

**STUDY FOR ASSEMBLY BILL 2909  
(SALINAS)**

**GOVERNMENT CODE 95029.5**

**SERVICES FOR INFANTS AND TODDLERS  
WHO ARE DEAF OR HARD OF HEARING**

**Prepared by the California Department of Education  
State Special Schools and Services Division  
Deaf and Hard of Hearing Unit**

**January 3, 2006**

**Study for Assembly Bill 2909 (Salinas)  
Government Code 95029.5**

**Table of Contents**

I.	Introduction	Pg. 3
II.	History	Pg. 5
III.	Purpose	Pg. 8
IV.	Study Methodology	Pg. 8
V.	Study Results	Pg. 13
VI.	Adequacy of Resources and Personnel Standards	Pg. 27
VII.	Costs	Pg. 28
VIII.	Conclusions	Pg. 29
IX.	Recommendations	Pg. 30

**Tables**

Table A.	Performance of Deaf and Hard of Hearing Students on the California Standards Test (CST) in English Language Arts	Pg. 6
Table B.	Performance of Deaf and Hard of Hearing Students on the California Standards Test (CST) in Math	Pg. 6
Table C.	Enrollment of Deaf and Hard of Hearing Infants and Toddlers in California Public School Early Start Programs	Pg. 7
Table D.	California Newborn Hearing Screening and Early Intervention Project: Provider Information Sheet	Pg. 9
Table E.	California Newborn Hearing Screening and Early Intervention Project: Individual Child Assessment	Pg. 10
Table F.	Early Start Agencies Surveyed	Pg. 13
Table G.	Gender	Pg. 16
Table H.	Home Language	Pg. 16
Table I.	Ethnicity	Pg. 17
Table J.	Communication Mode	Pg. 18
Table K.	Age in Months at Entry to Early Start	Pg. 19
Table L.	Special Instruction	Pg. 21
Table M.	Speech and Language Services	Pg. 22
Table N.	Comparison of Cognitive Skills and Communication Skills by Age of Entry in Early Start	Pg. 22
Table O.	Comparison of Cognitive Skills and Communication Skills by Home Language	Pg. 23

**Attachment:** CHILDREN AND FAMILY SERVICES BRANCH (CFSB) PROGRAM ADVISORY #05-01: EARLY START SERVICES FOR CHILDREN WHO ARE DEAF OR HARD OF HEARING

## **AB 2909 (Salinas) (Government Code 95029.5) Study**

### **I. Introduction**

Services for infants and toddlers with disabilities are provided by the authority of the federal Individuals With Disabilities Education Improvement Act (IDEA), Part C. In California, IDEA Part C services are called Early Start. Under the California Early Intervention Services Act, (Government Code, Title 14), the Department of Developmental Services (DDS) is designated as the lead agency for the California Early Start program. The Act provides that:

- Infants who have "solely low-incidence" disabilities (hearing loss, visual impairment, orthopedic impairment, or any combination thereof) are served by local educational agencies (LEAs).
- All other eligible infants, including those with low-incidence disabilities in addition to other disabilities, are served by DDS through the regional centers.
- LEAs who, prior to 1981, were providing early intervention services to infants and toddlers with low-incidence disabilities in addition to other disabilities, continue to provide these services. These infants and toddlers are considered "dually eligible" and receive services from both the LEA and the regional center.
- LEAs who, prior to 1981, were not providing services to infants and toddlers with low-incidence disabilities in addition to other disabilities, serve only infants and toddlers who are deemed "solely low-incidence." In some instances, regional centers contract with these LEAs to provide services to infants and toddlers who are not "solely low incidence."

The term "solely low-incidence disability" is defined in the California Code of Regulations (5 CCR Title 17) as "one or a combination of low incidence disabilities which are vision impairment, severe orthopedic impairment, and hearing impairment which is the primary disability and has a significant impact on learning and development of the infant or toddler as determined by the IFSP (Individualized Family Service Plan) team of the LEA." Consequently, a child with hearing loss and additional disabilities may be deemed "solely low-incidence" if the IFSP team determines that the hearing loss is the primary disability.

Current law (*Education Code* Section 44265.5[b]) requires that pupils who are deaf or hard of hearing receive instruction from teachers whose professional preparation and credential authorization are specific to that impairment.

Since the regional centers are governed by Government Code rather than by Education Code, there is no requirement that regional centers provide deaf and hard of hearing infants and toddlers with services by credentialed teachers of the deaf and hard of hearing.

In some instances, infants and toddlers are referred from regional centers to LEAs for services through interagency agreements between regional centers and LEAs. The California Early

Intervention Services Act provides for “funded capacity” reimbursements to LEAs, through such agreements, for infants and toddlers with solely low-incidence disabilities or in instances where infants and toddlers were receiving LEA services at the time of the Early Intervention Services Act’s implementation.

Despite the current services available to infants and toddlers who are deaf or hard of hearing, it is unclear if all infants and toddlers with hearing loss are receiving adequate and appropriate services related to their hearing loss. Without adequate and appropriate services, deaf and hard of hearing students, who have normal cognitive abilities, are not equipped to succeed academically. In addition, children who have hearing loss and additional disabilities may be deprived of services that will allow them to acquire communication skills commensurate with their cognitive abilities.

Assembly Bill 2909 (Salinas), sponsored by the State Superintendent of Public Instruction, was introduced in the 2003-2004 legislative session with the intention of requiring that all infants and toddlers with hearing loss, whether served by a local educational agency or by a regional center, be offered special instruction from a credentialed teacher of deaf and hard of hearing students. The Department of Education had received information from parents of deaf and hard of hearing infants that their children were not receiving services from qualified teachers. The intention of the bill was to ensure that all infants and toddlers with hearing loss have equal opportunity to learn, regardless of the service provider.

The Department of Developmental Services (DDS) raised concerns about this bill because of the costs associated with hiring properly credentialed teachers for infants who are deaf or hard of hearing. DDS also expressed concerns about the shortage of qualified teachers of the deaf and hard of hearing in California.

Consequently, the bill was amended. As signed into law, Assembly Bill 2909 (Chapter 456, Statutes of 2004) adds Section 95029.5 to the *Government Code*, requiring the California Department of Education to conduct a study of the current methods of providing special instruction and other services to infants and toddlers who are deaf or hard of hearing. The study must include, but not be limited to, all of the following:

- The personnel utilized
- The varying approaches utilized in providing services to individuals with single disabilities, as compared to the approaches used in providing services to individuals with multiple disabilities, including hearing impairments
- The adequacy of the resources and personnel standards
- The costs associated with ensuring that infants and toddlers who are deaf or hard of hearing receive special instruction from credentialed teachers of the deaf

## II. History

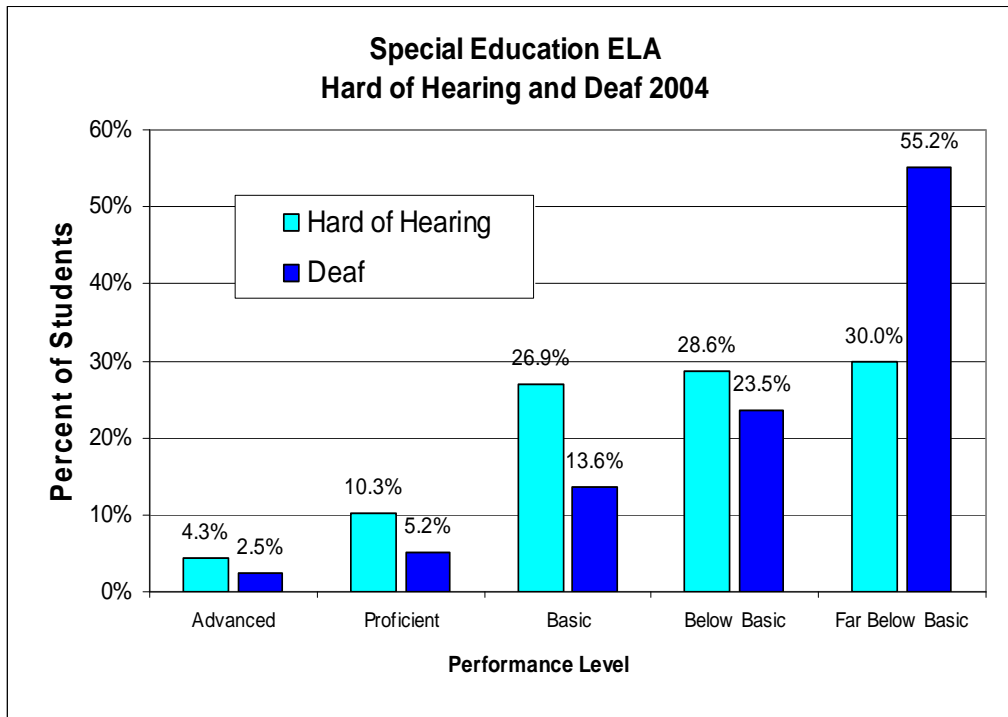
The academic failure of America's students who are deaf and hard of hearing has been well documented. In 1999, the California Department of Education published Communication Access and Quality Education for Deaf and Hard of Hearing Children: The Report of the California Deaf and Hard of Hearing Advisory Task Force. In this report, the Task Force noted the following:

- On average, deaf and hard of hearing children graduate from high school with reading skills at grade 2.8 – compared to tenth grade skills for hearing children. Between the ages of eight and eighteen, these children go from a reading level of grade 1.3 to 2.8 (*Patterns of Academic Achievements*, by T.E. Allen, as reported by the 1988 national Commission on Education of the Deaf in its report, *Toward Equality* [p. 18]).
- Only eight percent of deaf and hard of hearing students will graduate from college (*Toward Equality*).

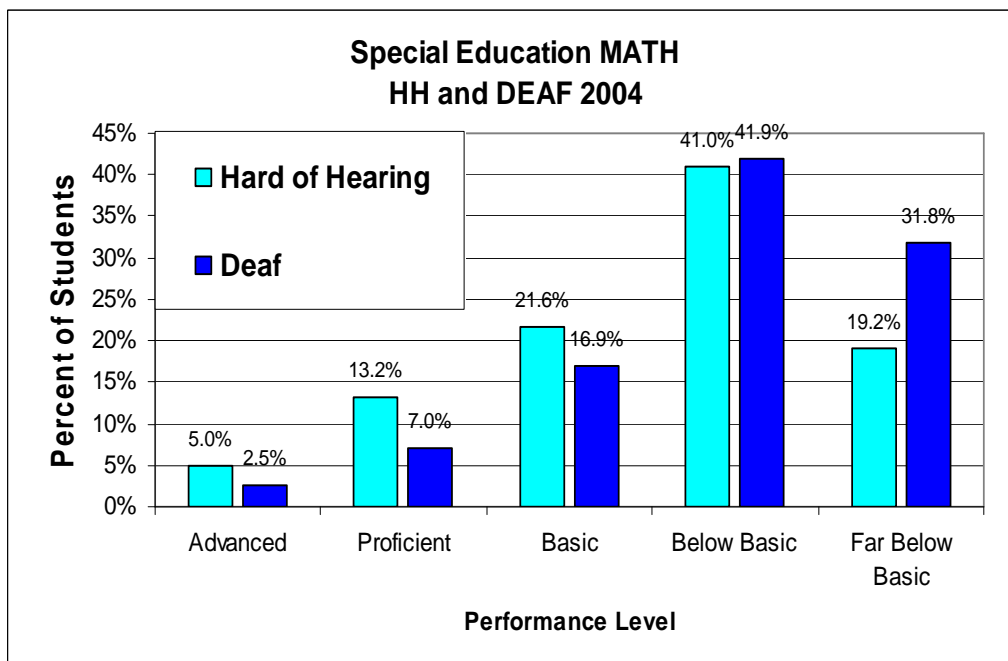
In California, the performance of deaf and hard of hearing students in the State Testing and Reporting (STAR) program has been dismal. In 2004, only 7.7 percent of California's deaf students and 14.6 percent of California's hard of hearing students scored at a proficient or advanced level on the California Standards Test for English Language Arts, as shown in Table A. More alarming, 78.7 percent of deaf students, and 58.6 percent of hard of hearing students, scored in the below basic or far below basic range in English Language Arts. These students are not acquiring the basic reading and writing skills they need to succeed in school, to pass the California High School Exit Exam, and earn a diploma of high school graduation.

Deaf and hard of hearing students scored only slightly better in Math than they did in English Language Arts, as shown in Table B.

**Table A. Performance of Deaf and Hard of Hearing Students on the California Standards Test (CST) in English Language Arts**



**Table B. Performance of Deaf and Hard of Hearing Students on the California Standards Test (CST) in Math**



It is well known that language proficiency is the most significant predictor of whether or not children who are deaf or hard of hearing will acquire the literacy skills they need to achieve academic and vocational success. Research has shown that when a child's hearing loss is identified within the first few months of life, and the child receives appropriate early intervention services by six months of age, that child can develop language at the same rate as his hearing peers, commensurate with his cognitive ability, regardless of the degree of hearing loss, the presence of a secondary disability, or the mode of communication chosen by the family. (Yoshinaga-Itano, 1998)

In 1998, California enacted the Newborn Hearing Screening, Tracking and Intervention Act, investing \$6 million initially and approximately \$3 million annually in the effort to identify children with hearing loss by three months of age, and ensure they are provided appropriate early intervention by six months of age. Since the year 2000, when the California Newborn Hearing Screening program was implemented, enrollment of infants and toddlers with hearing loss in California's public school Early Start programs has more than doubled, as shown in Table C.

**Table C. Enrollment of Deaf and Hard of Hearing Infants and Toddlers in California Public School Early Start Programs**

<b>Year</b>	<b>Age 0</b>	<b>Age 1</b>	<b>Age 2</b>	<b>Total</b>
Dec. 2000 HH	25	73	115	213
Dec. 2000 Deaf	26	60	117	203
Total				<b>416</b>
Dec. 2001 HH	53	87	125	265
Dec. 2001 Deaf	31	62	91	184
Total				<b>449</b>
Dec. 2002 HH	74	126	145	345
Dec. 2002 Deaf	26	72	105	203
Total				<b>548</b>
Dec.2003 HH	129	180	183	492
Dec.2003 Deaf	60	76	116	252
Total				<b>744</b>
Dec. 2004 HH	194	268	242	704
Dec. 2004 Deaf	46	146	105	297
Total				<b>1001</b>

HH = Hard of Hearing

Prior to Newborn Hearing Screening, the average age of identification of hearing loss was two and a half years of age. Children whose hearing loss is identified after six months of age suffer language deprivation, which results in the devastating academic failure shown above in the results of these students on the California Standards Test.

In order to assure California's deaf and hard of hearing students equal opportunity to learn, to pass the California High School Exit Exam and to earn a diploma of high school graduation, it is imperative that:

- Infants with hearing loss are identified and enrolled in appropriate Early Start programs by six months of age.
- Infants and toddlers with hearing loss, and their families, receive intensive and appropriate services from highly qualified service providers, including teachers of the deaf and hard of hearing, speech-language pathologists, and audiologists.

### **III. Purpose**

The purpose of this study is to determine if California's Early Start programs are providing deaf and hard of hearing infants and toddlers with the intensive and appropriate services that will provide them with equal opportunity to achieve in school and in careers. Specifically, the study looks at whether or not these infants and toddlers are receiving special instruction from appropriately credentialed personnel, including teachers of the deaf and hard of hearing, and speech-language pathologists.

### **IV. Study Methodology**

#### **A. Public and Nonpublic Schools**

In order to acquire information about services being provided to infants and toddlers with hearing loss, including those with additional disabilities, who are receiving services from public or nonpublic schools, two survey forms were designed by research staff at the California Institute on Human Services (CIHS) at Sonoma State University. The survey forms were presented to a core group of Special Education Local Plan Area (SELPA) directors, administrators of local Early Start Programs, and to the California Department of Education's Deaf and Hard of Hearing Early Start Workgroup (funded by a federal Maternal and Child Health Bureau grant) for input. These groups provided suggestions to the CIHS staff, who revised the forms accordingly. The surveys (Tables D and E, pp. 9-12) were disseminated to the 89 local educational agencies, nonpublic schools, and nonprofit agencies known to provide educational services to deaf and hard of hearing infants and toddlers and their families in California.



## Table D. California Newborn Hearing Screening and Early Intervention Project Provider Information Sheet

The purpose of this form is to better understand the current methods of providing special instruction and other services to infants and toddlers who are deaf or hard of hearing. This form will also be used to gather information about those serving children who are deaf and hard of hearing in California. **All your responses are confidential.**

Name: \_\_\_\_\_ Date: \_\_\_\_\_

Program: \_\_\_\_\_

	Years	Months
Length of time as an Early Start provider:		
Length of time working in current Early Start:		

Current level of education:

- High School Diploma/GED
- CDA
- Associates
- Bachelors
- Masters
- Doctorate

I have the following credential: \_\_\_\_\_

I graduated from (name of institution): \_\_\_\_\_

My other relevant training: \_\_\_\_\_

Which mode(s) of communication/language(s) do you typically use when working with children who are deaf or hard of hearing? Please check all that apply.

- Spoken (English, Spanish, etc.)
- Signed English
- ASL
- Cued Speech

## Table E. California Newborn Hearing Screening and Early Intervention Project Individual Child Assessment

We would like to better understand the extent of the disability and/or developmental delay of each child that is deaf or hard of hearing served in your Early Start Program. Please complete one for each child that is deaf or hard of hearing and rate his/her type, degree and severity of hearing loss as well his/her functional abilities in the abilities matrix. **All information will be completely confidential.**

Early Start Program: \_\_\_\_\_

Child's First Name: \_\_\_\_\_ Child's Birthdate: \_\_\_\_/\_\_\_\_/\_\_\_\_

Gender:  Male  Female

Child's Home Language:  English  Spanish  ASL  Other: \_\_\_\_\_

1. What language(s)/mode(s) of communication do you use with the child? (Check all that apply)

- ASL  Signed English  
 Cued Speech  Spoken (English, Spanish, etc.)

2. Child's Ethnicity: (Check all that apply)

- African American or Black  Native American or Alaskan Native  
 Asian American  Native Hawaiian or other Pacific Islander  
 Caucasian or White  Other: \_\_\_\_\_  
 Hispanic or Latino

3. How long has the child been in this program? \_\_\_\_\_

4. Age of child when determined to be Part C eligible? \_\_\_\_\_

5. How many hours of service per week does this child receive services from your agency? \_\_\_\_\_

6. What services do you provide for this child? (Note: These are services that are provided by qualified personnel, including: Special Educators, Speech-Language Pathologists and Audiologists, Occupational Therapists, Physical Therapists, Psychologists, Social Workers, Nurses, Registered Dietitians, Family Therapists, Vision Specialists, Orientation and Mobility Specialists, Pediatricians and other Physicians.)

Services	Provider's Name	Qualifications (i.e. credential, license, education, experience)	Frequency
<input type="checkbox"/> Family Training, Counseling, and Home visits			
<input type="checkbox"/> Special Instruction			
<input type="checkbox"/> Speech-Language Pathology Services			
<input type="checkbox"/> Audiology Services			
<input type="checkbox"/> Sign Language Services			
<input type="checkbox"/> Cued Language Services			
<input type="checkbox"/> Occupational Therapy			
<input type="checkbox"/> Physical Therapy			
<input type="checkbox"/> Psychological Services			
<input type="checkbox"/> Service Coordination Services			
<input type="checkbox"/> Medical Services only for diagnostic or evaluation purposes			
<input type="checkbox"/> Early Identification, Screening, and Assessment Services			
<input type="checkbox"/> Health Services <i>necessary</i> to enable the infant or toddler to benefit from the other early intervention services			
<input type="checkbox"/> Social Work Services			
<input type="checkbox"/> Vision Services			
<input type="checkbox"/> Assistive Technology Devices and Assistive Technology Services			
<input type="checkbox"/> Transportation and Related Costs			
<input type="checkbox"/> Other: _____			

**Hearing Matrix**

Place and “X” in the box that most closely describes the child’s unaided hearing loss. If you would like to explain your ratings, please feel free to write in the comments section at the end of this form.

	Right	Left
Hearing Level	<input type="checkbox"/> Normal <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Profound	<input type="checkbox"/> Normal <input type="checkbox"/> Mild <input type="checkbox"/> Moderate <input type="checkbox"/> Severe <input type="checkbox"/> Profound
Type of Hearing Loss	<input type="checkbox"/> Sensorineural <input type="checkbox"/> Conductive <input type="checkbox"/> Mixed <input type="checkbox"/> Auditory Neuropathy	<input type="checkbox"/> Sensorineural <input type="checkbox"/> Conductive <input type="checkbox"/> Mixed <input type="checkbox"/> Auditory Neuropathy

**Significance of Disabilities Matrix**

Place and “X” in the box that most closely describes the child’s functioning. If you would like to explain your ratings, please feel free to write in the comments section at the end of this form.

	Physical Development, including Vision	Cognitive Development	Communication Development	Social or Emotional Development	Adaptive Development
1 Normal Functioning					
2 Suspected Delay					
3 Identified Delay					

Is this child Solely Low Incidence? Yes No

Does this child have an identified medical condition? Yes No

If yes, specify. \_\_\_\_\_

Does this child receive services from any other public, private, or non-public school or agency? Yes No

If yes, specify. \_\_\_\_\_

Comments:

## B. Department of Developmental Services/Regional Centers

Regional centers are responsible for providing Early Start services to infants and toddlers with hearing loss, if the child is not deemed to be Solely Low-Incidence. Due to restrictions in the contracts between the Department of Developmental Services and the regional centers, it was not possible to disseminate the surveys to the regional centers. The Department of Developmental Services provided information that was available in the Department's Management Information System to assist the California Department of Education with the study.

## V. Study Results

### A. Public and Nonpublic Schools

Sixty-four of the 89 agencies returned the survey forms, resulting in a 72 percent response rate, as shown in Table F.

**Table F. Early Start Agencies Surveyed**

Early Start Deaf and Hard of Hearing Program	Response Received
Alameda Unified School District	X
Alhambra Unified School District	X
Amador County Office of Education	X
Antelope Valley Service Area (Lancaster School District)	X
Bakersfield City School District	
Blythe Unified School District/Palo Verde Unified School District	X
Butte County Office of Education	X
Capistrano Unified School District	X
Children's Choice for Hearing and Talking (CCHAT)*	X
Center for the Education of Infant Deaf (CEID)*	X
Clovis Unified School District	X
Colusa County Office of Education	X
Conejo Unified School District	X
Contra Costa County Office of Education	X
Corona-Norco Unified School District	
Covina Valley Unified School District	X
Desert/Mountain SELPA (San Bernardino County Office of Ed.)**	X
East Valley Consortium (San Bernardino County Office of Ed.)	X
El Dorado County Office of Education	
Foothill SELPA**	X
Fresno County Office of Education	X
Fresno Unified School District	
Hearing and Speech Center of Northern California*	X
Humboldt-Del Norte SELPA**	

Imperial County Office of Education	
Irvine Unified School District	X
Jean Weingarten Peninsula Oral School for the Deaf	
John Tracy Clinic (Private/Non Profit)	
Kern County Office of Education	X
Kings County Office of Education	X
Lodi Unified School District	
Long Beach Unified School District	X
Los Angeles County Office of Education	X
Los Angeles Unified School District	X
Madera-Mariposa SELPA	X
Marin County Office of Education	X
Mendocino County Office of Education	X
Merced County Office of Education	X
Mid-Alameda County SELPA**	X
Mission Valley SELPA**/California School for the Deaf	X
Modesto City Schools	X
Monterey County Office of Education	X
Moreno Valley Unified School District	
Mount Diablo Unified School District	X
Napa County Office of Education	X
Norwalk-La Mirada/ABC Unified School District	X
Oakland Unified School District	
Oralingua School*	
Orange County Office of Education	X
Orange Unified School District	X
Oxnard Unified School District	X
Pajaro Valley Unified School District	X
Placer-Nevada SELPA**	
Pomona Unified School District	
Riverside County Office of Education	X
Riverside Unified School District/California School for the Deaf	X
Sacramento County Office of Education	X
Saddleback Unified School District	X
San Benito County Office of Education	X
San Bernardino Unified School District	
San Diego City School District	X
San Diego East County SELPA**/La Mesa-Spring Valley	X
San Diego County Office of Education/HOPE Infant Program	X
San Francisco Unified School District	X
San Joaquin County Office of Education	X
San Juan Unified School District	
San Luis Obispo County Office of Education	X
San Mateo County Office of Education	
Santa Ana Unified School District	X

Santa Barbara County Office of Education	X
Santa Clara County Office of Education	X
Santa Clarita Service Area SELPA	
Santa Cruz County Office of Education	X
Shasta County Office of Education	X
Simi Valley Unified School District	X
Solano County Office of Education	X
Sonoma County Office of Education	X
Southwest SELPA**	X
Stanislaus County Office of Education	
Stockton Unified School District	
Sutter County Office of Education	X
Tri-Cities SELPA**	
Tri-Valley SELPA**	X
Tulare County Office of Education	
Vallejo Unified School District	
Ventura County Office of Education	X
West Contra Costa Unified School District	
West End SELPA** (San Bernardino County Office of Education)	
Yolo County Office of Education	X

\*Nonpublic School

\*\*SELPA = Special Education Local Plan Area

The sixty-four agencies that responded to the survey provide services to 83 percent of the deaf and hard of hearing infants and toddlers served by public school and nonpublic school Early Start programs in California.

Information was provided through the surveys about 1012 infants and toddlers (birth to three) with hearing loss, who are receiving Early Start services in California. Of those 1012 children, 756 are being served only by local educational agencies (LEAs), 214 are dually served by the LEA and the regional center, and 31 are being served only by regional center, through contracts with nonpublic schools.

Information collected by the California Department of Education through the California Special Education Management Information System (CASEMIS) and reported on the Dataquest website does not provide information about students with hearing loss and other disabilities. When LEAs report information about students with disabilities to the CASEMIS, they report only one disability. Therefore, a child who is deaf and mentally retarded, for example, may be reported as “deaf” or as “mentally retarded” or as “multi-handicapped.” It is not possible to determine from the CASEMIS data which children reported as “deaf” or “hard of hearing” have additional disabilities. Nor is it possible to determine how many children reported in other disability categories also have a hearing loss.

The information collected through this survey is particularly useful, because agencies were asked to report information about all infants and toddlers with hearing loss, including those with additional disabilities or risk factors.

The following tables summarize the information collected in the surveys:

**Table G. Gender**

<b>Gender</b>	<b>#</b>
Male	537
Female	475
<b>Total</b>	<b>1012</b>

Fifty-three percent of the infants reported in this survey are males, and 47 percent are female.

**Table H. Home Language**

<b>Home Language</b>	<b># of Families</b>
English	422
Spanish	319
English/Spanish	94
American Sign Language (ASL)	35
English or Spanish/ASL	21
Bilingual English/Other (Including Arabic/ Armenian/ Cantonese/Chinese/Farsi/Greek/Gujarati/Hindi/Hmong/ Japanese/Korean/Laotian/Mandarin/Mien/Punjabi/Russian/ Samoan/Tagalog/Telegu/Vietnamese/Yiddish/Other	62
Other (Including Bengali/Cantonese/Chinese/Farsi/ German/Gujarati/Hindi/Hmong/Korean/Mandarin/Mende/ Mexican Sign Language/Mien/Tagalog/Tamil/Telegu/ Vietnamese/Other	59

The variety of languages spoken by the families of infants and toddlers with hearing loss reflects the linguistic diversity of California. One difference, however, is that among families with deaf and hard of hearing children, American Sign Language (ASL) is the third most common home language. Although information about the hearing status of the children's parents was not requested, it is likely that when the home language is ASL, one or both parents are deaf.



**Table I. Ethnicity**

Ethnicity	# of families
Hispanic/Latino	514
White/Caucasian	255
Asian American	75
African American or Black	33
Hispanic/White	31
Filipino	20
Asian Indian	12
Native Hawaiian/Pacific Islander	10
Other (Including African American-Asian/ African American-Hispanic/African American-White/ African American-Filipino-White/African American-Hispanic-White/Armenian/ Asian American-Hispanic/ Asian American-White/Chinese/Fijian/ Filipino/-White/Hispanic-Indian/ Hmong/Indonesian/ Iranian/ Korean/Pacific Islander-White/ Persian/Russian/ Samoan/ Vietnamese/ Vietnamese-White/ Unspecified	62

The ethnic diversity of families with deaf and hard of hearing infants and toddlers is also reflective of the diversity of the state of California, although there were no Native American infants or toddlers reported in the survey.

**Table J. Communication Mode**

<b>Mode of Communication</b>	<b># of Children</b>
American Sign Language (ASL)	35
ASL/Spoken Language	134
ASL/Signed English/Spoken Language	52
ASL/Cued Speech/Spoken Language	<10
ASL/Cued Speech/Signed English/Spoken Language	<10
Cued Speech/Signed English/Spoken Language	<10
Cued Speech/Spoken Language	<10
Signed English	21
Signed English/Spoken Language	154
Signed English/Spoken Language/Touch Cues	<10
Signed English/Touch Cues	<10
Spoken Language	570
Touch Cues	<10
Unspecified	15

Children who are deaf or hard of hearing may communicate using spoken language, American Sign Language (ASL), Signed English, Cued Speech, or any combination of these. Children who have visual impairments in addition to hearing loss may also use Touch Cues. Survey respondents were asked to specify what mode(s) of communication is (are) used with individual children. Some local educational agencies (LEAs) reported every child using the same communication mode, indicating that communication mode is most likely determined by LEA policy. Other LEAs reported different communication modes for different children, indicating that communication mode is likely determined by the Individualized Family Service Plan (IFSP) team, based on the needs of the child and/or the preference of the family.

**Table K. Age in Months at Entry to Early Start**

Age in Months at Entry to Early Start	# of Infants and Toddlers	% of Total
1	132	
2	108	
3	131	
4	108	
5	93	
6	85	
<b>6 months or less</b>	<b>657</b>	<b>65%</b>
7	57	
8	32	
9	29	
10	23	
11	21	
12	29	
<b>7 -12 months</b>	<b>191</b>	<b>19%</b>
13	13	
14	15	
15	12	
16	8	
17	10	
18	12	
<b>13-18 months</b>	<b>70</b>	<b>7%</b>
19	4	
20	10	
21	11	
22	12	
23	4	
24	9	
<b>19-24 months</b>	<b>50</b>	<b>5%</b>
25	3	
26	3	
27	1	
28	4	
29	2	
30	2	
<b>25-30 months</b>	<b>15</b>	<b>1%</b>
31	2	
32	2	
33	3	
34	0	
35	1	
36	0	
<b>31-36 months</b>	<b>8</b>	<b>&lt;1%</b>
Unspecified	21	2%

Age at entry to Early Start is critical. As noted earlier, research has shown that identification of hearing loss and enrollment in appropriate, intensive early intervention by six months of age can ensure that children with hearing loss acquire the linguistic skills necessary for later academic and vocational success. Children whose hearing loss is identified after six months of age, or who do not receive appropriate services, tend to suffer language delays that are not remediable, and which may result in the academic failure demonstrated by the results of California's deaf and hard of hearing students on the California Standards Tests shown in Table A and Table B.

Prior to the implementation of the California Newborn Hearing Screening Program, the average age of identification of hearing loss was two and a half years of age. Because of Newborn Hearing Screening, children with hearing loss are being identified sooner, as shown in Table K.

It is encouraging that 65 percent of these children were identified and enrolled in Early Start by six months of age. It is discouraging, on the other hand, that 35 percent of the children were not identified and enrolled in Early Start by six months of age. There are a number of reasons why entry into Early Start may be delayed, including the following:

- A child may have been born in another state or country that does not have a newborn hearing screening program.
- The child may have been born in California, but in a birthing facility that does not participate in the California Newborn Hearing Screening Program.

Because the California Newborn Hearing Screening Program legislation requires only birthing facilities that are California Children's Services (CCS) approved to offer hearing screening, infants born in non-CCS hospitals may not be screened for hearing loss at birth. While about 80 percent (400,000 out of 500,000) of the infants born in California each year are born in CCS approved facilities, 20 percent (100,000) are not. Until our state can ensure that every infant born in California is offered screening for hearing loss at birth, we cannot assure children with hearing loss an equal opportunity to learn, to acquire literacy skills, to perform satisfactorily in the State Testing and Reporting (STAR) program, to pass the California High School Exit Exam, and to earn a diploma of high school graduation.

**Table L. Special Instruction**

	# of infants	DHH Teacher		DHH + Other Sp.Ed. Teacher		Sp. Ed. Teacher (not DHH)		No Special Instruction		Unspecified	
SLI	658	502	76%	15	2%	37	6%	98	15%	6	1%
SLI with disabilities	98	76	78%	1	1%	3	3%	18	18%	0	0%
Not SLI – dually served	245	152	62%	19	8%	40	16%	28	11%	6	3%
Unspecified	11	7	64%	1	9%	3	27%				
Total or Average	1012	737	73%	36	4%	83	8%	144	14%	12	1%

SLI = Solely Low-Incidence      DHH = Deaf and Hard of Hearing  
 Sp.Ed. = Special Education

Part C of the federal Individuals With Disabilities Education Improvement Act (IDEA) requires that the Individualized Family Service Plan (IFSP) team determine services to be provided to infants and toddlers and their families. “Special Instruction” is a service that the IFSP team must offer (although parents may decline the service). A major purpose of this study is to determine whether or not infants and toddlers with hearing loss are receiving appropriate special instruction from credentialed teachers of deaf and hard of hearing children, as required by Education Code 44265.5(b).

This survey shows that the majority (73 percent) of infants and toddlers with hearing loss are receiving special instruction from credentialed teachers of deaf and hard of hearing children. Children who are deemed Solely Low-Incidence by the IFSP team (even if there are additional disabilities or risk factors) are more likely to receive special instruction from a credentialed teacher of the deaf and hard of hearing than children who are deemed not Solely Low-Incidence.

Of the 68 agencies that responded to the survey, 38 are providing services by credentialed teachers of the deaf and hard of hearing to all infants and toddlers with hearing loss. Twenty-two agencies are providing services by credentialed teachers of the deaf and hard of hearing to most, but not all, infants and toddlers with hearing loss.

**Table M. Speech and Language Services**

	Receiving S/L Services		Receiving S/L + DHH Teacher	
SLI	368	49%	219	29%
Not SLI	55	22%	37	15%
Total	423	41%	256	25%

Less than half of infants and toddlers with hearing loss are receiving services from a speech and language specialist, and only 25 percent are receiving services from both a teacher of the deaf and a speech and language specialist. Children who are deemed Solely Low-Incidence are more likely to receive these services than children who are deemed not Solely Low-Incidence.

**Table N. Comparison of Cognitive Skills and Communication Skills by Age of Entry in Early Start**

Age at entry to Early Start	# of infants and toddlers	# of infants with normal cognitive skills	% of infants with normal cognitive skills	# of infants with normal cognitive and communication skills	% of infants with normal cognitive skills who also have normal communication skills
1-6 mos.	657	505	77%	261	52%
7-12 mos.	191	137	71%	52	38%
13-18 mos.	70	59	84%	23	39%
19-24 mos.	75	53	71%	16	30%
25-30 mos.	15	10	66%	0	0%
30-36 mos.	8	6	75%	0	0%

This data clearly shows the benefit of early entry into Early Start, but also shows that California needs to continue to improve services to infants and toddlers, including those who are enrolled by six months of age.

**Table O. Comparison of Cognitive Skills and Communication Skills by Home Language**

Home Language	# of infants And toddlers	# of Infants with normal cognitive skills	% of Infants with normal cognitive skills	# of infants with normal cognitive and communication skills	% of infants with normal cognitive skills who also have normal communication skills
English	422	312	74%	137	44%
Spanish	319	240	75%	100	42%
English/Spanish	94	69	73%	30	43%
American Sign Language (ASL)	35	32	91%	25	78%

This data confirms what has long been known in the field of deaf education - that Deaf<sup>1</sup> children of Deaf parents are the least likely to have additional disabilities, and are the most likely to acquire age appropriate language skills that will allow them to succeed in school. Deaf children of Deaf parents are born into homes in which they can access the home language (ASL). Consequently, Deaf children of Deaf parents are less likely to be language deprived.

---

<sup>1</sup> The word “Deaf” is capitalized in this instance, as it refers to children and families that are culturally Deaf, as well as audiotically deaf.

## B. Department of Developmental Services/Regional Centers

The Department of Developmental Services provided the following study results (in italics) for this report:

### ***PREVALENCE OF HEARING LOSS AND EARLY START PROGRAM PARTICIPANTS***

*“The incidence of permanent significant hearing loss is approximately 2-4 per every 1000 infants.”<sup>1</sup> Table 1 below shows the December 2002 Part C (Early Start) Child Count Data for infants and toddlers with diagnosed hearing loss including estimated numbers among unknown Early Start Report (ESR) data and population dually served by CDE and DDS. The related estimates are in Table 2, and somewhat offset each other. As of December 2003, Early Start was serving 307 children who are deaf and an additional 1,231 who were hard of hearing totaling 1,538 infants and toddlers that this legislation would apply to (and approximately five percent more every year thereafter).*

<i>Table 1. December 2002 Part C (Early Start) Child Count Data for Infants and Toddlers with Diagnosed Hearing Loss</i>								
<b>GROUP</b>	<b>DEAF</b>				<b>HARD OF HEARING</b>			
	<b>Age 0</b>	<b>Age 1</b>	<b>Age2</b>	<b>All</b>	<b>Age0</b>	<b>Age1</b>	<b>Age 2</b>	<b>All</b>
<b>CDE</b>	26	72	105	203	74	126	145	345
<b>Regional Center Known</b>	21	59	73	153	98	226	335	659
<b>Subtotal of known</b>	47	131	178	356	172	352	480	1,004
<b>Additional estimated</b>	7	18	25	51	33	73	127	231
<b>Total</b>	54	149	203	307	205	425	607	1,231
<b>Source:</b> CDE hard copy numbers submitted for ICC annual report source for CDE counts. Early Start Report data on Hearing Level used to define deaf (codes 2 or 3) and hard of hearing (codes 1,4 and 5).								

### **EARLY START PROGRAM PARTICIPANT SERVICES**

*In the fiscal year ending June 2002, Early Start provided audiology services to at least 514 infants and toddlers. Of these, 308 were provided by CDE to children solely served by CDE (59.9%), 168 were provided by CDE to children dually served (32.7%). The remainder were provided by DDS to those solely served by DDS. These data are undercounts because they do not capture services*

<sup>1</sup>From the California Department of Health Services' Newborn Hearing Screening Program's website's program summary.



*provided as a part of an Infant Development Program or paid for by generic service agencies.*

*An analysis as of July 2002 of Early Start Report services data provides an indication of audiology services provided by other agencies to be more than one-fourth of all audiology services received as follows:*

- *1% California Children's Services*
- *Between 1 and 2% Child Health Disability Prevention*
- *1% Departments of Public Health*
- *1% Departments of Social Services/County Welfare*
- *1% Early Head Start*
- *1% NICU Follow-Up Clinic*
- *4% Medi-Cal*
- *4% Other Agency Vendor*
- *12 % Managed Care*

*Even with this substantial undercount, audiology was the 11<sup>th</sup> most prevalent service category (vision was 10<sup>th</sup>).*

### ***EARLY START PROGRAM PARTICIPANT PURCHASED SERVICES' COSTS***

*FY 02/03 POS data indicated our average per capita expenditures for Early Start was \$3,583. Table 2 shows POS data for the deaf and hard of hearing group, whose average is \$4,060. As is readily seen, this group resembles all other children in the range and array of services they receive. For example, about one-half the children with significant hearing losses are served in Infant Development Programs, around 24 percent receive Respite, about 20 percent receive Occupational Therapy, approximately 18 percent received Physical Therapy, and almost 10 percent received Home Health Services. Expenditures for Infant Development Programs exceeded \$1.1 million and Home Health was more than \$550,000; all purchased services totaled almost \$2.7 million.*

<i>Table 2.</i>			
<i>FY 2001/02</i>			
<i>Purchased Services for December 2002 Child Count Data for Infants and Toddlers with Diagnosed Hearing Loss</i>			
<b>SERVICES</b>	<b>DEAF or HARD OF HEARING GROUP WITH THE SERVICE</b>		<b>Not or Unknown Group with the Service</b>
	<i>Number</i>	<i>Cost</i>	<i>Number</i>
<b>Audiology</b>	15	\$3,584.84	155
<b>Hearing and Audiology Facility</b>	5	\$5,146.92	47
<b>Communication Aides</b>	0	0	4
<b>Speech Pathology</b>	58	\$37,048.35	1558
<b>Home Health</b>	65	\$551,061.00	666
<b>Physical Therapy</b>	118	\$160,420.52	2436
<b>Occupational Therapy</b>	132	\$210,713.59	2447
<b>Infant Specialist/School/Teacher</b>	25	\$13,931.38	398
<b>Rate Exception</b>	2	\$2,397.00	107
<b>Day Care</b>	2	\$3,040.00	200
<b>Nursing</b>	19	\$108,387.07	149
<b>Respite</b>	155	\$252,745.01	2368
<b>Transportation</b>	44	\$26,251.81	745
<b>Infant Development Program</b>	336	\$1,135,563.86	7480
<b>Behavior Management</b>	2	\$1,102.29	138
<b>Other</b>		\$164,247.91	
<b>TOTAL</b>		<b>\$2,675,641.55</b>	

**Source:** FY 2001/02 POS as of March 2004 matched to CMF and ESR files. Early Start Report data on Hearing Level used to define deaf (codes 2 or 3) and hard of hearing (codes 1,4 and 5).

The Department of Developmental Services (DDS) also provided the California Department of Education (CDE) with an extensive list of more than 1,000 vendors who provide services to infants and toddlers with hearing loss. The list includes 14 local educational agencies (LEAs) and at least two nonpublic schools that provide services to infants and toddlers with hearing loss.

The information provided by the DDS does not provide a clear picture of how many infants and toddlers with hearing loss are offered services from a credentialed teacher of the deaf and hard of hearing. According to DDS, 336/659 (50 percent) of the deaf and hard of hearing infants and toddlers served by regional centers are being served in "Infant Development Programs." It is conceivable that some or all of those 336 children are being served in Infant Development Programs provided by LEAs or nonpublic schools that provide services from a credentialed teacher of the deaf and hard of hearing. The survey

sent to public and nonpublic schools provided information about 31 children who are being served in nonpublic schools through contracts with regional centers.

On January 18, 2005, the DDS disseminated a program advisory to regional center executive directors titled "Early Start Services for Infants and Toddlers Who are Deaf or Hard of Hearing." The program advisory is attached to this report. The advisory stresses to regional centers the importance of providing appropriate services to infants and toddlers with hearing loss, and encourages collaboration between regional centers and local educational agencies to ensure that families of infants and toddlers with hearing loss are offered special instruction from credentialed teachers of deaf and hard of hearing children.

## **VI. Adequacy of Resources and Personnel Standards**

Of the 68 local educational agencies and nonpublic schools that responded to the survey, 64 offer special instruction from a credentialed teacher of the deaf and hard of hearing. Those agencies employ a total of 104 teachers of the deaf and hard of hearing to provide services to infants and toddlers. Of those teachers, 100 are fully credentialed, and 4 are on emergency credentials or in internship programs. Of these teachers, 93 have master's degrees, and the other 11 have bachelor's degrees plus post-graduate credits. Fifty-seven of these teachers have two or more teaching credentials. These teachers report an average of 8.6 years of experience providing services to deaf and hard of hearing infants and toddlers and their families. Based on this information, there does not appear to be a serious shortage of teachers of the deaf available to provide services to deaf and hard of hearing infants and toddlers in California.

Regional centers may provide appropriate special instruction to infants and toddlers with hearing loss by contracting for services with an LEA or nonpublic school that provides services to deaf and hard of hearing infants and toddlers.

## **VII. Costs**

The cost of "infant development programs" contracted by regional centers to provide services to deaf and hard of hearing infants and toddlers totals \$1,135,563.86, or an average of \$3,379.65 per child. The services provided in these programs are not specified. The list of vendors provided by the DDS does include 14 local educational agencies and at least two nonpublic schools that provide services to infants and toddlers with hearing loss. It is conceivable that some or all of the 336 children are enrolled in "infant development programs" that are LEAs or nonpublic schools that provide services from a credentialed teacher of the deaf and hard of hearing.

If the average cost of an "infant development program" is \$3,379.65 per child, and regional centers serve 659 infants and toddlers with hearing loss, the total cost of providing "infant development services" to all 659 children would be

\$2,227,189.35 per year. Since the DDS is already spending \$1,135,563.86 for such services, it would cost an additional \$1,091,625.49 to ensure that all infants and toddlers are offered these services. Regional center would need to ensure that the “infant development program” does provide the services of a credentialed teacher of the deaf and hard of hearing. Regional centers can ensure this by contracting with LEAs within their service areas to provide services to deaf and hard of hearing infants and toddlers.

## **VIII. Conclusions**

California is improving services to infants and toddlers who are deaf or hard of hearing. Because of the California Newborn Hearing Screening Program, 65 percent of infants with hearing loss are enrolled in Early Start programs by the critical age of six months. Seventy-three percent of the children enrolled in public or nonpublic school Early Start programs are receiving special instruction from credentialed teachers of deaf and hard of hearing students. The survey results showed that children enrolled in Early Start by six months of age are more likely to acquire language skills commensurate with their cognitive ability.

A variety of actions have been taken to assist agencies in improving service provision for these children and their families, including the following:

- The Department of Developmental Services has issued a program advisory to regional centers regarding the importance of providing appropriate services to infants and toddlers with hearing loss.
- The California Department of Education’s Deaf and Hard of Hearing Early Start Workgroup (funded by a federal Maternal and Child Health Bureau [MCHB] grant) has developed “Best Practices for Early Start for Infants and Toddlers Who are Deaf or Hard of Hearing,” to be published soon.
- Also funded by the MCHB grant, the California Department of Education has provided regional trainings to Early Start providers on the appropriate provision of services to deaf and hard of hearing infants and toddlers and their families.
- The California Department of Education is planning regional trainings on the assessment of language and communication skills in deaf and hard of hearing infants and toddlers.
- The California Department of Education will request local educational agencies to voluntarily participate in annual reporting of language assessment results of infants and toddlers with hearing loss.

## **IX. Recommendations**

1. California should pass legislation that requires universal newborn hearing screening, in order to ensure that every child with hearing loss born in California receives equal educational opportunity.
2. Local educational agencies should ensure that every infant and toddler with hearing loss, including those with additional disabilities, is offered special instruction provided by a credentialed teacher of the deaf and hard of hearing, as required by *Education Code* Section 44265.5(b).
3. Regional centers should contract with local educational agencies to provide special instruction from a credentialed teacher of the deaf and hard of hearing to infants and toddlers with hearing loss who are served exclusively by regional centers.