

**A Study of Education for Students
Who Are Deaf and Hard of Hearing
(Senate Resolution 164)**

**Subcommittee on Elementary and
Secondary Education of the
Interim Joint Committee on Education**

Research Memorandum No. 485

**LEGISLATIVE RESEARCH COMMISSION
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Introduction

Senate Resolution No. 164, passed during the 1998 Regular Session of the Kentucky General Assembly, encouraged “the Legislative Research Commission to direct the Interim Joint Committee on Education to study the methods of teaching deaf and hard of hearing students to read and write in order to improve literacy for Kentucky’s deaf and hard of hearing public school students.”¹ As a result, the Subcommittee on Elementary and Secondary Education of the Interim Joint Committee on Education undertook an investigation of the issue, hearing testimony and devoting five meetings to discussing education for deaf and hard of hearing students.

Some of the fundamental goals of Kentucky’s educational system since the passage of the Kentucky Education Reform Act of 1990 are that schools “shall expect a high level of achievement of all students,” “shall develop their students’ ability to become a self-sufficient individual,” and “shall reduce physical and mental health barriers to learning.”² Based on achievement levels of students who are deaf and hard of hearing, there is concern that, for this group of students, Kentucky public schools are far from achieving the goals set by the General Assembly.

The subcommittee heard testimony from experts in deaf education, practicing educators, parents, students, and other stakeholders. Based on these presentations, the subcommittee adopted recommendations for approval by the Interim Joint Committee on Education, to improve the literacy and educational achievement levels of deaf and hard of hearing students in Kentucky’s public schools. This report summarizes the findings and recommendations of the subcommittee.

SR 164 expressed the sense of the Senate that the study should survey programs and receive expert testimony to determine which programs have maintained high levels of achievement with students who are deaf and hard of hearing, and determine how these methods can be incorporated into the curriculum of classrooms in local school districts and the Kentucky School for the Deaf. In addition, the testimony received by the subcommittee highlighted a number of other areas where changes could be made to improve educational outcomes for students who are deaf or hard of hearing.

There is no consensus of experts in the field regarding the most effective and appropriate teaching methods and modes of communication for students who are deaf or hard of hearing. Indeed, the consensus appears to be that different strategies are appropriate for different students, and that parents and families, armed with unbiased information regarding various options for modes of communication and teaching methods, should be at the center of the determination of the appropriate strategy.

Several areas were highlighted in testimony received by the subcommittee where improvement is necessary in order to improve the literacy and educational attainment of students who are deaf and hard of hearing. These areas became the focus of the subcommittee’s attention and resulting recommendations. They included:

- Earliest possible identification of hearing impairment in infants.
- Effectiveness of current efforts at early intervention for children identified with a hearing impairment.
- Coordination of various initiatives and programs, including the transition from early childhood services to school-based services.
- Availability of appropriate services in public schools.
- Availability of mental health services for students who are deaf and hard of hearing.

The Problem: Low Achievement and Literacy Levels

Students who are deaf and hard of hearing have substantially lower levels of literacy and overall academic achievement than the general population of public school students, and the achievement gap between the two groups widens as students grow older. High dropout rates, and low rates of successful transitions to adult life (e.g. employment or postsecondary education) highlight the need for improvement in the education of students who are deaf and hard of hearing.

According to test scores of students at the Kentucky School for the Deaf (KSD), 12th grade students with severe and profound hearing loss without reported mental retardation read on average at the 4th grade level, and performed mathematical computation at the 6th grade level. These results, from 1992-93 to 1996-97, compare favorably with national results, where the norm group of similar students ages 17 to 20 tested at reading comprehension grade level 3.1, and mathematical computation grade level 5.2.³ In testimony before the subcommittee, the Superintendent for the Kentucky School for the Deaf stressed that although KSD student achievement is above the national average, current reading and math skills of many students at KSD are not adequate, and additional efforts need to be made to improve the literacy and educational attainment of students who are deaf and hard of hearing.

**Kentucky School for the Deaf Grade 12
SAT-8 Test Score Grade Equivalents
1992-1993 to 1996-1997⁴**

KSD Grade 12	KSD, # of students	KSD Grade Equivalent	Nat'l Grade Equivalent
Reading Comprehension	80	4.0	3.1
Math Computation	84	6.0	5.2

Test scores of students who are deaf and hard of hearing attending other public schools in Kentucky reveal similar low levels of academic achievement. Scores on the Kentucky Instructional Result Information System (KIRIS) assessment show significantly lower levels of achievement for students who are deaf or hard of hearing than for students in the general population, and the achievement gap increases as students get older.

In 1998, for example, 4th grade students identified with hearing impairments scored more than 15 points lower than students in the general population on the KIRIS reading assessment index. For 11th grade students, the gap widened to over 38 points. Among students in the 11th grade, only 3.13% of hearing impaired students achieved at “proficient” levels, and none achieved the “distinguished” category. Over 71% scored as a “novice”. In contrast, over 26% of the general population of the 11th grade were “proficient”, and 1.8% were “distinguished”. Scores on the 1998 KIRIS math assessment index showed similar low levels of achievement for hearing impaired students, in comparison to the general student population, and also exhibited increasing achievement gaps in higher grade levels.⁵

**1998 KIRIS Reading Assessment
Percentage of Students by Achievement Level⁶**

	Grade 4 Hearing Impaired	Grade 4 General Population	Grade 7 Hearing Impaired	Grade 7 General Population	Grade 11 Hearing Impaired	Grade 11 General Population
Novice	10.00	4.54	25.93	6.10	71.88	15.65
Apprentice	78.33	62.92	72.22	78.50	25.00	56.10
Proficient	11.67	30.68	1.85	15.14	3.13	26.44
Distinguished	0	1.86	0	0.26	0	1.80

**1998 KIRIS Math Assessment
Percentage of Students by Achievement Level⁷**

	Grade 5 Hearing Impaired	Grade 5 General Population	Grade 8 Hearing Impaired	Grade 8 General Population	Grade 11 Hearing Impaired	Grade 11 General Population
Novice	39.53	27.65	60.47	34.24	68.75	32.03
Apprentice	53.49	52.53	23.26	34.22	31.25	41.50
Proficient	4.65	10.97	11.63	16.29	0	16.83
Distinguished	2.33	8.84	4.65	15.25	0	9.64

There was consensus among all presenters before the subcommittee that the level of academic achievement of deaf and hard of hearing students needs to be substantially improved.

Impact of Low Achievement Levels for Students

The low achievement levels of students who are deaf and hard of hearing have a profound impact on the outcomes and options for these students as they approach adulthood. Deaf and hard of hearing students are substantially less likely to make a successful transition to adult life than students in the general population, and high school dropout rates are also significantly higher. Additionally, low levels of literacy and mathematics skills frequently limit the types of employment and educational opportunities available to young people.

A successful transition to adult life is defined as full time employment, full-time enrollment in a postsecondary educational or vocational institution, a combination of work and school, or military service. According to data collected for 1992-1997, only 52% of graduates from the Kentucky School for the Deaf made a successful transition to adult life after high school.⁸ Corresponding data for all Kentucky high school graduates shows that close to 95% of students made a successful transition.⁹ Data regarding the transition to adult life for deaf and hard of hearing students who attend other public schools was not available, but the expectation based on anecdotal evidence is that similar problems exist for those students as well.

Federal and State Laws

The education of students with disabilities, including students who are deaf or hard of hearing, is governed by numerous federal and state statutes and regulations. These laws outline the duties and responsibilities of the educational system in providing educational opportunities to children with disabilities. Federal laws¹⁰ include:

Section 504 of Public Law 93-122: The Rehabilitation Act of 1973

A civil rights law that bans discrimination on the basis of disability in any program or activity that receives federal funds. For public school students, it means that school districts must provide students with disabilities the same opportunity to succeed as they provide other students.

Public Law 101-336: Americans with Disabilities Act of 1990 (ADA)

This important civil rights law protects persons with disabilities from discrimination, and expands protection to include private as well as public programs.

Public Law 101-476: Individuals with Disabilities Education Act (IDEA)

Passed originally in 1975 as the Education For All Handicapped Children Act, P.L. 94-142, and amended in 1986, 1990, and most recently in 1997, the Individuals with Disabilities Education Act (IDEA) requires that all children with disabilities be provided a free appropriate public education in the least restrictive environment possible. The IDEA, and the federal and state regulations implementing it, specify the ways in which this should be insured, outlining specific steps to make sure that the law is appropriately implemented. The steps include:

1. Referral
2. Evaluation
3. Review of eligibility
4. Program planning through the Individual Education Plan (IEP) process.
5. Placement
6. Implementation
7. Periodic program review

Although changes were made to the Individuals with Disabilities Education Act in 1997, federal regulations reflecting those changes were not released until March, 1999. The subcommittee heard testimony from the Associate Commissioner, Office of Special Instructional Services, Kentucky Department of Education at the June 7, 1999 meeting regarding current efforts to amend Kentucky administrative regulations to conform with the new federal regulations.

State laws regarding education for exceptional children, including students who are deaf and hard of hearing, are codified in KRS 157.196 to 157.290, and specify the duties and responsibilities of the Department of Education, the State Board of Education, and local school districts. The state's funding formula, Support Education Excellence in Kentucky (SEEK), provides local school districts with adjustments to their base funding level using weighted funding, based on the number and types of exceptional children attending school in their district.¹¹

Difficulties Resolving the Problem

Experts who testified before the subcommittee presented information regarding the numerous obstacles to improving the educational opportunities of children who are deaf and hard of hearing. These obstacles include the following:

- Since language acquisition begins in the early years of life, students who are not diagnosed with hearing impairment at a very early age are at a disadvantage that becomes increasingly difficult to overcome as time goes on.
- There are numerous approaches to providing intervention for children who are deaf and hard of hearing, including different modes of communication, and different educational strategies.
- Deafness is a low incidence disability, which makes it difficult and expensive for school districts to provide adequate services, particularly in small school districts. It can be difficult for rural school districts to recruit and retain educators, interpreters and support staff with specialized training required to provide the services needed.
- A substantial percentage of students who are deaf or hard of hearing have additional disabilities, which makes appropriate interventions more complicated to determine and implement.
- A substantial number of students who are deaf or hard of hearing experience mental health and behavioral problems, and the number of therapists who are experienced in mental health issues related to deafness and in communicating with deaf students is not sufficient to meet the need.

The multiple aspects of the problem suggest that communication and coordination of services are vital to addressing the difficulties facing children who are deaf and hard of hearing, from infancy through adulthood. Services for children need to begin at an age much earlier than when they enter the school system. In addition, transition from intervention services provided during early childhood to those provided in the school setting should be such that the needs of the individual child and his or her family are addressed in the most appropriate manner.

Early Identification of Hearing Impairment is Key

Numerous educators and experts who made presentations before the subcommittee stated that one of the keys to improving educational achievement of students who are deaf and hard of hearing is to identify children with hearing loss while they are still in infancy. The process of language development begins at birth, and proceeds very rapidly during the first three years of life. Therefore, delays in the identification of hearing impairment can mean that children have significant delays in language and speech development, delays that are difficult and sometimes impossible to overcome.

The Superintendent for the Kentucky School for the Deaf (KSD) explained to the subcommittee in his June 7, 1999 testimony that many children who are deaf or hard of hearing arrive at school with little or no language. Since the general curriculum presupposes prior language acquisition, these children do not have equal educational opportunities. The KSD superintendent stated that babies who are deaf or hard of hearing are “wired” to acquire language just like hearing babies, but that a lack of exposure to spoken language can mean that deaf children do not develop a native language during the crucial first three years of life. Early identification of the problem, and intensive intervention can allow children to acquire language, which can be achieved using a number of different intervention strategies. One of the superintendent’s recommendations was the establishment of a universal hearing screening program in Kentucky for newborn infants, to ensure that all children with hearing impairments are identified.

Testifying at the same meeting, the Executive Director of the Kentucky Commission on the Deaf and Hard of Hearing, and the Director of the Louisville Deaf Oral School, concurred with the KSD Superintendent that addressing the problem at an early age will lead to better results. The Director of the Louisville Deaf Oral School reiterated the call for universal screening of all live births.

Twenty states currently have laws requiring a hearing screening for infants, and 15 of those call for screening of all infants (universal screening). Some states limit the screening requirement to larger hospitals (e.g. 50+ births per year, or in counties greater than 50,000), or hospitals that are eligible to receive state funds. Most state legislation provides for exceptions if parents object on religious or personal grounds. Several states explicitly require medical insurance providers to include coverage for screening. In addition, five states have screening legislation pending, and two others have legislative motions pending to study the need for screening.¹² In addition, federal legislation entitled the Newborn and Infant Hearing Screening and Intervention Act of 1999 was introduced in Congress in May, 1999 (as H.R. 1193 and S.R. 956). The legislation would authorize grants or cooperative agreements to develop statewide newborn and infant hearing screening, evaluation and intervention programs and systems, provide technical assistance to states, and provide resources for research and development of new screening techniques and technology.¹³

Kentucky's Current Efforts at Early Identification and Intervention

There are several state structures currently in place to find, assess, and provide intervention services to children with developmental delays, including hearing loss. There are concerns, however, that because not all children receive an audiological screening at birth, many children are not being diagnosed until later in childhood, creating difficulties for successful language development. The state structures include the hearing risk registry, the birth surveillance registry, the Kentucky Early Intervention System (KEIS), and Kentucky Early Years (KEY).

Hearing Risk Registry

At birth, a hearing risk certificate is required to be submitted with a birth certificate, and is forwarded to the Commission for Children with Special Health Care Needs (CCSHCN). The finding on the hearing risk certificate is based on a checklist filled out by the hospital of risk factors for each infant. If it is determined that a child is at risk for being deaf or hard of hearing, a hearing screening is performed. CCSHCN collects hearing risk certificate information in a hearing risk registry, and is statutorily required by KRS 211.647 to involve the Cabinet for Health Services, Department of Education, and the Commission on the Deaf and Hard of Hearing in providing information and services to families of children who are at risk for being deaf or hard of hearing.

Birth Surveillance Registry

The Department for Public Health maintains a birth surveillance registry, in accordance with KRS 211.660, to “provide a system for the collection of information concerning birth defects, stillbirths, and high risk conditions. The system may cover all or part of the Commonwealth.”¹⁴ The birth surveillance registry collects data regarding these conditions, but does not currently provide referrals to other agencies that coordinate or provide services for children who have been identified. Additionally, the database as currently structured permits only the identification of a child’s “primary disability”. This is a substantial drawback, since a large number of children with disabilities have multiple disabilities that affect their development.

Kentucky Early Intervention System, First Steps

The General Assembly in 1994 established the Kentucky Early Intervention System (KEIS), through the passage of a law codified in KRS 200.650 to 200.676, to be a “comprehensive, coordinated, interdisciplinary system of services for children, birth to three, with developmental delay or a condition that is likely to cause a delay, and their families.”¹⁵ The development of the program was in response to changes in federal law in 1986, allowing states the option of providing services for children ages zero to three, so long as they were provided to all eligible children with developmental delays. The program was given the name “First Steps”, in order to avoid a stigmatizing effect for parents upon their children’s entry into the program.

The Assistant Director and First Steps Coordinator, Department for Mental Health and Mental Retardation, Cabinet for Health Services, described the program to legislators at the July 13, 1999 subcommittee meeting, and provided information on how the program addresses the needs of children who are deaf or hard of hearing. The system is comprehensive, in that it works to provide services to all eligible children, to the degree that services are needed. The system is coordinated, in that there are three primary administering agencies, and many partners that work to provide services. The administering agencies within the Cabinet for Health Services are the Department for Mental Health and Mental Retardation Services, the Department for Public Health, and the Department for Medicaid Services. Important First Steps partners include the Department of Education, the Commission for Children with Special Health Care Needs, Head Start, seven public universities, local health departments, and Mental Health and Mental Retardation Regional Services Centers.

The system involves so many partners because the types of evaluations and services different children require vary widely; the system must be flexible and coordinated enough to address the individual needs of each child. Experts in fourteen professional disciplines (e.g., physical therapy, audiology, family therapy) provide a wide array of intervention services within each discipline. Other First Steps services include screening, evaluation, assessment, service coordination, respite for parents and care givers, assistive technology, and consultation and planning.

A child enters the KEIS system through referrals from community members who believe that a child might have a condition that might affect his or her development. Referrals can come from family members, doctors, nurses, social workers, day care providers, social workers or teachers. A child can also be identified through the hearing risk registry. Once a child is referred to the KEIS program, an initial evaluation is done, which includes an audiological screening. If a child is determined to have a developmental delay, an Individualized Family Service Plan team is created, to determine the appropriate intervention services to address the needs of the child. Services are provided through the age of three, at which time a plan for a transition into the preschool program and to other services is developed.

The KEIS program has seven technical assistance teams located at public universities across the state, which provide training and technical assistance to service providers. Each team has two members, a full-time program consultant and a part-time parent consultant. A monitoring specialist monitors the provision of services by providers, and makes referrals for technical assistance. The KEIS program also provides a centralized billing service, matching provider bills with child and provider information for processing by the Cabinet for Health Services.

Kentucky Early Years (KEY)

The Kentucky Early Years (KEY) project is jointly funded through the Cabinet for Health Services and the Department of Education, and specifically targets the needs of children who are deaf and hard of hearing. KEY provides technical assistance to preschool teachers, early intervention providers, and families regarding services for

children ages birth through five who are deaf or hard of hearing. KEY also provides in-service training to teachers and other providers, and technical support to the state, and produces a quarterly newsletter for parents and providers. There are, however, only two KEY consultants providing coverage statewide.

The Kentucky Early Intervention System, the Kentucky Early Years Project, the hearing registry, and birth surveillance registry, as well as the work of the Kentucky Commission for the Deaf and Hard of Hearing, provide a solid framework to improve the diagnosis, evaluation, and intervention for children who are deaf and hard of hearing. Testimony received by the subcommittee, however, points out that the levels of support these programs receive needs to be increased, coordination between the entities needs to be improved, and the availability and quality of service providers trained to deal with children who are deaf or hard of hearing must be increased, particularly in areas that are not close to major metropolitan areas.

The Director of the Louisville Deaf Oral School, in her testimony before the subcommittee, recommended a restructuring of the KEIS and KEY programs to better meet the needs of Kentucky's deaf and hard of hearing students. This could be accomplished by identifying and contracting with providers throughout the state that are already trained in the field of early intervention for deaf and hard of hearing children, identifying therapists in areas currently without adequate services, and providing those therapists with training from more established providers.

Implementation Difficulties

Providing appropriate and adequate educational opportunities for children and students who are deaf and hard of hearing has proven difficult, because deafness is a low-incidence disability, and there are multiple communication modes used by children with hearing loss. This combination, along with the difficulty of finding teachers trained in deaf education and interpreters trained for an educational setting, particularly outside of metropolitan areas, makes the mandate of the Individuals with Disabilities Education Act very difficult to implement. The Executive Director of the Kentucky Commission on the Deaf and Hard of Hearing, in her testimony on June 7, 1999, noted that state and federal regulations notwithstanding, the difference in the quality of education that deaf and hard of hearing students receive in the public schools varies widely from school district to school district. She recommended a task force be created to focus on this disparity, to come up with ways to assure a quality education for deaf and hard of hearing students across the state.

Low Incidence of Hearing Impairment

The Kentucky Department of Education Division of Exceptional Children Services provided the subcommittee at their April 5, 1999 meeting with a breakdown of the number of children with hearing impairments by school district and age.¹⁶ The data showed a total of 796 public school students in 1998 in Kentucky whose primary

disability is a hearing loss. These students are scattered across the 176 schools districts, with many districts having only a few students who are deaf or hard of hearing, frequently at different grade levels. As parents make efforts to find the best educational setting for their children, students may move between public and private schools. Some districts experience trouble hiring and retaining teachers and interpreters who are trained in deaf education, a problem complicated by the fact that the number of students requiring services frequently varies from year to year.

The number of students who are deaf or hard of hearing is actually larger than the data from KDE suggest, since these numbers reflect only those students whose primary disability is hearing impairment. An estimated 42% of Kentucky public school students who are deaf and hard of hearing have additional disabilities.¹⁷ Also, a substantial number of students with less severe hearing loss are not diagnosed at an early age, though research suggests that even a mild hearing loss can impact student learning.¹⁸

Modes of Communication

Adding to the difficulty in providing a free appropriate public education is the fact that families of children who are deaf and hard of hearing choose different modes of communication and intervention strategies for their children. These include the oral approach, signed exact English, American Sign Language, cued speech, and the use of cochlear implants. There is no consensus among experts in the area of deaf education concerning which of these strategies is the “best” in providing educational, social, and cultural opportunities for children who are deaf and hard of hearing.

Optimally, parents base the choice of mode of communication on complete information regarding the various alternatives available. The process of developing and implementing an Individualized Family Services Plan, and later, in the school context, the Individualized Education Plan, should be based on the mode of communication chosen, the severity of the disability, other disabilities the student may have, and other factors that affect a child’s developmental and educational progress.

This adds an additional difficulty for school districts, who may have only a few deaf or hard of hearing students, at different grade levels, using different modes of communication. To be able to adequately address the needs of students, teachers then need to be able to employ a variety of teaching and communication strategies. The President of the American Association of College Educators of Deaf and Hard of Hearing, a Professor and DHH Coordinator at Eastern Kentucky University, testified before the subcommittee on July 13, 1999, and stated that in order to produce effective teachers, training programs must provide them with a wide range of instructional strategies and techniques, as well as communication skills.

Instructional Strategies and Classroom Issues

Instructional strategies can include placing students in a classroom with deaf and hard of hearing students with a teacher trained in deaf education, or placing students who are deaf or hard of hearing in a regular classroom, providing modifications to improve student participation in the learning process. Modifications can include the use of oral or

signing interpreters, note takers, captioned speech technology, and captioned video and television programming. Student placement within a classroom and classroom acoustics and environment are also issues that should be addressed. Some students will choose to go to a private institution, in order to receive the benefits of being in an environment with peers who communicate in similar ways, and teaching by trained educators of deaf and hard of hearing students. Other students choose to work within schools and classrooms with hearing peers, with modifications and assistance directed to their specific needs.

Often, some combination of these approaches is used, since each has benefits and drawbacks. A separate classroom for students who are deaf or hard of hearing affords the opportunity for more intensive one-on-one instruction with an appropriately trained educator, which can be particularly important for language development. On the other hand, due to the low incidence of the disability, one deaf educator may be required to work with students on a number of grade levels. Also, as students get older, content learning may suffer if students are not provided the same curriculum as their hearing peers.

Similarly, hearing impaired students in a classroom with hearing students receive the benefit of exposure to the general curriculum, and to the problems of navigating in the hearing world. On the other hand, teachers frequently do not have training in deaf education, and may not be aware of how to best address the needs of deaf or hard of hearing students. Modifications may not be completely successful in overcoming obstacles to communication and understanding. Given the complexity of the issues, instructional strategies based in the individualized needs of students, which may include a variety of approaches and which may change over time, appear to be the most appropriate.

At the July 13, 1999 meeting, the subcommittee heard from a number of educators from public schools in Kentucky, who provided members with insight into the challenges of providing educational opportunities for deaf and hard of hearing students. They also provided examples of students who have achieved academic success, as well as others who continue to struggle.¹⁹

All of the presenters stressed the need for early identification and intensive intervention to improve the language development of children, and several praised the efforts of the First Steps program in this endeavor. Several educators stated that educators need training in signed English, as well as American Sign Language (ASL), for use in the classroom to reinforce the syntax and structure of English, and to assist in improving student reading, writing, and spelling. ASL is a distinct language from English, with different rules and structure. While the choice of communication mode is ultimately up to the families, proficiency with the English language is a primary goal of the education system.

An Instructional Supervisor from the Pike County Public Schools explained the need for greater use of technology in mainstream classrooms, making accommodations for hard of hearing and deaf students readily available. Changes in technology include

efforts to improve classroom acoustics, the use of note takers, copies of teacher outlines, interpreters, and captioned video programs.

A common theme among the educators who made presentations before the subcommittee was the need for increased funding for the education of exceptional children. Frequently, the cost of providing a free, appropriate, public education far exceeds the financial support provided by the state and federal governments, and the cost is borne by the local district, or the services are not provided. While it has been argued that this disparity is offset by state funds sent to districts for exceptional students whose education costs less than that for students who are deaf and hard of hearing, the consensus among the educator presenters was that more funding is required.

Several educators also expressed the need for improved support of families confronted with the difficulties of raising a child who is deaf or hard of hearing. Ninety to 95 percent of children who are deaf or hard of hearing have hearing parents.²⁰ These families frequently have had little or no exposure to the Deaf Community, and are unfamiliar with the issues and options available. In addition, there is an emotional aspect to recognizing that a child is deaf or hard of hearing, and families need assistance in dealing with that. Information and support for families can improve outcomes for children.

Regional Structure Recommended for Providing Services

In response to the implementation difficulties described in the previous section, several experts who testified before the subcommittee recommended the use of regional educational structures, allowing school districts to pool resources to improve the quality of education for students who are deaf or hard of hearing. Regional programs with a focus on deaf and hard of hearing education offer the possibility of providing high quality educational opportunities in a cost efficient manner, while allowing students an option to receive specialized services without traveling great distances or living away from home to receive them.

The Director of the Louisville Deaf Oral School recommended in her testimony on June 7, 1999, that local school systems establish regional preschool and early elementary education programming to provide the intensive intervention necessary to improve language development. Such programming could be developed through collaboration between the First Steps program, local school districts, and existing providers already trained in the field of early intervention. She also recommended the establishment of regional magnet middle schools and high schools for deaf and hard of hearing students who want or need that kind of setting.

The Superintendent of the Kentucky School for the Deaf (KSD) recommended that additional resources be provided to establish regional or satellite programs for deaf and hard of hearing students, in cooperation with local school districts. In 1998, the General Assembly passed HB 237, codified in KRS 167.015, which provides that KSD shall serve as a Statewide Educational Research Center on Deafness, and specifies the various activities and services that KSD may provide in that capacity.

In particular, KRS 167.015 provides that KSD “may enter into collaborative agreements with local school districts and other public and private agencies to provide for regional or satellite programs for children and youth who are deaf and hard of hearing.”²¹ KSD has begun this process by collaborating with 16 school districts in northern Kentucky to establish a Northern Kentucky/KSD regional program, serving students grades K-6. They began with an early childhood education class of 10 in 1998-99, and will add one grade per year.

Teacher Training and Accreditation

The Executive Director of the Education Professional Standards Board (EPSB) spoke before the subcommittee at the July 7, 1999 meeting about the current status of certification for teachers of deaf and hard of hearing students in Kentucky. Dr. Leib stated that there are 159 teachers working in Kentucky public schools with a valid certificate or endorsement for deaf education. Of those 159, 55 work at the Kentucky School for the Deaf, and 104 work in school districts across the state.

Current certification requirements do not include an assessment of a prospective teacher’s ability to communicate using sign language. In 1995, the EPSB formed a task group of experts in issues relating to the education of deaf and hard of hearing students, and requested assistance in determining an appropriate communications assessment mechanism for teachers, to be used in the certification process. To date, no recommendation of the group has been provided.

The President of the American Association of College Educators of the Deaf and Hard of Hearing, Professor and DHH coordinator at Eastern Kentucky University, also testified before the subcommittee on July 13, 1999. She described the program at Eastern Kentucky University (EKU), the only teacher training program in Kentucky that trains teachers to work with deaf and hard of hearing students. The program graduates approximately 15 students per year (22 in 1999), and has two full-time faculty. The program is demanding, requiring four to five years to complete the 145 credit hours necessary for graduation. In addition, students must receive a passing score on the appropriate PRAXIS exam to graduate, and complete a 15-week student teaching assignment, one-half spent working with deaf and hard of hearing students, and one-half in a regular classroom setting. She explained that the larger number of credits was necessary in order to ensure that graduates were trained in a wide variety of teaching and instructional strategies and communication skills, so that they are ready to provide appropriate services to students with diverse educational needs.

Mental Health Services for Deaf and Hard of Hearing Students

The Superintendent of the Kentucky School for the Deaf, in his testimony before the subcommittee on June 7, 1999, called for increased resources and staffing to school systems, including KSD, to work with students with additional disabilities, especially those with emotional and behavioral difficulties. During the 1995-1996 and 1996-1997 school years, 42% of the 208 students receiving comprehensive evaluations at KSD's Statewide Evaluation Center were assessed as having additional disabilities. The Superintendent stressed that with this high incidence of additional disabilities, a mental health treatment program for such students is a critical need in Kentucky schools.

Subcommittee Recommendations

The Subcommittee on Elementary and Secondary Education of the Interim Joint Committee on Education, based on the testimony and discussion during five subcommittee meetings devoted to the issue of the education of deaf and hard of hearing students, adopted the following recommendations at its meeting on September 1, 1999.

Early Identification and Intervention Programs

Recommendation 1. Establish a newborn universal screening and intervention program and require hospitals that provide childbirth services to conduct hearing screening of all infants before discharge from the hospital.

Considerations:

- It is estimated that one in every 1,000 newborn babies in this country in this country. Many more suffer less severe degrees of hearing impairment at birth, while others develop a hearing impairment during childhood.
- The most crucial period for speech and language development is the first three years of life. Reduced hearing acuity during infancy and childhood interferes with language and speech development.
- Delayed identification and management of hearing loss affect social, emotional, and academic development, as well as vocational and economic potential.
- Hearing impairments should be recognized early in life so that intervention and remediation processes can begin and language and communication development is enhanced.
- Twenty states have enacted universal screening laws, 5 states have legislation pending, and 2 states have pending legislation to study the need for laws.
- Federal legislation, “Newborn and Infant Hearing Screening and Intervention Act of 1999” has been introduced in the Congress: H.R. 1193 and S.R. 956.

Recommendation 2. Evaluate the administration and operations of the High Risk Registry, with a view toward restructure.

Considerations:

- While Kentucky has established the High Risk Registry for identifying at birth children with hearing impairment as a part of the early intervention system, the registry focuses on neonatal screening of infants who are deemed high risk on the basis of certain medical criteria, and, as a result, about 50% of children are not tested and the hearing loss in this group goes undetected.
- Administered by the Commission for Children with Special Health Care Needs in the Cabinet for Health Services, the operation of the High Risk Registry is said to be plagued by staffing and funding problems.

Recommendation 3: Evaluate the Kentucky Early Intervention System including the First Steps and Kentucky Early Years programs, for effectiveness of services to children and families across the state, adequacy of training programs for providers and developmental interventionists, and sufficiency of data collection. Make recommendations for restructuring the program to meet the needs of children who are deaf or hard of hearing.

Considerations:

- The Kentucky Early Intervention System was established in 1994 to provide a comprehensive, coordinated, interdisciplinary system of services for children, birth to three, with a developmental delay or a condition that is likely to cause a delay, and their families.
- Called the First Steps Program, the system is locally driven and depends on hospitals and health services providers, as well as community relationships and resources, for finding children in need of services. At the point of entry, a professional contacts the family and gathers information and determines the eligibility of the child. An individualized family service plan is developed by a local team to identify needed intervention services for children that may be required up to the third birthday. The child is referred to the local school system or other services. Technical assistance teams of professionals from several disciplines and parents are located at seven public universities and provide training and consultation to local providers and families.
- The mission of Kentucky Early Years program (KEYS) is to provide technical assistance to preschool teachers, intervention providers, and families of the deaf and hard of hearing children. It also publishes a statewide parent and provider newsletter. KEYS receives from the Hearing Registry the names of families for contact, referral and screening for hearing loss. The Birth Surveillance Registry has not begun to make a connection for referrals of children.
- Other problems noted in the intervention program are:
 - a. Developmental interventionists and First Step providers are not trained in deafness, i.e. language development, communication modes, assistive devices. The training received takes the “how to” approach. Furthermore, training is optional and the number of local providers being trained is relatively low.
 - b. The data collection and diagnosis codes are not reliable and do not accurately reflect the numbers of children for whom deafness or hearing impairment is a primary disability or an additional disability. When several disabilities are diagnosed, the dilemma for staff is to determine the priority of a disability. As a result, identification of children who are deaf or hearing impaired is often not recorded.
 - c. Intervention services should increase public awareness of deafness in young children by providing parents and child care providers with information about the indicators of hearing impairment in infants and young children. Parents of children who are deaf or hard of hearing should receive information and training on language and speech development, the various modes of

communication, assistive devices, and available resources, so that informed choices can be made in the best interest of the child.

Educating Children Who are Deaf and Hard of Hearing

Recommendation 4.

A. Establish regional schools for the deaf and hard of hearing, serving preschool, elementary, middle and high-school-aged students, under the direction of the Kentucky Department of Education and the Kentucky Commission on the Deaf and Hard of Hearing.

B. Encourage partnerships of local school districts and the State Educational Resource Center on Deafness, the Kentucky School for the Deaf, the Louisville Deaf Oral School, the Lexington Speech and Hearing Center, or any other public or private agency for the establishment of regional or satellite programs.

Considerations

- Approximately 796 students in public schools are deaf or hearing impaired, including 219 students attending the Kentucky School for the Deaf.
- The low incidence and the variety of ages of deaf and hard of hearing students in local school, as well as recruitment and retention of qualified educators in some districts, exacerbate the problems of providing free, appropriate educational services.
- In some cases, students are mainstreamed in schools and assigned to teachers who are not trained in deaf education or have no understanding of the modes of communication or the use of amplification in classroom settings.
- Regional or partnership programs should be structured to provide comprehensive and quality educational services, conducted by professionals, and to encourage participating school districts to share funding and resources to serve the student population.

Recommendation 5. Provide services for mental health treatment for students who are deaf and hard of hearing and also experiencing severe emotional and behavioral difficulties.

Considerations:

- The number of children who are deaf or hard of hearing and also suffering from behavioral disorders indicates the critical need for treatment.
- During the 1995-96 and 1996-97 school years, 42% of the 208 deaf and hard of hearing students assessed at the Statewide Evaluation Center of KSD had one or more additional disabilities.
- During the 1995-96 school year, 46% of the students enrolled in KSD, and 43% in Kentucky, as opposed to 33% nationally, were reported to have one or more additional difficulties. For those students with emotional and behavioral difficulties, 15% were enrolled in KSD, 10% in other Kentucky schools, as opposed to 4% nationally.²²

Endnotes

¹ Senate Resolution No. 164, March 23, 1998.

² KRS 158.6451 Legislative declaration on goals for Commonwealth's schools; model curriculum framework.

³ Kentucky School for the Deaf: An Academic Survey of Students with Severe and Profound Hearing Losses Without Reported Mental Retardation Taking the SAT-8 as 12th Graders, 1992-93 to 1996-97 Academic Years. November 20, 1997.

⁴ Ibid.

⁵ Kentucky Department of Education data presented to the Subcommittee on Elementary and Secondary Education, on April 5, 1999 by Mr. Preston Lewis, Program Services Branch Manager, Division of Exceptional Children Services.

⁶ Ibid.

⁷ Ibid.

⁸ Kentucky School for the Deaf: An Academic Survey of Students with Severe and Profound Hearing Losses Without Reported Mental Retardation Taking the SAT-8 as 12th Graders, 1992-93 to 1996-97 Academic Years. November 20, 1997.

⁹ Kentucky Department of Education Non-Academic Summary.
http://www.kde.state.ky.us/oaa/implement/ctbs/ctbs_1999/non-academic.asp. Revised 9/19/99.

¹⁰ Description of laws based on information taken from KDE Website:
http://www.kde.state.ky.us/osis/children/childseduc/Your_Childs_Education.asp.

¹¹ KRS 157.360 (b)

¹² American Speech-Language-Hearing Association Website:
http://www.asha.org/infant_hearing/bill_status.htm#il.

¹³ THOMAS: U.S. Legislative Information on the Internet, A Service of the Library of Congress.
<http://thomas.loc.gov/cgi-bin/bdquery/D?d106:15:./temp/~bdYpkv:@@D/bss/d106query.html>.

¹⁴ KRS 211.660 (1).

¹⁵ Mr. Jim Henson, Assistant Director and First Steps Coordinator, Department for Mental Health and Mental Retardation Services, Cabinet for Health Services, PowerPoint presentation to the Subcommittee on Elementary and Secondary Education, July 13, 1999.

¹⁶ "98 Hearing Impaired Child Count by District and Age, 12/1/98 Data", Kentucky Department of Education data presented to the Subcommittee on Elementary and Secondary Education, on April 5, 1999 by Mr. Preston Lewis, Program Services Branch Manager, Division of Exceptional Children Services.

¹⁷ Testimony of Dr. Johnnie Grissom, Associate Commissioner, Office of Special Instructional Services, Kentucky Department of Education, before the Subcommittee on Elementary and Secondary Education, June 7, 1999.

¹⁸ Testimony of Ms. Mary Lee Nelson, teacher in the Hart County Public Schools, before the Subcommittee on Elementary and Secondary Education, July 13, 1999.

¹⁹ The subcommittee heard testimony from the following educators during the July 13, 1999 meeting: Ms. Kathleen Reutman, Director of Exceptional Children, Boone County Public Schools; Ms. Mary Ann Bueso, Director of Exceptional Children, Hardin County Public Schools; Ms. Brenda Gooslin, Instructional Supervisor, Pike County Public Schools; and Ms. Mary Lee Nelson, Teacher, Hart County Public Schools.

²⁰ Testimony of Dr. Harvey Corson, Superintendent, Kentucky School for the Deaf, before the Subcommittee on Elementary and Secondary Education, June 7, 1999.

²¹ KRS 167.015.

²² Office of Demographic Studies at Gallaudet University.