

MINUTES

**MONTANA HOUSE OF REPRESENTATIVES
54th LEGISLATURE - REGULAR SESSION**

JOINT SUBCOMMITTEE ON EDUCATION & CULTURAL RESOURCES

Call to Order: By ROYAL C. JOHNSON, on January 5, 1995, at
8:00 AM

ROLL CALL

Members Present:

Rep. Royal C. Johnson, Chairman (R)
Sen. Daryl Toews, Vice Chairman (R)
Rep. Don Holland (R)
Sen. Greg Jergeson (D)
Rep. Mike Kadas (D)
Sen. Arnie A. Mohl (R)

Members Excused: None

Members Absent: None

Staff Present: Skip Culver, Legislative Fiscal Analyst
Curtis Nichols, Office of Budget & Program
Planning
Paula Clawson, Committee Secretary

Please Note: These are summary minutes. Testimony and
discussion are paraphrased and condensed.

Committee Business Summary:

Hearing: Montana School for Deaf & Blind
Executive Action: None

HEARING ON MONTANA SCHOOL FOR DEAF & BLIND

Tape 1, Side A

Skip Culver, Legislative Fiscal Analyst, provided a brief description of the Montana School for the Deaf & Blind (MSDB). MSDB, located in Great Falls, has a total budget of approximately \$3.2 million per year, of which \$2.9 million is general fund. As of Fall 1994, 96 students attend the school - 50 of these reside on campus. The school also serves 34 students statewide through a resource consultant outreach program. The schools four programs and their funding are: administration - 100% general fund; general services - 100% general fund; student services - general fund and federal school lunch funds; education program - general fund, school trust fund and federal funds. Total present law increases to the base (Page E21) are \$570,000.00 in 1996, \$501,000.00 in 1997. Four new executive proposals are for

personnel services reductions and one proposal is to return funding for the outreach program back to the general fund. The 1993 legislature adopted the executive recommendation to fund the outreach program from fees charged to school districts. The executive recommendation for 1995 is for the funding to again be from the general fund. LFA has raised four education program issues with the executive budget which Mr. Culver will discuss further during Executive Action.

Tape A:1:123

Amy Sanguon, mother of a hearing-impaired child and school teacher, said that her infant child was diagnosed with hearing problems approximately three years ago while they were living in Browning. The outreach services had a family-infant intervention program which was very helpful to her family during that time. Her child, now four years old, has just been diagnosed with a severe deterioration of her hearing, and because of reductions in the outreach program there is no longer a family-infant program and no outreach worker available to her family now that they live in Helena. She asked the committee to restore funding to the outreach program so the family-infant program can be restored.

CHAIRMAN JOHNSON asked Ms. Sanguon what, in her opinion as a teacher, responsibility the school system should have to funding the outreach program. **Ms. Sanguon** responded that she did not feel the school systems had the expertise themselves nor the funding to pay for the services of the outreach program.

Tape 1:A:436

Kelly Evans, Great Divide Education Services, supports appropriations for the outreach programs. Because of the difficulty for many families of having to go to Great Falls for testing of their sensory impaired children, he supports outreach programs which can assist families and schools outside of the Great Falls area as much as possible, particularly in rural areas.

Tape 1:A:538 and Change to Tape 1, Side B

John Kinna, Superintendent, Montana School for the Deaf & Blind, said that projected MSDB reductions for Fiscal 1997 results in a net loss of 6.09 FTE's since 1984, while the number of students served has stayed basically static in these years. Programs lost in recent years because of budget reduction includes: family-infant intervention which was serving 30 children; traveling resource consultants for visually impaired children; braille transcriber services; and career education program. **Mr. Kinna** asked the subcommittee to:

- restore the family-infant intervention program
- add 3 outreach program staff (they currently have 1 staff and a recent government study suggested 6 staff)
- add one maintenance staff (MSDB currently has 3 staff for an 18.5-acre, 24-hour facility)
- replace three vans which under federal guidelines are illegal to use for transporting students. EXHIBIT 1 & 2

Tape 1:B:215

Gail Gray, Assistant Superintendent, Office of Public Instruction (OPI), supports the requests of MSDB because the public schools don't have the money or expertise to provide the programs of MSDB, and in a rural state like Montana a centralized area of expertise is important. OPI provides MSDB a federal grant to provide information services to school districts with regard to the education of deaf and blind students.

Tape 1:B:325

Pat Domme, President, Montana Association for the Blind, spoke about his use of outreach services while he was completing his college education. He feels that school districts should pay for outreach services administered by MSDB. He commented that unlike school districts which can levy mil taxes, MSDB is solely dependent of the legislature for its funding.

Tape 1:B:435

REP. DON HOLLAND asked how many people are in outreach. **Dennis Slonaker, MSDB outreach staff**, reported 31 people are being served by one staff person.

REP. HOLLAND asked what the current and total capacity of the school is. **Bill Davis, Principal, MSDB**, said the full capacity of the school would be 150 if they had the staff. Currently the school has 53 residential students and 45 day students.

CHAIRMAN JOHNSON asked Mr. Kinna how he felt about the Governor's budget. **Mr. Kenna** is "thrilled" at the proposal to fund outreach, but is concerned that the budget takes back \$273,000.00 through vacancy savings. This cut will come from student services.

CHAIRMAN JOHNSON asked if MSDB could shift funds from the outreach program to student services if it wanted. **Curt Nichols, Office of Budget & Program Planning**, said they could. (Tape not clear during this exchange. There were several speakers).

CHAIRMAN JOHNSON asked if the money restored to the outreach program in the Governor's budget would fund the three additional staff plus the parent-infant program. **Mr. Kinna** answered that the additional outreach workers would make the parent-infant program possible.

REP. MIKE KADAS asked why in the Executive Budget New Proposals (Page E-32) the Restore Outreach was shown with \$210,000.00 in general fund but \$0 in total funds. **Mr. Nichols** answered that there is no increase in total funds, this is a switch in general funds for fee funds.

SEN. GREG JERGESON asked for an update on the status of the lawsuits pending against MSDB. **Bill Sykes, Business Manager, MSDB**, reported that two suits have been settled since August with one suit concerning back pay and holiday pay still pending.

SEN. JERGESON asked if the Present Law base includes adjustments for lawsuit settlements. **Mr. Sykes** explained that these are back-pay issues and are not carried in the new budget. If MSDB needs money to cover this suit, it will through a supplemental request to the Governor. **Mr. Kinna** feels the suit will be appealed if MSDB loses.

REP. HOLLAND asked if some of the outreach children could become students at MSDB as there seems to be room. **Mr. Davis** answered that it is not always the best solution since it is usually more costly for on-site services than the outreach program and since parents, by law, have a choice in the education of their sensory impaired children and can not be forced to choose MSDB. MSDB supports keeping children in their homes and communities.

REP. KADAS asked what accounts for the increase in personal service. (Page E-21, 2nd table). **Mr. Culver** answered these costs are mostly in restoration of the outreach program to 1993 levels. The positions were authorized in 1993 but the fees didn't materialize, so the budget is being restored through funds from earmarked state special revenues. The base reflects the FTE, but the positions weren't funded. **Mr. Nichols** pointed out that the budget for non-resident students is also in personal services. **REP. KADAS** asked if some of this budget should be in overhead. **Mr. Nichols** answered that this was how the department requested it be shown.

REP. KADAS asked which FTE's MSDB would eliminate in the vacancy savings. **Mr. Kinna** answered that it would be through the current vacancies, including cottage workers and outreach workers.

Tape 2, Side A

REP. KADAS asked how much of the \$465,000.00 Present Law Base Adjustment in is due to the annualization of the increase in personal services. **Mr. Culver** answered it is approximately \$50,000.00 - 1.5% plus \$40.00 in insurance. **Mr. Sykes** commented that this formula doesn't necessarily apply to MSDB because in 1994 teachers were given a two-step increase to get their salaries up to the Great Falls School District salaries.

CHAIRMAN JOHNSON requested a specific answer prior to executive action.

REP. HOLLAND clarified with Mr. Culver that \$210,000.00 from special revenue that was not collected in fees will be restored by the general fund.

Mr. Sykes pointed out that in 1993 there was \$257,000.00 for outreach; for 1996 MSDB is asking for \$210,000.00.

CHAIRMAN JOHNSON asked how long the amount of the OPI grant and how long it would last. **Ms. Gray** answered that it was a one-year grant that would end in 1995. **Mr. Sykes** reported the grant was for \$40,150.00 (1 FTE).

CHAIRMAN JOHNSON asked if MSDB qualifies for school-to-work funds. **Ms. Gray** answered that MSDB qualifies to apply for the funds, as does any other school.

Mr. Slonaker explained that the outreach program has gone from five staff members in 1974 to one staff member currently. He feels that school districts lack the funds for outreach and increase enrollment further constricts the classroom teachers time to work with sensory impaired children.

REP. HOLLAND asked if there were a selected level of impairment used for children helped in the outreach program. **Mr. Slonaker** answered there is no hard rule, but in general it is based on the legal definitions for blindness and hearing impairment. The outreach program considers "any impairment that has a significant effect on their ability to learn."

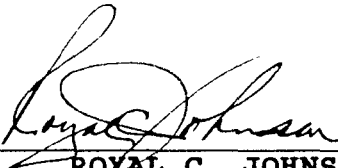
Tape 2:A:465

CHAIRMAN JOHNSON announced that because the MSDB hearings did not need as much time as scheduled, the subcommittee would not meet on January 6.

ADJOURNMENT

Adjournment: The meeting adjourned at 9:47 AM.

[THIS SESSION IS RECORDED ON 2 90-MINUTE TAPES: Tapes have radio station pick-up in background]



ROYAL C. JOHNSON, CHAIRMAN



PAULA CLAWSON, SECRETARY

RCJ/pc

EDUCATION

Joint Appropriations Subcommittee

ROLL CALL

DATE 1/5/95

NAME	PRESENT	ABSENT	EXCUSED
Rep. Royal Johnson, Chairman	✓		
Rep. Mike Kadas	✓		
Rep. Don Holland	✓		
Sen. Daryl Toews	✓		
Sen. Greg Jergeson	✓		
Sen. Arnie Mohl	✓		

LEGAL BASIS FOR EARLY INTERVENTION SERVICES

 EXHIBIT 1
 DATE 1/5/95
 SB MSDB

Lissa Power-deFur, Ph.D., and Jaye Harvey, Ed.D.†*

Early intervention services for infants, toddlers, and preschoolers with hearing impairment are supported through federal legislation. Legislation establishes both the rights available to children with hearing impairment and their parents and parameters for early intervention. This article is an overview of the legal basis for early intervention services. It reviews federal legislation and regulations, with particular focus on infants, toddlers, and preschoolers with hearing impairment. A particular focus is on the role of the audiologist and speech-language pathologist.

HISTORY

In 1975, the United States Congress passed landmark legislation establishing the right to education for persons with disabilities (Public Law [P.L.] 94-142). However, significant legal activity preceded P.L. 94-142, leading to its successful passage.

The Supreme Court's decision in the case, *Pennsylvania Association for Retarded Children (PARC) v. the Commonwealth of Pennsylvania* (1971), laid the groundwork for a decade of legislation favorable to persons with disabilities. This case established the right of a person with a disability to a free public education. In addition, the *PARC* case established the role of both the parents and the child in determining the nature of the education provided.

Section 504 of the Rehabilitation Act of 1973 (P.L. 93-112) is a civil rights statute that provides that no otherwise qualified handicapped individual shall, solely by reason of a handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance. Under Section 504, a handicapped child is any child who (a) has a physical or mental impairment that substantially limits one or more major life activities, (b) has a record of such an impairment, or (c) is regarded as having such an impairment.

In 1975 Congress passed the Education for All Handicapped Children's Act (the Act). Public Law 94-142 established the right to *free and appropriate public education* for all students with disabilities ages 5 through 21. Services are provided in the *least restrictive environment* (LRE), based upon individual student needs. The rights of children with disabilities and their parents are protected by the Act.

The Act establishes special education as specially designed instruction to meet the unique needs of a child with a disability. Special education includes classroom instruction, instruction in physical education, home instruction, and instruction in hospitals and institutions. Eligible students also may receive related services, which are other supportive services as required to assist a child with a disability to benefit from

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special education. Related services include speech–language pathology and audiology.

The Act also establishes the responsibility of the federal government in the provision of financial assistance to states and localities to support implementation of the requirements of the Act. Unfortunately, federal support has never reached the level hoped for during initial passage of the legislation in 1975.

The Act defines the disability categories encompassed by the law. The definitions of hearing impairment and deaf remain unchanged. Table 1 presents the definitions of disabilities related to hearing impairment.

The Act further mandates that each public agency shall ensure that hearing aids worn by children who are deaf and hard of hearing in school are functioning properly.

Although the Act focused on mandated services for children ages 5 through 21 (up through the student's twenty-second birthday), it created grant funds that states could use on a discretionary basis to establish and provide preschool programs for students ages 3 through 5. By 1985, 28 states were providing services to this age group. Many states mandated services to children below age 3.

During the 1986 reauthorization of the Act. (P.L. 99–457), Congress added amendments that significantly advanced the provision of services to infants, toddlers, and preschoolers with disabilities. All states were required to provide preschool programs to children with disabilities, ages 3 to 5 by the 1990–91 school year. The Act also established discretionary monies for states to plan for services for infants and toddlers. This amendment to the Act, Part H, defines the nature of services to be available for infants and toddlers from birth to age 3 and their families.

The Act was reauthorized again in 1990. Congress renamed the Act the Individuals with Disabilities Education Act (IDEA) in response to persons with disabilities and

TABLE 1. Selected Special Education Definitions^a

deaf: a hearing impairment which is so severe that the child is impaired in processing linguistic information through hearing, with or without amplification, which adversely affects educational performance
hard of hearing: a hearing impairment, whether permanent or fluctuating, which adversely affects a child's educational performance but which is not included under the definition of "deaf"
speech or language impaired: a communication disorder, such as stuttering, impaired articulation, a language impairment, or a voice impairment, which adversely affects a child's educational performance
deaf-blind: concomitant hearing and visual impairments, the combination of which causes such severe communication and other developmental and educational problems that they cannot be accommodated in special education programs solely for deaf or blind children

^aSource: Individuals with Disabilities Education Act (1990).

advocacy groups who called for a change in language: to focus on the individual first, and the disability, rather than handicap, which infers a limitation.

THE SPECIAL EDUCATION PROCESS: AGES 3 TO 5

IDENTIFICATION

Part B of IDEA defines the special education process for students ages 3 through 21. The process begins with identification of children with suspected disabilities. All local school divisions¹ must operate an ongoing identification and referral program (*child find*). These child find programs involve both informing the public (including parents, educators, and medical personnel) of a person's right to a free appropriate public education, and the availability of special education and related services. The nature of disabilities, the early warning signs, and the need for early intervention must be included.

Referrals may arrive through child find, or from professionals and parents. Speech–language pathologists and audiologists working in any setting may refer a child to the school division. Since preschoolers are not a part of the typical

¹Local school divisions will be used to reflect intermediate education units as well as local education agencies.

LEGAL BASIS—POWER-DE FUR, HARVEY

kindergarten through twelfth grade school population, school divisions that receive referrals for preschool children meet the requirements for determining eligibility in a different manner than is used for school-aged children. If the child received early intervention services, the local school division may use the evaluation data from the intervention services in the determination of eligibility. The most effective transition of a child between early intervention services and early childhood special education programs relies on coordinated planning between the agencies serving children.

School districts complete full assessments for children for whom no prior evaluation data is available. The assessment process includes all areas related to the suspected disability. These may include, if appropriate:

health, vision, hearing
social and emotional status
general intelligence
academic performance
communicative status
motor abilities

A child with a history of hearing impairment should receive a full audiological evaluation and assessment of communication skills. Speech and language evaluations must be accompanied by assessments of the child's ability to use the communication modality of his or her environment (e.g., sign language). Many preschoolers who have had a history of recurrent otitis media will benefit from ongoing assessment of their hearing status. This will allow for consideration of the impact of mild hearing impairment on the acquisition of developmental milestones.

Eligibility for early childhood special education services is based upon the presence of a disability or a developmental delay which causes the child to need special education and related services. Use of "developmental delay" as an eligibility category is at state's discretion, and will be reflected in each state special education regulations.

All evaluations should be completed by qualified professionals, persons recognized

by the state education agency or state licensure agency as qualified to practice the specific profession. Many school districts find they do not have adequate staff to complete the testing required to fully identify the needs of students with hearing impairment and contract with professionals within the community for such services.

The Act provides for specifically designed tests for children who are deaf. A qualified interpreter/transliterater may be required to accomplish the eligibility testing for students whose primary mode of communication is sign language, or who use Cued Speech.

Determination of eligibility for special education is made by a multidisciplinary team. This team includes, at a minimum, persons knowledgeable about the child, the meaning of the evaluation data, and the service delivery options. Parents are important members of this multidisciplinary team.

EARLY CHILDHOOD SPECIAL EDUCATION SERVICES

If found eligible for special education or related services, school personnel develop an Individualized Education Program (IEP) prior to initiation of services. The IEP is the document that directs the instructional program for a child with a disability. The IEP is a written statement for each child, developed in a meeting of the teacher, education administrator, parents, and other individuals (e.g., the audiologist and speech-language pathologist), as appropriate. The audiologist or speech-language pathologist, or both, may be included in the IEP meeting for preschoolers with hearing impairments. Federal regulations define the components of the IEP. These include:

1. A statement of the present level of performance
2. A statement of annual goals, including short-term instructional objectives
3. A statement of the specific education and related services to be provided
4. The extent to which the child will participate in regular education programs

5. Projected date for initiation and anticipated duration of services
6. Appropriate objective criteria and evaluation procedures and schedules for determining, on at least an annual basis, whether instructional objectives are being achieved

The IEP for hearing-impaired children should address the mode of communication and the use of educational interpreters.

Upon development of the IEP, a decision is made regarding the place where the child will receive services. The Act requires that each student be placed in the least restrictive environment (LRE). LRE means that children with disabilities must be educated with children without disabilities to the maximum extent appropriate for each child. A full range of alternative placements must be available to every child with a disability. For preschoolers, special education services may be delivered at home, in community-based preschool or child care centers, in Head Start programs, in classes for preschoolers with disabilities located in elementary school buildings, and in other places based on the needs of the child.

PROCEDURAL SAFEGUARDS

A critical component of the Act was the establishment of guaranteed procedural safeguards. Educators are required to provide the following safeguards for parents or guardians:

1. Access to all relevant records
2. The opportunity to request an independent evaluation of the child
3. Written notification of program changes (in the native language or mode of communication)

The Act provides a process through which a parent, another individual, or an organization may file a complaint against a school district with the state education agency. Further, in the event that the parents and the local school division cannot agree on the identification, evaluation, or educational placement or the provision of a

free appropriate public education for a child, the parents and the school district have the right to request a due process hearing. An impartial hearing officer holds a hearing and makes a decision regarding the information presented.

EARLY INTERVENTION REQUIREMENTS: AGES BIRTH TO 3

Under Part H, early intervention services are services designed to meet the developmental needs of an infant or toddler with a disability and the needs of the family related to enhancing the child's development.

One of the fundamental differences between Part B and Part H of the Act is the shift in focus from the child's education needs to the child's early developmental needs. Early intervention can reduce the effects of a child's delay or disability, or it may prevent disabilities.

Another policy shift is Part H's focus on the family. The family may include all family members and nonrelatives residing in the home who care and support the child. The 1986 legislation recognized the importance of the relationship between the child and the family in the child's development. The focus on the family in Part H service delivery is consistent with the Congressional finding that there is an urgent and substantial need to enhance the capacity of families to meet the special needs of their infant and toddlers with disabilities. This family-centered focus differentiates Part H services from Part B services which are primarily student-centered.

SCREENING

Although not required by Part H, the first step in the identification of many infants and toddlers is the screening process. Completion of a hearing screening by an audiologist is an important first step in the identification of infants and toddlers with hearing impairment. Many states have implemented requirements for hearing

screening for newborns (Table 2). Audiologists play a valuable role in the identification of infants and toddlers at risk for hearing impairment and should be actively involved with the local early intervention programs.

EVALUATION AND ASSESSMENT

Part H of IDEA requires a timely, comprehensive, multidisciplinary evaluation of each child, birth through age 2, who is referred for evaluation. *Evaluation* is the process of determining the infant's or toddler's initial or continuing eligibility for Part H services. *Assessment* involves the ongoing procedures to determine the child's unique strengths and needs; the services appropriate to meet those needs; the resources, priorities, and concerns of the family; and the supports and services needed to enhance the family's capacity to meet the developmental needs of their young child. Assessment must be multidisciplinary, involving two or more qualified professionals. Audiologists and speech-language pathologists are identified as appropriate members of the assessment team. Table 3 includes some of the professionals who may serve as members of the multidisciplinary team.

The assessment must be based on informed clinical opinion, and include a review of the child's current health status and medical history. Written parental consent must be obtained prior to conducting the evaluation. The child's functioning in each developmental area must be evaluated. These areas include:

- cognitive development
- physical development, including vision and hearing
- communication development
- social or emotional development
- adaptive development

The Act requires assessment of the unique needs of the infant or toddler in terms of each developmental area, and identification of services to meet those

TABLE 2. States with Legislative Mandates for Infant Hearing Screening

Arizona	Maryland
Colorado	Massachusetts
Connecticut	New Jersey
Florida	Ohio
Georgia	Oklahoma
Hawaii	Rhode Island
Kentucky	Virginia
Louisiana	Washington
	West Virginia

Source: American Speech-Language-Hearing Association (1993).

needs. Like Part B, Part H requires nondiscriminatory evaluation and assessment. Tests and evaluations must be in the child's and family's native language. Professionals must be alerted to the need to use interpreters if infants/toddlers or their families communicate in sign language or with Cued Speech.

Identification of the family's resources, priorities, and concerns is voluntary on the part of the family. If conducted, assessment must be family-directed, be based on information supplied by the family through a personal interview, and be designed to determine the family's description of its resources, priorities, and concerns related to enhancing the development of the child.

In response to the critical nature of the development of young children, the federal regulations require that the evaluation and initial assessment of a child (and family, if conducted), and an Individualized Family Service Plan (IFSP) meeting must be completed within 45 days of the referral. Exceptions are allowed in unusual circumstances (e.g., child hospitalization), with appropriate documentation. Reevaluation on an

TABLE 3. Part H Qualified Professionals

Audiologist
Counselor
Family therapist
Nurse
Nutritionist
Occupational therapist
Orientation and mobility specialist
Pediatrician and other physician
Physical therapist
Psychologist
Social worker
Special educator
Speech-language pathologist

annual basis is required, or more frequently as needed.

Contrary to the regulations of Part B, early intervention services for an eligible infant or toddler and the child's family may begin before the completion of evaluation and assessment. With parental consent, an interim IFSP may be developed. The interim IFSP must include the name of the service coordinator and the early intervention services needed immediately. The evaluation and assessment must still be completed within the 45-day period; however, in instances where it is clear that the child has obvious immediate needs, services may be provided without delay.

EARLY INTERVENTION SERVICES

Early intervention services are those services designed to meet the developmental needs of eligible infants and toddlers. (Table 4 presents the federal definition of infants and toddlers with disabilities.) Children may be in need of early intervention if they are experiencing developmental delays or if they have a diagnosed condition which research and experience demonstrate typically results in developmental delay. Thus, early intervention services may be provided to children before any developmental delay is evident. Conditions such as chromosomal abnormalities, genetic or congenital disorders, and severe sensory impairments (including hearing and vision), for example, may result in eligibility

for early intervention services before measurable delay is evident.

Further, at a state's discretion, infants and toddlers who are at risk of having substantial developmental delays if services are not provided, may be served. In defining which children would be at risk, states may include well-known biological and other factors that are identifiable as placing infants and toddlers at risk for developmental delay. These risk factors commonly include low birth weight, respiratory distress as a newborn, lack of oxygen, brain hemorrhage, and infection.

Early intervention services are selected in collaboration with parents and are provided under public supervision by qualified personnel. Table 5 presents the array of early intervention services, and Table 6 provides federal definitions of audiology and speech-language pathology services.

In contrast with the free and appropriate public education provided to preschoolers and older children eligible for special education under Part B, some early intervention services are subject to fees to parents. Child find; evaluation and assessment; service coordination; development, review and evaluation of IFSPs; and implementation of procedural safeguards are provided at public expense and at no cost to parents. States may establish a system of payments for other early intervention services, including a sliding fee schedule. An eligible child and family may not be denied services, however, based on their inability to pay.

TABLE 4. Infants and Toddlers with Disabilities

<p>Infants and toddlers with disabilities (Birth-2) require early intervention services because they</p> <ol style="list-style-type: none"> (1) are experiencing developmental delays, as measured by appropriate diagnostic instruments and procedures, in one or more of the following areas: cognitive development, physical development, communication development, social or emotional development, or adaptive development, or (2) have a diagnosed physical or mental condition that has a high probability of resulting in developmental delay. <p>At a state's discretion, the term may also include children who are at risk of having substantial developmental delays if early intervention services are not provided.</p>
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TABLE 5. Early Intervention Services

<p>Assistive technology devices and services Audiology Case management/Service coordination services Early identification, screening, and assessment services Family training, counseling, and home visits Health services (necessary to benefit other early intervention services) Medical services (diagnostic and evaluation purposes only) Occupational therapy Physical therapy Psychological services Social work services Special instruction Speech-language pathology Transportation Vision services</p>

TABLE 6. Audiology and Speech-Language Pathology Under Part II

Audiology	<ul style="list-style-type: none"> i. Identification of children with auditory impairment, using at risk criteria and appropriate audiologic screening techniques; ii. Determination of the range, nature, and degree of hearing loss and communication functions, by use of audiological evaluation procedures; iii. Referral for medical and other services necessary for the habilitation or rehabilitation of children with auditory impairment; iv. Provision of auditory training, aural rehabilitation, speech reading and listening device orientation and training, and other services; v. Provision of services for prevention of hearing loss; and vi. Determination of the child's need for individual amplification, including selecting, fitting, and dispensing appropriate listening and vibrotactile devices, and evaluating the effectiveness of those devices.
Speech-language pathology	<ul style="list-style-type: none"> i. Identification of children with communicative or oropharyngeal disorders and delays in development of communication skills, including the diagnosis and appraisal of specific disorders and delays in those skills; ii. Referral for medical or other professional services necessary for the habilitation or rehabilitation of children with communicative or oropharyngeal disorders and delays in development of communication skills; iii. Provision of services for the habilitation, rehabilitation, or prevention of communication or oropharyngeal disorders and delays in development of communication skills.

The early intervention services provided are determined by the multidisciplinary team which develops the Individualized Family Service Plan. Families have the right to accept or decline any early intervention service without jeopardizing their participation in other IFSP services.

Early intervention services are designed to be provided in the child's *natural environment*. Natural environments are settings that are natural or normal for the child's age peers who have no disabilities. These may include the home, playgrounds, and child care centers or other community settings. This natural environment concept is similar to the Part B requirement of service provision in the least restrictive environment.

Infants and toddlers with hearing impairments and their families have the option of participating in home-based, center-based, or a combination of home-based and center-based services. In a home-based program, an early interventionist works with the child and family in the home. In a center-based program, the child and family travel to the program site. Key to both models is the involvement of family members in the planning of services. Family members

and professionals work together to best meet the needs of the infant or toddler. Professionals assist family members to incorporate activities that will facilitate the developmental progress of the child into the child's daily activities.

INDIVIDUALIZED FAMILY SERVICE PLANS

The Individualized Family Service Plan (IFSP) is a written plan for early intervention services. The Plan serves as a tool to guide delivery of services. It captures the planning process and resources selected. The IFSP is developed by a multidisciplinary team, which includes:

- the parent or guardian
- other family members as requested by the parent
- an advocate, if the parent requests
- the family's service coordinator
- the person(s) who conducted the evaluations and assessment
- the persons who will be providing services

The IFSP contains:

1. A statement of the infant's or toddler's present level of physical development, cognitive development, communication development, social or emotional development, and adaptive development based on acceptable objective criteria.
2. A statement of the family's resources, priorities, and concerns relating to enhancing the development of the family's infant or toddler with a disability.
3. A statement of the major outcomes expected to be achieved for the infant or toddler and the family and the criteria, procedures, and timelines used to determine the degree to which progress toward achieving the outcomes is being made and whether modifications or revision of the outcomes or services are necessary.
4. A statement of specific early intervention services necessary to meet the unique needs of the infant or toddler and the family, including the frequency, intensity, and method of delivering services.
5. A statement of the natural environments in which early intervention services shall appropriately be provided,
6. The projected dates for initiation of services and the anticipated duration of such services.
7. The name of the service coordinator from the profession most immediately relevant to the infant's or toddler's or family's needs who will be responsible for the implementation of the plan and the coordination with other agencies and persons.²
8. The steps to be taken supporting the transition of the toddler with a disability to services for preschoolers if appropriate.

When appropriate, the IFSP must include medical and other services that the child needs but are not required under the Part H program. Funding sources to be used to pay for these services should also be

included. This may be the case for certain infants or toddlers with hearing impairment, especially those children with cochlear implants. The identification of these other services is beneficial to create a comprehensive picture of the total needs of the child. The service coordinator may assist the family in obtaining the nonrequired services.

Service coordination is a key early intervention service, and the name of the service coordinator must be specified in the IFSP. Service coordination is an active, ongoing process of assisting a child and family in receiving the rights, procedural safeguards, and early intervention services that are being provided. Each child and family must be assigned one service coordinator who coordinates the provision of early intervention services, facilitates the timely delivery of available services, and continuously seeks the appropriate services to benefit the development of the child. The service coordinator may change as the child's or family's needs changes. An audiologist, speech-language pathologist, or teacher of the hearing-impaired may serve as the service coordinator for an infant or toddler with a hearing impairment.

Throughout the period of time in which a child is receiving early intervention services, the transition of the child and family to the next placement must be considered. Part H requires the IFSP to include steps to support the child's transition to the Part B services. At age 3, a child may be determined eligible for special education or related services, or both, under Part B of IDEA. In most cases, infants or toddlers with hearing impairment will be found eligible for Part B special education. If so, with parental permission, the child will begin receiving public school early childhood special education services or related services, or both. Other children, particularly those at-risk children served in some states through the Part H program, may not meet the eligibility criteria for Part B services. In this instance, steps must be taken to help the child and family make the transition to other available, appropriate services. These services may include Head Start, community

²The original enactment of Part H identified the provider of this function as the case manager. The 1990 reauthorization retitled this position in response to concerns expressed by families that they did not like to be "managed" or considered a "case."

preschool programs, or public school prekindergarten programs. Effective transition includes discussions with families regarding future placements, procedures to prepare the child for the upcoming changes and adjust to the new setting, and transmitting information to the local school division with parental consent.

The Individualized Family Service Plan is evaluated annually. A review of the plan must take place at 6-month intervals or more often based on the needs of the child or family. The needs of infants and toddlers change rapidly; hence, the IFSP is not a static document. Revisions to the IFSP should involve all appropriate team members and include the parents and service coordinator at a minimum.

PROCEDURAL SAFEGUARDS

Like Part B of IDEA, Part H affords eligible children and families certain rights. This includes the family's decision whether to participate in early intervention services.

Families are ensured the right to receive prior notice before conduct of evaluations, and before initiating or changing the provision of early intervention services. Early intervention services must be provided in the native language or mode of communication of the family. Families also have the right to examine and review records related to evaluations, assessments, eligibility determinations, and development and implementation of the IFSP. Family confidentiality must also be maintained, according to relevant federal and state requirements.

STATE REQUIREMENTS

In order to be eligible for Part H funds, each state is required to develop a statewide, comprehensive, coordinated, multidisciplinary, interagency system of early intervention services. Within each

state, a Lead Agency is responsible for the general administration of this early intervention system. The Governor of the state chooses the lead agency. State Departments of Education, of Health, or of Human Resources are frequently designated as lead agencies.

The Governor also bears the responsibility for appointing a State Interagency Coordinating Council. This Council is composed of parents of children with disabilities, providers of early intervention services, state agency representatives, at least one person involved in personnel preparation, at least one state legislator, and others at the Governor's discretion. The Council is responsible for planning and coordinating early intervention services across agencies. Further, it advises and assists the Lead Agency in carrying out its responsibilities.

Some states also have local or regional Interagency Coordinating Councils. These Councils are responsible for planning and implementing early intervention services within their communities.

CONCLUSIONS

Federal legislation has advanced the identification and provision of services to infants, toddlers, and preschoolers with disabilities. This legislation provides clear definition of the service delivery process, the providers qualified to provide services, and the rights of families. This legislation provides a clear role for the audiologist and speech-language pathologist in the provision of services to eligible children.

ACKNOWLEDGMENT

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ARTICLE ONE

SELF-ASSESSMENT QUESTIONS

1. Identify the statement which is not true, according to the Individuals with Disabilities Education Act.
 - (a) A free, appropriate public education must be provided for all eligible children ages birth to 21.
 - (b) The determination of eligibility for special education is made by a multidisciplinary team.
 - (c) Schools must ensure that hearing aids worn by children who are deaf or hard of hearing in school are functioning properly.
 - (d) Speech–language pathology and audiology are among the related services that a child eligible for special education may receive.
2. A referral for services for a child with a hearing impairment:
 - (a) may be made only by the child's parent(s).
 - (b) may be made only by a licensed audiologist.
 - (c) may be made only by a licensed physician.
 - (d) none of the above.
3. Children with disabilities, ages 3 through 5, must receive services in the least restrictive environment. Identify the statement which is not true.
 - (a) Children with disabilities must be educated with children without disabilities to the maximum extent appropriate.
 - (b) IEP teams choose from among placements available in the school division when determining a child's placement.
 - (c) Head Start may be the least restrictive environment for some preschoolers with disabilities.
 - (d) A class of all children with hearing impairment may be the least restrictive environment for some children.
4. Under Part H of IDEA, family assessment must be designed to determine the resources, priorities, and concerns of the family. Identify the statement which is not true.
 - (a) Identification of family resources, priorities, and concerns is required in order that the child's needs best be met.
 - (b) Speech–language pathologists and audiologists may conduct family assessments if they are trained to utilize appropriate methods and procedures.
 - (c) Identification of family resources, priorities, and concerns is based on information supplied by the family through a personal interview.
 - (d) Family assessment determines the family's resources, priorities, and concerns related to enhancing the development of the child.

EXHIBIT 1
DATE 1/5/95
MSDB

5. In which of the following situations did the audiologist incorrectly implement the procedural safeguards of Part H under IDEA?
- (a) Provided the parents of an infant with a hearing impairment the right to examine and review their child's evaluation records.
 - (b) Provided aural rehabilitation in American Sign Language when that was the family's mode of communication.
 - (c) Provided a full audiological evaluation for a child enrolled at a child care center, upon the referral of the center director, without prior consent of the parent(s).
 - (d) Discontinued hearing aid orientation because the parents wished to pursue physical therapy and refused all other services for which their child was eligible.

THE CASE FOR DETECTION AND INTERVENTION AT BIRTH

Marion P. Downs, M.A., D.H.S.

EXHIBIT 2
DATE 1/5/95
SB MSDB

Common wisdom has long held that the optimal welfare of the hearing-impaired is served by identification of the loss as early as possible and by immediate application of therapeutic intervention. In the past, hard data supporting this assumption were notably absent. But new economic, educational, and basic research findings are now confirming the fact that concerted efforts should be made to identify and habilitate hearing loss at the earliest possible time, which, in our present state of knowledge, is at birth.

ECONOMIC DATA

LOST INCOME

Profound deafness causes a yearly income loss to our society of an estimated \$2.5 billion in present value. That figure is based on the 350,000 manually communicating deaf in this country, whose earnings, according to Schein and Delk (1974), are 30% less than that of the general population. In 1991 the median income of the general population in the U.S. was \$24,575 per year (U.S. Department of Labor, personal communication, 1992). It is appropriate to apply the 1974 figure of 30% reduction in earnings because the language skills of that deaf population have not changed

significantly over the intervening years. Schildroth and Karchmer (1986) reported that the reading comprehension scores of the deaf leveled off at the third-grade equivalency, at about the same level as in 1974 (Fig. 1).

In addition, the Internal Revenue Service determined that in 1991 24% of deaf college graduates reported no income, and that deaf graduates of secondary schools have more than twice the number of unemployed than the national average. The figure of \$2.5 billion lost yearly does not include the 21 million persons who have hearing losses that also render a large number of them limited in their earnings (Center on Deafness, Denver, personal communication). Exact figures are not available, but as little as 10% or 15% reduction in the income of this large group would cost society another \$76.5 billion annually in lost income.

From these and other reports, an estimate can be made on how much could be saved by identification of hearing losses at birth. The data of Schein and Delk (1974) indicate that deaf children who have had normal hearing until 3 to 6 years of age earn 5% more than those born deaf (Fig. 2). Those three years of good language input allowed the later deafened individuals to acquire language skills that enabled them to compete just that much more successfully

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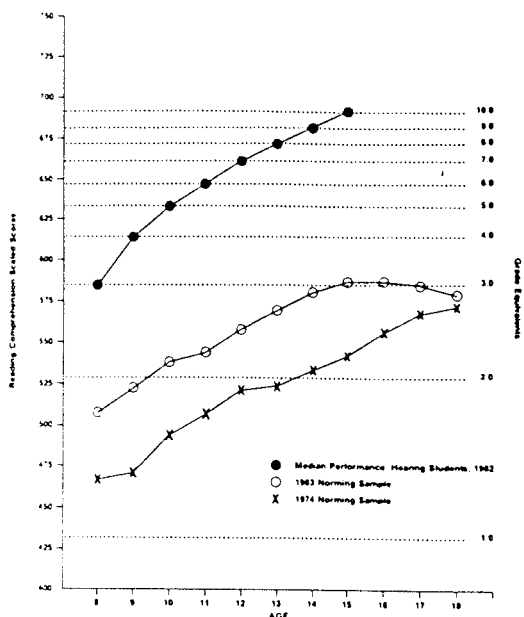


Figure 1. Reading comprehension scores by grade equivalency of deaf students, 1974 and 1983, compared with normal hearing students. From Schildroth and Karchmer (1986), with permission.

in the workplace. Their increased earnings strongly affirm the fact that there is an early optimal age for rapid language acquisition. In today's market, the 5% increase in earnings would come to \$129 million annually. Therefore we can project that if the children deaf at birth were given immediate intervention that generated superior language skills, up to \$129 million would be added to our economy every year.

The figures on lost income due to deafness add up to a total cost to society of \$79 billion per year at the very least. Early identification and intervention might well reduce that amount by the same 5% as above—as much as \$3.9 billion per year.

It is inescapable to conclude that *language is money*.

COSTS OF EDUCATION AND TRAINING

In addition to the income savings of early detection and intervention, a significant amount could be saved in education and training expenses, and in personal expenses to the family and the deaf individual. The cost per year of educating deaf

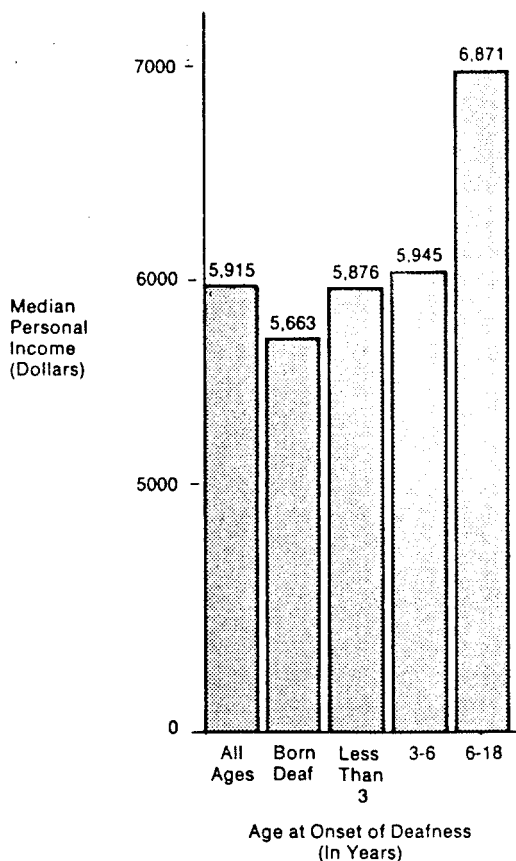


Figure 2. Median personal income of employed deaf persons 16-64 years of age, by age at onset of deafness: United States, 1971. From Schein and Delk (1974), with permission.

children in Schools for the Deaf is \$35,780 (Johnson et al., 1993) (Fig. 3). For the 17,000 deaf students in residential schools (Schildroth & Karchmer, 1986), the annual cost comes to \$61 million per year. In 12 years of schooling the cost is \$732 million. Over the years the total cost of educating 350,000 deaf would come to \$150 billion.

For those with lesser degrees of loss, we find that the cost per year of educating hearing-disabled children in self-contained classes in the public schools of America is \$9,689, compared with \$3,383 for those in regular classes (Fig. 3). The Department of Education (1992) lists 59,312 in special education programs. The resulting cost per year is \$575 million for all children in self-contained classes, or \$6.9 billion in their 12 years of training.

We have seen that the higher language skills of the deaf who had language for the

Cost of Educating Children with Hearing Loss in Various Settings

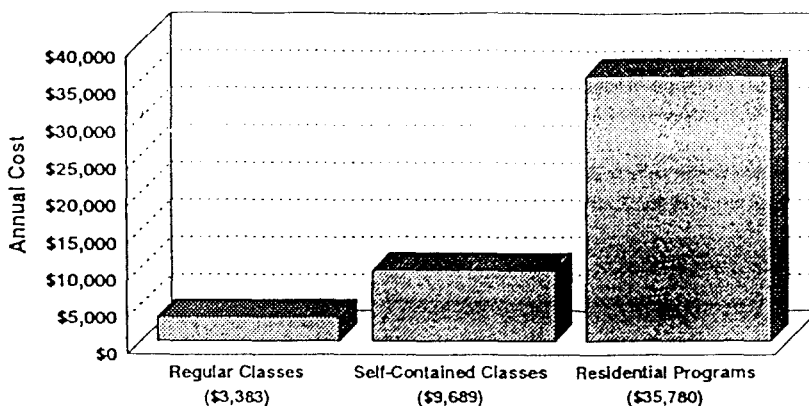


Figure 3. Annual cost of educating hearing-impaired children in regular classes, self-contained classes, and residential programs. From Johnson et al. (1993), with permission.

first three years of life resulted in higher wage earnings. This same improvement in language skills could shift a great many children from the residential schools category down to the self-contained classroom division. And another large number could shift down from the self-contained classroom to the regular class division. How many? One can only guess at this point. But even a 5% shift would save \$528 million per year.

For families and individuals the costs are itemized by Northern and Downs (1991) as shown in Table 1.

Improved language skills from identification at birth should be able to save a great deal more of these costs than the expected 5%, which would amount to \$50,000. It should be noted that medicolegal court judgments have been awarded for close to \$3 million in compensation for deafness that has been incurred by hospital misadventure (Northern & Downs, 1991).

TABLE 1. Costs of Deafness to Families*

Education and training expenses	\$765,000
Medical and audiological expenses	65,450
Special living expenses	90,720
Cochlear implant (if indicated)	100,000
Total	\$1,021,170

*Updated to 1991 and calculated from birth.

EDUCATIONAL ACHIEVEMENT

Success in school and in a career are correlated to a high degree with language skills. The lower incomes of the deaf can be understood in light of their lowered language skills, which plateau out for Reading Comprehension at the third grade equivalency level even for 18-year-olds (Schildroth & Karchmer, 1986). The Annual Survey of Hearing Impaired Children and Youth has shown some improvement in language scores, but the third grade equivalency average remains for this group.

Not only the profoundly deaf, but children with any degree of hearing impairment are at risk for delayed development of verbal skills and reduced academic achievement (Davis, Efenbein, Schum, & Bentler, 1986). We had always assumed that language skills and degree of hearing loss were related linearly—the greater the hearing loss the more severe the language and educational deficits. Recent reports contradict this impression.

The most significant study showing the deficits of milder hearing losses is one by Levitt, McGarr, and Geffner (1987). These researchers obtained longitudinal data on the development of speech and language skills in 120 special-school hearing-impaired

children with losses 80 dB or greater, and in 38 mainstreamed children with losses from 40 dB to 80 dB (ages 10–14 years). A large battery of educational achievement and language tests were made over a 4-year period for the first group, and over 1 year in the mainstreamed group. The results were extraordinary in two respects:

First, the intelligibility of speech was shown to be directly proportional to the degree of hearing loss. As shown in Fig. 4, the ratings of speech intelligibility were almost completely dependent upon the hearing loss—the milder hearing losses produced the best speech, and the more severe losses resulted in poorer speech. This finding relates directly to the fact that speech is an “overlaid” function. It depends mainly on auditory feedback to activate structures which are used to produce speech, but which developed originally for other functions. The more efficient the auditory feedback, the better the speech will be. Moreover, the children who had been identified and remediated the earliest (line E in Fig. 4) had uniformly better speech than the average of the group. And the post-linguistically deaf (line P) had the best intelligibility, as might be expected.

Secondly, the language and educational achievement skills were *not* related to the degree of hearing loss. Children with milder losses down to 40 dB had reduced language skills quite similar to those of children with losses as great as 110 dB. As seen in Fig. 5, the language of children with 40 dB losses was not markedly better than those with 110 dB losses. Only after 110 dB were there significant differences. The only major variable affecting language was the age of identification. Although almost none of the children had been identified before 3 years of age, those whose special education began the earliest exhibited the best language skills (line E in Fig. 5). Again, those whose deafness occurred post-linguistically were the most superior in language skills (line P). Thus, the most significant variable for language ability was the time of intervention or occurrence of the loss. One cannot dispute this demonstration that language is indeed a biobehavioral system whose period of major plasticity for learning language comes to an end early in life (Lenneberg, 1967). Levitt et al. (1987) stated that the most significant controllable factor influencing speech and language skills was the age when special education was

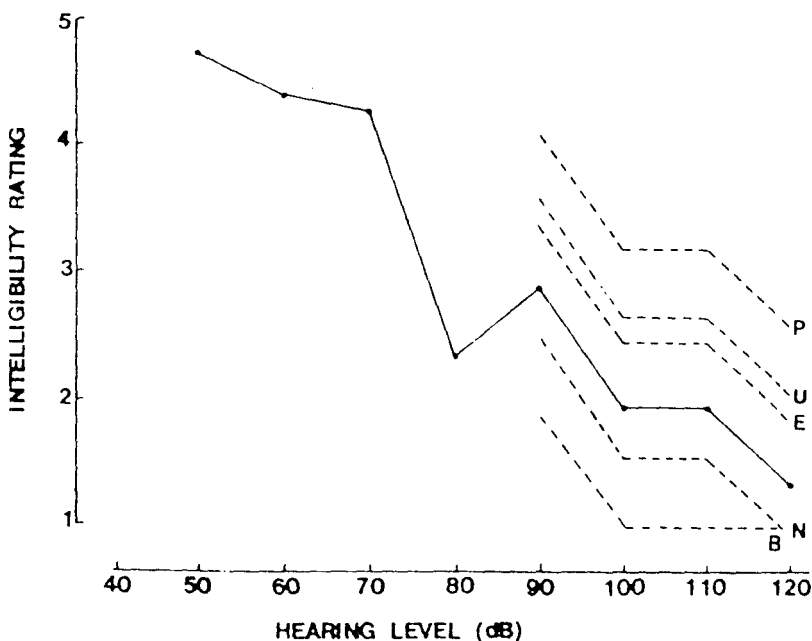


Figure 4. Intelligibility ratings of speech versus degree of hearing loss. P, post-linguistic deafness; U, use of hearing aid effectively; E, earlier identification. From Levitt et al. (1987), with permission.

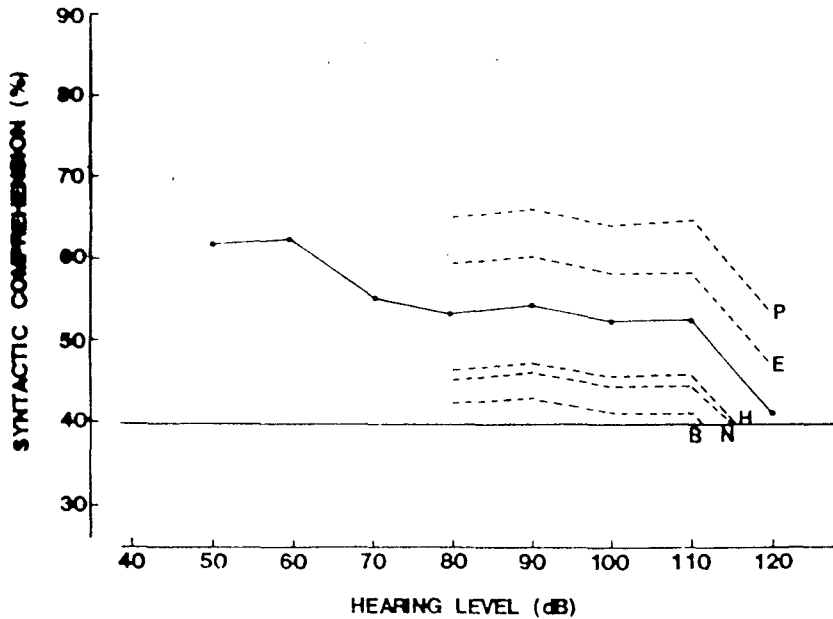


Figure 5. Scores of syntactic comprehension versus degree of hearing loss. --- P = Post-linguistic deafness; --- E = Earlier identification; ●—● = Average of all scores. From Levitt et al. (1987), with permission.

begun: "The data presented here provide strong quantitative evidence of the association between superior speech and language skills and early intervention."

Similar findings have been obtained by the Ski*Hi project in a follow-up study of 5,000 infants identified and habilitated through the Utah newborn hearing screening program (Strong, Clark, Barringer, Walder, & Williams, 1992). These investigators found that "using multiple-regression analyses, only program-start age served as a predictor of pretest expressive and receptive language quotients."

In 20 years it will be fascinating to observe the effects of what is apparently becoming a new impetus for newborn hearing screening of all babies and in all hospitals. Research on those children whose language intervention started at birth will bring us to the final affirmation of the concept of the biobehavioral character of language.

Levitt et al. (1987) expressed a concern over the fact that the milder losses as low as 40 dB showed markedly reduced language skills, and puzzled over how far down this effect would go. A study by Friel-Patti and Finitzo (1990) indicated that losses as mild as 20 dB appear to affect language signifi-

cantly in early life. This research looked at the developing language skills of young children with recurrent otitis media in the first two years of life. The results demonstrated that hearing losses of 20 dB incurred from otitis media in the first two years of life resulted in delayed language by age 2.

The finding by Friel-Patti and Finitzo (1990) that it is the degree of hearing loss—over 20 dB—that is responsible for the language delays sheds new light on what is a handicapping hearing loss. A large number of studies have shown a relationship between early recurrent otitis media and language delays. Now it is evident that the studies should have concentrated on the degree of hearing loss that was sustained rather than the number of bouts of otitis media. A recent study by Wohl and Masenstab (1993) addressed the fact that "cognitive representation of sound is adversely affected by prolonged, untreated otitis media with effusion." They found that the effect "may be manifested differently at various ages, i.e., language, auditory processing, reading, etc."

Despite numerous studies demonstrating the effect of recurrent otitis media on

language, many physicians insist that young children will outgrow their language delays. The problem is that as children grow older, the greater redundancy and complexity of the language mask the subtle effects of early deficits, and only sophisticated testing will reveal the deficiencies. In addition, a child may pass as "normal" or "average" in school achievement, but the actual potential of that child may be in the "superior" range, and his potential has been reduced by the early hearing losses from otitis media.

Children do not "grow out" of language delays. Follow-up studies by Feagans and Blood (1993) on early recurrent otitis media have shown that sophisticated testing can reveal the lasting deficits. And several reports on the persistence of early language delays confirm the fact that early language problems should be treated with concern (Scarborough & Dobrich, 1990; Schlieper, Kisilevsky, Mattingly, & Yorke, 1985; Schery, 1985).

A common criticism by physicians of newborn hearing screening has been that awareness of deafness will break down the bonding between parents and the child. Nothing could be more mistaken. An earlier study on interventions was reported by the Lexington School for the Deaf (Greenstein, Greenstein, & McConville, 1976), which compared infants admitted to the school before 16 months of age with those admitted at later ages. In all measures of language and in mother-infant communication, the earlier admitted children were statistically superior to those admitted later. These investigators speculated that earlier identification permitted the development of better parent-infant communication at a sensitive time that would enhance the language skills of the child. Bonding actually becomes stronger when the loss is recognized at an early age, for when parents are unaware that a loss exists, the atypical behaviors of the deaf infant subtly break down the bonding process.

The importance of family interaction can never be overemphasized. Greenberg (1984) found more developmentally mature communication and higher quality interaction in families who had received

early intervention services, such as those mandated by PL 990-457. The family-focused programs help parents in their acceptance and bonding with the child.

THEORETICAL CONSIDERATIONS

Ruben and Rapin (1980) described the reciprocal control of the central and peripheral auditory systems. They stated that the infant's auditory system is plastic, and can be modified by anatomical alterations that result from variations of acoustic stimuli. The input of the peripheral auditory system is critical to the maturation and innervation of portions of the central auditory system. Therefore the ability to hear environmental sounds has the greatest effect in shaping auditory ability from the time the inner ear and eighth cranial nerve first become functional to the time when maturation of the central auditory nervous system (CANS) is achieved—from about the fifth month of gestation to between 18 and 28 months.

Animal studies document the plasticity of the CNS, which can be modified through experiential deprivation of acoustic and other stimuli (Clopton & Silverman, 1977; Clopton & Winfield, 1976; Greenough, 1975; Reisen, 1960). Classic anatomical studies were reported by Webster and Webster (1980) who found central morphological defects in certain of the nuclei in the brain stem of mice who were given conductive hearing losses at birth. Since that time Doyle and Webster (1991) have completed studies on higher animals—chinchillas and monkeys—and found that in animals whose hearing begins in utero, no CANS changes result from conductive losses at birth. Humans fall into this category. Rather than refuting the early plasticity assumption, these studies demonstrate the power of early auditory stimulation in utero. The ear of the fetus is entirely developed by five months' gestation and responds to acoustic stimuli. The fetal ear readily hears these sounds (Querleu, Renard, & Crepin, 1981) and thus begins the establishment of functional auditory morphology in the CANS.

Human research in this area has not been available until the recent application of Auditory Brain Stem Response (ABR) techniques. A growing emphasis is being placed on binaural integration studies in children with recurrent otitis media. Dobie and Berlin (1979) reported ABR findings in a child with a history of early recurrent otitis media and fluctuant hearing loss who showed no binaural interaction. Finitzo-Heber (1985) corroborated this finding in a similar study on children with early otitis media history. She found no binaural interaction in 60% of those children, whereas only 10% of normal children showed no interaction. She also found a lack of clear middle latency potentials in the affected children.

The aforementioned scientific studies are showing that in humans, auditory deprivation will cause experiential alteration of the neurophysiology in hearing-impaired children. It is imperative that amplification be applied to these children as early as possible, in order to take advantage of the early plasticity of the brain and implant strong auditory neural connections.

Identification of hearing loss in the past has not been early enough. Few primary physicians screen young children for hearing loss effectively (Walker, 1988), and dependence on parental report has resulted in identification too late for the implantation of adequate language skills. Elssmann,

Matkin, and Sabo (1987) confirmed that the average age of detecting hearing loss is 24 months, and in minority populations runs as high as 48 months. Unless effective universal newborn hearing screening is instituted, we will continue to see third-grade language skills in the deaf, and in students with milder losses we will continue to see academic performance well below the level of their potential achievement.

CONCLUSIONS

The cost of deafness to society is high, and can be reduced by applying present technology to early identification and habilitation of affected infants. Screening for hearing loss at birth and early intervention give the potential of considerably reducing a large part of the financial burden of deafness, and significantly increasing the quality of life in those affected.

The existence of a sensitive period for language learning in the first few years of life demands that intervention be begun as soon after birth as possible. Early intervention will allow the development of normal morphology in the CANS, it will yield the best potential language skills, and it will produce optimal parent-child interaction that is requisite for ideal language development.

We must do no less for our children.

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ARTICLE TWO

SELF-ASSESSMENT QUESTIONS

1. The income loss to society due to lost manpower earnings of the deaf amounts to:
 - (a) trillions of dollars annually
 - (b) millions of dollars annually
 - (c) hundreds of thousands of dollars annually
 - (d) hundreds of dollars per week
2. Children who have normal hearing until 3 years of age ultimately earn how much more than those born deaf?
 - (a) 5%
 - (b) 1%
 - (c) 10%
 - (d) 100%
 - (e) 50%
3. The cost for a deaf individual's special expenses over a lifetime amounts to:
 - (a) thousands of dollars
 - (b) ten dollars a day more than for normals
 - (c) twenty dollars a day more than normals
 - (d) over a million dollars
 - (e) a hundred thousand dollars
4. According to Levitt et al., the one factor most significantly influencing the language skills of children with hearing impairment is:
 - (a) the degree of hearing loss
 - (b) the family's involvement
 - (c) the age that intervention was begun
 - (d) the type of education employed
 - (e) the type of hearing aid used
5. According to Levitt et al., the one factor most significantly influencing the speech intelligibility of children with hearing impairment is:
 - (a) the degree of hearing loss
 - (b) the family's involvement
 - (c) the age that intervention was begun
 - (d) the type of education employed
 - (e) the type of hearing aid used
6. What degree of hearing loss in young children was shown by Friel-Patti and Finitzo to affect language skills significantly?
 - (a) a loss greater than 40 dB
 - (b) a loss greater than 10 dB
 - (c) a loss greater than 50 dB
 - (d) a loss greater than 60 dB
 - (e) a loss greater than 20 dB

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Bill Ayres	MSDB		
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PLEASE LEAVE PREPARED TESTIMONY WITH SECRETARY. WITNESS STATEMENT FORMS ARE AVAILABLE IF YOU CARE TO SUBMIT WRITTEN TESTIMONY.

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