some of the needed services for students with low incidence disabilities.
Chapter 1. Introduction.

Minnesota schools currently provide an array of instructional and support services to 80,503 students with disabilities. Approximately 5% of these students (n=3,935) are described as having a "low incidence disability." It has been useful to distinguish this group because the sparsity of their distribution within the state causes some unique service delivery problems. Since 1981, the Minnesota Department of Education (MDE) has provided financial support for regional projects in an attempt to help school districts overcome these service delivery problems. Periodic evaluations have shown that these projects have had some success toward easing service problems, particularly for assessment and consultation services. Accumulating information suggests, however, that some services may have serious gaps in availability over large geographic areas. In response, MDE staff surveyed local school personnel and parents at the end of the 1990-91 school year to further examine the availability of services to students with selected low incidence disabilities. This report summarizes the findings of the MDE survey.

Low Incidence Disabilities

Types of Low Incidence Categories. Table 1 contains a list of the current low incidence disability categories with student counts as reported by local districts on December 1, 1990. The current low incidence categories are: visually handicapped, hearing impaired, physically handicapped, autistic, deaf-blind, and other health impaired.

Beyond the 3,935 students indicated in Table 1, there are additional students with multiple disabilities who are reported under other disability categories. It is also important to consider these additional students in examining the low incidence service needs for the state, although an accurate count is currently not available. When students are multiply disabled (e.g., mentally retarded and physically handicapped) the local district must report the student under one category in order to provide MDE with an unduplicated student count for federal funding purposes. Thus,
there are cases where students with low incidence disabilities are not included in the unduplicated counts shown in Table 1. MDE staff estimate that there may be as many as 12,000 students with low incidence service needs in addition to the 3,935 represented in Table 1.

Table 1. Unduplicated Count of Minnesota students with low incidence disabilities, 1990-91.

<table>
<thead>
<tr>
<th>Disability</th>
<th>Number of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visually Handicapped</td>
<td>343</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>1,417</td>
</tr>
<tr>
<td>Physically Handicapped</td>
<td>1,332</td>
</tr>
<tr>
<td>Austistic</td>
<td>189</td>
</tr>
<tr>
<td>Deaf-Blind</td>
<td>14</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>640</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3,935</strong></td>
</tr>
</tbody>
</table>

Source: MDE

Dispersion of Students with Low Incidence Disabilities. Since the duplicated number of students with low incidence service needs is uncertain, MDE staff have relied on the more accurate unduplicated school district reports to examine the distribution of students. The 3,935 students identified in Table 1 are thinly distributed among the state's school districts. Only 127 of Minnesota's 431 school districts (29%) report any visually handicapped (VH) students. For hearing impaired (HI) and physically handicapped (PH) categories, the number of reporting districts are 202 (48%) and 221 (52%), respectively. These district totals are summarized in Table 2 for all low incidence areas.
Table 2. Number of Minnesota school districts reporting students with low incidence disabilities, 1990-91.

<table>
<thead>
<tr>
<th>Low Incidence Disability</th>
<th>Number of Districts</th>
<th>Per Cent of All Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Visually Handicapped</td>
<td>114</td>
<td>27%</td>
</tr>
<tr>
<td>Hearing Impairment</td>
<td>202</td>
<td>48%</td>
</tr>
<tr>
<td>Physically Handicapped</td>
<td>221</td>
<td>52%</td>
</tr>
<tr>
<td>Austistic</td>
<td>65</td>
<td>15%</td>
</tr>
<tr>
<td>Deaf-Blind</td>
<td>12</td>
<td>3%</td>
</tr>
<tr>
<td>Other Health Impaired</td>
<td>160</td>
<td>38%</td>
</tr>
</tbody>
</table>

Source: MDE

**Schools Provide a Variety of Services**

An extensive array of services must be available to students with low incidence disabilities. This array includes direct instruction, assessment and consultation from teachers who are specially trained and licensed for VH, HI or PH services. Currently, there are no specific licenses for personnel to teach students who are autistic, deaf-blind or other health impaired. For these latter categories, districts are allowed to use teachers who hold any special education license as long as they possess the required skills to meet the students' needs.

Schools are also required to provide related services when necessary to supplement instruction. The related services associated with low incidence disabilities include physical therapy, occupational therapy, audiology, sign language interpreting, orientation and mobility (travel skills) and Braille. Like teachers, some related services personnel may conduct assessments as well as provide either direct service or consultation.

For the purposes of this study, direct instruction is distinguished from other services because it is considered the most fundamental educational service. The term "noninstructional
services" is used in this context to include related services, assessment, consultation and planning for transition and vocational needs.

**Low Incidence Delivery Problems**

The availability of services for students with low incidence disabilities has historically lagged behind Minnesota's progress in serving high incidence areas such as mental retardation and learning disabilities. There are four principal problems for schools in meeting their low incidence service needs.

**Specially trained and licensed staff are often in short supply.** Anecdotal reports by local administrators and annual fiscal applications to MDE indicate that vacancies for PH, VH and HI teachers are difficult to fill in districts outside the Twin Cities metropolitan area. The same pattern occurs for occupational and physical therapists and sign language interpreters. The most difficult positions to fill are Brailleists and Orientation and Mobility specialists, where outstate positions often remain unfilled for months or continue vacant indefinitely. The primary reason for this short supply is the low number of training programs, but other factors affecting recruitment include salary discrepancies, part-time assignments and rural residency.

Minnesota has only one approved training program for VH, PH or HI teachers (University of Minnesota, main campus), but some steps have been taken to provide retraining opportunities. The University of Minnesota currently has a special grant to provide wider training opportunities for rural educators interested in adding HI licensure, and a similar summer program is also available at this university for teachers interested in VH licensure.

**Large distances between students make it difficult for available staff to reach all students as often as needed.** The thin distribution of students with low incidence disabilities means that the majority of districts in Minnesota do not have a sufficient number of students to support full-time staff. As a result, staff positions often have to cover large geographic areas and/or several schools in order to have sufficient caseloads to economically justify a position. In several cases, one or two specialists serve an entire region of the state. The
high travel requirements often serve as a disincentive for staff who prefer positions that have less "windshield time" and more contact time with students.

**Students frequently need multiple specialized services.** Students with low incidence disabilities often require a combination of services. For example, students with physical handicaps require may require direct instruction from a PH teacher, plus regular occupational and physical therapy. Students with visual handicaps may receive daily instruction from a VH teacher, plus ongoing training from an Orientation and Mobility specialist and regular transcription services from a Braillist.

**Per student costs are consequently higher for low incidence programs.** On a per student basis, low incidence programs are more costly than other special education programs. The major factors which contribute to the higher cost are the use of multiple staff to meet a student's educational needs, travel encumbrances (e.g., mileage and vehicles), high amount of travel time for itinerant staff, and the frequent need for specialized equipment for staff or students (e.g., specially designed computers, hearing amplification, magnifiers).
Chapter 2. Explanation of Evaluation Procedures.

One of the first steps in planning an evaluation activity is to limit its scope so that it addresses succinct evaluation questions which are matched with available resources and realistic timelines. While it would have been desirable to evaluate the quality of low incidence services, there was insufficient time and fiscal resources available for this study. Furthermore, making comparisons among service providers would have proven very difficult and unavoidably controversial, especially since there are no established criteria for what constitutes quality teaching or therapy. However, using survey methods there was sufficient time and resources to ask local personnel their opinions of the availability of services. MDE staff felt the opinions of key personnel would provide the needed baseline information on potential service gaps. Therefore, the primary evaluation question for this study was the following:

**Evaluation Question #1. What is the perceived availability of low incidence services?**

A related concern which prompted MDE managers to request this evaluation was the need to identify the location of serious gaps for each of the types of service. While there were some MDE staff assumptions regarding which services were more widely unavailable, these were based mostly on anecdotal data. Therefore, the second evaluation question for this study became worded as follows:

**Evaluation Question #2. Which regions have serious gaps in the availability of various low incidence services?**

A decision had to be made to limit which low incidence areas could be examined. There was not sufficient time to address all six low incidence categories, plus it was known that some low incidence categories were going to be greatly affected by recent rule changes. For example, new State Board of Education rules establish uniform definitions of the autism, deaf-blind and other health impaired categories which are substantially different from the standards historically used by many schools. Since these newly adopted rules are expected to have an impact on which
students are determined eligible for special education services, it was decided that a study of services for these three categories should be deferred until local schools implement the new eligibility standards. As a result, it was decided that VH, HI and PH would be the disability categories examined in this evaluation.

**Subjects**

Three subject groups were identified: local directors of special education; VH, HI and PH teachers, and parents who have a child served by a VH, HI or PH program. Of the 98 individual directors in the state, 96 of them returned surveys (98%). Out of the state's 77 VH teachers identified by local reports to MDE, 46 responded (60%). The response rates were similar for PH teachers with 40 of 60 responding (67%), and for HI teachers with 121 of 188 (64%). In order to have sufficient numbers of respondents to analyze patterns in the state's nine ECSU regions, it was necessary to combine the data from directors and teachers into a single group of "staff responses" for each region. There were some instances where these respondents left a survey item unanswered, but this was accounted for in the results reported in Chapters 3-6.

Directly contacting a large number of parents would have been difficult and very costly since MDE does not have a database with parent names and addresses. A cost-efficient procedure was developed where 163 VH, HI and PH teachers were asked to forward survey materials to parents. The teachers were instructed to start with the first student alphabetically listed on their caseload and select every other student until four names were picked. The teachers were then required to write the corresponding parent names and addresses on sealed survey envelopes. Out of a 652 potential sets of parents who could have received these materials, 235 actually responded (36%). There were not sufficient parent responses to allow for regional analyses, so the parent data are only generalized to the statewide sample obtained in this particular study. Parent responses for this study can only be considered representative of the 235 who actually stated their views.
Methodology

Survey questions were developed by MDE staff and pilot tested with local teachers and directors. The basic format for the questionnaires was to specify a service (e.g., audiology) and provide the respondents with three choices regarding the availability of that service in their "work areas":

<table>
<thead>
<tr>
<th>No service from appropriate staff seems available</th>
<th>Limited service from appropriate staff is available</th>
<th>Sufficient service from appropriate staff seems available for current needs</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

No attempt was made to define "sufficient" or "limited" service. The opinions reported by the directors, teachers and parents represent their own views (see the following section for more discussion of this limitation).

While directors were asked about all service areas, teachers were only asked about services that routinely pertained to their specialty. For example, VH teachers were asked about the availability of Braille services but not about physical therapy. Similarly, parents were only asked about services associated with the primary disability of their child.

Once the staff questionnaires were finalized, they were sent to all directors and specialist teachers known to be working in VH, PH and HI programs. Staff respondents were sorted into their respective regions so that patterns of service availability could be examined for large geographic areas. Since there were three choices regarding service availability, a criterion was established to represent an extensive service gap for a region: 25% or more of the respondents must indicate choice #1 ("No service..."). To illustrate this criterion, a region that had a combined number of 12 HI teachers and directors would be viewed as having an "extensive service gap" if at least three of them said a service was not available.

It was also important to establish a criterion for adequate service availability. The standard adopted for this study was at least a 75% response rate for choice #3 ("Sufficient service..."). In a region with 24 directors and teachers, at least 18 of them would have to make choice #3 to conclude that services were widely available within that region.
Limitations of this Evaluation

Any study which attempts to sample opinions of hundreds of professional staff and parents over nine geographic areas must account for its limitations regarding the validity and reliability of the data. Following is an explanation of several limitations which must be considered when interpreting the results discussed in Chapters 3-6.

1. The survey methods had inherent limitations due to subjectivity. Survey methods involve the use of questionnaires or interviews to sample the opinions of selected groups of people. While it is a potentially useful and efficient evaluation procedure, the validity of personal opinions is often seen as a debatable accounting of real conditions. Opinions may be prone to bias if the questions pertain to one's own performance, which is partially the case here for teachers who are asked about services they may provide.

In this study, it was assumed that local directors of special education, specialist teachers and selected parents had the requisite knowledge and experience to judge whether various educational services were (1) not available, (2) available on a limited basis or (3) sufficient to meet their perspective of local needs. Not everyone may agree with this assumption. When the preliminary findings of this study were presented to the Minnesota Council for the Hearing Impaired, some council members argued strongly that local directors do not have adequate background to make valid judgments of the need for HI services. The counterpoint to this view is that directors are administratively responsible to plan for and provide the full array of services for all disability categories, and, whatever their own professional training may have been, directors have knowledgeable specialists and consumers available to ascertain the resources needed. Readers will have to make their own conclusions whether the respondents used for this study can provide a useful baseline assessment of the general availability of educational services.

2. The terms "limited" and "sufficient" were not defined. No standards currently exist which define "sufficient" service levels, nor are any likely to be developed. What is "sufficient" availability of sign language interpreters will vary from one teacher's caseload to another, since the provision of services is driven by individual student needs and subsequent
planning. No two caseloads are ever the same because no two students are the same—even an individual student’s service needs may change over short time intervals. However, the results from the pilot test showed that teachers and directors would be both decisive and responsive about their perceptions of the availability of instruction and related services. Still, it must be recognized that different standards of "sufficient" or "limited" service exist among the respondents and only gross distinctions should be inferred from their perceptions of service availability.

One way to counter this limitation is to review a sampling of actual caseloads and student records and compare the study responses with an established expert's opinion. This was not done because of time and fiscal constraints. As a result, the interpretations made from this study are limited to gross criteria where (1) at least 25% of a group agrees that a service is "not available" and (2) at least 75% of a group agrees that a service is "sufficient" for current needs. The first criterion seems reasonable as a standard for an extensive service gap because directors, teachers and parents have high credibility for recognizing when a needed service is not provided. Personal standards for the second criterion will be less reliable because "sufficient service" is a more variable condition than "no service." However, 75% agreement is such a high level of concurrence that it does provide a substantial consensus for a realistic perception of adequate service availability. Interpretations beyond these criteria are not recommended.

3. The data applies to a single point in time. Survey responses are generally valid for the point in time they are collected. The data for this study were deliberately collected at the end of a school year when staff and parents had a full year to reflect on service conditions. However, service conditions can vary dramatically as staff leave or vacancies are filled, or as students leave or transfer into a program. The pattern of service gaps indicated in this study should not be considered as definitive beyond the 1990-91 school year.

4. Quality of services was not studied. In the tables which appear in Chapters 3-6, the occurrence of the term "sufficient" for a type of service does not imply any quality rating. This study only examined the perceived availability of services, not the quality of those services which were available. The open-ended comments included by many of the parents tended to
address quality of services, but these comments should be treated strictly as anecdotal data.

5. **Some regional group sizes were small.** The format used here for analyzing regional data is based on the percentage of respondents who selected a particular item choice. Percentage calculations are usually not appropriate when group size is smaller than 10 because percentages are greatly altered by a single case. Because some regional groups have fewer than 10 staff members, one or two responses of "no services available" would be enough to (a) meet the criterion for an extensive service gap in the region or (b) prevent a region from appearing to have "sufficient" service availability.

This limitation is tolerable because the percentage format works adequately in most instances, plus some regions only have a small number of staff so the results here are technically not misrepresentative due to the comprehensive sampling which occurred. For example, Region 5 has four directors and two PH teachers. All but one of these individuals participated in this evaluation, so that one opinion carried a 20% weight on the regional analysis of PH services. A weight of 20% is a lot to assign one individual, but in this and similar cases the results were representative because all or nearly all staff responded.

6. **Local conditions can vary from regional trends.** The basic geographic units of comparison for this study are the nine ECSU regions, not individual school districts or school buildings. When data are aggregated across large units, there will be instances where local conditions are different from the regional appearance. This exception was often seen with HI responses. In Region 11, for example, 63 HI teachers reported that direct instruction was either sufficient (40) or available on a limited basis (23). One HI teacher indicated direct instruction was not available in her work area. While Region 11 as a whole appears to have this particular service well established, that is little comfort for the one or more areas where availability was viewed as inadequate.
Chapter 3. Service Availability to Students with Visual Handicaps.

A total of 139 local staff responded to questions about the availability on services to students with visual handicaps. This sample is considered sufficient for a regional analysis because it includes (a) 93 of the state’s 98 Directors (95%), (b) 20 of the 30 VH teachers working in greater Minnesota (67%), and (c) 26 of the 47 VH teachers working in the Twin Cities metropolitan area (55%).

**Availability of Direct Instruction (VH)**

Respondents were given three choices regarding their perception of the availability of direct instructional service in their work area (i.e., no service, limited service, sufficient service). Figure 1 displays the percentage of responses for each of these choices. In order to ascertain where serious service gaps might occur, the respondents were sorted into nine ECSU regions.

Using the criteria explained in Chapter 2 for "extensive service gaps" and "sufficient service" availability, the regional analysis in Figure 1 indicates that direct instruction was generally available on at least a limited basis in all but one region. Although several regions came close to the criterion for "sufficient service availability," none actually met this standard. It was also noteworthy that five of the nine regions had zero or very few respondents who indicated services were unavailable; only one region (Region 3) actually met the criterion for a serious service gap. The most significant specific findings were:

**VH Finding #1:** None of the regions reported sufficient availability of instructional services to VH students.

**VH Finding #2:** One region appears to have a serious service gap for the availability of direct instruction (Region 3).

**Availability of Other Services (VH)**

Table 3 displays the analysis of responses for selected other services to VH students. Assessment and consultation were the most generally available services, each with 5 regions
indicating sufficient availability and the remainder showing limited availability.

Transition and vocational planning services were reported as limited in eight of nine regions, with the one remaining region appearing as sufficient (Region 7).

Orientation and mobility service was also reported as limited in eight of nine regions, with the one remaining region showing an extensive service gap (Region 6-8).

Braille was the most limited service with three regions reporting extensive service gaps (Region 6-8, 7, 9) and the remaining regions all showing limited service availability.

The most significant specific findings regarding non-instructional services were:

VH Finding #3: Assessment and consultation services were perceived as sufficient for most of the regions with no instances of an extensive service gap.

VH Finding #4: The availability of transition/vocational planning, orientation and mobility specialists and Braillists was limited at best and in some regions widely perceived as unavailable.
Figure 1. Availability of Direct Instruction

Visually Handicapped

Survey Responses (N=139)

ECSU Regions

- No Service Available
- Limited Service
- Sufficient Service

MDE Low Incidence Survey, 1991
Table 3. Perceptions of Service Limitations in ECSU Regions:

**Vision Handicapped**

<table>
<thead>
<tr>
<th>Region</th>
<th>Perceived Availability of Direct Instructional Service</th>
<th>Perceived Availability of Other Services:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assessment</td>
<td>Consultation</td>
</tr>
<tr>
<td>1-2</td>
<td>Limited</td>
<td>Sufficient</td>
</tr>
<tr>
<td>3</td>
<td>Extensive gaps</td>
<td>Sufficient</td>
</tr>
<tr>
<td>4</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>5</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>6-8</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>7</td>
<td>Limited</td>
<td>Sufficient</td>
</tr>
<tr>
<td>9</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>10</td>
<td>Limited</td>
<td>Sufficient</td>
</tr>
<tr>
<td>11</td>
<td>Limited</td>
<td>Sufficient</td>
</tr>
</tbody>
</table>
Chapter 4. Service Availability to Students with Hearing Impairments.

A total of 205 local staff responded to questions about the availability of services to students with hearing impairment. This sample is considered sufficient for a regional analysis because it includes (a) 84 of the state's 98 Directors (88%), (b) 58 of the 77 HI teachers working in greater Minnesota (75%), and (c) 63 of the 111 HI teachers working in the Twin Cities metropolitan area (57%).

Availability of Direct Instruction (HI)

Respondents were given three choices regarding their perception of the availability of direct instructional service in their work area (i.e., no service, limited service, sufficient service). Figure 2 displays the percentage of responses for each of these choices. In order to ascertain where serious service gaps might occur, the respondents were sorted into nine ECSU regions.

Using the criteria explained in Chapter 2 for "extensive service gaps" and "sufficient service" availability, the regional analysis in Figure 2 indicates that direct instruction was generally available on a sufficient or limited basis around the state. While four regions technically met the criterion for "sufficient service availability," all remaining regions came quite close to this standard. It was also noteworthy that only 4 of 205 staff respondents (2%) indicated direct instruction was not available for students with hearing impairment. The most significant specific findings were:

HI Finding #1: Instructional services were perceived available on a sufficient or nearly sufficient basis in all regions.

HI Finding #2: Only 2% of respondents indicated instructional service was not available from appropriate staff.
Availability of Other Services (HI)

Table 4 displays the analysis of responses for other services to HI students. There were no instances where the criterion for extensive service gaps was met for a region. However, none of these services were available to the same extent as direct instruction.

Transition and vocational planning services were reportedly available on a limited basis in all nine regions.

Assessment, consultation, audiology and sign language interpreter services were also generally reported as limited, although there were a few regions where these services were sufficient. The most significant specific findings regarding non-instructional services were:

HI Finding #3: All five noninstructional services were available at least on a limited basis with no regions reporting extensive service gaps.
Figure 2. Availability of Direct Instruction

Hearing Impaired

Survey Responses (N=205)

ECSU Regions

<table>
<thead>
<tr>
<th>Region</th>
<th>No Service Available</th>
<th>Limited Service</th>
<th>Sufficient Service</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 &amp; 2</td>
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<td></td>
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</tr>
<tr>
<td>5</td>
<td>n=8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 &amp; 8</td>
<td>n=16</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>n=21</td>
<td></td>
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</tr>
<tr>
<td>9</td>
<td>n=6</td>
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<td></td>
<td></td>
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<tr>
<td>11</td>
<td>n=94</td>
<td></td>
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</tr>
</tbody>
</table>

MDE Low Incidence Survey, 1991
Table 4. Perceptions of Service Limitations in ECSU Regions:

**Hearing Impaired**

<table>
<thead>
<tr>
<th>Region</th>
<th>Perceived Availability of Direct Instructional Service</th>
<th>Perceived Availability of Other Services:</th>
<th>Sign Language Interpreter</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Assessment</td>
<td>Consultation</td>
<td>Transition/Vocational Planning</td>
</tr>
<tr>
<td>1-2</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>3</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>4</td>
<td>Sufficient</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>5</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>6-8</td>
<td>Sufficient</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>7</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>9</td>
<td>Limited</td>
<td>Sufficient</td>
<td>Limited</td>
</tr>
<tr>
<td>10</td>
<td>Sufficient</td>
<td>Sufficient</td>
<td>Limited</td>
</tr>
<tr>
<td>11</td>
<td>Sufficient</td>
<td>Limited</td>
<td>Limited</td>
</tr>
</tbody>
</table>
Chapter 5. Service Availability to Students with Physical Handicaps.

A total of 134 local staff responded to questions about the availability on services to students with physical handicaps. This sample is considered sufficient for a regional analysis because it includes (a) 94 of the state's 98 Directors (96%), (b) 10 of the 15 PH teachers working in greater Minnesota (67%), and (c) 30 of the 45 PH teachers working in the Twin Cities metropolitan area (67%).

Availability of Direct Instruction (PH)

Respondents were given three choices regarding their perception of the availability of direct instructional service in their work area (i.e., no service, limited service, sufficient service). Figure 3 displays the percentage of responses for each of these choices. In order to ascertain where serious service gaps might occur, the respondents were sorted into nine ECSU regions.

Using the criteria explained in Chapter 2 for "extensive service gaps" and "sufficient service" availability, the regional analysis in Figure 3 indicates that extensive service gaps for direct instruction appeared in five of the nine regions. While the four remaining regions technically did not meet the criterion for extensive service gaps, two more came quite close to this standard. A third of the respondents from non-Twin Cities districts (23 of 68) indicated direct instructional service was not available, compared with only 5 of 65 respondents from districts in the Twin Cities area (Regional 11). The most significant specific findings were:

**PH Finding #1:** Extensive service gaps for direct instructional services were widely perceived in most regions of the state.

**PH Finding #2:** 33% of respondents from greater Minnesota indicated direct instructional service was not available from appropriate staff.
Availability of Other Services (PH)

Table 5 displays the analysis of responses for selected other services to PH students. Except for occupational therapy, service availability of noninstructional PH services was limited or not existent in all but a few instances. Occupational therapy was viewed as sufficiently available in six of the nine regions, which represents the most widely available service of all examined in this evaluation. The most significant specific findings regarding non-instructional PH services were:

PH Finding #3: Except for occupational therapy, non-instructional services were generally viewed as available on a limited basis.

PH Finding #4: Occupational therapy was reported as the most widely available service in the entire study with six of nine regions reporting sufficient availability.
Figure 3. Availability of Direct Instruction

*Physically Handicapped*

Survey Responses (N=134)

ECSU Regions

- No Service Available
- Limited Service
- Sufficient Service

MDE Low Incidence Survey, 1991
Table 5. Perceptions of Service Limitations in ECSU Regions:

**Physically Handicapped**

<table>
<thead>
<tr>
<th>Region</th>
<th>Perceived Availability of Direct Instructional Service</th>
<th>Perceived Availability of Other Services:</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Transition/Vocational Planning</td>
<td>Occupational Therapy</td>
<td>Physical Therapy</td>
</tr>
<tr>
<td></td>
<td>Assessment</td>
<td>Consultation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-2</td>
<td>Extensive gaps</td>
<td>Extensive gaps</td>
<td>Extensive gaps</td>
<td>Extensive gaps</td>
</tr>
<tr>
<td>3</td>
<td>Limited</td>
<td>Sufficient</td>
<td>Sufficient</td>
<td>Limited</td>
</tr>
<tr>
<td>4</td>
<td>Extensive gaps</td>
<td>Extensive gaps</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>5</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>6-8</td>
<td>Extensive gaps</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>7</td>
<td>Extensive gaps</td>
<td>Limited</td>
<td>Limited</td>
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</tr>
<tr>
<td>9</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
<td>Limited</td>
</tr>
<tr>
<td>10</td>
<td>Extensive gaps</td>
<td>Limited</td>
<td>Limited</td>
<td>Extensive gaps</td>
</tr>
<tr>
<td>11</td>
<td>Limited</td>
<td>Sufficient</td>
<td>Sufficient</td>
<td>Limited</td>
</tr>
</tbody>
</table>
Chapter 6. Parent Responses.

Surveys were returned by 235 parents who have a child currently receiving VH, HI or PH services. Since there are literally thousands of parents to be represented, and only a few hundred staff, it was not possible to provide a representative regional analysis of the parent responses. This means that only the staff data reported in Chapters 3-5 were useful in locating potential service gaps. The parent and staff comparisons in this chapter tend to mask these service gaps because only statewide samples are compared. Still the parent data is useful at comparing the overall response sets.

Generally speaking, Figures 4-6 revealed some discernible trends in comparing parent and staff perceptions of the availability of direct instruction, consultation, assessment, and vocational and transition planning. First, the parents tended to agree with the direction of staff perceptions: relatively few said services were not available and the modal response was that services were sufficient. Unfortunately, the aggregated data in Figures 4-6 do not reveal locations where service gaps may occur. A second trend that emerged was that parents tended to be more positive than staff about the availability of these particular services.

An example of both of these trends can be seen in Figure 4. The percent of parents who indicated no services were available was 0%, 0%, 3% and 0%, respectively, for direct instruction, assessment, vocational and transition planning, and consultation. The corresponding percents for staff was 6%, 1%, 6%, and 1%. For both groups these percentages were quite low relative to the other two choices for service availability, but parents had almost a zero response rate for indicating services were not available (only one parent indicated a service was not available).

Figure 7 compares parental and staff responses on the six related services associated with low incidence disabilities. Once again, both groups responded similarly to the pattern described above: (1) the most frequent, or modal, response was that services were sufficient, and (2)
relatively few indicated that these related services were unavailable. (A different pattern was seen in the "no availability" responses for five of the six related services: parents slightly outnumbered staff, but the actual occurrence of "no availability" responses was still very small.) The greatest discrepancy between the parent and staff groups occurred for Braille services, where one-third of the staff said Braille was sufficient compared with two-thirds of the parents.

**Open-Ended Comments**

The surveys also allowed for respondents to add their own open-ended comments, which approximately half the parents did. These comments were easily sorted into positive or negative categories. Most of the positive comments were complements about the quality of teachers or other staff, or the genuine interest shown by local staff in meeting student needs. Negative comments were more variable, usually citing specific complaints such as "Too much service is consultation only," "Physical therapy has not been available all year," or "The third grade teachers need more training and how to accommodate a hearing impaired child."

For parents of students whose primary disability was VH or HI, there were about equal numbers of parents who made negative vs. positive comments. For PH, parents were negative twice as often (37% vs. 19%). This observed difference for the PH category might be related to the other findings here that instructional services for PH are more widely unavailable than either VH or HI.
Figure 4. Perceived Availability of Services
(Visually Handicapped)

A. Direct Instructional Services

B. Assessment Services

C. Vocational and Transition Planning

D. Consultation Services

[Bar charts showing percentage of perceived availability of services by type and perception source (parent vs. teacher)]
Figure 5. Perceived Availability of Services
(Hearing Impaired)

A. Direct Instructional Services

B. Assessment Services

C. Vocational and Transition Planning

D. Consultation Services
Figure 6. Perceived Availability of Services (Physically Handicapped)

A. Direct Instructional Services

B. Assessment Services

C. Vocational and Transition Planning

D. Consultation Services

Legend:
- Parent perceptions
- Teacher perceptions
Figure 7. Perceived Availability of Service: Related Services

Orientation and Mobility

- Parents
- Staff

Braille

- Parents
- Staff

Sign Language Interpreter

- Parents
- Staff

Audiologist

- Parents
- Staff

Occupational Therapist

- Parents
- Staff

Physical Therapist

- Parents
- Staff

Legend:
- Sufficient
- Limited
- No Service
Figure 8. Parent Comments

Visually Handicapped
(n = 37)

No Comment 46%
Critical 22%
Other 6%
Positive 27%

Hearing Impaired
(n = 124)

No Comment 56%
Critical 21%
Positive 19%
Other 2%

Physically Handicapped
(n = 52)

No Comment 44%
Critical 37%
Positive 19%
Chapter 7. Principal Findings and Recommendations.

The primary evaluation question for this study asked for the perceived availability of low incidence services across Minnesota. Directors of special education, specialist teachers and parents were surveyed on the availability of an array of educational services for students with VH, HI or PH program needs. It was assumed that these groups would make reasonable distinctions between a service being unavailable, available on a limited basis, or sufficient for apparent needs.

The second evaluation question for this study sought to locate potential service gaps. By grouping staff responses, it was possible to provide regional analyses to determine where potential service gaps might occur over large geographic areas. This method seemed to provide a useful comparison in analyzing (1) all requisite services for VH, HI, and PH programs within an individual region or (2) examining each particular service as it occurs across all regions.

**Principal Findings**

The survey responses did address the primary evaluation question, but the general indications of service availability were not favorable. The perceptions of local school personnel suggest that the availability of services falls far short of sufficiency. Even though methodological limitations temper the interpretations which can be made from this study, there seems little doubt that extensive service gaps occur in some parts of the state. Only one of eighteen service areas (occupational therapy in PH programs) was widely seen as sufficiently available across all regions. Furthermore, no region appeared to have sufficient availability of the package of services associated with VH, HI and PH programs. If these staff reports are accurate, then Minnesota continues to underserve students with low incidence disabilities in many areas of the state.
The principal findings from this study are summarized below:

- No single region was reported as having sufficient availability of the full array of services associated with VH, HI or PH programs.

- Since services were widely considered available only on a limited basis, it appears that many low incidence programs only partially met perceived student needs in 1990-91.

- The availability of direct instruction across the state's 9 regions was reported as sufficient to limited for HI, limited for VH and widely unavailable for PH.

- Transition and vocational planning services are widely perceived as limited for VH, HI and PH programs (only 1 of 27 instances indicated sufficient availability).

- Occupational Therapy was the only related service generally viewed as sufficient (6 of 9 regions).

- The remaining related services (physical therapy, audiology, sign language interpreting, orientation and mobility and Braille) were primarily viewed as available on a limited basis.

- Parent responses tended to be somewhat more positive than staff reports, but in most instances the same trends were seen on the perceived availability of the array of services.

**Recommendations**

Two recommendations derive from this evaluation. First, it is recommended that MDE continue supporting regional service projects, but with a substantially different format and funding mechanism that will help districts eliminate service gaps. Directors of special education, along with a team of persons with disability-specific knowledge and other stakeholders, would be asked to prepare a three-year plan tailored to meet the perceived low incidence service needs of their respective regions. MDE staff have proposed a modified means for regional hosts to use state and federal special education funds to provide some of the needed services for students with low
incidence disabilities. Previously, only federal funds were used for regionally supported positions, but under the new funding proposal state funds could be used to cover a formula-determined portion of the salaries with federal funds covering the balance. The result of this funding shift would be approximately $600,000 additional for low incidence services, with this amount shifted from the state funding base for special education programs.

Directors would be notified about the requirements for these modified regional plans by February, 1992. The subsequent plans would cover a three-year period, expiring with the 1993-94 school year. During this term, the Legislature has concurrently commissioned an advisory group to examine funding alternatives for special education programs. MDE staff will request that this group consider different funding mechanisms for high and low incidence services.

The second recommendation suggested by this study concerns the need to continue efforts to evaluate low incidence services. Since the general indication of service availability is not favorable, it is important to use the data obtained here as a baseline for future comparisons. If the proposed changes in regional planning and the awareness of low service levels found here are to have an impact on service delivery, it will be necessary to provide for future analysis of service levels to confirm this impact. *It is recommended that in 1991-92, MDE staff design a follow-up evaluation of perceived service levels, including an objective cost analysis, for low incidence service delivery.* This study would not be carried out until the 1992-93 school year. At this time, it is recommended that a study of the quality of services be deferred until service levels are more widely sufficient and districts have had time to adjust to the programmatic impact of recent rule changes.