

2001 Mail Service Center • Raleigh, North Carolina 27699-2001 Tel 919-733-4534 • Fax 919-715-4645

Beverly Eaves Perdue, Governor

May 13, 2010

Lanier M. Cansler, Secretary

The Honorable Beverly M. Earle, Co-Chair Appropriations Subcommittee on Health and Human Services North Carolina General Assembly Room 634, Legislative Office Building Raleigh, NC 27603

The Honorable Bob England, M.D., Co-Chair Appropriations Subcommittee on Health and Human Services
North Carolina General Assembly
Room 303, Legislative Office Building
Raleigh. NC 27603

The Honorable Verla Insko, Co-Chair Appropriations Subcommittee on Health and Human Services North Carolina General Assembly Room 307-B1, Legislative Office Bld. Raleigh, NC 27603

Dear Representatives Earle, England, and Insko:

Attached please find the report from the Office of Education Services, Department of Health and Human Services, required by Session Law 2009-451, Section 10.51A.(b) which states "The Department of Health and Human Services shall, in consultation with the State Board of Education and the Department of Public Instruction, develop and recommend plans to achieve efficiencies of scale and ensure the appropriate education of students with visual and hearing impairments."

The Office of Education Services (OES) consulted with staff from the Department of Public Instruction to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholders to develop the proposed designs. The proposed designs were then shared with external stakeholders through the OES web site where public comments were accepted for a period of two weeks. Should you have questions about this report, please contact Dwight Pearson at (919) 855-4439 or via e-mail at Dwight.Pearson@dhhs.nc.gov.

Sincerely,

Lahier M. Cansler

LMC:cd Enclosure

cc: Ju

June Atkinson Pam Kilpatrick

Bryce Ball

Kathy Rhoades Sharnese Ransome Dwight Pearson Dan Stewart



2001 Mail Service Center • Raleigh, North Carolina 27699-2001 Tel 919-733-4534 • Fax 919-715-4645

Beverly Eaves Perdue. Governor

May 13, 2010

Lanier M. Cansler, Secretary

The Honorable William R. Purcell, Co-Chair Appropriations on Health and Human Services North Carolina General Assembly Room 625, Legislative Office Building Raleigh, NC 27603

The Honorable Doug Berger, Co-Chair Appropriations on Health and Human Services North Carolina General Assembly Room 526, Legislative Office Building Raleigh, NC 27603

Dear Senators Purcell and Berger:

Attached please find the report from the Office of Education Services, Department of Health and Human Services, required by Session Law 2009-451, Section 10.51A.(b) which states "The Department of Health and Human Services shall, in consultation with the State Board of Education and the Department of Public Instruction, develop and recommend plans to achieve efficiencies of scale and ensure the appropriate education of students with visual and hearing impairments."

The Office of Education Services (OES) consulted with staff from the Department of Public Instruction to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholders to develop the proposed designs. The proposed designs were then shared with external stakeholders through the OES web site where public comments were accepted for a period of two weeks. Should you have questions about this report, please contact Dwight Pearson at (919) 855-4439 or via e-mail at Dwight.Pearson@dhhs.nc.gov.

Sincerely,

Lanier M. Cansler

LMC:cd

Enclosure

cc: June Atkinson

Pam Kilpatrick Bryce Ball Kathy Rhoades Sharnese Ransome Dwight Pearson Dan Stewart





2001 Mail Service Center • Raleigh, North Carolina 27699-2001 Tel 919-733-4534 • Fax 919-715-4645

Beverly Eaves Perdue, Governor

Lanier M. Cansler, Secretary

May 13, 2010

Ms. Marilyn Chism, Director Fiscal Research Division Room 619, Legislative Office Building Raleigh, NC 27601

Dear Ms. Chism:

Attached please find the report from the Office of Education Services, Department of Health and Human Services, required by Session Law 2009-451, Section 10.51A.(b) which states "The Department of Health and Human Services shall, in consultation with the State Board of Education and the Department of Public Instruction, develop and recommend plans to achieve efficiencies of scale and ensure the appropriate education of students with visual and hearing impairments."

The Office of Education Services (OES) consulted with staff from the Department of Public Instruction to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholders to develop the proposed designs. The proposed designs were then shared with external stakeholders through the OES web site where public comments were accepted for a period of two weeks. Should you have questions about this report, please contact Dwight Pearson at (919) 855-4439 or via e-mail at Dwight.Pearson@dhhs.nc.gov.

Sincerely,

Lanier M. Cansler

LMC:cd

Enclosure

cc:

June Atkinson

Panci M. Cal

Pam Kilpatrick

Bryce Ball

Kathy Rhoades

Sharnese Ransome

Dwight Pearson

Dan Stewart



2001 Mail Service Center • Raleigh, North Carolina 27699-2001 Tel 919-733-4534 • Fax 919-715-4645

Beverly Eaves Perdue, Governor

Lanier M. Cansler, Secretary

May 13, 2010

The Honorable Joe Hackney, Co-Chair Joint Legislative Commission of Governmental Operations North Carolina General Assembly Room 2304, Legislative Building Raleigh, NC 27601

Dear Representative Hackney:

Attached please find the report from the Office of Education Services, Department of Health and Human Services, required by Session Law 2009-451, Section 10.51A.(b) which states "The Department of Health and Human Services shall, in consultation with the State Board of Education and the Department of Public Instruction, develop and recommend plans to achieve efficiencies of scale and ensure the appropriate education of students with visual and hearing impairments."

The Office of Education Services (OES) consulted with staff from the Department of Public Instruction to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholders to develop the proposed designs. The proposed designs were then shared with external stakeholders through the OES web site where public comments were accepted for a period of two weeks. Should you have questions about this report, please contact Dwight Pearson at (919) 855-4439 or via e-mail at Dwight.Pearson@dhhs.nc.gov.

Sincerely,

Lahier M. Cansler

LMC:cd

Enclosure

cc: June Atkinson

Pam Kilpatrick

Bryce Ball

Kathy Rhoades Sharnese Ransome

Dwight Pearson

Dan Stewart



2001 Mail Service Center • Raleigh, North Carolina 27699-2001 Tel 919-733-4534 • Fax 919-715-4645

Beverly Eaves Perdue, Governor

Lanier M. Cansler, Secretary

May 13, 2010

The Honorable Marc Basnight
Joint Legislative Commission on Governmental Operations
North Carolina General Assembly
Room 2007, Legislative Building
Raleigh, NC 27601

Dear Senator Basnight:

Attached please find the report from the Office of Education Services, Department of Health and Human Services, required by Session Law 2009-451, Section 10.51A.(b) which states "The Department of Health and Human Services shall, in consultation with the State Board of Education and the Department of Public Instruction, develop and recommend plans to achieve efficiencies of scale and ensure the appropriate education of students with visual and hearing impairments."

The Office of Education Services (OES) consulted with staff from the Department of Public Instruction to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholders to develop the proposed designs. The proposed designs were then shared with external stakeholders through the OES web site where public comments were accepted for a period of two weeks. Should you have questions about this report, please contact Dwight Pearson at (919) 855-4439 or via e-mail at Dwight.Pearson@dhhs.nc.gov.

Sincerely,

Lanier M. Cansler

LMC:cd Enclosure

cc:

June Atkinson

Kathy Rhoades Sharnese Ransome Dan Stewart

Pam Kilpatrick Bryce Ball

Dwight Pearson



Plans to Achieve Efficiencies of Scale and Ensure the Appropriate Education of Students with Visual and Hearing Impairments

Report to the House Appropriations Subcommittee on Health and Human Services; the Senate Appropriations Committee on Health and Human Services; the Joint Legislative Commission on Governmental Operations, and the Fiscal Research Division of the North Carolina General Assembly

Submitted by

The Office of Education Services

NC Department of Health and Human Services
in Consultation with the NC Department of Public Instruction

May 1, 2010

TABLE OF CONTENTS

EXECUTIVE SUMMARY	Page 1
ASSUMPTIONS.	Page 4
NEEDS ANALYSIS	Page 7
SUMMARY OF FINDINGS	Page 8
ANALYSIS OF MOST SIGNIFICANT FINDINGS	Page 10
DESIGNS TO ENHANCE THE CONTINUUM OF SERVICES FOR CHILDREN WITH SENSORY DISABILITIES	Page 18
Design One: One Consolidated Residential School and Two Day Programs	Page 19
Design Two: One Consolidated Residential School	Page 22
Design Three: Enhanced Services	Page 23
Design Four: Two Consolidated Residential Schools	Page 24
RECOMMENDATIONS	Page 26
APPENDICES	Page 28

EXECUTIVE SUMMARY

Over the last two decades, a variety of studies have been conducted regarding how the State of North Carolina should proceed in providing educational services to children with sensory disabilities. Considering factors related to high operational costs and declining enrollments, most of these studies have focused on the operation of the state residential schools. Essentially, recommendations stemming from these studies identified ways the state could reduce operational costs while at the same time improving educational outcomes for children served in these facilities.

The General Assembly, in Session Law 2009-451, directed the Department of Health and Human Services (DHHS), in consultation with the Department of Public Instruction (DPI), to "develop and recommend a plan to achieve efficiencies of scale and ensure appropriate education of students with visual and hearing impairments." Staff from the Office of Education Services (OES) in the Department of Health and Human Services collected data on students with vision and hearing impairments in North Carolina and compared that data to the same populations in other states, including emerging trends in service delivery models. They consulted with staff from DPI to determine available services for this population of students and the existing capacity to serve them. Staff from OES used internal stakeholder groups to develop the designs proposed in this report.

The entire draft report was shared with external stakeholder groups through the OES web site, and public comments were accepted through a specific email address for about two weeks. Comments were received through 46 emails; it should be noted that many of those emails made multiple recommendations. Therefore, the percentages and numbers below add up to more than 100% and more than 46 total.

- 52% (24) did not choose any of the recommended designs (some flatly rejected any of the
 designs; some made other recommendations; others supported a specific school, and some
 just shared general comments)
- 15.2% (7) recommended that all three schools remain open
- 10.9% (5) supported changes to the Office of Education Services central office
- 8.6% (4) supported increases in outreach and services for birth to five year olds for all sensory disability groups
- 13% (6) shared corrections that were made in the final report
- 6.5% (3) supported the one residential school and two day programs design
- 4.3% (2) supported one consolidated residential school
- 4.3% (2) advocated for two consolidated residential schools

Throughout this report, the term <u>consolidated</u> refers to a school which will serve deaf, hard of hearing, blind, visually impaired, and deaf-blind students on the same campus but not the same classrooms.

Recommendations

Consolidate Residential Programming: It is imperative that the state operate a different level and intensity of residential services for students who are deaf, hard of hearing, blind, visually impaired, and deaf-blind. There are basically four designs to be considered which would address the changing face of residential students in the 21st century: a consolidated residential school with two consolidated day

programs; a consolidated residential school; three consolidated schools with enhanced services, and two consolidated residential schools. All of these designs would include more robust programming for children ages birth to 22 who are deaf, hard of hearing, deaf-blind, blind, and visually impaired through early intervening and preschool services and outreach programming in the public school systems.

Redirect Resources to Outreach Services: Outreach and/or capacity building efforts to serve students with vision and hearing impairments should be increased significantly to support all other deaf, hard of hearing, deaf-blind, blind, and visually impaired students attending schools in their local education agency (LEA). Outreach efforts to build capacity in LEAs to serve these populations are provided by identified staff in DHHS. It is anticipated that some of the savings realized by the restructuring of residential services will be leveraged to support expanded efforts to foster the development of capacity in LEAs through professional development, mentoring and coaching, demonstration teaching, and some direct services.

Address the Needs of Children Ages 3-5 who are Deaf or Hard of Hearing: The Resource Support Program, which provides services to professionals and families of children who are deaf or hard of hearing, should be increased to provide teachers to schools systems who will ensure that deaf or hard of hearing children ages 3-5 receive the highest quality language and communication skill development thus increasing the opportunity for these children to develop language at a pace more aligned to that of their hearing peers. These teachers would partner with teachers provided by the school system thereby increasing the capacity of school systems to serve these children appropriately.

Review Placement Annually: Each of the school systems in North Carolina referring students to a state operated program, in conjunction with appropriate staff working in these programs, should work more closely to ensure that students' placement is revisited at the yearly Individualize Education Program (IEP) meeting. This ensures that students' transition into and out of state operated schools and programs as needed to meet the unique educational needs of each individual student.

Create Competitive Salaries for DHHS Educators: A differentiated salary schedule needs to be created for teachers in DHHS. This would allow residential and outreach programs as well as the schools in the Division of State Operated Healthcare Facilities to compete more competitively with other school systems when recruiting and retaining highly qualified teachers. Without access to local funds, DHHS cannot offer teachers the incentives that other systems may offer. This could be accomplished not only through an alternative salary funding formula but also by altering applicable policies and procedures through the Office of State Personnel which regulate how teachers in the state-operated school systems are paid.

Report to the State Board of Education: It is assumed that transition to a more fluid design of service delivery and the operation of the residential, day, and outreach programs for vision and hearing impaired students will continue to occur organizationally within DHHS. If this assumption is correct, quarterly reports should be made to the State Board of Education and the State Superintendent of Public Instruction. As part of this relationship, DHHS will work with DPI to identify additional measures specific to deaf, hard of hearing, deaf-blind, blind, and visually impaired education which will become part of the accountability formula for the consolidated residential schools.

Employ Distance Technology: A distance technology program, currently under development, will be offered as a component within the new designs. The program will be managed in collaboration with the NC Virtual Public School. The program could be employed across the state to reduce isolation for vision and hearing impaired students and the professionals who serve them and to enhance programming for children

with sensory disabilities who did not choose to attend residential programming. This would ensure that students who use American Sign Language as their primary communication modality would receive instruction from a teacher dually licensed in a specific content area as well as in the education of exceptional children. It may also serve to provide direct instruction for students who have never received instruction directly from their teacher but always through an interpreter.

Assist in the Development of School System Collaboratives: Collaborative programs will continue to be established between smaller, economically challenged school systems enabling them to pool their resources to serve students with visual and hearing impairments more efficiently. DHHS would be able to provide resources to these collaboratives as an equal partner with DPI and the school systems.

Conclusion

North Carolina has maintained three residential schools while some states are closing schools and creating other opportunities to provide services for students who are blind, visually impaired, deaf, hard of hearing, or deaf-blind. The changes in the service delivery options acknowledge the new research and methodology in both the education of these students and the medical advances in these disability areas. Inclusion of diverse options in the educational continuum for vision and hearing impaired students will require students, families, staff, and other stakeholders to think more progressively about educational placements.

North Carolina can achieve improved educational outcomes for these students while creating greater efficiencies of scale in the overall cost by

- growing its early intervening services to meet the needs of visual and hearing impaired children under age five;
- addressing the gap in services for children ages three to five who are deaf or hard of hearing;
- focusing additional resources on outreach services to provide direct services to students and capacity building for educational professionals in local school systems; and,
- consolidating residential school services.

ASSUMPTIONS

Some basic assumptions have been made as the foundation for this report. It is important to acknowledge these so that all readers are cognizant of the basic assumptions as they currently exist in North Carolina.

All children have the right to a Free, Appropriate Public Education (FAPE) which enables them to be participating members of our society upon graduation. Studies show that the difference between earning a high school diploma or not is the single largest determinant for lifelong income. In fact, education beyond high school determines how much a citizen participates in society. For example, research from the Southern Education Foundation shows that of adults with a high school education or less, only 50.4% registered to vote whereas those with at least a bachelor's degree registered at a rate of 84.4%. The same study showed that only 22.1% of those with a high school education or less do volunteer work in their community while 76.6% of adults with at least a bachelor's degree volunteer in their community. Clearly, the more education individuals have, the more likely they are to participate fully in society.

Access to early intervening services for children with hearing or visual impairments is critical to the future of success of those students and reduces their reliance on exceptional children's programming as they age. Consistently, children who begin receiving services within the first six months of birth made far greater strides than their counterparts who came to intervention at a later age. For children with a hearing or vision loss, any delay in access to interventions delays their development and keeps them behind their typically developing peers for years to come. In fact, students who are behind at age six rarely, if ever, achieve at the same pace set by their typically developing peers. Funds spent to provide services to children before they turn eight are returned exponentially and those same children's need for access to specialized services declines sharply. The quality of early intervening services for children with both vision and hearing losses in North Carolina are far superior to those other states; the network for service provision, provided at no cost to families, ensures unparalleled access to services and professionals thus creating pathways to independence, self-advocacy, and academic success at rates comparable to non-disabled children (See Appendix C).

Everyone involved in education for children with vision and hearing impairments wants them to have access to the best educational and intervention opportunities that North Carolina can provide. These students need high quality services in order to decrease their achievement gap and to be citizens who participate effectively in all areas of society. Dedicated professionals at the Department of Health and Human Services, the Department of Public Instruction, and Local Education Agencies across the state have been working together, and continue to do so, to bridge the gaps for these children and their families.

The number of deaf, hard of hearing, blind, visually impaired, and deaf-blind students who will need residential school educational placements will continue to decline. The majority of these children will be served in local school systems. Data analysis over the past ten years reveals that although the number of students with hearing and visual impairments has continued to increase, the numbers actually enrolling in the state residential schools has continued to decline. If this trend continues as expected, by the 2017-18 school year, of the 2566 hearing and 854 vision impaired students in the state, only 157 will be served in residential facilities (See Appendix B). A variety of factors are contributing to the decreasing populations in residential schools in NC and across the country.

- Legal mandates (IDEA and state laws): Since the reauthorization of Individuals with Disabilities Education Act in 2004, Individualized Education Program (IEP) teams have taken a more significant role in determining placement for students with disabilities. While special factors are considered, especially for students who are identified as deaf or hard of hearing, placement in a residential school is no longer seen as the only option for students for socialization in their chosen communication modality. With a stronger emphasis on Least Restrictive Environment (LRE), IEP teams are encouraged to look at all the options for services in the continuum and seek to involve students with low incidence disabilities in classroom settings with their non-disabled peers.
- Improvements in Medical Technology: With more premature babies able to survive earlier, retinopathy of prematurity is no longer the primary cause of vision loss. However, there has been a significant increase in cortical vision impairment; the retina and optic nerve are intact, but the ability of the brain to process the signal received from the nerve is impaired. Many of the drugs which enable premature babies to survive also impact their sensory input, especially vision and hearing. Advances in cochlear implant and other hearing aid technologies allow for earlier and more effective amplification for deaf or hard of hearing children.
- Early Hearing Screening: Through mandatory newborn hearing screening, more hearing losses are detected earlier. In 1998, children averaged 25 months in age before their loss was diagnosed. In 2002, the average age was less than one month. In 2007, 94.4% of all babies born in the United States were screened for a hearing loss as a newborn. In North Carolina, 98.24% of babies were screened. About 131,101 babies were screened for a loss; 243 were identified with a hearing loss. Of those 243, 186 requested services for their loss (See Appendix C). These early diagnoses enable families to access services sooner thus eliminating the previously lengthy delay between diagnosis and intervention and increasing the variety of choices that these children and their families will have when choosing a communication modality.
- Expanded Early Intervening Services: Earlier identification of vision and hearing losses has created an awareness of and need for expanded early intervening services. In collaboration with other services such occupational, physical, and speech/language therapies, children and families are taught how to do therapy at home to supplement services from early interventionists. As much as possible, children and families receive services in their natural environment (home, day care, etc.). Early intervention for deaf or hard of hearing children focuses on language and communication skill development and parent education. Blind or visually impaired children receive training in compensatory skills such as functional skill development, pre-Braille, pre-Orientation and Mobility, adaptive play, use of low vision devices, and parent education.
- Improvement in the Capacity of LEAs to Serve Children with Sensory Disabilities: As families and IEP teams make choices for children, LEAs have had to increase their services for all children, including those for children with low incidence sensory disabilities. As more children are mainstreamed and/or provided with fewer self-contained classes, LEAs have hired the professionals to serve the students and/or contracted with private providers. While this is not feasible for all LEAs, DPI and DHHS are working with LEAs to help establish collaborative

programs where LEAs with small numbers of low incidence population students can share their resources to provide more options in the continuum of services at a more reasonable cost enabling students to receive appropriate services locally rather than only having that access at a residential school.

The per pupil cost to operate residential schools will continue to be greater than the cost to serve a similar population of children in regular day programs. This implies that an optimal number of pupils must be served in a school to provide to the most programmatic, cost, and organizational effectiveness. There are also costs which will always be incurred to operate a school, regardless of how many students are in attendance. Most of these costs, like utilities and personnel, will only continue to increase over time. When numbers at the residential schools are steadily declining, this only raises the cost per student (See Appendix D).

It is important to note, however, that an LEA with less than five students with sensory disabilities would show spending patterns similar to that of the residential schools because of the exponentially high cost of appropriate related services staff and assistive technologies. The costs are also increased if these students have multiple disabilities thereby increasing their need for access to even more exceptional children's services.

Similar to school memberships, sound school planning principles dictate that the number of students to be served in a school system is the primary determinant of the number of schools to operate. This consideration is no less important in a statewide school operation than it would be in a traditional LEA.

At the time of the drafting of this report, the number of students served in the three state operated residential schools of North Carolina was less than 250, and that number continues to decline. The literature is convincing that the most economically as well as programmatically effective schools serve a defined number of pupils. Among traditional public schools, the greatest cost efficiencies are realized within the following ranges: elementary schools 450-700 students; middle schools 600-800 students, and high schools 800-1200 students. While there is no general agreement on the optimal size of specialized schools, the greatest opportunities for efficiencies of scale are offered when schools are operated within defined ranges. Also, organizational configuration impacts the cost effectiveness of school operations. The larger the number of schools operated, the more complex the administrative structure in order to provide centralized coordination. Again, this is as true in statewide school operations as in traditional LEAs.

Approximately twenty-five percent of states operating residential schools for sensory impaired students have addressed this issue by operating schools that serve deaf and blind populations on the same campus (See Appendix G). It should be clarified that this does not mean serving students with these different disabilities in the same classrooms, nor would they necessarily live in the same residential facility.

There is no evidence to support that the transfer of these savings from the consolidation of residential programs to the LEAs could be maintained in support of students with vision and hearing impairments with integrity. The local autonomy granted to LEAs allows those systems to use positions and funding with the maximum flexibility. The outreach programs which support students, families, and the professionals who serve them function best in DHHS for the following reasons.

 Outreach staff are able to maintain professional objectivity and neutrality when observing students and professionals in LEAs or attending IEP meetings to provide information to the team.

- Research-based, professional recommendations are made by outreach staff to LEAs. LEA staff
 may or may not choose to implement these recommendations, but they may be seen as a mandate
 if delivered by DPI staff.
- Outreach staff are invited to LEAs which creates more collegial relationships with professionals.
- Direct student evaluation (free of charge to the LEA), one-on-one coaching, and assistance for
 professionals who work with the students who are evaluated are provided by outreach staff. This
 creates a continuity of services ensuring consistent follow-through on recommendations for
 students.

NEEDS ANALYSIS

Prior to a discussion of possible designs of service delivery, it is critical to consider extant data regarding the sensory impaired students currently served in the residential schools. The chart below shows information from the residential schools in North Carolina regarding students' needs as of February, 2010.

	ENCSD	GMS	WNCSD
Total number of students served	97	54	93
Number of students with disabilities in addition to their primary sensory disability	95	46	65
Number of students with a mental health diagnosis	57	19	47
Number of students who qualify to receive free and/or reduced lunch	89	36	85
Number of students on Medicaid	80	31	50
Number of students who are uninsured	4	1	11

Based on this data, it is clear that these students have a variety of needs which impact their ability to learn at the same rate as their non-disabled peers. In addition, a large percentage of the students served on all three campuses display characteristics consistently identified by all educators as factors which make students more at risk of failure than not. Students from low socioeconomic backgrounds and/or those who have less than desirable access to healthcare professionals achieve at lower rates than other students. These are two factors that need to be addressed as educators seek to close the achievement gap for the children in the residential schools.

In addition, access to comprehensive mental health treatment and medications is critical for these students. However, that access is severely limited, especially in rural areas, since mental health professionals who can communicate with deaf or hard of hearing students directly, that is not through an interpreter, are few

and far between. These students need ongoing therapy and increased access to any medications which could aid in their treatment.

As revealed in the chart above, there will always be some students with sensory impairments who will need to be served in the most restrictive setting: a residential school. These students have the greatest level of needs and require significant attention to their social, emotional, and academic development for them to achieve their greatest potential. The fact that 85% or 206 students currently enrolled in the residential schools have multiple disabilities is an indication of the continuing need for this service.

The other data that must be considered are what research shows regarding the trends across the lifespan related to sensory impaired populations. Research provides a plethora of data regarding the progression of needs for persons who are deaf, hard of hearing, blind, visually impaired, and deaf-blind (See Appendix C). The data from the schools and the research support a continued strong focus on early interventions; the need for comprehensive career and technical education with a focus on transition services, and the importance of preparing these students to be productive citizens in the 21st century.

SUMMARY OF FINDINGS

What follows is a summary of the most significant findings regarding the educational programs for students with sensory disabilities in DHHS.

- Enrollment at the Governor Morehead School has decreased by 26% from 2001 to 2010. During the same period, the average cost per pupil increased from \$92,739 to \$112, 314 (See Appendices B and D).
- 46 of the 54 students enrolled at the Governor Morehead School as of February 28, 2010 have a
 disability in addition to being identified as visually impaired. Thirty-five percent have a mental health
 diagnosis. Thirty-six students are on Medicaid and the same number qualify for free and/or reduced
 lunch.
- Enrollment at the Western NC School for the Deaf in Morganton decreased by 35% from 2001 to 2010. The per pupil expenditure rose from \$57,148 in 2001 to \$91,094 in 2009 (See Appendices B and D).
- 65 of the 93 students enrolled at the Western NC School for the Deaf as of February 28, 2010 have a
 disability in addition to being identified as hearing impaired. Fifty-one percent have a mental health
 diagnosis. Fifty students are on Medicaid and 85 qualify for free and/or reduced lunch.
- Enrollment at the Eastern NC School for the Deaf in Wilson decreased by 33% from 2001 to 2010. The
 per pupil expenditure rose from \$56,596 to \$82,053 from 2001 to 2009 (See Appendices B and D).
- 95 of the 97 students enrolled at the Eastern NC School for the Deaf as of February 28, 2010 have a
 disability in addition to being identified as hearing impaired. Fifty-nine percent have a mental health
 diagnosis. Eighty students are on Medicaid and 89 qualify for free and/or reduced lunch.
- From 1999-2009, 390 students have completed the program and/or aged out of eligibility for exceptional children's services (age 21) the three residential schools.

- From 1999-2009, the three state residential schools awarded the following exit documents (See Appendix E) to completers:
 - 177 certificates
 - 135 academic pathway diplomas
 - o 78 Occupational Course of Study pathway diplomas
- 55% of the students who completed the programs at the residential schools from 1999-2009 did not earn diplomas which would enable them to enroll in programs for associate's or bachelor's degrees (See Appendix E).
- The number of children and families being served by the Early Intervention Program for Children who are Deaf or hard of hearing has increased by 54% since 2004 (See Appendix B).
- More families are choosing spoken language communication options for their children. Since 2004, no less than 60% of families in Early Intervention have chosen spoken language. In December, 2009, 73% of families are choosing this option as compared with 17% choosing Total Communication and 2% choosing American Sign Language.
- DPI, The Office of School Readiness (now the Office of Early Learning), and DHHS recently surveyed
 professionals serving three to five year olds who are deaf or hard of hearing in public schools. The
 greatest need expressed by these professionals was for more training in language development and
 early literacy.
- The Resource Support Program has provided services in 76 LEAs since July, 2009 to help teachers, speech language pathologists, and audiologists build their capacity to serve the deaf or hard of hearing students in their home LEAs.
- The Resource Support Program and Governor Morehead School Outreach Program are housed in DHHS because the objectivity and neutral status of staff is critical when assisting LEAs. School professionals are receiving colleague to colleague professional suggestions instead of mandates from the state education agency.
- Governor Morehead School Outreach for blind or visually impaired students provided direct services to 413 children in LEAs in 2008-2009. During the same period, they worked with professionals in 89 LEAs.
- Governor Morehead Preschool has increased its enrollment 62% from 2001 to 2009. Caseloads in 2009 for staff averaged one teacher to 22 children (See Appendix B).
- Transportation records from the three residential schools indicate that 79% of all students live within a
 two hour or less drive of the residential school that they currently attend. The majority of students are
 transported by buses to the schools (See Appendix F).

- According to the 2009 Statistical Profile from the NC Public Schools,
 - 2,153 primarily identified hearing impaired students ages 3-21 were in the public schools
 - o 682 primarily identified visually impaired students ages 3-21 were in the public schools
 - o 31 primarily identified deaf-blind students ages 3-21 were in the public schools
- The average statewide per pupil expenditure is \$8,522 according to the 2008-2009 Facts and Figures publication from DPI and the State Board of Education. The smallest LEA, Tyrrell, spends \$16,273 per pupil (558 students). During the same time, the average per pupil expenditure in the residential schools was \$87,451 (includes educational and residential).
- There are 38 LEAs with no Exceptional Children licensed or paid teachers of the hearing impaired or visually impaired. Of these 38 LEAs, all have students primarily identified in these disability categories. The residential schools serve students from 16 of these 38 LEAs. That means that in the other half of those LEAs without licensed staff, the HI and VI identified students are receiving services through some other means (See Appendix N).

ANALYSIS OF MOST SIGNIFICANT FINDINGS

Students with sensory disabilities in North Carolina are afforded educational opportunities by most of the 115 local public school systems in the state and through the three specialized state operated residential schools. Over ninety percent of those with sensory disabilities (hearing and vision impaired students) are educated in local schools; the remainder is served in specialized residential facilities (See Appendix B).

The specialized residential schools serving children with sensory disabilities are managed by the North Carolina Department of Health and Human Services. Students are admitted to the schools only by referral from their Individualized Education Program (IEP) Team in the local school systems. Governor Morehead School for the Blind in Raleigh serves students with vision impairments. Two schools, the North Carolina School for the Deaf in Morganton and the Eastern North Carolina School for the Deaf in Wilson, serve deaf or hard of hearing children. This section of the report discusses findings related to the operation of these schools and the other programs serving deaf, hard of hearing, deaf-blind, and blind students in the state.

Costs of Operating the Residential Schools

The average annual cost per student at each of the three residential schools consistently increased over the last decade (See Appendix D). For the Governor Morehead School, the cost per student increased from \$92,739 in 2001-2002 to \$112,314 in 2008-2009. During the same period of time, at the Western North Carolina School for the Deaf, the cost per student increased from \$57,148 in 2001-2002 to \$91,094 in 2008-2009. This trend also holds true for the Eastern North Carolina School for the Deaf with an average per pupil cost of \$56,596 in 2001-2002 and \$82,053 in 2008-2009.

For the 2008-2009 fiscal year, the average annual expenditure per student receiving residential as well as academic services as compared to those receiving only academic services showed variance among the three schools. For the Governor Morehead School, the per pupil cost for residential as well as academic services was \$114,748 verses a per pupil cost of \$80,129 for those participating solely in the academic program. At the Western North Carolina School for the Deaf, the cost per pupil for residential as well as academic services was \$93,125 as compared to a per pupil cost of \$66,256 for those participating only in

the academic program. Similar findings are evident for the Eastern North Carolina School for the Deaf, where the cost per pupil for residential as well as academic services was \$83,370 verses a per pupil cost of \$60,322 for those enrolled in the academic program. Additional data for academic/instruction, residential/dormitory, utilities, child nutrition, student health centers and administrative costs for each school and covering the years 2007-2008, 2008-2009 and through December 2009 for the current fiscal year can be found in Appendix D.

Membership Trends

An analysis of student membership data for the past two decades reveals that the number of students with hearing and vision impairments served in North Carolina public schools has displayed a steady increase, while the numbers actually enrolling in state residential schools has continued to decline (See Appendix B). In 1990-91, 578 students were in enrolled in North Carolina deaf schools. This number declined to 294 students in 2000-2001 and was at 190 as of December, 2009. Similar membership trends have been observed at the Governor Morehead School with as many as 83 pupils in 2006-2007 and as few as 54 in December, 2009.

Assuming that membership trends continue as expected, by the 2017-18 school year, of the 2,566 hearing and 854 vision impaired students projected to be attending public schools in North Carolina, approximately 157 are projected to be served in state residential schools (See Appendix B). While membership projections for state operated residential schools are not as reliable as they are for locally operated school districts, they are informed by reliable statistical methods and necessary for long range planning. Nevertheless, declining membership in residential schools operated in North Carolina as well as throughout the United States is evident and can be explained by factors such as

- legal mandates (IDEA and state laws);
- improvements in medical technology;
- mandates surrounding newborn hearing screening;
- expanded Early Intervention services for hearing and vision impaired children; and,
- improvement in the capacity of LEAs to serve children with sensory disabilities.

Details regarding these factors are in the Assumptions section of this report.

Transportation at the Three Residential Schools

Of the 238 students in attendance at the three schools as of December, 2009, 167 were served in both the residential and day programs, while 71 were served in the day program. As displayed in Appendix F, 189 or 79 percent of the children attending the schools live two hours or less from where they are enrolled. Forty-nine students live more than two hours from the school where they are enrolled. Many of the children who live more than two hours from the school attend the Governor Morehead School. Four students were traveling four hours or more one-way each week.

Because the Governor Morehead School is the only residential facility serving a statewide population, most of the children in the three-hour or above category attend this school. In addition, three students attending NCSD travel at least four hours to get to the school. However, this represents an outlier because these children live in Richmond County which is at the far eastern edge of the NCSD catchment area. The primary mode of transportation to all three schools is by bus. As reflected in Appendix F, 200 children attending both the residential and days programs are transported by a combination of school-operated and

charter buses. Six residential and 32 day students are transported by parents. The number of children currently traveling more than 2.5 hours to get to school is reflected in chart Appendix E. The number of miles of travel is also presented. It is important to note that this data represents one-way mileage from the home of each student to the school of assignment. The existing service delivery model contributes to student travel times. This can be avoided by increasing outreach services and using a consolidated model for residential services.

Early Intervention for Children who are Deaf or Hard of Hearing (EI)

This program, operated by the DHHS Office of Education Services, provides early language and communication skill development intervention for children ages birth to age three who are deaf or hard of hearing with a focus on the parent as the child's best teacher. Managed by a statewide director and two lead teachers, the program employs itinerant teachers who provide interventions for children and their families in their natural environments (home, daycare, preschool, etc.). Teachers, speech language pathologists, audiologists, diagnosticians, and social workers travel throughout the state, mostly from home offices, to provide intervention services and parent education. Staff also interact with other professionals, such as occupational and physical therapists, to coordinate communication and language skill development with the other services children and their families receive.

In 2002, 258 children were served by the program. In June, 2004, the program served 429 children and their families. The number increased to 660 in June, 2009. Based on those figures, it is reasonable to expect that the program will gain an average of 50 children and families per year (See Appendix B). Without additional staff, waiting lists may be needed to meet the demand for services. In addition, distance, particularly in rural areas, creates an obstacle because the further a teacher has to drive to reach a child, the less time she/he has to serve children. By providing additional positions for this program, caseloads and service areas could be adjusted to reduce driving time and increase the service delivery times. Funding would also be needed for state cars and technology to support these additional positions.

Maintenance and growth of the teacher cadre for this program is a major issue. Because more than half of the teachers will be able to retire in the next 10 years, it is critical that professional development opportunities for these teachers are available within the program. To support this need, Early Intervention is in the process of identifying and training teachers within its ranks to develop and deliver professional development through on-line courses. This platform can also be used to help with basic family education.

In the past ten years, the number of families who are choosing a spoken language communication option for their children has continued to increase. While the numbers vary slightly, the percentage of families choosing a spoken language option over the past seven years has always been 60% or greater in any given month of service. Currently, 73% of families are choosing a spoken language option while only 2% are choosing American Sign Language. This is the data from December, 2009. The data on communication modality choice is only tabulated by the month, not over the entire year, because children are constantly coming into the program and aging out into preschool programs.

Early Intervention currently shares its resources at the three year old transition time with many school systems. As children transition, an agreement may be entered into between Early Intervention and the school system for the early intervention teacher to function as a bridge for the child and their family. This allows the school system to have either the early intervention teacher co-teach with its own teacher to build the receiving teacher's skills or to have the early intervention teacher instruct the child until the system can put its own services in place.

The majority of preschool teachers need additional professional development to continue the communication and language skill development at the level commensurate with what the child received from birth to three. Families' choices of spoken language show the increased need for professionals in the public schools to move beyond the traditional training that most received when they became certified in deaf education. The old model of preparation no longer meets the needs represented by the children and families who are moving from the early intervention program into public preschool programs. Professionals must now be competent in the use of spoken language and auditory therapy; maintain a strong working knowledge of cochlear implants and improved hearing aid technologies, understand and work with families who deal daily with the challenges faced by their developing child, and be able to continue to develop language by building on the foundation these children received in the early intervention program.

Services for Three to Five Year Olds Who are Deaf or Hard of Hearing

State educational policy changes related to the provision of services to children ages three to five who were deaf or hard of hearing date back to 1999. At that time, the preschools operated by the Schools for the Deaf were disbanded and the LEAs were given the responsibility for educating children who were deaf or hard of hearing from ages three to five. While those preschools were perceived as feeder programs for the Schools for the Deaf, the reality is that many of those children and their families were already choosing spoken language options. However, it became apparent that LEAs did not have the staff to continue the communication and language skill development that those children had had during their time in the preschools. As Early Intervention continued its work and transitioned children from their program to the LEAs, often children were placed inappropriately in cross-categorical classrooms or developmentally delayed classrooms with little or no exposure to teachers of the deaf. Of course, the larger LEAs were more able to make this transition successfully than the smaller ones.

Currently, many LEAs do not have the expertise on staff to deliver high quality language and communication skill development to these children. In response to a request by the NC Council for the Deaf, staff from the Department of Public Instruction, the Office of School Readiness (now the Office of Early Learning), and the Office of Education Services developed and conducted a survey of Preschool Deaf or hard of hearing Services in the fall, 2009. The sample was small; there were 253 respondents from all but 3 counties in the state, 57% of whom currently provided services to deaf or hard of hearing children. The majority of those respondents were either speech language pathologists (20%), other (17%), itinerant teachers of the deaf/hard of hearing (16%), or Exceptional Children's Preschool Directors (11%). Of those respondents, 55% had less than five years of experience working with preschool children who were deaf or hard of hearing. The formal disaggregation of the data supports the need for an increased effort to continue children's language and communication skill development, regardless of communication modality, from highly trained and experienced teachers of the deaf or hard of hearing. The need for extensive capacity building among the professionals who serve these children at such a critical time in their language and communication skill development was evidenced by a substantial list of training needs from such a small sample. Of the 18 possible choices for professional development, only two choices (understanding the stages of grief and cued speech) received less than a 21% positive response rate.

In order to provide a highly skilled cadre of preschool teachers for deaf or hard of hearing children in LEAs across NC, DHHS proposes to allot positions from the consolidation of the Schools for the Deaf to the Resource Support Program for Deaf or Hard of Hearing. These teachers would be trained, evaluated, and paid by RSP. These positions would then be allocated to preschool programs in LEAs where there is no teacher of the deaf or a teacher with less than five years of experience. LEAs would request teachers for

preschool classrooms for students who are deaf or hard of hearing and would receive a teacher for a year as long as they provided a teacher from their own LEA to be the co-teacher for the classroom. The teacher from the LEA would attend the free trainings on language development provided by the consortium between OES, DPI, BEGINNINGS, Project EAR at ECU, and the CASTLE Program at UNC and be mentored by the RSP teacher assigned to the classroom as they co-taught the class. This would enable the LEA to build its own capacity and allow preschool students who are deaf or hard of hearing the opportunity to continue their communication and language skill development at a rate that is appropriate for them; it also eliminates the "down time" or gap created when those children do not have the consistent exposure to a teacher skilled in language development during that critical time in a child's development and acquisition of language and vocabulary. Based on the research about language development, these students would make gains that could move them toward the language levels of their typically developing peers by the time that they reach kindergarten (See Appendix C).

This would require funding for the positions from the consolidation of the residential schools to continue; however, savings would be realized over time in the reduced costs to educate these students and their decreased need for special education services as they grow and develop. (See research noted in Appendix C).

Resource Support Services for Children Who Are Deaf or Hard of Hearing (RSP)

Formed in 2002, the Resource Support Program began as an effort to assist LEAs in building their own capacity to serve preschool children who are deaf or hard of hearing. However, demand for assistance for professionals who serve students who are deaf or hard of hearing from ages three to 22 has resulted in the growth of the program to meet the need. Through free workshops, individual consultation and mentoring, student evaluation and observation, consultation with parents, and assistance for speech language pathologists and audiologists, the Resource Support Program assists parents and professionals in LEAs across the state. Services must be requested in writing by the Exceptional Children's Director of the LEA. Currently, this program employs a speech language pathologist lead worker as the coordinator, four teachers of the deaf, and a part-time audiologist. These staff have a wide variety of experiences: public school, early intervention, preschool, private schools, university cochlear implant programs, residential schools for the deaf, and private practice. Staff meet the variety of need presented by professionals and families support spoken language and manual communication modes, such as American Sign Language.

Since July 2009, RSP has provided services in 76 LEAs; more requests come in weekly. RSP staff are assigned based on expertise in the area of need expressed by the LEA request and then by proximity of location to save travel costs whenever possible.

RSP staff collaborate with the consultant for deaf or hard of hearing education at DPI as well as Project EAR, BEGINNINGS, and the Western NC School for the Deaf to ensure that duplication of services is not occurring. Currently, as numbers from each of those programs indicate, there is more need than resources across the state. It should be noted that many school systems also use private providers to deliver services to students in their LEA at a high cost to the LEA. Providing services free of charge to LEAs ensures that students have more opportunity to access appropriate services and LEA staff can receive the professional development that is needed to improve services to children who are deaf or hard of hearing and their families.

Enabling RSP to grow and work with LEAs to provide services to three to five year olds who are deaf or hard of hearing will create fewer deficits in language as these students enter kindergarten. There is already

an established relationship with the LEAs and a strong sense of which services various LEAs need. This team has an established reputation across the state, and though there is not a waiting list, it is having trouble meeting the needs of all LEAs who have requested services. This program is cost efficient; however, more staff and the budget to establish and support them are needed as demand is outpacing staff caseloads.

Governor Morehead Preschool (GMP)

The Governor Morehead Preschool provides a host of services to blind or visually impaired children ages birth to five, their families, and the professionals who serve them throughout the state. One of the four fastest growing programs in OES, GMP has served no less than 500 children per year since October, 2001. In fact, the expectation is that they will again exceed the enrollment of the previous year by almost 100 children again in the 2009-2010 year. The enrollment as of December 31, 2009, was 726 compared to 811 for the 2008-2009 year (See Appendix B).

Itinerant teachers of the visually impaired, social workers, orientation and mobility specialists, and other specialized staff provide adaptive skill development for children in their homes, preschools, and daycare centers across the state. Housed largely in home offices (leases for office space are being discontinued to save funds), these staff provide functional skill development, pre-Braille, pre-Orientation and Mobility. adaptive play, use of low vision devices, and parent education to children and families on their caseloads. In spite of increasing numbers, this program lost two positions in the 2009-2010 budget. This caused caseloads to continue to grow; these staff cannot continue to provide high quality services to children and their families with caseloads that allow visits to be less frequent that what is really needed for each child to advance as far as possible before transitioning to kindergarten. Distance, particularly in rural areas, creates an obstacle because the further a teacher has to drive to reach a child, the less time she/he has to serve children. By restoring the two positions lost and providing five more positions, caseloads and service areas could be adjusted to reduce driving time and increase the service delivery times. Funding would also be needed for state cars and technology to support these teachers in their home offices. This is still a more fiscally responsible option than leasing spaces across the state. OES continues to work with other state facilities to find spaces for these teachers to store larger equipment needed in the field such as light boxes and Braille embossers.

It is significant that this program serves three to five year olds while early intervention for children who are deaf or hard of hearing from OES must stop services at age three. As a consequence of the continued support in the formative preschool years, the enrollment at the Governor Morehead School has continued to decline presumably because children and their families gain so many skills early in life that they are much more independent and more aware of the services available in their local communities as the students age. Typically, only students with multiple impairments, of which vision is a third or fourth consideration, need residential education on a full-time basis. More often than not, the skills learned prior to age five provide a firm foundation for the adaptation and coping skills that these children will utilize for the rest of their lives (See Appendix C).

Outreach Services for Children Who Are Blind or Visually Impaired

Currently, the Visually Impaired Outreach program provides itinerant and on campus services to blind or visually impaired children, their parents, and the professionals who serve them across the state. Since May, 2002, the number of students directly served has grown from 293 to 413 in 2008-2009. In 2008-2009, 89 LEAs received services and more than 3,900 personal contacts were made for either consultations on

previously seen students, teachers with questions or concerns, parents with needs for assistance, or consultations and training for professionals.

In addition to providing services through a network of itinerant staff, GMS Outreach also creates opportunities for students from across the state to attend short term programming on the Raleigh campus as either day or residential students. These week-long experiences allow students to focus on a variety of skills that they do not have access to in their local schools. Students are taught based on the Expanded Core Curriculum, a nationally developed and researched set of skills needed by all individuals who are blind or visually impaired, learning more about self-advocacy; increasing their skills with Braille and Nemeth Code; managing their personal finances; functioning independently (matching clothes and cooking for example); traveling independently in a large city; learning more about the world of work, and planning for their future after high school graduation. Extensive partnerships with school systems across the state enable students to move seamlessly from their regular program of studies to participate in this week of skill building specific to the needs created by their vision loss.

GMS Outreach has been analyzing trends in services needed by LEAs for students who are blind or visually impaired as well as its service delivery options for the past several years to determine how it can best serve these students and the professionals who serve them. By providing more direct student services, mentoring and capacity building for teachers of the visually impaired and regular classroom teachers, orientation and mobility and adaptive physical education, and other assessments, the program can meet more needs of students and the professionals who serve them. This will allow more students to stay in their home LEA while learning about and accessing the services available in their communities. It will also ease students' transitions after high school graduation as their transition caseloads with the Division of Services for the Blind will already rest with a home counselor in their area. An emphasis on assistive technology and use of virtual classrooms will provide students access to their blind or visually impaired peers as well as prepare them for employment in the twenty-first century. This is a model that is being used by most of the schools for the blind across the country as student residential populations dwindle.

As the number of students on the GMS campus has declined, staff from the K-12 program have been reassigned to Outreach. Training is in development now to ensure that those staff are retooled, mentored, and coached as they begin serving students outside of the traditional classroom. Plans exist to expand significantly the outreach services in the future.

Governor Morehead School for the Blind (GMS)

As of December, 2009, GMS was serving 53 students in Kindergarten through twelfth grade. Of these, 18 were day students and 35 were residential. The high school program currently serves 30 students. Of those, 11 were students who are projected to earn a diploma rather than a certificate. Currently, national data shows that about 65% of students who are blind or visually impaired have additional disabilities. Frequently, their vision loss is not their primary disability.

While GMS is required to participate in the ABCs of Public Education to measure accountability, this is not an accurate or appropriate measure of students' progress. Many of these students are so far behind academically or in their acquisition of Braille as a reading medium that they are unable to read the questions on the test. Therefore, the test really does not measure what those students have learned. In spite of the fact that GMS is classified as an alternative school for the purposes of calculating whether or

not it has met growth in the ABCs, the school did not meet its growth goals in 2008-2009. (See Appendix M).

Currently, GMS has an NC Information Highway room on campus that is provided through a partnership with North Carolina Central University. This guarantees staff and students access to other schools in the DHHS LEA as well as the opportunity to collaborate with other students and staff across the state. In addition, GMS remains the center of expertise for all assistive technology related to vision loss for students in the state.

The leadership at GMS has been proactive in creating a new plan for service delivery for the comprehensive program: K-12 and Outreach. This plan will provide a wider array of services for blind or visually impaired students and the professionals who serve them across the state by providing more services through an Outreach model. This is a trend across the country as fewer students attend residential schools for the blind.

NC Schools for the Deaf (NCSDs)

Both NC Schools for the Deaf, Eastern in Wilson and Western in Morganton, continue to experience declining enrollment. As of December, 2009, ENCSD had 97 students; there were 91 at WNCSD. Compared to the same month in 2008, ENCSD had 103 students and WNCSD had 95.

While both schools met expected growth in the ABCs of Public Education in 2008-2009 (See Appendix M), most students participate in the Extend 2 assessment which tests students off grade level. In addition, both schools are classified as alternative schools for the ABCs calculation of whether or not they meet or exceed expected growth. This formula incorporates targets chosen by the school rather than just test scores. Another factor that renders the test scores less than statistically valid and/or reliable is the small number of students being tested. A student who achieves a Level III on any given test can make overall scores for the school highly inflated. Individual scores, which are not valid or reliable in interpreting the test scores, can skew the composite results for the school, showing growth where little of the growth measured by those tests actually occurred. Individual scale scores are somewhat more valid to show growth for students from year to year. However, the fact remains that students who have the language levels of preschoolers cannot read the tests or learn the NC Standard Course of Study at grade level. The language levels of students at the schools are so far behind their typically developing peers that they are largely unable to read the tests on their own. They are allowed the "read aloud" option for some tests as are other students but that means that the test is provided to them in ASL which does not provide a one-to-one correspondence between the words in the test questions.

Toward this end, both schools are involved in projects aimed at increasing the language levels of students in the K-5 program. WNCSD in Morganton is in the final year of the federally funded NC SIP II reading grant which is using the Wilson Reading Program along with Visual Phonics to increase students' language levels. However, results currently show that students are not yet reading above a first grade level for comprehension. Therefore, WNCSD is expanding this work to its entire staff to focus all staff as teachers of reading. This involves an extensive teacher development program as well as national and state research to develop more accurate and valid language assessments for profoundly deaf students who use ASL as their primary communication modality. ENCSD in Wilson has begun working with a teacher from the Resource Support Program to supplement its current language development program with instruction for teachers in typical language development, language assessments on each K-5 student, focused language instruction for the kindergarten class, and teaching targeted to the language gaps identified for each student. No

results are currently available for this program which just started in October, 2009. ENCSD has also invested in new FM systems to provide better amplification for students who benefit from this. Both schools are collaborating with the three cochlear implant hospitals across the state to provide mapping services and teacher education about implants on the school campus.

Technology is also playing a major part in the educational opportunities for students at the Schools for the Deaf as well as in the public schools. At ENCSD, all K-12 classrooms are equipped with Smart Boards and at least two computers. ENCSD has embarked on a 1:1 laptop initiative, similar to those used across the state, aimed at increasing students' level of engagement in instruction and immersion in 21st century technology. Residential life training has increased to provide students with adults trained in technology in the afternoons and evenings. The NC Information Highway room has been updated and certified by DPI. Not only will this increase access to professional development for staff but it will enable the Schools for the Deaf and Governor Morehead School to collaborate on instructional projects among themselves and with other schools across the state. At WNCSD, three new computer labs are available in the high school in addition to at least two computers in each classroom. WNCSD also has access to the NC Information Highway classroom at Western Piedmont Community College.

Local Education Agencies (LEAs)

Local Education Agencies (LEAs) continue to improve the variety and quality of services to students with sensory impairments. The reauthorization of IDEA in 2004 gave parents more input in the IEP process, and more families understand how to be effective advocates for their children. As more students with disabilities have been mainstreamed due to the emphasis in the reauthorization on Least Restrictive Environment (LRE), regular classroom teachers have built their skills in planning, instructing, and assessing exceptional children. More LEAs are providing resource teachers in the regular classroom and co-teaching models to ensure that the small number of students with low incidence disabilities receive high quality instruction.

However, not all LEAs are able to provide licensed teachers of the deaf or hard of hearing or teachers of the visually impaired. This is especially difficult in the more rural areas of the state where the tax base cannot support salaries of licensed teachers or full time related services personnel for hearing and visual impaired students. Not only is salary an issue but recruitment and retention of these personnel to rural areas has been a constant challenge (See Appendix N).

DESIGNS TO ENHANCE THE CONTINUUM OF SERVICES FOR CHILDREN WITH SENSORY DISABILITIES

Over the last two decades, a variety studies have been conducted regarding how the state of North Carolina should proceed in providing educational services to children with sensory disabilities. Considering factors related to high operational costs and declining enrollments, most of these studies have focused on the operation of the state residential schools. Essentially, recommendations stemming from these studies identified ways the state could reduce operational costs while at the same time improving educational outcomes for children served in these facilities.

In 2009 the General Assembly through Session Law 2009-451, directed the Department of Health and Human Services, in consultation with the Department of Public Instruction, "to develop and recommend a plan to achieve efficiencies of scale and ensure appropriate education of students with visual and hearing impairments."

Since spring, 2009, the leadership of OES (the central administration and residential school leadership) has been working on alternative models that involve programmatic consolidation which will improve efficiencies in the delivery of educational services for hearing and visually impaired students across NC. This effort began as an exercise among the central office leadership for the DHHS Secretary and has evolved into a work group of central office, school, and program leadership. In addition, the team at Governor Morehead School has been working on a completely new model for service delivery options for blind or visually impaired students across the state. The one consensus among these groups is that the current design of three residential schools is neither efficient nor fiscally responsible; it also does not provide enough opportunities for students with low incidence disabilities in a state with such disparate resources. In order to meet the needs of each child as an individual, it is critical that the continuum of services be expanded thus creating more options to meet those unique needs. Because of the advances in the fields of technology and medicine, children born in NC today will redefine what it means to be deaf, hard of hearing, blind, visually impaired, and deaf-blind; therefore, it is critical that we redefine the service delivery options for these children, their families, and the professionals who serve them. Providing new and more varied options will enable today's children to be active participants in society as they reach adulthood in the next 20 years.

It is important to note that each of these designs, which outline the specifics relative to the residential schools, all include expansion of the Early Intervention Program for Children who are Deaf or Hard of Hearing, the Governor Morehead Preschool Program, the Resource Support Program for Deaf or Hard of Hearing (including services for three to five year olds who are deaf or hard of hearing), and the Visually Impaired Outreach Program. By providing enhancements to these programs, children with sensory disabilities, their families, and the professionals who serve them will have ample access to high quality, community-based resources to ensure positive outcomes for the children served.

Design One: One Consolidated Residential School and Two Day Programs (See Appendix I)

This design provides for one residential school, centrally located, and staffed to accommodate 150 deaf, hard of hearing, blind, visually impaired, and deaf-blind students. These students would certainly attend classes separately and most likely live separately in the residential dormitories. The design would also include day programs at each of the other two schools with a capacity to serve about 50 deaf, hard of hearing, deaf-blind, blind, and visually impaired students. Again, students would attend classes separately. The two day programs would be programs which could be phased out over time based on demand. Overall, this design emphasizes multiple options with fluidity and flexibility so that students would not spend their entire school career at a residential school.

This design would also include an emphasis on three features: a diagnostic and treatment clinic at the consolidated residential school which would serve the entire state; an increased emphasis in all three programs on career and technical education, and an additional language development component on all three campuses for students who are deaf or hard of hearing. The diagnostic and treatment clinic would be available to all students with sensory impairments across the state so that they could have access to a concentrated cadre of professions who could accurately assess and prescribe therapies which would increase their access to the general curriculum either in the DHHS system or in any other LEA. This clinic component would include five occupational therapists, five physical therapists, two mental health professionals, a developmental psychologist, four speech language pathologists, two audiologists, and one school psychologist. Supplemented by educational assessments completed by teachers in the comprehensive school and/or in the VI or HI Outreach programs, this clinic would provide comprehensive

services in one centralized location to ensure that students, their families, and the professionals who serve them have a variety of clinical and educational data available to them when IEP teams convene to make decisions regarding best educational programming for students.

This change reflects a revolving door design where students are enrolled in the DHHS school programs for shorter periods of time to receive intense services which is more in line with the way other DHHS schools currently serve students. The design would provide one consolidated residential school with multiple day and residential options and two schools with day programming which would focus on the Expanded Core Curriculum for students who are blind or visually impaired and the development of communication skills and language for students who are deaf or hard of hearing against the backdrop of the NC Standard Course of Study. Upper grades middle school and high school students in the Future Ready Diploma Pathway would be mainstreamed into schools in Burke, Wilson, and Wake counties so that they could access the general curriculum with their non-disabled peers and learn how to advocate for themselves in the mainstream setting. In the day programs, they would have access to professionals from their day school to enhance their mainstreamed experience. In the comprehensive residential school, these students would have access to the additional life skills training available in the residential program. Students would also have access to the NC Virtual Public School to enhance their academic course selections.

Students at all three locations would have access to a full array of related service professionals such as a speech language pathologist, audiologist, orientation and mobility instructors, Braillists, teachers specializing in Nemeth Code, social workers, counselors, nurses, and any other related service professionals specified on their IEP. Teachers of the deaf-blind and intervenors would also be available to accommodate the needs of students who are deaf-blind. Elementary and middle school students would focus on assistive technology; their disability-specific skills with some content instruction to help them transition smoothly in and out of their public school, and social skill development. High school students would have increased access to career and technical education courses, job readiness training, life management skills, and more advanced assistive technologies. This would prepare them more for the world of work in the 21st century to ensure their ability to participate fully in society. This enhanced focus would be available in the comprehensive residential school as well as in the two day programs. Staffing for this focus would include five career and technical educators, two job coaches, and one community employment specialist on each campus. The schools would also aggressively pursue relationships with the local community colleges to increase students' access to upper level career and technical education courses and certificate programs. This may even include the community college teaching some of its courses on the school campuses and utilizing some of the unique equipment and classrooms on the school campuses.

An additional enhancement on all three campuses would be a concentrated language and communication skill development program. Staffed by five teachers and two teacher assistants, this program would provide two basic services: intense language development for younger children who need to catch up to their peers and an opportunity for older students with little or no language to have intense language development. These language lessons would be taught against the backdrop of the NC Standard Course of Study, enabling students to learn the vocabulary of the content area while enhancing their overall language skills. These students will receive this instruction both in their regular classrooms and through one-on-one pull-out services. These teachers would collaborate closely with the Speech Language Pathologist on campus as well as depend on the diagnostic work done in the clinical setting to develop individual language programming for every student.

The DHHS school system would continue to exist, headed by a superintendent, to ensure that appropriate educational functions would still be carried out for the one residential school, the two day programs, and the other educational programs in DHHS. The current OES central office staff would be modified with some positions eliminated to employ a Director of Instructional Services, a Business/Finance Officer and three other business staff, a Human Resources Manager and two other HR staff, a Licensure and Support Services Coordinator, the Director of the Early Intervention Program for Children who are Deaf or Hard of Hearing, and the Director of the Governor Morehead Preschool Program. The Resource Support and the Visually Impaired Outreach Programs would report to the Director of Instructional Services who would also manage curriculum and any accountability needs as well as the collaboration with the LEAs. The superintendent would gain the direct line responsibility for the educational programs currently in the Division of State Operated Healthcare Facilities, including all business and HR functions, and maintain its dotted line relationship with the educators in the developmental disabilities centers. The existing conceptual design for education programming in DHHS is in Appendix H and the recommended new schematic for educational programming for the Department is in Appendix I.

The one residential school would be managed by a school director, principal, and student services coordinator with an ombudsman and an exceptional children's director. The school would employ about 146 personnel including teachers, educational development assistants, residential life staff, related services staff, child nutrition workers, and some housekeeping staff. The two day programs would be staffed similarly (minus residential services) with about 100 staff divided between the two sites.

The number of staff in the VI and HI outreach programs would be increased to about 20 staff per program to ensure that services are available across the state to deaf, hard of hearing, deaf-blind, blind, and visually impaired students and the professionals who serve them. By increasing outreach efforts, more LEAs can begin to build capacity in their systems to serve their students locally allowing more children to use assistive technology, access local consortia programs set up by LEAs, spend more time with their families, and rely more on locally provided resources to create a smooth transition from high school to independent life in their home community.

Overall, these staff changes would represent a 35% percent (based on the changes we are proposing to have day programs as well as 3-5 year old teachers in RSP) decrease from the current staffing levels of OES. This does not include the calculation of the positions that would be added as a result of the transfer of the educational programming from the Division of State Operated Healthcare Facilities.

Potential Benefits of Design One: One Consolidated Residential School and Two Day Programs

- This design represents a substantial cost savings for DHHS in the long run.
 - Fewer staff employed overall in OES
 - Maintenance of one campus with limited maintenance costs for the two day programs
- More concise programming can be provided for children who are deaf, hard of hearing, deaf-blind, blind, and visually impaired since residential services will be concentrated in one location.
- The two day programs would provide partnerships opportunities with LEAs to create a critical mass of students to ensure opportunities for social growth and development in addition to interactions with nondisabled peers.
- With all residential programming at one school, better budget management and oversight will occur.
- More students will be served in their LEA through the efforts of the Resource Support and Visually Impaired Outreach Programs.

- Staff can obtain more specialized training since their roles will be better defined.
- Moving to one state residential school represents a national trend and is aligned with the models in adjoining states (see Appendix G).
- Other state agencies on the NCSD campus in Morganton or the GMS campus would not have to move and could potentially expand.
- Enhancements can continue to be made in the use of technology while achieving greater cost efficiencies in providing students with 21st century learning and employments skills.
- Overall, the design retains more flexibility so that programming can match trends in population, medical advances, education of these populations, and the needs of children.

Design Two: One Consolidated Residential School (See Appendix J)

This design would provide one centrally located comprehensive residential school for students who are deaf, hard of hearing, blind, visually impaired, and deaf-blind. It would contain the diagnostic and treatment clinic for the entire state as well as a K-12 residential school. The residential school would maintain the same attributes described in the consolidated residential school in the first design option, including the enhanced focus on career and technical education, language development, and mainstreaming for upper grade middle school and high school students in the Future Ready Diploma Pathway. The capacity would still be for 150 students with the DHHS Superintendent as the head of the school, a principal, and a student services coordinator with an ombudsman and an exceptional children's director. The school would employ about 146 personnel including teachers, educational development assistants, residential life staff, related services staff, child nutrition workers, and some housekeeping staff.

The DHHS school system would continue to exist, headed by an educational executive, to ensure that appropriate educational functions would still be carried out for the one residential school and the other educational programs in DHHS. The current OES central office staff would be modified with some positions eliminated to employ a Director of Instructional Services, a Business/Finance Officer and three other business staff, a Human Resources Manager and two other HR staff, a Licensure and Support Services Coordinator, the Director of the Early Intervention Program for Children who are Deaf or Hard of Hearing, and the Director of the Governor Morehead Preschool Program. The Resource Support and the Visually Impaired Outreach Programs would report to the Director of Instructional Services who would also manage curriculum and any accountability needs as well as the collaboration with the LEAs. The superintendent would gain the direct line responsibility for the educational programs currently in the Division of Mental Health, including all business and HR functions, and maintain its dotted line relationship with the educators in the developmental disabilities centers. The existing conceptual design for education programming in DHHS is in Appendix H and the recommended new schematic for educational programming for the Department is in Appendix J.

Potential Benefits of Design Two: One Consolidated Residential School

- This design represents a substantial cost savings for DHHS in the long run.
 - o Fewer staff employed overall in OES
 - Maintenance of one campus
- More concise programming can be provided for children who are deaf, hard of hearing, deaf-blind, blind, and visually impaired since residential services will be concentrated in one location.
- The model is sustainable over time since it would not require the closure of more programs in the future.
- With all residential programming at one school, better budget management and oversight will occur.

- The opportunity for private and civic organizations to provide donations, etc. to one location will exist thus maximizing their donations.
- A single portal for all DHHS educational services is created.
- More students will be served in their LEA through the efforts of the Resource Support and Visually.
 Impaired Outreach Programs.
- Staff can obtain more specialized training since their roles will be better defined.
- Moving to one state residential school represents a national trend and is aligned with the models in adjoining states (see Appendix G).
- Other state agencies on the NCSD campus in Morganton or the GMS campus would not have to move and could potentially expand.
- Enhancements can continue to be made in the use of technology while achieving greater cost efficiencies in providing students with 21st century learning and employments skills.
- Overall, the model retains more flexibility so that programming can match trends in population, medical advances, education of these populations, and the needs of children.

Design Three: Enhanced Services (See Appendix K)

This model builds on the three existing residential schools and adds new focus areas that, based on the research about the education and career pursuits of persons with sensory disabilities, would provide the children in the residential schools with more supports and more options for successful lives in the 21st century. All three schools would remain open offering day and residential education. Each school would gain the diagnostic and treatment clinic described in Design 1 allowing those services to be accessed more easily from all areas of the state. With capacity at each school at 120, the schools would experience some reduced staffing in some areas and increased staffing in others. For example, each school would need to increase its professional staff to add an occupational therapist, a physical therapist, two mental health professionals, a developmental psychologist, three speech language pathologists, and one audiologist. Schools would also add five more career and technical education teachers, two job coaches, and one community employment specialist. To ensure adequate access to language and communication skill development for students who are severely delayed, the schools for the deaf would add five teachers and two teacher assistants. Each school would also have two teachers of the deaf-blind and two deaf-blind intervenors.

Students in the seventh and eighth grades as well as high school students in the Future Ready Diploma Pathway would be mainstreamed in the local public schools and/or educated using the NC Virtual Public School to access higher level academics with their non-disabled peers. This may reduce the need for some of the academic high school staff.

The schools would also increase their emphasis on career and technical education through the addition of five teachers in that field as well as two more job coaches who would need to work more with students after school hours as they are working in the community. The schools would also gain one community employment specialist to help develop job opportunities in the community; this person would also interface with Vocational Rehabilitation and the Division of Services for the Blind to communicate with counselors in those agencies as students transition to the caseloads of those divisions.

Finally, the two schools for the deaf would refocus their efforts on students' language development. By adding five additional teachers trained in language development and two teacher assistants, the schools would be able to create more flexibility in their daily schedules to accommodate more opportunities for

directed language learning during and after the school day. These staff may be working with students in Kindergarten through fifth grades to help build early language or they may be doing one-on-one instruction with older students from other countries with no language.

The DHHS school system would continue to exist, headed by a superintendent, to ensure that appropriate educational functions would still be carried out for all three residential schools and the other educational programs in DHHS. The current OES central office staff would be maintained to provide the full array of central office services to the three enhanced schools as well as the DHHS school system. In addition, the DHHS superintendent would gain the direct line responsibility for the educational programs currently in the Division of State Operated Healthcare Facilities, including all business and HR functions, and maintain its dotted line relationship with the educators in the developmental disabilities centers. The existing conceptual model for education programming in DHHS is in Appendix H and the recommended new schematic for educational programming for the Department is in Appendix K.

Potential Benefits of Design Three: Enhanced Services

- Travel will be no different than it is now since all three schools would remain open.
- Students will be able to receive more services specifically tailored to their additional disabilities and mental needs.
- Staff can obtain more specialized training since their roles will be better defined.
- Enhancements will continue to be made in the use of technology which will provide students with 21st century learning and employments skills.
- Graduates may expect to have more marketable skills with an enhanced focus on career and technical education opportunities in their middle and high school years.
- Students at the schools for the deaf will have more opportunities to increase their language and communication skill development with more staff specially trained in a variety of methods.
- Employment will be increased on the three campuses ensuring that current employees will keep their jobs and other positions will be created.

Design Four: Two Consolidated Residential Schools (See Appendix L)

This option would provide two consolidated residential schools both of which would provide services to deaf, hard of hearing, blind, visually impaired, and deaf-blind students. Both schools would deliver day and residential services and include access to the enhanced services for diagnosis and treatment, career and technical education opportunities, and language and communication skill development as described in the other designs. The schools would be staffed to accommodate 120 students each.

Each school would need to increase its professional staff to add an occupational therapist, a physical therapist, two mental health professionals, a developmental psychologist, three speech language pathologists, and one audiologist. Schools would also add five more career and technical education teachers, two job coaches, and one community employment specialist. To ensure adequate access to language and communication skill development for students who are severely delayed, the schools for the deaf would add five teachers and two teacher assistants. Each school would also have two teachers of the deaf-blind and two deaf-blind intervenors.

Students in the seventh and eighth grades as well as high school students in the Future Ready Diploma Pathway would be mainstreamed in the local public schools and/or educated using the NC Virtual Public

School to access higher level academics with their non-disabled peers. This may reduce the need for some of the academic high school staff.

The schools would also increase their emphasis on career and technical education through the addition of five teachers in that field as well as two more job coaches who would need to work more with students after school hours as they are working in the community. The schools would also gain one community employment specialist to help develop job opportunities in the community; this person would also interface with Vocational Rehabilitation and the Division of Services for the Blind to communicate with counselors in those agencies as students transition to the caseloads of those divisions.

Finally, both schools would refocus their efforts on students' language development. By adding five additional teachers trained in language development and two teacher assistants, the schools would be able to create more flexibility in their daily schedules to accommodate more opportunities for directed language learning during and after the school day. These staff may be working with students in Kindergarten through fifth grades to help build early language or they may be doing one-on-one instruction with older students from other countries with no language.

The DHHS school system would continue to exist, headed by a superintendent, to ensure that appropriate educational functions would still be carried out for both residential schools and the other educational programs in DHHS. The current OES central office staff would be maintained to provide the full array of central office services to the enhanced schools as well as the DHHS school system. In addition, the DHHS superintendent would gain the direct line responsibility for the educational programs currently in the Division of Mental Health, including all business and HR functions, and maintain its dotted line relationship with the educators in the developmental disabilities centers. The existing conceptual design for education programming in DHHS is in Appendix G and the recommended new schematic for educational programming for the Department is in Appendix K.

Potential Benefits of Design Four: Two Consolidated Residential Schools

- This design represents a substantial cost savings for DHHS in the long run.
 - o Fewer staff employed overall in OES
 - Maintenance of two campuses instead of three
- More concise programming can be provided for children who are deaf, hard of hearing, deaf-blind, blind, and visually impaired since residential services will be concentrated in two locations.
- With residential programming at two schools, better budget management and oversight will occur.
- More students will be served in their LEA through the efforts of the Resource Support and Visually Impaired Outreach Programs.
- Staff can obtain more specialized training since their roles will be better defined.
- Moving to fewer state residential schools represents a national trend and is aligned with the models in adjoining states (see Appendix G).
- Enhancements can continue to be made in the use of technology while achieving greater cost efficiencies in providing students with 21st century learning and employments skills.
- Deaf or hard of hearing students will receive more intense instruction in language and communication skill development.
- All students will benefit from the enhanced mental health and multiple disability focus areas.

RECOMMENDATIONS

The following recommendations, based on the data provided throughout this report, support an enhanced continuum of educational services for children ages birth to 22 who are deaf, hard of hearing, blind, visually impaired, and deaf-blind in North Carolina.

Consolidate Residential Programming: It is imperative that the state operate a different level and intensity of residential services for students who are deaf, hard of hearing, blind, visually impaired, and deaf-blind. There are basically four designs to be considered which would address the changing face of residential students in the 21st century: a consolidated residential school with two consolidated day programs; a consolidated residential school; three consolidated schools with enhanced services, and two consolidated residential schools. All of these designs would include more robust programming for children ages birth to 22 who are deaf, hard of hearing, deaf-blind, blind, and visually impaired through early intervening and preschool services and outreach programming in the public school systems.

Redirect Resources to Outreach Services: Outreach and/or capacity building efforts to serve students with vision and hearing impairments should be increased significantly to support all other deaf, hard of hearing, deaf-blind, blind, and visually impaired students attending schools in their local education agency (LEA). Outreach efforts to build capacity in LEAs to serve these populations are provided by identified staff in DHHS. It is anticipated that some of the savings realized by the restructuring of residential services will be leveraged to support expanded efforts to foster the development of capacity in LEAs through professional development, mentoring and coaching, demonstration teaching, and some direct services.

Address the Needs of Children Ages 3-5 who are Deaf or Hard of Hearing: The Resource Support Program, which provides services to professionals and families of children who are deaf or hard of hearing, should be increased to provide teachers to schools systems who will ensure that deaf or hard of hearing children ages 3-5 receive the highest quality language and communication skill development thus increasing the opportunity for these children to develop language at a pace more aligned to that of their hearing peers. These teachers would partner with teachers provided by the school system thereby increasing the capacity of school systems to serve these children appropriately.

Review Placement Annually: Each of the school systems in North Carolina referring students to a state operated program, in conjunction with appropriate staff working in these programs, should work more closely to ensure that students' placement is revisited at the yearly Individualize Education Program (IEP) meeting. This ensures that students' transition into and out of state operated schools and programs as needed to meet the unique educational needs of each individual student.

Create Competitive Salaries for DHHS Educators: A differentiated salary schedule needs to be created for teachers in DHHS. This would allow residential and outreach programs as well as the schools in the Division of State Operated Healthcare Facilities to compete more competitively with other school systems when recruiting and retaining highly qualified teachers. Without access to local funds, DHHS cannot offer teachers the incentives that other systems may offer. This could be accomplished not only through an alternative salary funding formula but also by altering applicable policies and procedures through the Office of State Personnel which regulate how teachers in the state-operated school systems are paid.

Report to the State Board of Education: It is assumed that transition to a more fluid design of service delivery and the operation of the residential, day, and outreach programs for vision and hearing impaired students will continue to occur organizationally within DHHS. If this assumption is correct, quarterly reports should be made to the State Board of Education and the State Superintendent of Public Instruction. As part of this relationship, DHHS will work with DPI to identify additional measures specific to deaf, hard of hearing, deaf-blind, blind, and visually impaired education which will become part of the accountability formula for the consolidated residential schools.

Employ Distance Technology: A distance technology program, currently under development, will be offered as a component within the new designs. The program will be managed in collaboration with the NC Virtual Public School. The program could be employed across the state to reduce isolation for vision and hearing impaired students and the professionals who serve them and to enhance programming for children with sensory disabilities who did not choose to attend residential programming. This would ensure that students who use American Sign Language as their primary communication modality would receive instruction from a teacher dually licensed in a specific content area as well as in the education of exceptional children. It may also serve to provide direct instruction for students who have never received instruction directly from their teacher but always through an interpreter.

Assist in the Development of School System Collaboratives: Collaborative programs will continue to be established between smaller, economically challenged school systems enabling them to pool their resources to serve students with visual and hearing impairments more efficiently. DHHS would be able to provide resources to these collaboratives as an equal partner with DPI and the school systems.

CONCLUSION

North Carolina has maintained three residential schools while some states are closing schools and creating other opportunities to provide services for students who are blind, visually impaired, deaf, hard of hearing, or deaf-blind. The changes in the service delivery options acknowledge the new research and methodology in both the education of these students and the medical advances in these disability areas. Inclusion of diverse options in the educational continuum for vision and hearing impaired students will require students, families, staff, and other stakeholders to think more progressively about educational placements.

North Carolina can achieve improved educational outcomes for these students while creating greater efficiencies of scale in the overall cost by

- growing its early intervening services to meet the needs of visual and hearing impaired children under age five;
- addressing the gap in services for children ages three to five who are deaf or hard of hearing;
- focusing additional resources on outreach services to provide direct services to students and capacity building for educational professionals in local school systems; and,
- consolidating residential school services.

APPENDICES

Appendix A: Explanation of Acronyms Used

Appendix B: Trend Data for Deaf, Hard of Hearing, Blind, and Visually Impaired Children Ages Birth to 21

Appendix C: Background Data and Statistics on Hearing and Vision Loss

Appendix D: Data on the Cost per Child at the Residential Schools

Part 1: Historical Cost per Child Data

Part 2: Historical and Current Cost per Child by Category at ENCSD Part 3: Historical and Current Cost per Child by Category at GMS Part 4: Historical and Current Cost per Child by Category at WNCSD

Appendix E: Graduation Data from Eastern NC School for the Deaf, Western NC School for the Deaf, and Governor Morehead School, 1999-2009

Appendix F: Transportation Data from the Three Residential Schools, December, 2009

Appendix G: Information on Residential Education in Other States

Appendix H: Current Educational Structure of DHHS

Appendix I: Future Educational Structure Based on Design One

Appendix J: Future Educational Structure Based on Design Two

Appendix K: Future Educational Structure Based on Design Three

Appendix L: Future Educational Structure Based on Design Four

Appendix M: DHHS Residential School Testing Data

Appendix N: Teachers Licensed in Hearing and Visual Impairments by LEA

Appendix O: References

All data from the NC Public Schools and the State Board of Education can be found on the web site at www.ncpublicschools.org.

Appendix A: Acronyms Used in this Report

ASL: American Sign Language

DHHS: Department of Health and Human Services

DPI: Department of Public Instruction

EI: Early Intervention Program for Children who are Deaf or Hard of Hearing

ENCSD: Eastern NC School for the Deaf (located in Wilson, NC)

FAPE: Free, Appropriate Public Education

GMP: Governor Morehead Preschool

GMS: Governor Morehead School (located in Raleigh, NC)

HI: Hearing Impaired

IEP: Individualized Education Program

LRE: Least Restrictive Environment

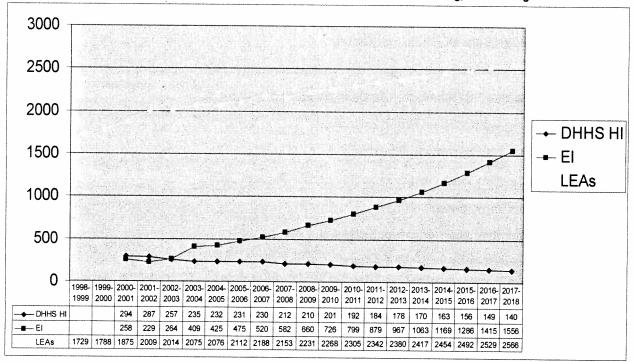
OES: Office of Education Services

RSP: Resource Support Program for Deaf or Hard of Hearing

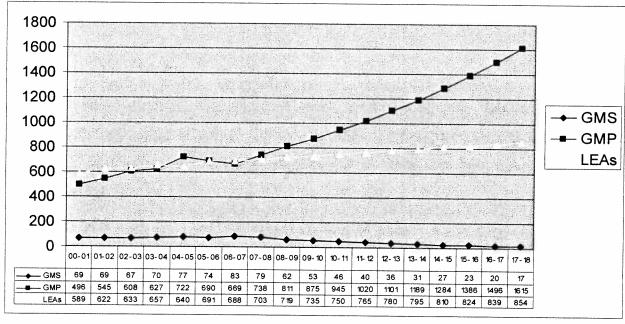
WNCSD: Western NC School for the Deaf (located in Morganton, NC)

Appendix B: Trend Data for Deaf, Hard of Hearing, Blind, and Visually Impaired Children Ages Birth to 21 (Data from DPI and DHHS)

Historical and Projected Enrollment Patterns of Deaf or hard of hearing Children in LEAs, the NC Schools for the Deaf in DHHS, and the Early Intervention Program for Children who are Deaf or hard of hearing, 1999 through 2017



Historical and Projected Enrollment Patterns of Blind or visually impaired Children in LEAs, the Governor Morehead School, and the Governor Morehead Preschool, 2001 through 17



Appendix C: Background Data and Statistics on Hearing and Vision Loss

Note: Unless noted as being specific to North Carolina, statistics are based on national figures. Resources are cited at the end of this report.

HEARING LOSS BACKGROUND

Statistics on Hearing Loss and Early Intervention

- Hearing loss is the more frequently occurring birth defect. In North Carolina, two of every 1,000 babies born have a hearing loss.
- Early diagnosis is the key. In NC in 1998, children averaged 25 months in age before their loss was diagnosed. In 2002, the average age was less than one month.
- In 2007, 94.4% of all babies born in the United States were screened for a hearing loss as a newborn.
 98.24% of babies in North Carolina were screened. 131, 101 were screened for a loss; 243 were identified with a hearing loss. Of those 243, 186 requested services for their loss.
- Children identified with a hearing loss before they reach six months of age progress faster than children identified after six months.
- There is "substantial payback" from early intervention and/or aggressive medical intervention for children identified with a hearing loss.
- Early intervention can significantly improve language development and possibly other development outcomes.
- Enrollment in an early intervention program is one of the best predictors of positive developmental and educational outcomes for children who are deaf.

Cochlear Implant Technology

- Cochlear Implants are proven to be cost effective for children who are candidates. 40% of deaf children
 under age three receive a cochlear implant today. This is up from 25% in 2004. The cochlear implant
 has become the "standard of care" for hearing loss.
- Cost benefit analyses show that the savings for K-12 education for a deaf child with a cochlear implant ranges from \$30,000 to \$200,000.
- Studies show that "profoundly deaf children who had more than two years of experience with a
 cochlear implant were able to move out of special education into a mainstream setting at twice the rate
 of their age-matched peers without an implant."
- These students also were in fewer self-contained special education classes and received fewer exceptional children's services.

Hearing Loss in Special School and Regular Educational Settings

- Based on five validated research studies, the average child with a unilateral loss in the third grade is 24 months behind his/her hearing peers in math, language, and social skills.
- In the 1997-98 Gallaudet Research Institute Annual Survey of Deaf or hard of hearing Children and Youth, it was estimated that 84% to 90% of deaf or hard of hearing students are taught outside of mainstream classrooms.
- American Sign Language is prevalent mostly in special schools. 74.3% of those schools use ASL while
 it is only used in 22.2% of regular education settings.
- Spoken language methods are used most predominantly in regular education classrooms (79.7%). Only 8.9% of special schools use spoken language methods.

- Special schools for deaf or hard of hearing also have a higher percentage of children with multiple disabilities (47.7%) as compared with regular education settings (29.3%).
- The Texas Youth Commission reports that children who do not develop normal language at the expected age are at a high risk for a variety of problems---academic, social, and emotional---that have not been previously linked to delays in language development.

Societal Impact of Hearing Loss

- 44% of deaf individuals with a severe to profound loss do not graduate from high school; only 5% of these individuals graduate from college
- 42% of deaf adults ages 18-44 are underemployed; this is reflected in the average household income
 for deaf adults with a severe to profound loss. As of 1990 (the most recent figure), the average family
 income was \$25,000.
- Cost analyses vary as to what the cost is to society for a severe to profoundly deaf individual. In a study done in 1970, expected lifetime earnings for prelingually deaf was an average of \$275,000 less than that of a hearing person. That translates to \$1,519,337 in 2009.
- The estimates on the societal loss vary from \$1.73 million for a child who has a prelingual loss (this does not include the cost of a cochlear implant) to a 1998 study that showed in a study of 15,400 persons born with a hearing loss a lifetime societal cost of \$4.6 billion.
- As compared with other disabilities, the cost is "so large that it warrants discussion." The societal costs
 for someone with a severe/profound hearing loss is three times that of someone who sustains injuries
 due to a near drowning incident or a firearm accident and two times that of someone who sustains a
 stroke, rheumatoid arthritis, and epilepsy.

VISION LOSS BACKGROUND

Statistics on Vision Loss and Children Birth to Five

- Vision is the sense that provides the most information to the brain. Only vision can perceive shape, size, color, distance, and spatial location all in one glance.
- Vision impairment occurs in .01% of babies born annually.
- Early diagnosis is critical; in 1999, the average age of diagnosis was 14.5 months. Now it is about 5 months.
- Congenital vision impairments---those which exist at birth---will have lifelong affects on children; therefore, the diagnosis and intervention is critical to children's growth and development.
- Nationally, 65% of children with an identified vision loss also have other disabilities.
- Substantial payback for early intervening services comes in the areas of motor, cognitive, and sensory skill development.
- In the birth to five population served by the NC Governor Morehead Preschool Program, about 65% of children being served with vision loss also have another disability. About 5% of those children are identified with additional disabilities at a later date.

Vision Loss in Special School and Regular Educational Settings

- According to the American Printing House for the Blind Annual Report for 2007, 57,696 children in the US ages 0-21 are legally blind.
- Of those 57,696, 5626 use Braille as their primary reading medium.
- 9% of the legally blind students in the US attend residential schools. In NC, only 2% of blind or visually impaired students attend the Governor Morehead School for the Blind.
- Per the December 1, 2008, Exceptional Children's Headcount, there were 637 students whose primary identification on their IEP was vision loss. Another 1035 students are projected to have a vision loss in addition to another disability. There are 573 children ages three to five who are visually impaired.
- In 2008-2009 the Outreach Program operated by Governor Morehead School served 413 students ages 5-21 and provided services in 89 LEAs through over 3900 personal contacts (visits, observations, phone calls, etc.).

Societal Impact of Vision Loss

- According to data from the National Center for Health Statistics in 2008, 25.2 million Americans had a vision loss.
- Of those, about 5 million did not earn a high school diploma. About 6.3 million graduated with a high school diploma or earned a GED. Approximately, 6.5 million had more than a high school education, and 4.8 million held at least a bachelor's degree.

APPENDIX D: DATA ON COST PER CHILD IN THE RESIDENTIAL SCHOOLS

PART 1: HISTORICAL DATA ON COST PER CHILD FOR THE THREE RESIDENTIAL SCHOOLS

NC Department of Health and Human Services Office of Education Services Covering SFY 2001/2002 Thru SFY 2008/2009 Based on June 30th Average Per Pupil Cost

	SCHOOL	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009
Total Expenditures	NCSD	8,286,524	7,693,563	7,373,256	7,713,463	8,456,185	9,149,773	9,173,560	8,812,664
# of Students		145	136	127	134	131	125	108	
Cost Per Student		57,148	56,570	58,057	57,563	64,551	73,198	90,768	91,094
							70,130	90,708	91,094
Total Expenditures	ENCSD	8,036,581	7,385,028	8,488,469	8,902,865	9,167,012	10,287,424	8,746,105	9 412 566
# of Students		142	121	108	98	100	105	104	8,413,566 107
Cost Per Student		56,596	61,033	78,597	90,846	91,670	97,975	87,830	82,053
								0.,000	02,033
Total Expenditures	GMS	6,398,983	6,205,033	6,664,479	6,722,538	7,674,726	7,607,640	6,388,325	6,560,490
# of Students		69	67	70	77	74	83	79	62
Cost Per Student		92,739	92,612	95,207	87,306	103,713	91,658	85,439	112,314
TOTAL							3.1000	55,455	112,514
Expenditures		22,722,088	21,283,624	22,526,204	23,338,866	25,297,923	27 044 927	24 200 2024	00 700 700
TOTAL		· ·			20,000,000	23,291,923	27,044,837	24,308,2931	23,786,720
# Students TOTAL Cost		356	324	305	309	305	313	291	272
Per Student		63,826	65,690	73,856	. 75,530	82,944	86,405	83.534	87,451

APPENDIX D (continued): DATA ON COST PER CHILD IN THE RESIDENTIAL SCHOOLS

PART 2: CURRENT AND HISTORICAL COST PER CHILD BY CATEGORY AT ENCSD (See notes that follow for details)

EASTERN NORTH CAROLINA SCHOOL FOR THE DEAF 2007-2008

Average Per Pupil Cost as of June 30, 2008

School	Total Number of Students	Admin. 1,833,438	Child Nutrition 441,303	Residential/Dormitory 1,853,402	Student Health Center 356,446	Utilities 683,262	Academic & Instruction 3,578,554	Total 8,746,405
Cost Per Pupil	104	17,629	4,243	21,551	3,427	6,570	34,409	87,830
		40.740	2 200	0	2,672	5,123	34,409	59,258
Cost Per Day Student	18	13,746	3,309	0	2,072	3,123	34,403	30,230
Cost Per Residential Student	86	18,442	4,439	21,551	3,585	6,873	34,409	89,299

2008-2009

Average Per Pupil Cost as of June 30, 2009

School	Total Number of Students	Admin. 1,767,476	Child Nutrition 470,363	Residential/Dormitory	Student Health Center 314,293	Utilities 691,026	Academic & Instruction 3,755,997	Total 8,413,566
Cost Per Pupil	107	16,518	4,396	16,640	2,907	6,458	35,133	82,053
Cost Per Day Student	22	13,742	3,657	0	2,418	5,372	35,133	60,322
Cost Per Residential Student	85	17,237	4,587	16,640	3,033	6,739	35,133	83,370

2009-2010

Average Per Pupil Cost as of December 31, 2009 (Does not represent a full year of costs)

School	Total Number of Students	Admin. 504,593	Child Nutrition 208,607	Residential/Dormitory 656,838	Student Health Center 157,448	Utilities 338,677	Academic & Instruction 1,603,729	Total 3,469,893
Cost Per Pupil	97	5,202	2,151	9,251	1,623	3,492	16,533	38,252
Cost Per Day Student	26	4,217	1,743	0	1,316	2,831	16,533	26,641
Cost Per Residential Student	71	5,563	2,300	9,251	1,736	3,734	16,533	39,116

PART 3:

CURRENT AND HISTORICAL COST PER CHILD BY CATEGORY AT GMS (See notes that follow for details)

GOVERNOR MOREHEAD SCHOOL 2007-2008

Average Per Pupil Cost as of June 30, 2008

School	Total Number of Students	Admin. 1,226,122	Child Nutrition 481,320	Residential/Dormitory	Student Health Center 527,761	Utilities 1,891	Academic & Instruction 3,010,102	Total
Cost Per Pupil	79					1,091	3,010,102	6,388,32
Cost rei rupii	79	15,521	6,093	19,019	6,681	24	38,103	85,43
Cost Per Day Student	19	12,821	5,033	0	5,519	20	38,103	C4 40
				- V	3,313	20	30,103	61,49
Cost Per Residential								
Student	60	16,375	6,428	19,019	7.048	25	20.400	
		10,070	0,720]	15,015	7,040	25	38,103	86,99

2008-2009

Average Per Pupil Cost as of June 30, 2009

School	Total Number of Students	Admin. 1,405,493	Child Nutrition 539,694	Residential/Dormitory	Student Health Center 510,807	Utilities 1,729	Academic & Instruction 2,944,276	Total
Cost Per Pupil	62						2,944,270	6,560,490
COSET EL PUPIT	02	22,669	8,705	25,185	8,239	28	47,488	112,314

Cost Per Day								
Student	16	18,666	7,168	o l	6,784	23	47.488	00.400
				· ·	0,704		77,400	80,129
Cost Per								
Residential Student	46	24,062	9,239	25.405				
	1 70 1	24,002	9,239	25,185	8,745	30	47,488	114,748

2009-2010

Average Per Pupil Cost as of December 31, 2009 (Does not represent a full year of costs)

School	Total Number of Students	Admin. 407,932	Child Nutrition 231,168	Residential/Dormitory 490,640	Student Health Center 205,379	Utilities	Academic & Instruction	Total
Cost Per Pupil	54	7,554	4,281					2,722,669
		7,004	4,201	14,018	3,803	0	25,695	55,352
Cost Per Day Student	19	6,193	3,509	0	3,118	0	25,695	38,516
		j						00,010
Cost Per Residential								
Student	35	8,293	4,700	14,018	4,175	0	25,695	56,882

PART 4:

CURRENT AND HISTORICAL COST PER CHILD BY CATEGORY AT WNCSD (See notes that follow for details)

WESTERN NORTH CAROLINA SCHOOL FOR THE DEAF 2007-2008

Average Per Pupil Cost as of June 30, 2008

School	Total Number of Students	Admin. 1,792,851	Child Nutrition 583,314	Residential/Dormitory 1,494,752	Student Health Center 961,947	Utilities 674,109	Academic & Instruction 3,666,587	Total 9,173,560
Cost Per Pupil	108	16,600	5,401	19,668	8,907	6,242	33,950	90,768
Cost Per Day Student	32	13,785	4,485	0	7,396	5,183	33,950	64,799
Cost Per Residential Student	76	17,786	5,787	19,668	9,543	6,688	33,590	93,421

2008-2009

Average Per Pupil Cost as of June 30, 2009

School	Total Number of Students	Admin. 1,564,185	Child Nutrition 537,653	Residential/Dormitory 1,454,609	Student Health Center 1,054,336	Utilities 582,433	Academic & Instruction 3,619,448	Total 8,812,664
Cost Per Pupil	103	15,186	5,220	19,657	5,335	5,655	40,042	91,094
Cost Per Day Student	29	12,680	4,358	0	4,454	4,721	40,042	66,256
Cost Per Residential Student	74	16,169	5,558	19,657	5,680	6,020	40,042	93,125

2009-2010

Average Per Pupil Cost as of December 31, 2009 (Does not represent a full year of costs)

School	Total Number of Students	Admin. 556,403	Child Nutrition 218,976	Residential/Dormitory 610,971	Student Health Center 138,714	Utilities 217,001	Academic & Instruction 2,009,928	Total 3,751,993
Cost Per Pupil	93	5,983	2,355	8,855	1,492	2,333	21,612	42,629
Cost Per Day Student	24	5,009	1,971	0	1,249	1,953	21,612	31,794
Cost Per Residential Student	69	6,322	2,488	8,855	1,576	2,466	21,612	43,318

PART 5:

NOTES REGARDING THE CURRENT AND HISTORICAL COST PER CHILD BY CATEGORY AT THE RESIDENTIAL SCHOOLS

2007-2008

- 1. Academic & Instruction is a constant cost between day and residential students
- 2. Residential cost is 100% charged to residential students
- 3. Resource Support is a statewide program whose budget is housed at ENCSD and therefore is not part of the schools per pupil cost; The cost of this program: \$350,605
- 4. Maintenance and Housekeeping was eliminated from the per pupil cost since it based on the facility; The cost of these services are: NCSD = \$400,391; ENCSD = \$1,120,604; GMS = \$465,643
- 5. Deaf/Blind Program's budget is housed at ENCSD but is a statewide program and therefore eliminated from the ENCSD per pupil cost; The cost of this program: \$336,736
- 6. GMS Outreach is a statewide program whose budget is housed at GMS and therefore is not part of the schools per pupil cost; The cost of this program: \$613,511
- 7. Three statewide positions housed at ENCSD is not part of the schools per pupil cost; The cost of this: \$207,595
- 8. The cost per pupil amount considers all things equal, that all students are residential
- 9. Total Day and Total Residential cost take into account the actual breakout of the number of day and residential students]

2008-2009

- 1. Academic & Instruction is a constant cost between day and residential students
- 2. Residential cost is 100% charged to residential students
- 3. Resource Support is a statewide program whose budget is housed at ENCSD and therefore is not part of the schools per pupil cost; The cost of this program: \$350,605
- 4. Maintenance and Housekeeping was eliminated from the per pupil cost since it based on the facility; The cost of these services are: NCSD = \$405,694; ENCSD = \$1,086,952; GMS = \$438,928
- 5. Deaf/Blind Program's budget is housed at ENCSD but is a statewide program and therefore eliminated from the ENCSD per pupil cost; The cost of this program: \$336,736
- 6. GMS Outreach is a statewide program whose budget is housed at GMS and therefore is not part of the schools per pupil cost; The cost of this program: \$613,511
- 7. Three statewide positions housed at ENCSD is not part of the schools per pupil cost; The cost of this: \$207,595
- 8. Includes the mandatory 0.5% pay reduction for May 2009 and June 2009
- 9. Includes cuts in the budget as directed by the Governor; therefore, less funds were available to spend
- 10. Includes over 41 position vacancies that were filled last fiscal year
- 11. Total cost for the schools are less due to expenditure being reduced or suspended at the direction of the department.
- 12. The cost per pupil amount considers all things equal, that all students are residential
- 13. Total Day and Total Residential cost take into account the actual breakout of the number of day and residential students

PART 5: CURRENT AND HISTORICAL COST PER CHILD BY CATEGORY AT GMS (See notes that follow for details)

2009-2010

- 1. Academic & Instruction is a constant cost between day and residential students
- 2. Residential cost is 100% charged to residential students
- 3. Resource Support is a statewide program whose budget is housed at ENCSD and therefore is not part of the schools per pupil cost; The cost of this program: \$191,295.22
- 4. Maintenance and Housekeeping was eliminated from the per pupil cost since it based on the facility; The cost of these services are: NCSD = \$177,075.23; ENCSD = \$521,540.53; GMS = \$145,53
- 5. Deaf/Blind Program's budget is housed at ENCSD but is a statewide program and therefore eliminated from the ENCSD per pupil cost; The cost of this program: \$128,614.34
- 6. GMS Outreach is a statewide program whose budget is housed at GMS and therefore is not part of the schools per pupil cost; The cost of this program: \$95,619.52
- 7. Three statewide positions housed at ENCSD is not part of the schools per pupil cost; The cost of this: \$103,797.50
- 8. The cost per pupil amount considers all things equal, that all students are residential
- 9. Total Day and Total Residential cost takes into account the actual breakout of the number of day and residential students
- 10. Utilities for GMS are being paid by Central Regional Maintenance

APPENDIX E: Graduation Data from the Eastern NC School for the Deaf, Western NC School For the Deaf, and Governor Morehead School

		ENCSD			WNCSD			GMS	W.A
	Diploma	OCS Diploma	Certificate	Diploma	OCS Diploma	Certificate	Diploma	OCS Diploma	Certificate
1999	3	n/a	18	4	n/a	12	4	n/a	3
2000	4	n/a	22	11	n/a	4	1	n/a	6
2001	6	n/a	10	8	n/a	3	4	n/a	10
2002	3	n/a	8	8	n/a	3	1	n/a	9
2003	3	n/a	5	6	n/a	9	1	n/a	1
2004	0	10	2	5	7	1	4	0	1
2005	1	3	3	6	1	3	6	2	2
2006	0	7	3	0	14	0	3	1	5
2007	5	5	3	6	9	4	4	1	3
2008	5	4	1	3	3	6	7	2	8
2009	5	2	2	4	6	3	4	1	4
TOTAL	35	31	77	61	40	48	39	7	52

Facts about Graduation Data

- From 1999 to 2003, ENCSD issued its own local certificate to students who completed work training and related courses during their years of high school. The number in the chart reflects those students and students with multiple disabilities who completed the class work specified in their Individualized Education Program (IEP) and aged out of eligibility for exceptional children's services at 21.
- Certificates are awarded to students who complete their IEP goals and/or aged out of eligibility for exceptional children's services or who do not complete all requirements of their academic course work before they aged out of eligibility for exceptional children's services.
- The Occupational Course of Study (OCS) diploma was instituted by the State Board of Education in 2004. Students
 who earn an OCS diploma have not completed the requirements to enter a four year college or university or to
 obtain a two year or associate's degree at a community or technical college. The diploma is designed for
 exceptional children who are training for the world of work after graduation.
- Diplomas earned by students in academic pathways from 2004 to 2009 may have been with a focus on Career and Technical Education, College/Technical Preparation, or College/University Preparation.

Summary of Graduation Data

- 390 students have graduated and/or aged out of the schools in the past 10 years.
- · Collectively, in the past ten years, the schools have awarded
 - o 177 certificates:
 - o 135 academic pathway diplomas, and
 - 78 Occupational Course of Study diplomas.
- 55% of the students who left the schools in the past 10 years did not earn academically based exit documents. Only 45% of students exited would have been qualified to enter two or four year institutions of higher learning.

Appendix F: Transportation Data from the Three Residential Schools as of December, 2009

Travel Distances and Times

	GMS	NCSD	ENCSD	
Travel Distance from School				Totals
30 Minutes	16 (14 Day)	7 (7 Day)	17 (12 Day)	40 (33 Day)
1 Hour	10 (3 Day)	11 (11 Day)	34 (13 Day)	55 (27 Day)
90 Minutes	5 (1 Day)	22 (7 Day)	16	43 (8 Day)
2 Hours	11 (1 Day)	20	20	51 (1 Day)
2 ½ Hours	1 (1 Day)	23 (1 Day)	5	29 (2 Day)
3 Hours	7	4	3	14
3 ½ Hours	1	1	0	2
4 Hours	0	3	0	3 (1 Day)
4+ Hours	1	0	0	1
	52 (20 Day)	91 (26 Day)	95 (25 Day)	238 (71 Day)

Notes:

- This data indicates one-way travel distance from the respective school to a student's house.
- 29% of children are day students.
- 79% of students live within a 2 hour drive from the schools.
- 21% of students live further than a 2 hour drive from the schools.

Mode of Transportation

School	Residential Students Transported by Bus	Day Students Transported by Bus	Residential Students Transported by Parents	Day Students Transported by Parents
GMS	30	9	2	11
NCSD	62	10	3	16
ENCSD	69**	20***	1	5
Totals	161	39	6	32

Notes:

- Two students ride on Friday bus but parent transports on Sunday and a different two students arrive on Sunday by parent but ride bus on Friday;
- Three students are transported by parents on Sundays;
- Two students are transported by parents on Fridays.

Appendix F (continued):

Travel Distances and Times by Mode of Transportation

_					Mode	of Transp	ortation by						
Travel Distances and Times		Residential Students Transported by Bus			Day Students Transported by Bus			Trans	al Students ported arents	Day	Day Students Transported by Parents		
	GMS	ENCSD	NCSD	GMS	ENCSD	NCSD	GMS	ENCSD	NCSD	GMS	ENCSD	NCSD	
30 Minutes	2	4	0	8	9	0	0	1	0	6	5	7	
1 Hour	5	21	0	1	11	6	2	0	0	2	0	5	
90 Minutes	4	16	15	0	0	4	0	0	0	1	0	3	
2 Hours	10	20	20	0	0	0	0	0	0	1	0	0	
2 ½ Hours	0	5 <u>Miles:</u> 120, 120, 136, 139 136	19 <u>Miles:</u> 90,95,1 12,106, 107, 95, 95, 100, 105, 116, 13, 87, 86, 87, 86, 86, 110, 115	0	0	0	0	0	3 Miles: 115, 120, 120	1 <u>Miles:</u> 152	0	1 Miles: 130	
3 Hours	7 Miles 168 211 180 180 166 190 187	3 <u>Miles:</u> 168, 160, 150	4 <u>Miles:</u> 116, 110, 120, 125	0	0	0	0	0	0	0	0	0	
3 ½ Hours	1 <u>Miles</u> 198	0	1 <u>Miles:</u> 137	0	0	0	0	0	0	0	0	0	
4 Hours	0	0	3 <u>Miles:</u> 180, 175, 150	0	0	0	0	0	0	0	0	0	
4+ Hours	1 <u>Miles</u> 275	0	0	0	0		0	0	0	0	0	0	
TOTALS lotes:	30	69	62	9	20	10	2	1	3	11	5	16	

Top number in each data cell is representative of the number of students traveling for identified time periods;

Other numbers in each data cell represents the one-way travel mileage for each student counted in the total for each cell.

One-way travel mileage is from the respective school to a student's house. Actual mileage from established bus stops to each school would be a shorter distance.

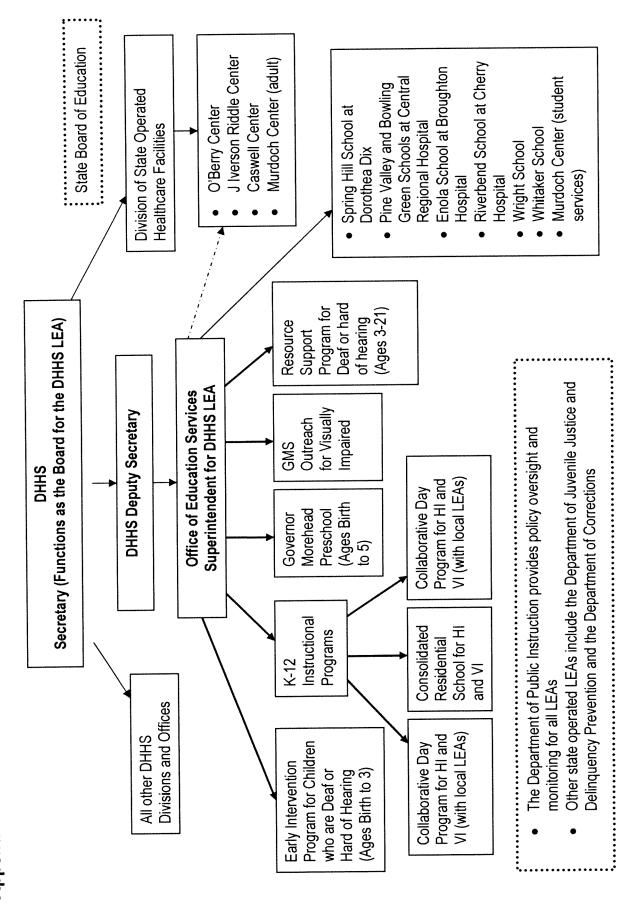
APPENDIX G: Information on Residential Education in Other States

State	School for the Blind/Year Established	School for the Deaf/Year Established	Combined School Yes or No	Other Note
AL			YES	1858
AK	1859	YES?		
AZ			YES	1912
AR	1859	1850		
CA	1860	3 schools		
СО			YES	1874
CT	1893	1817		
DE		1969		
FL			YES	1885
GA	1852	2 schools		
НІ			YES	1914
ID			YES	1906
IL	1849/1957	YES?		
IN	1847	1843		
IA	1853	1855		
KS	1864	1861	YES	2010
KY	1842	1823		
LA	1897	1852		
ME		Pre1948		
MD	1853	2 schools		
MA	1829	3 schools		
MI			YES	1848
MN	1866	1863		
MS	1848	1829		
MO	1851	1851		
MT			YES	1893
NE	1875	Closed in 1998		
NV		Day Only		
		2008		
NH		Send to VT		
NJ	1891	1883		
NM	1903	1885		
NY	1831/1904	7 schools	YES	
NC	1845	2 schools (1894 &		
		1964)		
ND	1908	1890		
OH	1837	2 schools		
OK	1897	1898		
OR	1873; closing in 2010	1870		
PA	1832/1887/1921	3 schools		
RI		Day only		
SC			YES	1849
SD	1900	Day only		
TN	1844	1844		
TX	1856	1857		
UT			YES	1896
VT VT		1912		
VA		1839	YES	1906
WA	1886	1886		
WV	1870	1870		
WI	1849	1852		
WY		Closed in 2000		

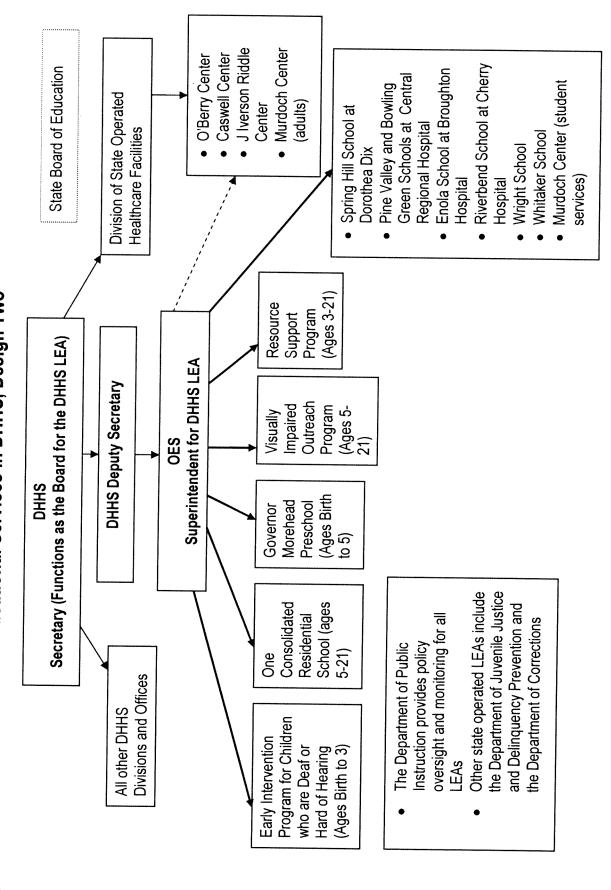
Riverbend School at Cherry Enola School at Broughton State Board of Green Schools at Central Pine Valley and Bowling J Iverson Riddle Center Education Spring Hill School at)perated Regional Hospital Whitaker School Murdoch Center Caswell Center O'Berry Center Wright School Dorothea Dix care Facilities Hospital Hospital 5 5 7 Ages 3-21 Resource Appendix H: DHHS Educational Flow Chart as of January, 201 Support Program Secretary (Functions as the Board for the D Superintendent for DHHS LEA DHHS Deputy Servery (Ages Birth to 5) Morehead Preschool DHHS (K-12 and Morehead School for Outreach) the Blind Governor Governor Western NC School for the Deaf (K-12) the Department of Juvenile Justice Other state operated LEAs include and Delinquency Prevention and oversight and monitoring for all the Department of Corrections Eastern NC School for the Deaf The Department of Public Instruction provides policy (K-12)Divisions and Offices All other DHHS Program for Children Early Intervention Hard of Hearing (Ages Birth to 3) who are Deaf or LEAs

May 1, 2010

Appendix I: Future Structure of Educational Services in DHHS, Design One



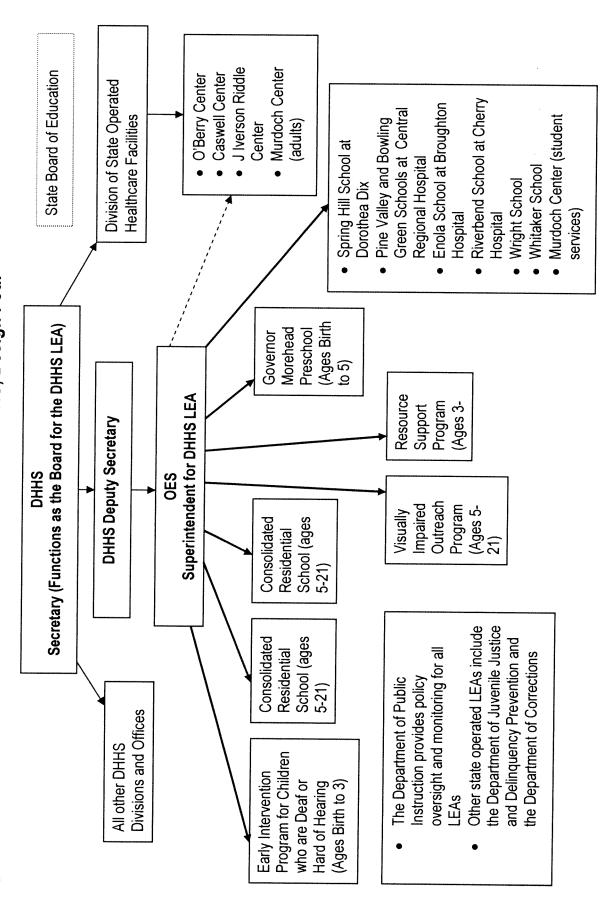
Appendix J: Future Structure of Educational Services in DHHS, Design Two



J Iverson Riddle Murdoch Center State Board of Education Caswell Center O'Berry Center Division of State Operated Healthcare Facilities Riverbend School at Cherry Enola School at Broughton Green Schools at Central Murdoch Center (student Pine Valley and Bowling (adults) Center Spring Hill School at Regional Hospital Whitaker School Wright School Dorothea Dix Hospital services) Hospital Appendix K: Future Structure of Educational Services in DHHS, Design Three (Ages 3-21) Secretary (Functions as the Board for the DHHS LEA) Resource Support Program (Ages Birth to 5) Morehead Preschool Superintendent for DHHS LEA Sovernor **DHHS Deputy Secretary** (ages 5-21) School for the Blind Morehead Governor DHHS OES Outreach Program (Ages 5-21) Impaired Visually Deaf (ages 5-21) School for the Western NC the Department of Juvenile Justice School for the Deaf (ages 5-21) Other state operated LEAs include and Delinquency Prevention and Eastern NC the Department of Corrections oversight and monitoring for all The Department of Public Instruction provides policy Divisions and Offices All other DHHS Program for Children Early Intervention Hard of Hearing (Ages Birth to 3) who are Deaf or LEAs

May 1, 2010

Appendix L: Future Structure of Educational Services in DHHS, Design Four



APPENDIX M: DHHS Student Testing Data (provided by NCDPI)

tate and DHHS Percent Proficient 20 thru 2008-09 EOG Tests		2005-06	2005-06		2006-07		2007-08		2008-09	
			State	DHHS	State	DHHS	State	DHHS	State	DHHS
		All Students	86.7%	11.3%	87.4%	7.1%	56.8%	<5%	68.7%	_ <5% _
_	Multiple Choice	HI	62.2%	10.0%	65.3%	<5%	26.3%_		38.7%	<5%
		VI	80.8%	40.0%	78.2%	Too Small	47.5%		61.7%	25.0%
Γ		All Students	19.2%	<5%	22.5%	5.7%	21.3%_	8.8%	36.6%	<5%
	NCEXTEND2	HI	11.5%	_ <5%_	13.0%	<5%	10.6%		21.2%	_<5%_
		VI	19.0%	N/A	36.8%	N/A	27.3%		40.0%	40.0%
Reading	Portfolio (0506)	All Students	81.1%	92.3%	82.3%	85.2%	55.1%	42.9%	66.3%	43.5%
Grades 3- 8	NCEXTEND1	HI	81.3%	85.7%	82.1%	83.3%	70.8%		84.0%	<5%_
Composite	(0607-0809)	VI	81.8%	N/A	75.0%	N/A	42.9%		46.7%	40.0%
		All Students	28.2%	N/A	36.9%	N/A	23.5%	_ <u>N/A</u> _	44.6%	_N/A_
	NCCLAS	HI	N/A	_ N/A	_ N/A	N/A	37.5%		_N/A_	_N/A
		VI	51.7%	N/A	83.3%	N/A	80.0%		50.0%	N/A
		All Students	84.9%	26.7%	85.5%	_ 25.2%	_55.6%_	14.5%	67.6%	13.4%
	All Assessments	HI	50.8%	14.7%	52.9%	8.3%	23.8%		35.2%	9.4%
		VI	71.1%	38.5%	72.9%	44.4%	45.6%		57.9%	35.7%
	Multiple Choice	All Students	64.2%	<5%	67.2%	<5%	71.0%	_ <5%_	80.9%	11.4%
		H	34.1%	_ <5%_	40.5%	<5%	49.2%		59.8%	9.5%
		VI	50.0%	20.0%	50.6%	Too Small	59.6%		71.3%	16.7%
	NCEXTEND2	All Students	25.0%	<5%	32.5%	<5%	38.1%	13.3%	53.4%	20.0%
		H	27.3%	<5%	29.3%	5.6%	37.0%		50.2%	18.5%
		VI	20.9%	<5%	22.9%	Too Small	36.1%		43.6%	25.0%
Math	Portfolio (0506)	All Students	81.1%	88.5%	78.3%	74.1%	53.8%	53.6%	69.0%	65.2%
Grades 3-	NCEXTEND1 (0607-0809)	H	75.0%	85.7%	79.0%	_ 83.3%	83.3%		88.0%	80.0%
8 Composite		VI	72.7%	N/A	87.5%	N/A	28.6%		73.3%	60.0%
			State	DHHS	State	DHHS	State	DHHS	State	DHHS
		All Students	38.8%	-; ·	46.8%	NA	56.1%	_ N/A	64.3%	T
	NCCLAS (0506- 0809)	^{HI}	N/A	N/A_	- <u>N</u> /A	N/A	N/A		_ N/A _	_ N/A
	,	VI	N/A	N/A	60.0%	N/A	71.4%		60.0%	
		All Students	F	-;	66.4%	18.5%	69.9%		80.0%	T
	All Assessments		33.6%	-:	39.0%	8.3%	47.4%		58.3%	
		VI	46.5%	21.4%	48.5%	<5%	56.0%		67.8%	33.3%

APPENDIX M (continued): DHHS Student Testing Data (provided by NCDPI)

State and DHHS Percent Proficient 2005-06		2005-06		2006-07		2007-08		2008-09		
· ·	thru 2008-09 EOC Tests		State	DHHS	State	DHHS	State	DHHS	State	DHHS
		All Students	71.8%	23.7%	66.4%	6.8%	68.4%	_16.9%	71.5%	14.5%
	Multiple Choice	HI.	47.0%	10.4%	34.6%	_<5%_	37.5%		41.9%	6.5%
·		VI	61.7%	50.0%	58.3%	13.0%	62.4%		66.0%	32.0%
EOC	NCCLAS	All Students	49.9%	N/A	65.0%	_N/A_	76.1%	_ N/A_	86.7%	N/A
Composite		HI	N/A	N/A	N/A	_N/A_	N/A		N/A	N/A
		VI	N/A	N/A	N/A	N/A	N/A		N/A	N/A
		All Students	71.8%	23.7%	66.4%	6.8%	68.4%	16.9%	71.4%	14.5%
	All Assessments	Н	47.0%	10.4%	34.6%	_<5%_	37.5%		41.9%	6.5%
		VI	61.7%	50.0%	58.3%	13.0%	62.4%		66.0%	32.0%

APPENDIX N: Teachers Licensed in Hearing and Visual Impairments by LEA (Provided by NCDPI)

	Lice	ensed Teac	EC Licensed and EC Funded Teachers				
	Hearing	Visually	Both	Hearing	Visually	Both	
LEA Name	Impaired	Impaired	Licenses	Impaired	Impaired	Licenses 0	
Alamance-Burlington Schools	14	2	0	5	2	0	
Alexander County Schools	3	0	0	0	0	0	
Alleghany County Schools	1	0	0	1	0	0	
Anson County Schools	0	0	0	0	0	0	
Ashe County Schools	1	2	0	1	1		
Avery County Schools	1	0	0	1	0	0	
Beaufort County Schools	2	1	0	2	1	0	
Bertie County Schools	1	0	0	1	0	0	
Bladen County Schools	0	0	0	0	0	0	
Brunswick County Schools	2	0	0	0	0	0	
Buncombe County Schools	9	3	0	6	1	0	
Asheville City Schools	0	1	0	0	1	0	
Burke County Schools	5	1	0	2	1	0	
Cabarrus County Schools	10	1	0	7	1	0	
Kannapolis City Schools	2	0	0	1	0	0	
Caldwell County Schools	5	1	0	1	1	0	
Camden County Schools	0	0	0	0	0	0	
Carteret County Public				_		•	
Schools	3	1	0	2	1	0	
Caswell County Schools	0	0	0	0	0	0	
Catawba County Schools	11	0	0	6	0	0	
Hickory City Schools	0	0	0	0	0	0	
Newton Conover City Schools	1	0	0	0	0	0	
Chatham County Schools	2	0	0	2	0	0	
Cherokee County Schools	1	1	0	0	1	0	
Edenton/Chowan Schools	2	1	0	1	0	0	
Clay County Schools	0	1	0	0	1	0	
Cleveland County Schools	7	2	0	5	2	0	
Columbus County Schools	2	1	0	2	0	0	
Whiteville City Schools	0	0	0	0	0	0	
Craven County Schools	5	2	0	4	1	0	
Cumberland County Schools	15	2	. 0	11	0	0	
Currituck County Schools	0	0	0	0	0	0	
Dare County Schools	5	1	0	0	0		
Davidson County Schools	8	0	0	6	0	0	
Lexington City Schools	1	C	0	1	0	0	
Thomasville City Schools	0	C	0	0	0		
Davie County Schools	6	C	0	3	0		
Duplin County Schools	1	C) 0	0	0		
Durham Public Schools	20	2	2 0	9	0	0	
Edgecombe County Schools	3			1	0	0	
Forsyth County Schools	23			10	1	0	
i diayan adding adiladia		_					

APPENDIX N (continued): Teachers Licensed in Hearing and Visual Impairments by LEA (Provided by NCDPI)

	Lice	ensed Teac	hers	EC Licensed and EC Funded Teachers				
LEA Name	Hearing Impaired	Visually Impaired	Both Licenses	Hearing Impaired	Visually Impaired	Both Licenses		
Franklin County Schools	2	0	0	1	0	0		
Gaston County Schools	10	4	0	6	3	0		
Gates County Schools	0	0	0	Ō	0	0		
Graham County Schools	0	0	0	0	0	0		
Granville County Schools	4	1	0	1	1	0		
Greene County Schools	0	0	0	0	0	0		
Guilford County Schools	31	8	0	21	8	0		
Halifax County Schools	1	1	0	0	0	0		
Roanoke Rapids City Schools	0	0	0	0	0	0		
Weldon City Schools	0	0	0	0	0	0		
Harnett County Schools	4	1	0	3	1	Ō		
Haywood County Schools	2	1	0	1	1	0		
Henderson County Schools	3	1	0	2	0	Ō		
Hertford County Schools	0	0	1	0	0	1		
Hoke County Schools	0	0	0	0	0	0		
Hyde County Schools	0	0	0	0	0	0		
Iredell-Statesville Schools	5	1	0	3	0	0		
Mooresville City Schools	1	1	0	1	1	0		
Jackson County Schools	1	0	0	1	0	0		
Johnston County Schools	18	0	2	10	0	2		
Jones County Schools	0	0	0	0	0	0		
Lee County Schools	2	0	0	1	0	0		
Lenoir County Public Schools	2	1	0	2	1	0		
Lincoln County Schools	4	0	0	3	0	0		
Macon County Schools	0	0	0	0	0	0		
Madison County Schools	0	0	0	0	0	0		
Martin County Schools	0	0	0	0	0	0		
McDowell County Schools Charlotte-Mecklenburg	0	1	0	0	1	0		
Schools	34	9	0	16	6	0		
Mitchell County Schools	0	0	0	0	0	Ō		
Montgomery County Schools	1	0	0	0	0	0		
Moore County Schools	3	1	0	1	1	0		
Nash-Rocky Mount Schools	7	2	0	2	0	0		
New Hanover County Schools	4	1	0	4	1	0		
Northampton County Schools	0	0	0	0	0	Ö		
Onslow County Schools	6	1	0	2	1	0		
Orange County Schools	3	2	0	3	1	0		
Chapel Hill-Carrboro Schools	2	2	2	0	1	1		
Pamlico County Schools	1	1	0	1	1	0		
Pasquotank County Schools	2	0	0	1	0	0		
Pender County Schools	1	1	0	1	0	0		
Perquimans County Schools	0	0	0	0	0	0		
Person County Schools	1	1	1	1	0	1		

APPENDIX N (continued): Teachers Licensed in Hearing and Visual Impairments by LEA (Provided by NCDPI)

				EC Licensed and EC Funded					
	Lice	nsed Teacl	hers	Teachers					
	Hearing	Visually	Both	Hearing	Visually	Both			
LEA Name	Impaired	Impaired	Licenses	Impaired	Impaired	Licenses			
Pitt County Schools	12	1	0	4	0	0			
Polk County Schools	1	0	0	. 0	0	0			
Randolph County Schools	9	3	0	5	2	0			
Asheboro City Schools	5	1	0	2	1	0			
Richmond County Schools	1	0	0	0	0	0			
Robeson County Schools	3	2	0	3	2	0			
Rockingham County Schools	7	1	0	2	1	0			
Rowan-Salisbury Schools	5	1	2	2	1	2			
Rutherford County Schools	3	0	0	1	0	0			
Sampson County Schools	3	1	0	3	1	0			
Clinton City Schools	2	0	0	1	0	_			
Scotland County Schools	3	0	0	1	0	0			
Stanly County Schools	2	0	0	1	0	0			
Stokes County Schools	2	1	0	1	1	0			
Surry County Schools	1	0	0	1	0	0			
Elkin City Schools	0	0	0	0	0	0			
Mount Airy City Schools	0	0	0	0	0	0			
Swain County Schools	0	0	0	0	0	0			
Transylvania County Schools	1	2	0	0	1	0			
Tyrrell County Schools	0	0	0	0	0	0			
Union County Public Schools	10	1	0	5	1	0			
Vance County Schools	0	0	0	0	0	0			
Wake County Schools	46	18	1	26	11				
Warren County Schools	1	0		1	0				
Washington County Schools	0	0	_		0				
Watauga County Schools	2	0			0	0			
Wayne County Public Schools		1	0	_	1				
Wilkes County Schools	2		0		_				
Wilson County Schools	13		_						
Yadkin County Schools	2		_			_			
Yancey County Schools	0	1	0	0	1	U			

APPENDIX O: REFERENCES

Blind or Visually Impaired

Caldwell, P., Franklin, O., Waterman, S. (2008). Legislative Report: North Carolina's Educational Service Delivery Model for Children with Hearing or Visual Impairments.

Chapel Hill, NC: The University of North Carolina at Chapel Hill School of Government.

Kagy, K. (2006, revised 2008). Exceptional children VI Students (power point). Raleigh, NC: Department of public Instruction

Division of Services for the Blind. (2008). Blind registry (report). Raleigh, NC: Department of Health and human Resources.

Ferrell, (2000). Cerebral visual impairment in children Seminars in Neonatology, Volume 6, Issue 6, Pages 477-485

Ferrell, Shaw, Dietz's, (1998). Lighthouse International- Causes of blindness, www.lighthouse.org/search?q=severe

Governor Morehead School for the Blind. (2008). End of year monthly enrollment for outreach services (report). Raleigh, NC: Office of Education Services/Department of Health and Human resources.

Parker, A.T., E.S. Grimmett, and S. Summers, Evidence-based communication practices for children with visual impairments and additional disabilities: An examination of single-subject design studies. *Journal of Visual Impairment & Blindness*, 2008. **102**(9): p. 540-552.

Deaf or Hard of Hearing

Advanced Bionics Corporation. www.bionicear.com

American Academy of Otolaryngology. http://www.entnet.org/healthinfo/ears/cochlear-implant.cfm Bales, D. "Building Baby's Brain: The Basics." University of Georgia, College of Family and Consumer Sciences, Athens, GA, 1998.

Battey, James F. Jr., M. D., Ph. D, "Holy Grail of Hearing: True Identity of Pivotal Hearing Structure is Revealed." <u>Journal of Nature</u>, September 6, 2007.

Bavelier, Daphne, Newport, Elissa L., and Supalla, Ted. "Signed or Spoken, Children Need Natural Languages. http://www.bcs.rochester.edu/people/newport/pdf/Bavelieretal-Cerebrum03.pdf

Boston Scientific, Advanced Bionics, 2007 Webinar Series. "Extreme Makeover: Cochlear Implant Edition." www.bionicear.com.

Federal Drug Administration. www.fda.gov

APPENDIX O: REFERENCES (Continued)

Francis, Howard W., M.D.; Koch, Mary E. MA; Wyatt, J. Robert, M.D., MBA; Niparko, John K., M.D. "Trends in Educational Placement with Cost-Benefit Considerations in Children with Cochlear Implants." <u>Archives of Otolaryngology: Head and Neck Surgery</u>. Vol. 125, No. 5, May, 1999, pp. 499-505.

http://www.cdc.gov/ncbddd/ehdi/ehdi.htm

Marschak, Mark and Spencer, Elizabeth, editors. <u>The Oxford Handbook of Deaf Studies, Language, and Education</u>. Oxford University Press, 2003.

Marschak, Mark, Ph.D., editor. "Language Development in Children who are Deaf: A Research Synthesis." National Technical Institute for the Deaf, Rochester Institute of Technology, June 4, 2001.

Morh, Feldman, Dunbar, Mc-Conkey-Robbins, Niparko, Rittenhouse, and Skinner, "The Societal Costs of Severe to Profound Hearing Loss in the United States." International Journal of Technological Assessment in Health Care. Vol. 16, Issue 4, pp. 1120-1136, 2000.

National Institutes of Health. http://www.nidcd.nih.gov/health/hearing/coch.htm

North Carolina Department of Health and Human Services, Division of Public Health. Data on Newborn Hearing Screening, 1998-2008.

Okie, Susie. "Language Ares of Brain Develop without Hearing: Study of Deaf Yields Surprises." <u>The Washington Post</u>, November 26, 1996.

Petitto, Laura-Ann, Ph.D. "Neutral and Behavioral Aspects of Early Language Development." National Institute on Deafness and Other Communication Disorders, 2002.

Project HOPE, National Health Survey, 1990-91.

Roan, Shari. "Cochlear Implants Open Deaf Kids' Ears to the World." Los Angeles Times, August 3, 2009.

Schwartz, Sue, Ph.D, Editor. Choices in Deafness: A Parent's Guide to Communication Options. 2008.

Smith and Karchmer, "Severe to Profound Hearing Loss on Reading Comprehension," 1986.

Texas Youth Commission, "Brain Development and Learning: Mental Workouts and Brain Power." (no date provided)

Texas Youth Commission. "How the Brain Learns to Talk." (no date provided)

The Listening Room. "Exploring Hearing Loss and Communication Options: Important Information for Counseling Families" www.hearingjourney.com

White, Karl R. "Extreme Makeover: Early Intervention Edition." National Center for Hearing Assessment and Management, 2007. Boston Scientific, Advanced Bionics, 2007 Webinar Series. www.infanthearing.org www.agbell.org

APPENDIX O: REFERENCES (Continued)

www.asha.org

www.audiology.org

www.clerccenter2.gallaudet.edu/KidsWorldDeafNet

www.gallaudet.edu

www.handspeak.com

www.infanthearing.org

www.nasa.org

www.begin.org

www.begin.org

s/oto/transition.pdf

www.web1tcn....