Comprehensive Statewide Needs Assessment Report

North Carolina Division of Services for the Blind

Prepared by

Steven R. Sligar, Shirley A. Madison, and Min Kim
East Carolina University

April 2010

Comprehensive Statewide Needs Assessment Report

North Carolina Division of Services for the Blind

Executive Summary

Numerous people were involved in this comprehensive needs assessment (CNA): most importantly the 221 people who participated in the surveys, interviews, and focus groups. Different service needs and barriers were indentified but the most frequent needs mentioned by most people can be summarized as the three Ts: transportation, technology and training. The Ts were issues for all respondents except those from community rehabilitation programs (CRP) and disability navigators (DN). There were numerous suggestions for improving DSB services with the primary suggestion being to increase funding (for the 3 Ts). Other suggestions were to reduce administrative barriers (eligibility for services, paper work), better inform target audiences (medical personnel) and improve outreach to minority communities. The participant data were combined with a review of the literature to formulate the following summary and recommendations... Employment and transportation recommendations are made at two levels: client and systemic.

Demographic Trends

NC's population is 9.2 million (10th in the country). The population continues to grow with an expected increase in international immigration resulting in greater numbers and percentages of minorities, with greater growth in the Hispanic population. North Carolina will experience the 18th largest net international immigration gain in the country.

Recommendation - DSB needs to plan for an increase in applications from minority groups including international immigrants. Planning needs to include serving people with disabilities with and without documentation as well as modifying practice for communicating service availability to these groups.

Unserved and Underserved Populations

 A gross estimate of people who are unserved is based on the approximately 110,000 people in North Carolina (over 40) who have a vision loss. In 2009 the DSB served 3,150 clients... This indicates potential demand far in excess of available services. A similar need is demonstrated by the 286 cases closed status 08 (2009). When this number is removed from those served, there are approximately 2,800 known clients who applied for services and were unserved or underserved.

Recommendation - DSB needs to target the medical community and educate them about DSB services via seminars, lectures in medical schools, and workshops of special interests such as new therapies, treatment protocols, or technology.

Recommendation – DSB needs to better communicate information on available services to target groups including older individuals and minorities.

Recommendation - Internally, DSB needs to educate social workers and independent living counselors about eligibility and services offered through vocational rehabilitation.

Prevalence and Trends in Vision Loss

 There are 154,566 people in North Carolina who are 18 and older and experience a vision loss, a figure that represents 2.54% of the population. The leading cause of vision loss in NC is diabetic retinopathy, which disproportionately affects White females, ages 40 and over. Other risk high risk groups include: Blacks for open angle glaucoma and Whites (male and female) for myopia, cataracts, and hyperopia.

Recommendation - At risk groups need specific and targeted information on functional limitations, specific plans for case management, issues for counseling, and suggested medical interventions.

Employment Outcomes

The economy and resultant job loss has adversely affected DSB clients from all racial and ethnic backgrounds.

Recommendation - Assist clients to develop personal marketing skills to include career identification, job choice, job getting, and job keeping skills. Greater use of vocational evaluations, career counseling and portfolios are possible approaches to these problems...

Recommendation - Collaborate with Regional Workforce Development Boards, Chambers of Commerce and other organizations to increase the number and awareness of jobs available for clients.

Recommendation - Disability Navigators need a "train the trainer on blindness" to enable them to act as advocates for clients who enter the JobLink system.

Transportation

Five different types of transportation are provided by each county. On paper limited services are available for all citizens, however reports of user experiences indicate real world transportation services are often limited or inconsistent. Limited schedules and low ridership, especially in rural areas, jeopardize the ability of these systems to meet client needs.

Recommendation - DSB needs to collect information on available transportation and costs from each county for distribution to clients.

Recommendation - DSB needs to advocate at the county and state level to improve
portal to portal transportation services.

Current and Needed Programs

Current service programs are well utilized; however there is an expressed need for
expansion of services to minorities and those with additional disabilities. There is also
an expressed need to increase the use of community rehabilitation programs (CRPs).

Recommendation - Consider increasing referrals and service contracts with Community
rehabilitation programs...

General Recommendations

These recommendations address multiple issues that include clients who are unserved,
underserved, minorities, have multiple disabilities and/or from rural areas.

Strategic recommendations - Outreach to various constituencies via language
appropriate materials. One suggestion is to hold topical seminars (e.g., living with
macular degeneration or tips on managing your diabetes) in local communities.
Another is to host mini-center activities in various locations (e.g., churches, civic
centers) with sponsorship and promotion from grass root constituencies. These
activities need to be targeted to a specific group (i.e. racial—Blacks or Hispanics in
rural areas, disability—screen reader users, age of onset—advanced macular
degeneration).

Communication recommendations - DSB needs to provide information through various
media regarding services that are available for people with a vision loss who are
not totally blind. There appears to be a misperception among some constituents
that DSB services are only for those who are totally blind.

Please refer to the 2010 Comprehensive Statewide Needs Assessment for detailed information and complete list of recommendations

Contents

Comprehensive Statewide Needs Assessment Report

North Carolina Division of Services for the Blind

Introduction

The mission of the North Carolina Division of Services for the Blind (DSB) is *to enable people who are blind or visually impaired to reach their goals of independence and employmen*t. In order to fulfill this mission the DSB seeks information from its various stakeholders about their service needs, if the DSB is meeting their needs, and how DSB may meet their needs in the future.

In addition the Rehabilitation Act of 1973, as amended, mandates that each State unit and its State Rehabilitation Council (SRC) conduct a tri-annual comprehensive statewide assessment of the rehabilitation needs of its residents and in particular, needs of individuals with the most significant disabilities, individuals who are minorities, and individuals who have been unserved and underserved by the Vocational Rehabilitation (VR) program. In response to requirements set by United States Federal Government rules and regulations regarding rehabilitation services, the North Carolina Division of Services for the Blind contracted with East Carolina University's College of Allied Health Sciences, Department of Rehabilitation Studies to conduct the Statewide Comprehensive Statewide Needs Assessment (CSNA).

As a standalone Division within the NC Department of Health and Human Services the DSB provides services that are authorized by the Rehabilitation Act. The core services are vocational rehabilitation, independent living rehabilitation, business enterprise, supported employment, and a rehabilitation center. Specific service categories are training, employment, medical, technology, and daily living skills. The annual budget for DSB in FY 2009 was $16 million and 3,150 clients were served during that time.

In order to contextualize this needs assessment; CSNAs from six states in Region IV, i.e., AL (2008), FL (2008), GA (2008), KY (2009), MS (2008), SC (2008) and

TN (2008) and the previous CSNA from NC (2006) were reviewed (see Appendix A). All eight state's reports were available either on line or by request. The common areas of recommendations are: staffing concerns (AL, FL, GA, and NC), service delivery (AL, FL, GA, KY and MS), assistive technology availability (AL and KY), delivery of employment related services (AL, FL and SC), collaboration with other agencies (GA, MS, and NC), improve communication (NC, SC, and TN), and other recommendations (AL, FL, KY, and NC).

The purpose of this CSNA is to provide information about persons who are blind or visually impaired and their need for services. The results of the CSNA will be used by DSB and the SRC to plan for existing service needs. In addition the CSNA identifies unmet needs of individuals/minorities, who are unserved, underserved, who need education and training, and who are served by other agencies, thereby identifying the need for policy and procedural revisions or changes in service provision. The six specific questions addressed in this CSNA are:

1. What are the demographic trends of persons who are blind or visually impaired?
2. Who are the unserved and underserved populations of persons who are blind or visually impaired?
3. What is the prevalence and trends of vision loss?
4. What are the differences in employment outcomes of clients who are blind or visually impaired from different racial/ethnic backgrounds (e.g., White, Black or African American, American Indian, Asian, Pacific Islander, Hispanic or Latino)?
5. What transportation is available for persons who are blind or visually impaired?
6. What are current and needed programs and services for person who are blind or visually impaired?

Methods

This CSNA used a mixed methods approach that included the following: literature review, interviews with stakeholders, focus groups with clients, and four surveys. The NC DSB is one of the states designated to field test *The VR Needs Assessment Guide*

(2009), which was developed by InfoUse. Their suggestions for data collection, which included sample survey, interview, and focus group guides, data analysis, and reporting, were incorporated in this CSNA. The model *VR Needs Assessment Guide* addresses the following information goals:

- the rehabilitation needs of individuals with disabilities particularly the vocational rehabilitation service area;
- the needs of individuals with the most significant disabilities, particularly the need for supported employment services;
- the service needs of minorities;
- the needs of individuals with disabilities who have been unserved or underserved by VR; and
- the needs of Individuals with disabilities served through other components of the statewide workforce investment system (*Model Comprehensive Needs Assessment Guide*, p.2).

Literature Review

Literature reviews consisted of various web based data sources, CSNAs from other states, 911 data, and peer reviewed journals. A summary of these sources follows.

American Community Survey (ACS). An annual nationwide survey designed by the U. S. Census Bureau to provide communities with information about how they are changing. The ACS samples social, economic, housing and demographic variables, which includes national, state, and local estimates of persons with disabilities.

Center for Disease Control (CDC). The CDC provided information about prevalence rates of visual impairment.

Comprehensive Needs Assessments Conducted by Other States. Reports provide information about how each state collects data, presents results, and makes

recommendations. CSNAs from RSA Region IV states of Florida, Georgia, Kentucky, Mississippi, Tennessee, South Carolina and North Carolina were reviewed.

Prevent Blindness America (PBA). Leading volunteer eye health and safety organizations dedicated to preventing blindness and saving sight. PBA provides prevalence rates of blindness and visual impairment. Additional information includes the four leading eye diseases affecting older Americans, i.e., age- related macular degeneration, cataracts, diabetic retinopathy and glaucoma. Also included is information about refractive errors such as myopia and hyperopia.

RSA-911 Data. Rehabilitation Service Administration 911 is a public access data base that provides information about individual characteristics, services provided, and employment outcomes at the point of closure from vocational rehabilitation. Records are comprised of approximately 600,000 individual case closures per year. RSA data are collected at the time of closure (termination) of VR services and the following statuses were used in this report: 08, 28, 30 and 26.

State Projection Report. Data provided for age, race and ethnicity projected every ten years through 2025. Data is used to project the number of individuals who are at risk of becoming blind or visually impaired.

U. S. Bureau of the Census Data. North Carolina census data provides current population estimates and projections, racial and ethnic groups, and state prevalence rates of blindness and low vision.

Surveys

Separate survey instruments were developed for administration to four groups: current and former DSB clients, DSB personnel (vocational rehabilitation counselors, independent living counselors, social workers and supervisors), community rehabilitation program administrators (CRP), and disability navigators (DN). The latter two groups were targeted to address issues described in the legislation that requires the

conduct of a CSNA. The DSB contracts with the CRPs to provide specific services for DSB clients and therefore should be included in the CSNA. The DNs address the needs of people with disabilities who seek training and employment opportunities through the One-Stop Career Center system established under the Workforce Investment Act (WIA) of 1998. The DN provides expertise and serves as a resource person to the workforce investment system and persons with disabilities, including Social Security Disability Insurance (SSDI) and Supplemental Security Income (SSI) disability and blindness beneficiaries (Holbomb & Barnow, 2004)

The survey questions were developed in collaboration with DSB executive leadership and the SRC. All of the surveys were available on line via SurveyMonkey (http://www.surveymonkey.com). Accessibility was checked in two ways. First, SurveyMonkey reports accessibility considerations in its development (SurveyMonkey, n.d.) and it has been used in other surveys for persons with disabilities (Cubero, 2009; Fulks, 2007). Second, it was field tested for possible problems by the DSB executive leadership and persons who use screen reading or magnification software. One problem encountered by a JAWS user (repetition of Likert scales and the question) was reported and addressed by SurveyMonkey.

NCDSB Client Survey. A sampling of current and closed cases from FY 09 and the first and second quarters of FY10 were selected. In order to reach clients who were unserved or underserved, we over sampled clients closed 08, which we considered as unserved, and those closed in statuses 28 and 30, which we considered as underserved. Clients were mailed two letters from the DSB director: an initial invitation and a follow-up letter (see Appendix B). Clients were offered three choices to respond to the survey: request an electronic copy, which was a link to SurveyMonkey; request a paper copy; or have the survey read to the client over the phone with a scribe to record the responses. The responses from clients who chose either of the latter two options were entered manually into SurveyMonkey by a research assistant. The survey asks about the client's experiences with DSB, services received, suggestions; complaints, and basic demographic information. As an incentive, those clients who completed the

survey were entered into a drawing for $50. There were 20 names selected for the incentives.

DSB personnel, CRP administrators and DN Surveys. All of the DSB personnel (i.e., vocational rehabilitation and independent living counselors, social workers, and first line supervisors), CRPs currently contracted as a vendor with DSB, and DNs in the state were contacted via email with an initial invitation to participate, A follow-up request to participate was also sent to each group. DSB personnel were asked about: service needs and barriers; vocational rehabilitation needs; needs and barriers for minorities, unserved and underserved populations; and lastly their opinions about CRPs and workforce development programs. CRP administrators and DNs were asked about their experiences with and plans for providing services for persons who are blind or visually impaired.

Focus Groups and Interviews

The DSB suggested four cities to conduct focus groups and seven individuals for interviews. Comments were captured by the facilitator or interviewer and recorded in MS Word. Questions were similar to the surveys in that the participant was asked about experiences with DSB, services received, suggestions, and complaints.

Analysis

SurveyMonkey provided descriptive statistical reports for the surveys. Response rates were provided for each item as well as summaries. Quantitative data was also imported into Excel for analysis. Qualitative data was from two sources: the survey and interviews and focus groups. Survey comments were exported from SurveyMonkey into Excel and then copied and pasted into Microsoft Word. The comments were then imported into NVivo 8 (QSR International, Doncaster, Victoria, Australia http://www.qsrinternational.com/). NVivo is a non-numerical unstructured data indexing, searching and theorizing program that was used for data management (Richards, 2000). The interviews and focus group comments were transcribed into Word and then imported into NVivo8. Using open and axial coding, the comments were arranged into categories and themes. The analytical strategy was both descriptive and thematic and

used two approaches. First was a count and listing of the number of comments to each question. The second strategy involved constant comparison of coded comments to determine themes that emerged from the data (Creswell, 2007).

Results

The results are organized by research question. Different categories are established within each section to answer specific questions from the contract or to include additional relevant data...

Results are based on the literature review, four surveys, four focus groups and 8 individual interviews. For the surveys, 2 mailings of 1,301 letters were sent to clients with 163 returned yielding 1,138 invitations. 94 clients participated with a response rate of 8.3%. There were 126 email requests sent to DSB personnel with 4 bouncing back and 2 personnel opting out yielding 120 invitations. 94 personnel responded with a response rate of 62.5%. There were 19 email requests sent to community rehabilitation programs with 7 bouncing back yielding 11 invitations. 8 CRPS responded with a response rate of 72.7%. There were 17 email requests sent to disability navigators with 2 opting out yielding 15 invitations. 10 personnel responded with a response rate of 66.7% (See Table 1).

The qualitative analysis consists of summary comments from seven interviews and four focus groups and actual comments from the surveys (N=1138). A total of 15 people participated plus members of the SRC. These comments yielded 1,984 coded comments because some comments are coded more than once. The DN and CRP comments were not coded because of low N but were included in the analysis for a total of 2,120 comments. Qualitative comments that add to the discussion or provide specific recommendations are included where possible. General comments such as *increase funding* or *improve transportation* are included in the count of reported comments but are not listed. Parenthetical information in a quote is added to provide clarification.

Table 1

Response Rates for Four Survey Groups

Group	Invitations	Responded	Response Rate
DSB Clients	1138	94	8.3%
DSB Personnel	120	75	62.5%
CRP	11	8	72.7%
DN	15	10	66.7%

Demographics

Research Question 1: What are the demographic trends of persons who are blind or visually impaired?

This section addresses demographic trends of persons who are blind or visually impaired. The information is organized in the following four demographic categories.

1. The racial and ethnic minority groups in NC and their percent as compared to the total population.
2. The estimated percentage of minority groups listed by county.
3. The estimated number of individuals who are blind or visually impaired listed by age group for each county.
4. The estimated number of individuals who are visually impaired and receiving SSI or SSDI by county.

Summary and shorter tables will be presented in the body of the report in this section. Longer tables however, such as those containing information for each of the 100 counties in the state, are placed in Appendix C.

Category One: Racial and Ethnic Minority Groups in NC

This category is discussed in two parts: national and state (by county) comparisons. In 2008 North Carolina had a population of approximately 9,222,414 million, which was up from 8,845,343 million in 2006 (U. S. Census Bureau, American FactFinder, 2009). North Carolina ranks 10th in total population as compared to other states. Table 2 represents the state's population data for race and ethnic groups including their number and percentage of the population (see also Figure 1). Of approximately 9 million total population in North Carolina, the largest minority is Black or African American at 21.7%. The second largest minority group is Hispanic with 4.6%; Asian/Pacific Islanders are third at 1.4% and American Indian/Native Americans fourth at 1.3%.

Table 2

Percentage of North Carolina Population by Selected Races

2009 Minority Populations in North Carolina		
Racial and Ethnic Groups	State Population	Percent of State Population
Black or African American	1,776,283	21.7%
Asian & Pacific Islander	117,672	1.4%
American Indian	99,551	1.3%
Hispanic	378,963	4.6%
White	5,804,658	71.0%
Source: Table ST-EST2002-01 - State Population Estimates: April 1, 2000 to July 1, 2002, Population Division U.S. Census Bureau. Release Date: December 20, 2002		

Figure 1

Prevalence of Ethnic Groups

EthnicGroup
- American Indian
- Asian & Pacific Islander
- Black or African America
- Hispanic
- White

Percent of Total
White 71.0%
Black 21.7%
Hispanic 4.6%
Asian/Pacific 1.4%
Amer. Indian 1.3%

Population Counts
WHITE 5,804,658
BLACK 1,776,283
HISP 378,963
AS/PACIFIC 117,672
AM. INDIAN 99,551
TOTAL 8,177,127
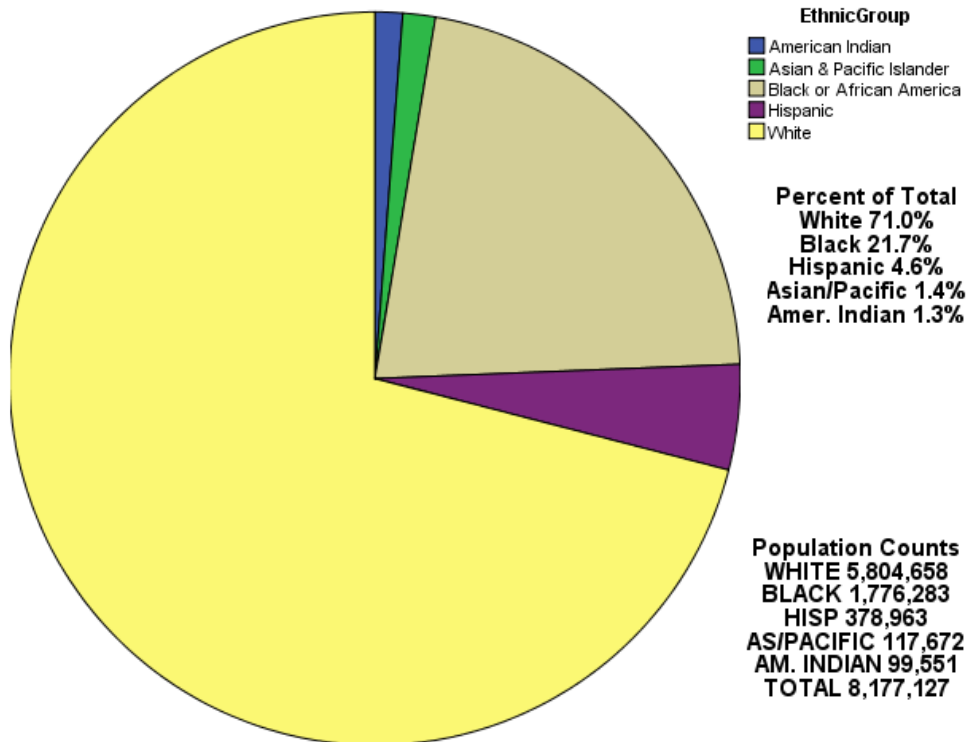
Category Two: Minority Groups by County

This category addresses the percentage of total population by race for each of the 100 counties in NC (see Appendix C Table C1). The greatest percentage of Whites resides in Ashe county (98.00%) with the second highest in Mitchell county (97.7%). The lowest concentration of Whites is in Hertford county with 35.9%. The largest percentage of Blacks resides in Hertford county (61.6%) and Bertie county (60.40%), while the lowest concentration of Blacks is in Mitchell county (0.7%). Seven counties (Bertie, Edgecombe, Halifax, Hertford, Northampton, Warren and Washington) have Blacks as the majority population, while Whites are the majority in 93 counties.

A higher concentration of Asian/Pacific Islanders resides in Orange (5.80%) and Wake (4.7%) counties. The highest percentage of Native American/Native Alaskan residents are in Robeson (38.00%) and Swain (26.1%) counties. Interestingly,

Cherokee County has only 1.5% Native American. The concentration of Hispanic residents is higher in Duplin (21.4%) and Lee (16.70%) counties.

North Carolina is expected to gain 199,000 people through international migration between 1995 and 2025, placing it 18th largest among the net international migration gains among the 50 states and District of Columbia. Blacks and Non-Hispanic African Americans are projected to comprise 23.8% of the state population in 2025, up from 22.1% in 1995 (Campbell, 1996).

Category Three: Estimates of the Prevalence of Blindness and Low Vision by Age Group and County

The estimates of blindness and low vision were calculated by multiplying National Institute of Health estimates for the percentage of blind and low vision in each age category (Table 3) by the population in each county. As expected, the prevalence of both blindness and low vision increases with age, with the prevalence rising dramatically after age 80. Estimates of blindness and low vision distributed by county and age group are presented in Appendix C Tables 2a-5a. Geographically this age-related growth is evidenced by the continued increase in the number of older workers (45-64) and citizens over 65. Rural NC is experiencing a growth in the number of older adults all across the state with the highest increase in the mountains (NC Rural Economic Development Center, Inc., 2005).

Table 3

Prevalence of Blindness and Low Vision among Adults 40 Years and Older in the United States*

Age	Blindness		Low Vision		All Vision Impaired	
Years	Persons	(%)	Persons	(%)	Persons	(%)
40-49	51,000	0.1%	80,000	0.2%	131,000	0.3%
50-59	45,000	0.1%	102,000	0.3%	147,000	0.4%
60-69	59,000	0.3%	176,000	0.9%	235,000	1.2%
70-79	134,000	0.8%	471,000	3.0%	605,000	3.8%
>80	648,000	7.0%	1,532,000	16.7%	2,180,000	23.7%
Total	937,000	0.8%	2,361,000	2.0%	3,298,000	2.7%

* National Institute of Health website-downloaded February 24, 2010

The estimated prevalence of blindness and low vision by district office is presented in Table 4. As might be expected, the Charlotte, Winston-Salem and Raleigh district offices have generally higher numbers of citizens who are blind and low vision than the other four district offices. To illustrate the numbers of the Table 4, a graph that compares estimated prevalence of blindness and low vision for each district office by age group is included (see Figure 2).

Table 4

Estimated Prevalence of Blindness and Low Vision by Adult Age Group by DSB District
Office.

North Carolina		Asheville	Charlotte	Wilmington	Fayetteville	Greenville	Raleigh	Winston-Salem	State Totals
35-44	Total	132,697	320,603	122,141	116,617	111,379	271,209	266,162	1,340,808
	Blind	106	256	98	93	89	217	197	2,836
	LV	199	481	183	175	167	407	399	2,011
45-54	Total	140,384	295,021	128,799	111,076	127,190	245,473	270,706	1,318,649
	Blind	140	295	129	111	127	245	271	1,319
	LV	351	738	322	278	318	614	677	3,297
55-59	Total	67,445	121,811	57,654	49,305	56,186	98,772	119,715	570,888
	Blind	67	122	58	49	56	99	120	571
	LV	202	365	173	148	169	296	359	1,713
60-64	Total	60,325	102,895	51,320	41,261	47,117	79,051	102,368	484,337
	Blind	181	309	154	124	141	237	307	1,453
	LV	543	926	462	371	424	711	921	4,359
65-74	Total	88,369	118,258	72,054	54,674	63,358	85,807	135,680	618,200
	Blind	442	591	360	273	317	429	678	3,091
	LV	1,679	2,247	1,369	1,039	1,204	1,630	2,578	11,746
75-84	Total	58,654	67,705	43,562	33,444	39,955	46,722	82,756	372,798
	Blind	1,760	2,031	1,307	1,003	1,199	1,402	2,483	11,184
	LV	4,692	5,416	3,485	2,676	3,196	3,738	6,620	29,824
85 and above	Total	24,006	27,594	14,567	12,167	15,676	18,813	33,066	145,889
	Blind	1,920	2,208	1,165	973	1,254	1,505	2,645	11,671
	LV	4,321	4,967	2,622	2,190	2,822	3,386	5,952	26,260

Figure 2

Prevalence of Persons who are Blind and Low Vision by Age and District Office. *
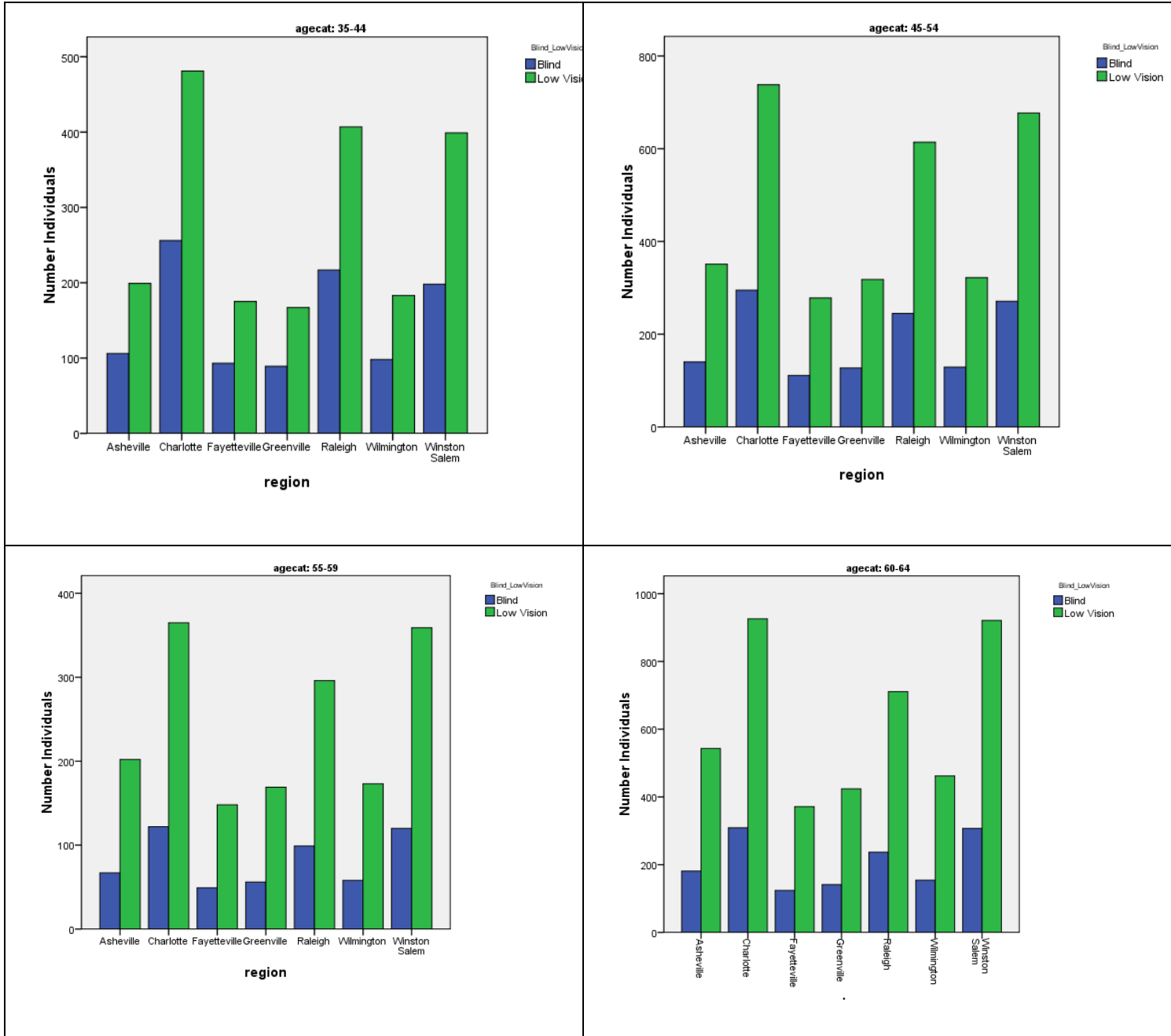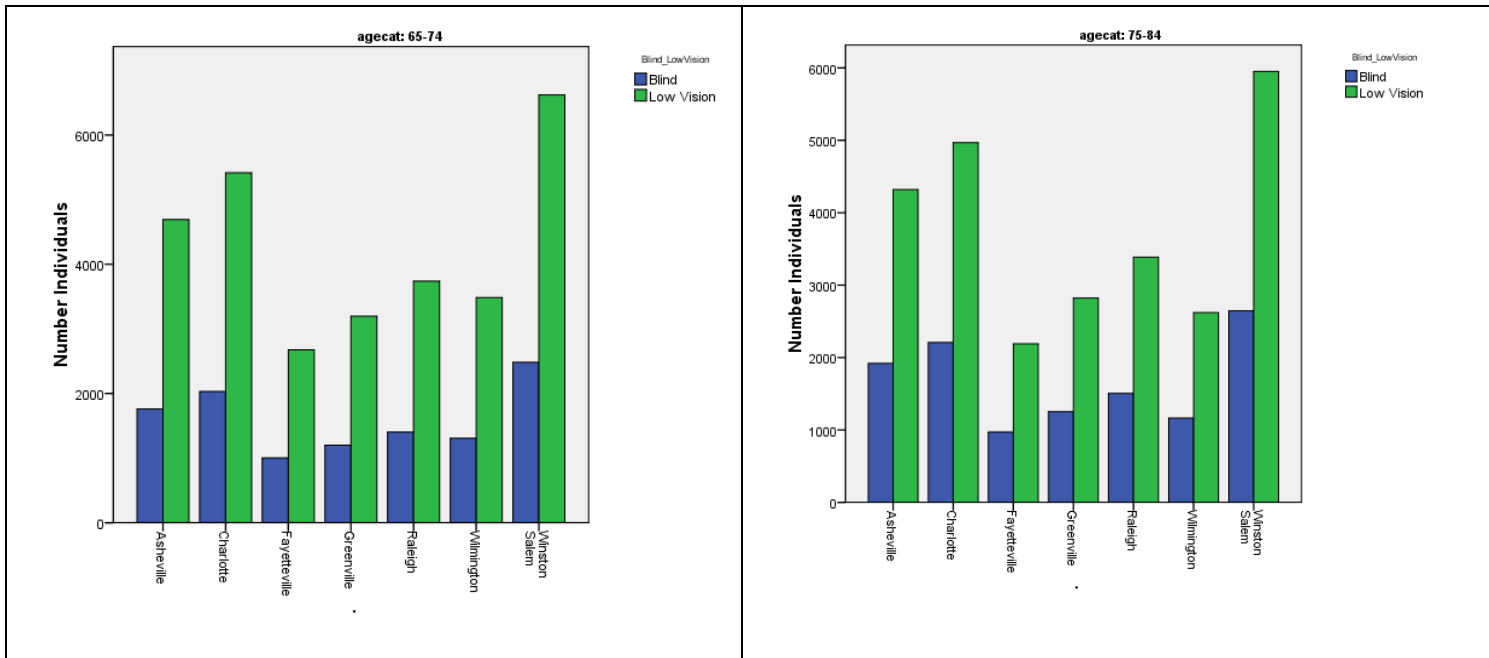
* Note that the scales (left column) describing prevalence increase as age increases.

The DSB also organizes state services into four administrative areas. This is accomplished by combining the Asheville/Charlotte district offices (Area I); Winston-Salem district office is both a district and Area II office, the Raleigh/Fayetteville district offices (Area III), and the Greenville/Wilmington district offices (Area 4). With this organization, Areas I and III are slightly higher in number of residents who are blind or visually impaired while Areas II and IV are somewhat lower in incidence (Table 5). To illustrate the data represented in table 5 a graph of this information is included (see Figure 3). It is noteworthy that Area I (Asheville) has relatively greater numbers of individuals who are blind and low vision over the age of 85. This is related to the higher number of older people (age 85 and over) in that area and not to a higher risk of blindness or low vision.

Table 5

Estimated Prevalence of Blindness and Low Vision by Age Group for each DSB Area

North Carolina		Area I	Area II	Area III	Area IV	Totals
35-44	Total	453,300	266,162	387,826	233,520	1,340,808
	Blind	363	1,976	310	187	2,836
	Low Vision	680	399	582	350	2,011
45-54	Total	435,405	270,706	356,549	255,989	1,318,649
	Blind	435	271	357	256	1,319
	Low Vision	1,089	677	891	640	3,297
55-59	Total	189,256	119,715	148,077	113,840	570,888
	Blind	189	120	148	114	571
	Low Vision	568	359	444	342	1,713
60-64	Total	163,220	102,368	120,312	98,437	484,337
	Blind	490	307	361	295	1,453
	Low Vision	1,469	921	1,083	886	4,359
65-74	Total	206,627	135,680	140,481	135,412	618,200
	Blind	1,033	678	702	677	3,091
	Low Vision	3,926	2,578	2,669	2,573	11,746
75-84	Total	126,359	82,756	80,166	83,517	372,798
	Blind	3,791	2,483	2,405	2,506	11,184
	Low Vision	10,109	6,620	6,413	6,681	29,824
85 and above	Total	51,600	33,066	30,980	30,243	145,889
	Blind	4,128	2,645	2,478	2,419	11,671
	Low Vision	9,288	5,952	5,576	5,444	26,260

Figure 3

Estimated prevalence of blind and low vision (combined) by age and area
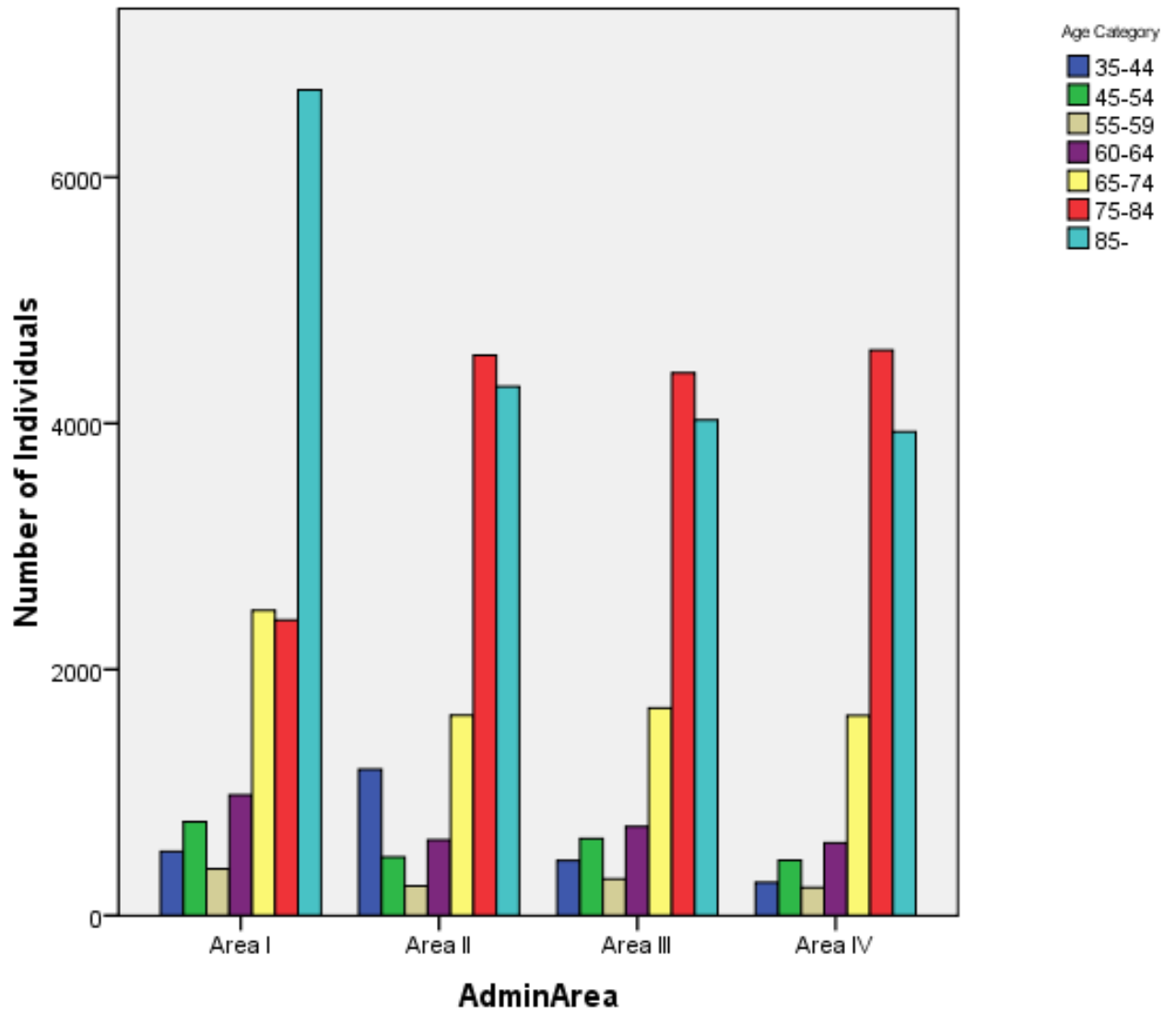
Blind Register. In addition to the census and Social Security information the state maintains a "blind register." North Carolina General Statute 111-4 requires that all persons with the following visual acuities be listed on the Blind Register (commonly called the Register).

- Visual acuity of 20/70 or worse in the better eye with best correction.
- A field of vision in the better eye to such an extent that its widest diameter subtends an angle of no greater than 30 degrees.
- Visual acuity of 20/50 in the better eye with best correction with one or more of the following eye conditions: Cataract, Nystagmus, Diabetic Retinopathy, Optic Atrophy, Glaucoma, Retinal Degeneration, Keratoconus, Retinitis Pigmentosa, Macular Degeneration

The Register Clerk, who is housed in the DSB State Office, is responsible for listing all eligible persons on the Registry based on information from DSB 1010: Registrant Data Form. The Clerk also uses information from eye reports submitted by DSB personnel (e.g., nursing eye care consultants, social workers, rehabilitation counselors, and other staff), agencies, eye care providers, and other vendors.

There are 21, 543 individuals who are listed in the 2009 Register, which does not report the ages of registrants. Table 6 represents the top 5 most populated counties as listed in the NC Register of the Blind.

Table 6

Counties with Highest Prevalence of Blindness and Visually Impairment as Listed in the NC State Blind Register

NC County	Blind/Visually Impaired
Wake	1310
Mecklenburg	1257
Forsyth	959
Guilford	951
Cumberland	586

Category Four: Estimates of Individuals Receiving SSI or SSDI by County

This category is divided into two groups: estimates of individuals who are blind or visually impaired and receiving SSI and those receiving SSDI. The former group is presented by district office and county (see Appendix C Table 6a) and based on 2008 Social Security Administration data. The trend of SSI has been variable with a somewhat upward trend over time. (See figure 4) Note that SSI defines blindness as 20/200 vision or less in the better eye with best correction or a visual field that is 20 degrees or less, even with corrective lens (Lewis, 2009).

Figure 4:

Entry rate of SSI blind and disabled, by age group, 1980–2003

Number per thousand
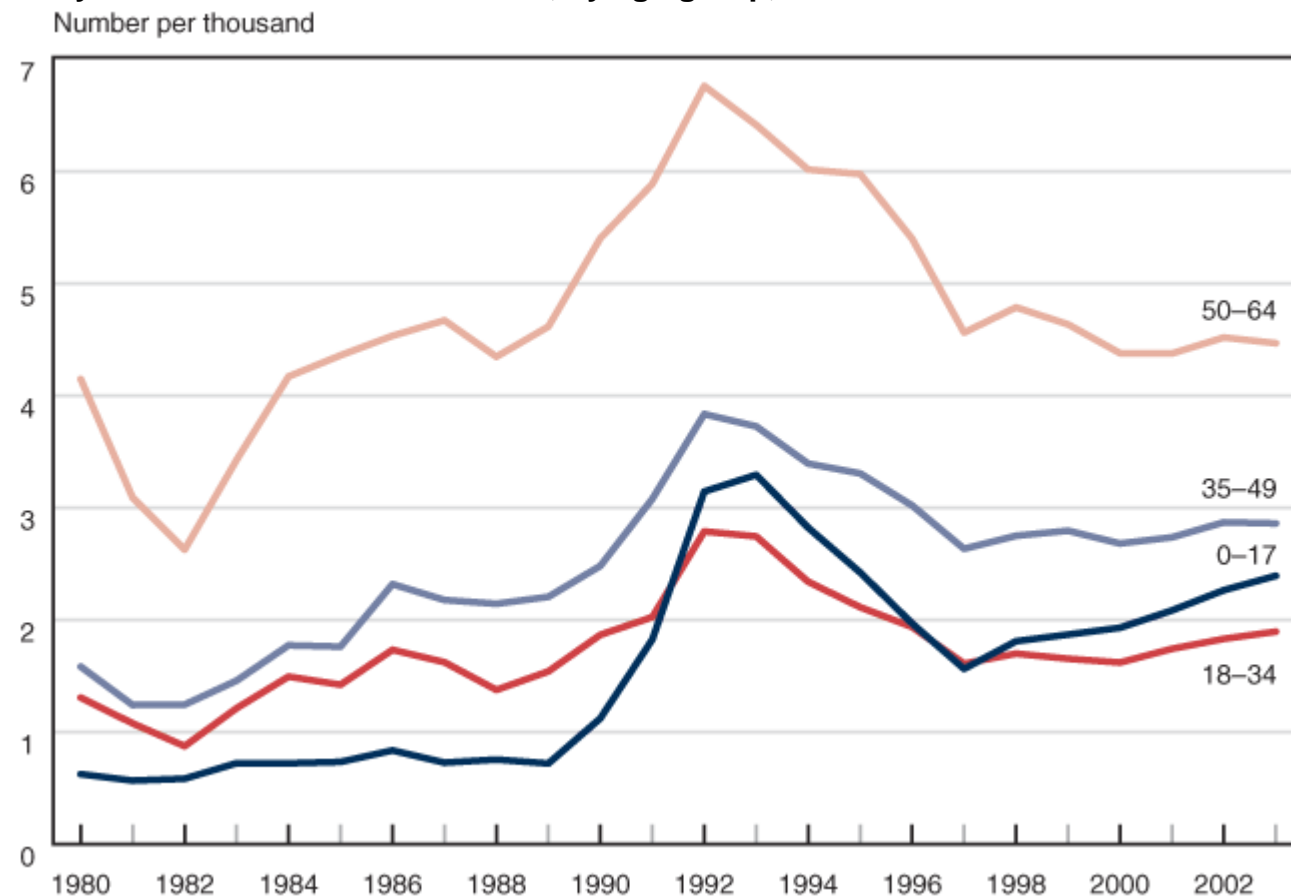
SOURCE: *2004 Annual Report of the Supplemental Security Income Program*, Tables IV.A1 and IV.B2.
NOTE: The incidence rate is the number of blind and disabled SSI entrants per 1,000 in population. The reference population is the "Selected Social Security Area Population" of the appropriate age group and includes the population of the United States and several additional areas. See the glossary for a complete definition

The rate of entry of blind and disabled SSI recipients, regardless of age, increased in the late 1980s and early 1990s, showing that population growth and a changing age distribution cannot explain all of the growth of the SSI program. It is possible that the recession that peaked in the early 90s may have influenced these trends.

Number of SSDI Recipients 2002-2009 in NC

The trends of SSDI recipients are also of interest. Table 7 demonstrates the increase in SSDI recipients from 2002 to 2009. The trend for this group is to experience an increase of just over two percent per year.

Table 7

Number of SSDI Recipients 2002-2009 in NC

2002	2003	2004	2005	2006	2007	2008	2009
162,635	166,370	169,259	173,935	178,418	184,429	188,320	192,243
Increased%	2.30%	1.74%	2.76%	2.58%	3.37%	2.11%	2.08%
http://www.socialsecurity.gov/policy/docs/statcomps/ssi_asr/2008/exp_toc.html							

Summary and Trends

The demographic information presents a picture of North Carolina as a state in change. While Whites are the majority in 93 counties there are 7 counties where Blacks or African Americans are the majority. The increase in minorities that is changing the demographics of the state. At this time, approximately 25% of the population is Black or African American and Hispanic. Given the continued in-migration and patterns of residing (about half are in rural counties) of Hispanics, the number of minorities is expected to increase in rural as well as urban areas (NC Rural Economic Development Center, Inc., 2005).

As the population ages, the prevalence of both blindness and low vision is expected to increase, especially among those over age 80. Serving this population is a geographic challenge as reflected in the urban/rural divide. There are three districts and two area offices that have comparatively greater populations to serve. However, the other district and area offices have lower populations to serve over a greater geographic

area. In either situation professional staff face challenges to meet the needs of those in their areas. .

The Blind Register does not appear to be an accurate tabulation of persons who are blind in NC.

The number of individuals who will be eligible for SSI and SSDI will continue to increase.

Recommendations

Plan for a continued increase in the number of clients who are minorities, especially Hispanic. Recruit and hire bilingual staff, provide multi-cultural training to include attitude and values clarification as well as sources to find additional information relevant to different cultures.

Plan for an increase in the demand for elderly blind services, especially in the mountains (Ashville District).

Plan for continued increase in referrals from clients who are receiving either SSI or SSDI. Identify disincentives posed by threats to continuation of benefits and develop strategies for personnel to use in the delivery of services (including information about the Ticket to Work program).

Unserved and Underserved Populations

> ***People who are unserved are those who do not know (about services).***
> Interviewee

Research Question 2: Who are the Unserved and Underserved Populations?

This section describes individuals who have not received services (the unserved) and those who may have received some services (the underserved). Comments from DSB personnel survey questions 11-15, and focus group and interview questions 3-5 are included and presented first. In addition we examined the major religions and languages spoken in NC to contextualize this topic. The summary section concludes with a synthesis of both qualitative and quantitative data.

DSB Personnel Survey Section 5 Unserved and Underserved Populations.

Question 11: From your experience, who do you believe to be unserved populations of individuals who are blind or have low vision (e.g., who do you know that is not using our services and could benefit from them)?

There were 50 comments about 5 different topics.

Cultural and linguistic groups (1)

Those with legal issues (4)

Need for PR and outreach (3)

Other (7) includes people rejected by case manager, people who are deafblind, and those who do not accept their vision loss.

Specific groups mentioned (27) include Hispanic (8), students in transition (5), and those in rural areas (3). Others included Asians, Laotians, elderly and those in assisted living, working individuals, deaf community that become visually impaired, and those with mental illness.

Question 12: From your experience, who are underserved populations of individuals who are blind or have low vision (e.g., who do you know that could benefit from our services)?

There were 34 comments with one who stated *I think our agency tries to reach out to most every population.* The remaining 33 covered 4 topics.

Those who do not know about services (1)

Those with legal issues (1)

Other (5) groups because *not enough doctors refer* and

Eligible older adults who resist any public programs feeling they are "welfare".

Folks who do make it through the maze for disability do not want to risk all that hard work and effort to try a job which probably won't cover their insurance.

Specific groups mentioned (27) that includes Asians (3), children in transition (4), elderly (5), Hispanic (6), native Americans (2), deafblind, newly blinded, low income, African Americans, parents of children in counties without VI services, people with multiple disabilities, and those with low income or education.

Question 13: Are there services that you feel are needed for unserved and underserved populations?

32 (72.7%) responded yes and 12 (27.3%) no. There were 31 comments with 3 that expressed unserved and underserved population needs are for *the same services that we already provide.* The remaining 28 covered 9 areas.

Bilingual staff (1)

Cultural (1)

Medical (1)

Other (3) included a need to serve those with multiple handicaps *and Health Care so that folks, who have finally qualified for Disability, may be willing to try work since they wouldn't be risking their health insurance.*

Some way for undocumented employees to prove income limits so their legal offspring can receive services.

PR and outreach (6)

<u>Specific service mentioned</u> (9) include referral to VR, transition summer programs, job referral and training, recreation, and services for preschool children.

<u>Technology</u> (2)

<u>Training</u> (1)

<u>Transportation</u> (4)

Question 14: Are there barriers to the provision of services to the unserved and underserved populations?

31 (73.8%) responded yes and 11 (26.2%) no. There were 32 comments that addressed 6 barriers.

<u>Administrative</u> (4) barriers were about budget limitations.

<u>Awareness</u> (2) is lacking in the general public.

<u>Language</u> (11) also includes cultural barriers.

<u>Legal status</u> (2)

<u>Other</u> (9) included lack of medical eye care, ILS, VR, trained personnel, and trust (of DSB).

<u>Transportation</u> (4)

Question 15: What can the NCDSB agency or your local office do to improve the provision of services to underserved individuals who are blind or have low vision?

There were 28 comments with 2 that expressed *the services that we provide are what we can continue to provide for these groups*. The remaining 26 described 5 improvements.

<u>Collaboration</u> (2) with school systems and community agencies.

<u>Funding</u> (2) needs to be increased.

<u>Other</u> (6) needs to include more local staff, agency discussion, cases accepted, advocacy, transportation, and materials in Spanish.

<u>PR and outreach</u> (12) to include PSAs, educational programming, television ads, local workshops, school and doctor contacts, and better relations with tribal health agencies.

<u>Staff development</u> (4) to include classes in Spanish (2).

Interviews and Focus Groups Section 3: Populations who are Unserved and Underserved

Question 3 From your experience, who do you believe to be unserved populations of individuals who are blind and visually impaired? (e.g., who do you know that is not using our services and could benefit from them?).

There were 22 comments and one stated *I do not know anyone like me*. The remaining 21 were about 4 topics.

Counselor lacks skills (1) One person commented,

> *People (counselors) who are in positions act like they are, up there, superior* (gesturing with their hands going up high in the air). *Counselors will turn you down for services and they do not know what they are doing. The counselors do not know what to tell you when you present a problem that you are going through.*

Those who do not know about services (3) All 3 are exemplified by the following.

> *The unserved population are probably the people who don't know where to go for help. When I went to the eye doctor, they told me about a* (private) *organization that may help I did not qualify for their help because they felt I had to potential to make too much money* (in my current job). *The eye doctors did not even tell me about Services for the Blind. I do not know if they know they exist.*

Other (2) were about clients that need a job and not education and one person who worked but did not receive services.

Specific groups (15) included those who have stopped asking for services, students in transition (4), Hispanic, Black, family centered cultures, older people, and people who cannot drive. One person summed this topic by stating:

> *Psychological element involved. People who do not want to be recognized as being blind. Do not want to be pitied but want support. Objectives or priorities for NCDSB—need to focus on rural areas and Hispanics. Schools—ex. of teacher with VI training who brought in Hispanic girl/family. Language barrier* (Spanish).

Question 4 From your experience, who are underserved populations of individual with visual impairments? (e.g., who do you know that could benefit more from our services?)

> ***The underserved are probably people who do not know how to ask for all that they need.***
> Interviewee

There were 13 comments about 5 topics.

MDs do not know about services (1)

Need an advocate (3)

No services available (4) one person commented:

> *A lot of the issues are not indigenous of only blind people but everyone cannot get in the city. Transportation is a terrible problem for people trying to get around, especially in the rural areas.*

Other (4) Topics included the Cherokees, those who do not receive paid services or need assistive technology.

Resistance (1) One person commented:

> *Across all ages and seniors…ex of his father who is 92 with Macular Degeneration who cannot accept the fact that is happening to him. He refuses to accept help. Of the underserved population, 50% would be resistant.*

Question 5 What do you see as the VR service needs for individuals who are blind and visually impaired who are unserved and underserved?

Question 5 has 2 parts: service needs and suggestions of how to meet the needs.

Service Needs. There were 15 comments about 6 different needs.

Access (1) to web pages.

Administrative (4) Include broaden eligibility requirements, loosen guidelines, and increase funding.

Attitude (5) Improve the attitudes of DSB personnel regarding provision of services and knowledge of blindness.

Need to know about services (2) Rural and elderly populations.

<u>Overcome stigma</u> (1) Older people are reluctant to seek services due to stigma.

<u>Transportation</u> (2)

How to meet the needs. There were 7 suggestions in 4 areas.

<u>Expand services</u> (1)

<u>Other</u> (3) suggestions included:

- *If people are willing to go and try everything to get help then, they should be given some help.*
- *I am almost sure that they* (services) *will change by consumer request because we have consumers who are more informed and can access information via internet. I think they are going to make their voice heard.*
- *A better understanding between the different agencies that provide services. It takes a concerted effort on the parts of everyone who is in a position to provide assistance if they qualify.*

<u>PR</u> (1)

<u>Staff development</u> (2) Both suggested helping counselors to do their job better.

Language

Language is an important cultural indicator and may be a factor in a client's access to services or receipt of all needed services. The primary language spoken in NC is English (92%) with other languages represented as Spanish (5%), Asian (<1%), and other (3%; US Census, 2000). Table 8 shows the counties with the highest percentage of a spoken language. The highest concentrations of Spanish is in Caswell County with 26% of the residents using Spanish as the primary language. For distribution of languages spoken by county see Appendix C Table C7.

Table 8

NC Counties with Highest Percentages of Spoken Languages

NC County	English		Spanish		Asian		Other		Total	
	N^1	$\%^2$	N	%	N	%	N	%	N	%
State total	6,910	92%	379	5%	13	<1%	200	3%	7,501	100%
Mecklenburg	561	87%		7%	5	<1%	34	5%	645	45,065
Jones	9	99%	0	0.00%	0	0.00%	50	0.53%	9,360	100.00%
Caswell	21,300	73,30%	7,605	26.17%	0	0.00%	155	0.53%	29,060	100,00%
Orange	99,035	88.50%	5,880	5.25%	2,445	2.18%	4,550	4.07%	111,910	100.00%
Durham	179,175	86.46%	17,070	8.24%	1,945	0.94%	9,045	4.36%	207,235	100.00%

[1] Numbers represent thousands

[2] Percents are rounded

Religion

Another indicator of culture is the institution of religion. One segue to serving minorities is through their church. Therefore, we examined this topic using six categories (see Table 11). Evangelical Protestant (25.5%) is the most practiced religion followed by Mainline Protestant (14.5%) and Catholic (3.9%). The largest group is unclaimed (54.7%). A complete list of religions practiced in each county in NC is listed in Appendix C Table 8a.

Table 9

Religions Practiced in North Carolina

Religion	Number	Percent
Evangelical Protestant	2045910	25.5%
Mainline Protestant	1163720	14.5%
Catholic	315754	3.9%
Orthodox	9260	0.1%
Others	96963	1.2%
Unclaimed	4395831	54.7%
Total	8027438	99.9%

Summary

Comments from DSB personnel, focus groups and individual interviews have several common themes as regards persons who are unserved or underserved. First, the **descriptions of the population** from all three groups contain references to:

- cultural and linguistic minorities, specifically Hispanics, African Americans or Blacks, and Asians;
- individuals with legal problems most often immigration (right to work);
- elderly (especially those who have not accepted their blindness, who perceive DSB as some type of public assistance (welfare) or those in assisted living);
- individuals who are not aware of the services provided by DSB and medical doctors who are unaware and consequently do not make referrals;
- students in transition especially those who live in counties with no or limited services for students with visual impairments;
- members of the Deaf community who become blind and others who are deaf blind; and

- individuals from rural areas and/or those from lower socioeconomic circumstances.

Interview and focus groups identified three other factors: the importance of a skilled counselor; the need for an advocate; and the many people who do not receive services. For all of these groups, the loss of vision increases vulnerability and may limit the quality of life. Visual impairment decreases independence in performing the activities of daily living, getting from place to place and consequently, these groups are often neglected.

Not specifically mentioned but worthy of inclusion are teenagers and working age adults, particularly those who are newly diagnosed. This diagnosis creates concerns about the individual's ability to maintain gainful employment, continue to drive, and participate in activities of daily living. Newly diagnosed teenagers (14-18) are often underserved because of their denial of vision loss resulting in peer pressure and the sense of needing and wanting to fit in with friends and peers. Both teenagers and adults may experience isolation, depression, poor social relationships, and vulnerability which in turn may cause minimal social contacts and a limited social network (Wilkinson, 2004).

Similar **service needs** were identified by all three groups and these include:
- Administration needs to loosen eligibility requirements for services;
- Cultural awareness to include bilingual staff;
- Increased medical services;
- Increased public relations for general recruiting and outreach to specific groups (listed above);
- Specific services for students in transition;
- Job referrals and training in how to get a job;
- Recreation;
- Assistive technology and related training in its use; and
- Assistance with transportation.

There are numerous **barriers to service**. These include cost of services/insurance, no reason to go and reasons related to access to eye care (CDCP, Vision Health Initiative, 2008). Six different barriers were described by all three groups:

- Administrative (funding and guidelines for services);

- Awareness of potential clients about DSB;

- Language (non-English speakers who need services);

- Legal status (right to work);

- Need for personnel who are trained to work with minorities; and

- Transportation.

Two other influencing factors are the language spoken and practiced religion of persons who are unserved or underserved. Spanish is spoken by about 5% of the population and those of Spanish speaking origin will continue to increase. This has implications for client recruitment and service provision. The dominate religion practiced in NC is Evangelical Protestant, which needs to be identified as a potential source of referrals and studied to determine its view of disability.

All three groups suggested that DSB focus on four areas to **improve services.** These are included in the recommendations.

Recommendations

The following are from the interviews and focus groups:

- Collaborate with other agencies to provide services and outreach to specific communities;

- Provide adequate funding to purchase assistive technology, provide travel funds for staff, and expand services;

- Conduct various types of public relations (such as television ads, public service announcements, free vision screenings) and outreach to schools, churches and other places to inform potential clients of DSB services; and

- Develop staff to meet the needs of cultural and linguistic minorities.

An additional recommendation is to add different religion's view of disability to multicultural training offered to DSB personnel.

Prevalence Rates of Vision Loss

> *The number of people served is increasing because of the baby boomers. Not enough staff to work with the population.*
> An interviewee

Research Question 3: What is the prevalence and trend of vision loss?

This section addresses the issues of prevalence and trends of blindness and vision loss. Prevalence data is based on figures from the U.S. Census Bureau, (2009) and the trend data is from the supplemental security income report (U.S. Social Security Administration, 2010).

The leading causes of visual loss in the United States are age related disorders and the aging of the baby boomer generation is projected to result in a marked increase in blindness and low vision. The number of individuals diagnosed with a vision loss is expected to more than double within the next three decades. Although individuals age 65 and over comprise only 12.8% of the U.S. population, they account for 30% of all those with a vision loss. Similarly, vision loss affecting minority and ethnic groups is also greater related to a disproportionate lack of access to health care.

Another contributory factor is overall health problems of the population. For example, in 2008 North Carolina ranked 17th highest for adult diabetes in the country. As a result, diabetic retinopathy is a leading cause of blindness in North Carolina. An estimated 643,000 North Carolinian's or 9.3 % of the total state population had diagnosed diabetes in 2008. The prevalence rates by race are: African Americans 15.6, Native Americans 12.4, and Whites 8.4. Due to overall problems with health (e.g., diabetes) different conditions of the eye (such as diabetic retinopathy) are on the rise...

The leading causes of vision loss in the United State are macular degeneration, diabetic retinopathy, glaucoma, and refractive errors (myopia and hyperopia). All of

these conditions are age related and therefore the prevalence rates are based on adults 40 and older (Table 3). Table 13 (see also Figure 4) presents a comparison of the prevalence causes of blindness and low vision, myopia, hyperopia, macular degeneration, cataracts, diabetic retinopathy and open angle glaucoma by gender and ethnic group (U S Census, 2008).

Table 10

North Carolinians Age 40 and Older: Variation in Etiology of Blindness and Low Vision by Gender and Ethnic Group

Condition	Entity	Total	Female	Male	White	Black	Hispanic	Other
Age 40+	US	130,048,048	68,978,846	61,069,202	99,340,825	13,412,332	11,303,843	5,991,048
Age 40+	NC	3,725,433	1,996,481	1,726,952	2,851,491	696,496	89,198	88,248
VI*	NC	94,758	62,098	32,660	73,944	16,428	1,183	3,203
LB*	NC	28,636	17,533	11,103	20,611	6,931	172	923
Myopia	NC	924,549	504,299	420,250	788,960	103,593	17,294	14,703
Hyperopia	NC	356,396	218,994	137,402	311,019	35,626	4,668	5,083
MD*	NC	56,515	38,065	18,450	48,840	6,976	286	412
Cataracts	NC	624,510	390,072	234,438	515,526	92,332	7,086	9,566
DR *	NC	124,896	65,717	59,180	89,749	28,293	4,217	2,637
OAG*	NC	69,683	42,199	27,484	44,002	23,381	884	1,416

*Legend: VI=visually impaired, LB-legally blind, MD=macular degeneration, DR=diabetic retinopathy, OAG=open angle glaucoma

Figure 5

Prevalence of Specific Visual Problems by Gender and Race for Individuals 40+
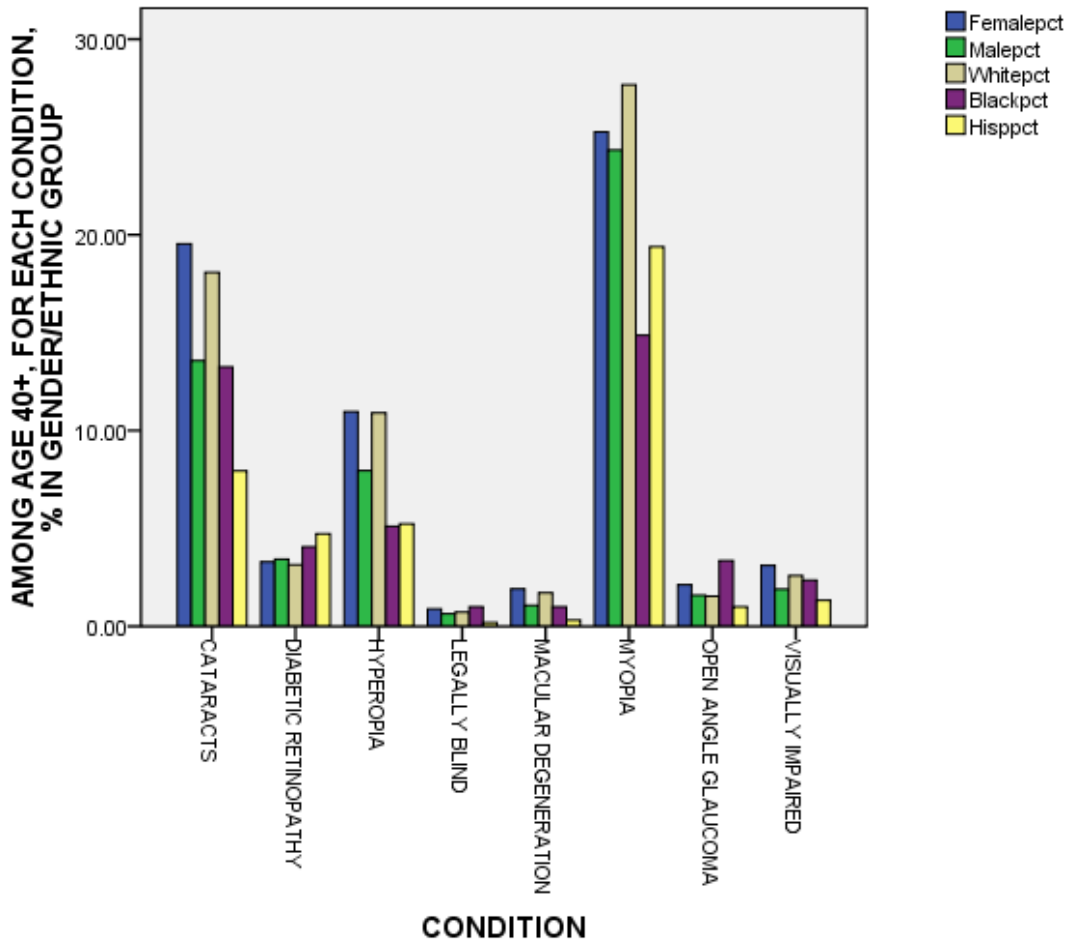
Table 10 illustrates that white people, both male and female, are at higher risk for myopia, cataracts, and hyperopia. Blacks or African Americans are at a slightly higher risk for open angle glaucoma. Myopia is lower among Blacks and to a lesser extent Hispanics. Also, cataracts occur less frequently among Hispanics and are somewhat less frequently occurring in Blacks as well.

U.S. Census (2004), estimated number of cases of myopia in North Carolina's population, age 40 and older is 924,549. Myopia is common and affects more than 32 million Americans age 40 and older. Prevalence is greater for women through age 60

when rates become more comparable between genders. Myopia affects more whites than other races, and is generally less frequent with age.

U.S. Census (2004) estimated number of cases of hyperopia in North Carolina's population, age 40 and older is 356,396. Hyperopia is less common and affects more than 12 million Americans age 40 and older. Prevalence of hyperopia increases with age and is most frequent in Whites but also affects Hispanics more often than Blacks.

Cataracts affect over 22 million Americans age 40 and older, or about one in every six people. By age 80, more than half of all Americans will have cataracts. Cataracts are more common in women than in men and somewhat more frequently affects Whites more than any other race, particularly with increasing age. The estimated number of cases of cataracts in North Carolina in those age 40 and older is 624,510.

US Census (2004) estimated number of cases of diabetic retinopathy in North Carolina's population, age 40 and older is 124,896. Diabetic retinopathy can affect almost anyone with diabetes. The U.S. Centers for Disease Control and Prevention (CDC) estimate that 10.3 million Americans have diagnosed diabetes, while an additional 5.4 million have diabetes that have not been diagnosed. Diabetic retinopathy affects over 4.4 million Americans age 40 and older. In North Carolina, more than 44 percent of adults (age 40 and older) with diabetes reported some visual impairment in 2006. According to NC Diabetes Prevention & Control Fact Sheet (2009), diabetic retinopathy may be on the rise and one-third of all people with diabetes report they may have retinopathy. More than 17% of NC adults with diabetes reported that diabetes affected their eyes or experienced diabetic retinopathy in 2008. Prior to age 40, diabetic retinopathy affects Whites more frequently than other races. In the last decades, Hispanics are most commonly affected by the disease. Due to lack of information about diabetic retinopathy in other races, the prevalence estimates for other races are the arithmetic average of those for White, African American/Blacks and Hispanics.

US Census (2004), estimated number of cases of open angle glaucoma in North Carolina's population, age 40 and older is 69,683. Glaucoma affects almost 2.3 million Americans age 40 and older, or about 1.9% of the population. Glaucoma prevalence is clearly related to age and race. Glaucoma is more common in Blacks, Hispanics and with increasing age.

US Census (2004) estimated number of cases of age-related macular degeneration in North Carolina's population age 50 and older is 56,515. Age-related macular degeneration (AMD) is a condition that primarily affects the part of the retina responsible for sharp central vision. Over 2 million Americans age 50 and older have late AMD. Age-specific prevalence rates are initially comparable between races, but advance more significantly for Whites after age 75. In Blacks, the disease is more prevalent in women until about age 75 as well. Because the data are lacking for Hispanics and other races, the rates given for these populations are an arithmetic average of the rates for Whites and Blacks.

The rate of entry of SSI recipients, who are blind and disabled, regardless of age, increased in the late 1980s and especially in the early 1990s. Figure 4 above shows that population growth and a changing age distribution cannot explain all of the growth of the SSI program, especially the notable increases in the early 90s. It is likely that increased incidence of individuals receiving disability were influenced by other factors, perhaps including the recession present in the early 90s.

Summary

Demographic changes significantly influence the way in which our society is structured and as a consequence, impacts the lives of people who are blind or visually impaired as well as the nature of the types of services required. The factors which are likely to impact the future are increasing age of the population, rise in immigration and increase in the number of people relocating into respective communities. As our population, age 40 and over increases, it also brings with it a number of challenges, coupled with declining health and increase in disabling conditions. In North Carolina, the population by 2014 is expected to increase significantly, thus increasing the number of cases of blindness and visual impairment (U. S. Bureau of the Census, Population Division, State Population Ranking, 2009). In North Carolina, the population 18 and over makes up 24.3 percent of the population, age 65 and over makes up 12.4 percent of the population. Whites make up 73.9 percent, Blacks or African Americans make up 21.6 percent, American Indian & Alaska Native make up 1.3 percent and Asians make up 1.9 percent. Of the total population of 9,036,449, there is approximately 78.4 percent age 16 and over and approximately 12.2 percent age 65 and older (American Community Survey, 2008). Based on the 73.9 percent population of whites, Whites are most often impaired or blind from age-related macular degeneration (Lee, Gomez-Martin, & Lam, 2004).

This assumption is based on the number of individuals who will be diagnosed with vision loss due to other health conditions such as diabetes. Also, an increase in the number of individuals eligible for SSI and SSDI will increase based alone on the aging population in North Carolina which appears to be increasing. Diabetic retinopathy and glaucoma most likely affecting a larger population of minorities is a high concern for the state. In addition macular degeneration which affects a large majority of the elderly will have an impact on the number of individual who apply for SSDI.

Recommendations

Develop collaborations with medical eye care specialists at both the individual and group levels. At the local level DSB personnel need to develop individual relationships with providers. DSB personnel need to make presentations to various professional organizations such as the NC Optometric Society, NC Society of Eye Physicians & Surgeons, and the like. The purpose of these contacts and presentations is to solicit referrals.

Continue to monitor the etiology of blindness and low vision at referral to provide staff training to meet the needs of clients with various conditions.

Facilitate clients starting and joining support groups relative to their eye conditions. This would benefit clients through increased understanding of their condition and support. Of possible benefit to DSB is that clients may "spread the word" about services.

Employment Outcomes

> *In this economy it has been hard for me to find a job. Even though, they (DSB) have given me the tools on how to handle my disability. I still cannot find a job*. DSB Client

Research Question 4: What are the differences in employment outcomes of clients of who are blind or visually impaired from different racial/ethnic backgrounds?

This section addresses employment outcomes in two areas: employment rates and earnings.

Both employment and wages in the state of North Carolina have fallen over the last year (U. S. Bureau of Labor Statistics, 2009). The minimum wage in North Carolina is

currently $7.25 and the unemployment rate for North Carolina (not seasonally adjusted) is 11.1%, up from 10.9% in December 2009 (Employment Security Commission, 2010). The economy, employment and pay cuts have all attributed to the wage drop (Bureau of Labor Statistics, 2009.). In larger counties in North Carolina average wages fell in Mecklenburg County by 1.1 percent. Wake County wages down by 0.7 percent, in Durham by 1.9 percent and Guilford County by .03 percent. On the other hand, smaller counties in North Carolina saw an increase in wages. Cumberland County wages grew by 2.1, Forsyth County by 1.2 percent and New Hanover County by 1.5 percent (Employment Security Commission of North Carolina, 2009). See table C9 for unemployment figures for all 100 counties in North Carolina.

The following are two tables with the top 10 counties with the highest and lowest unemployment rates as of December, 2009. These rates are not seasonally adjusted. I also listed the district offices unemployment rates.

Table 11

Counties with the Highest and Lowest Unemployment Rates

County	Highest Rate	County	Lowest Rate
Graham	17.6%	Orange	6.2%
Scotland	17.1%	Gates	6.7%
Rutherford	16.9%	Watauga	7.8%
Caldwell	16.7%	Chatham	7.9%
Edgecombe	16.7%	Durham	7.9%
Cherokee	15.5%	Camden	8.2%
Dare	15.5%	Onslow	8.2%
Cleveland	15.1%	Buncombe	8.3%

| McDowell | 15.1% | Hoke | 8.4% |
| Anson | 14.8% | Henderson | 8.8% |

Table 12

Unemployment Rate by DSB District Office December 2009

Area	Unemployment Rate
North Carolina	10.9%
Asheville District Office	8.8%
Charlotte District Office	12.1%
Fayetteville District Office	9.3%
Greenville District Office	10.1%
Raleigh District Office	8.7%
Wilmington District Office	10.6%
Winston-Salem District Office	10.0%

https://www.ncesc1.com/pmi/rates/PressReleases/County/NR_Dec_09_CountyRate.pdf

In 2008, employment among major race and ethnicity groups, with the exception of Asians, was lower than a year earlier. Among the major race and ethnicity groups, Hispanics continued to have the highest labor force participation rate (65.5 percent) in 2008, while the participation for blacks was the lowest at 63.7 percent (Labor Force

Characteristics by Race and Ethnicity Report, 2008). The average earnings for civilians ages 16 and older with disability is $17,449 and the average earnings for individuals without disability is $27,172 which yields the difference in earnings of $9,723 (S. Census Bureau, 2007).

In 2007, the employment rate of working age people with disabilities in NC was 35.6 percent and the employment rate of working-age people without disabilities in North Carolina was 80.5 percent. The gap between employment rates of working age people with and without disabilities was 44.9 percentage points. Among the six types of disabilities discussed, "Sensory Disability" of which visual impairment and blindness belongs, has the high employment rate of 45.3 percent.

Summary

The information informs the researcher that the unemployment rate for individuals with disabilities is extremely high and has not been reduced by the ADA and other efforts to bring the unemployment rate more in line with the unemployment rate for individuals without a disability. The following sites contain information that illustrates the magnitude of this problem in the US.

Recommendations

Continue job development training for counselors and other personnel as appropriate.

Increase in availability of technology for individuals who are blind and visually impaired.

Provide sensitivity training as regards culture and job placement for VR counselors and other personnel.

Training for counselors in accessing community resources which will assist in helping the blind and visually impaired find and maintain employment.

Transportation

> *What we see are the people who need transportation, that's the biggest barrier. The transportation system seems to be difficult in the evening and weekends. Therefore, they cannot access certain shifts to work because of this problem.*
> Interviewee

Research Question 5: What transportation is available for persons who are blind or visually impaired?

Each North Carolina County provides some form of public transportation. This section describes the transportation systems and includes an analysis of the transportation that is available in the counties surrounding DSB district offices. Transportation is categorized into the following types:

- **Community Transportation** assists clients of human service agencies and the general public. Riders call ahead for reservations, since most systems operate on a first-come, first-served basis; whereas, human service agencies prepay and reserve seats for a guaranteed number of passengers. There are 68 rural single-county transit systems in North Carolina.

- **Regional Community Transportation** systems are composed of two or more contiguous counties providing coordinated/consolidated service. 25 counties have rural transportation provided by a regional system. These systems include: Choanoke Public Transportation Authority operating in Bertie, Halifax, Hertford and Northampton counties; Craven Area Rural Transit System - Craven, Pamlico and Jones counties; Greenway Public Transportation – Alexander, Burke, Caldwell and Catawba counties; Inter-County Public Transportation Authority - Camden, Chowan, Currituck, Pasquotank and Perquimans counties; Kerr Area Rural Transportation System - Franklin, Granville, Vance and Warren counties; Regional Coordinated Area Transportation System - Montgomery and Randolph counties; Tar River Transit - Edgecombe and Nash counties; and Yadkin Valley Public Transportation - Davie, Stokes, Surry and Yadkin counties.

- **Urban Transportation** The Charlotte Area Transit System, with its light rail system, is the largest of the 19 urban transit systems operating in North Carolina. Urban transit serves citizens in Asheville, Boone, Henderson, Jacksonville, Salisbury, Wilmington, and Wilson.

  There are five consolidated urban-community (booth urban and rural within the county) transportation systems:

  AppalCART in Boone and Watauga County;

  G.A.T.E.W.A.Y. Transit in Goldsboro and Wayne County;

  Greenway Public Transportation in Hickory, Newton and Conover and Alexander, Burke, Caldwell and Catawba counties;

  Tar River Transit in Rocky Mount and Edgecombe and Nash counties; and

  Wave Transit in Wilmington and New Hanover County.

  Because Greenway Public Transportation serves four counties and Tar River Transit serves two counties, they also are considered **regional community systems** as well as **consolidated urban-community** transportation systems.

- **Regional Urban Transportation** systems connect multiple municipalities and counties and operate in two areas of the state:

  Triangle Transit, based in Research Triangle Park, operating a fixed-route bus service that connects Raleigh, Durham, Chapel Hill and the surrounding area, and Piedmont Authority for Regional Transportation, based in Greensboro, operating fixed-route bus service connecting Greensboro, Winston-Salem, High Point, the surrounding area, and medical transportation to UNC Hospitals and Duke University Medical Center

A breakdown of the different types of transportation shows the following are offered: community (74 counties), regional community (25 counties), urban (25 counties), regional urban (16 counties) and other (4 counties). All 100 counties are in Appendix C Table C12

An analysis of transportation services yields two anecdotal observations that are exemplary of inequities in the system. First, Catawba county which is located in the

western part of the state has at least four forms of transportation as compared to Cumberland county which has three forms of transportation. Cumberland is ranked 5th with a higher percentage of residents who are blind or visually impaired. On the other hand, Wayne County has the same forms of transportation as Wake County but has only about one fourth of the number of residents who are blind or visually impaired.

Available Transportation in Close Proximity to DSB District Offices

In order to examine transportation in proximity to DSB district offices, we included each county that borders the host county for the district office. One of the functional limitations of vision loss is mobility, which is exacerbated by limited public transportation services. Almost 75% of transportation in NC is through community transportation. There is even less available transportation for DSB clients who live in the 35 counties that surround the district offices. 28 counties (80%) offer only the limited community service. For the remaining 7 counties if the client lives in the rural part of the county and off the routes, then access is still an issue (Table 16).

Asheville District Office. Buncombe and Henderson are the larger counties and have community and urban transit systems which provides service in the Asheville area (M-F, 6:00 am to 11: 30 PM). However, Haywood, McDowell and Yancey counties are limited to community transportation. Therefore, DSB clients in the rural areas of the county and outside of the transportation routes are quite limited.

Charlotte District Office. Cabarrus, Gaston, and Mecklenburg counties have community and urban transportation (M–S, 4:49 am to 2:00 am and Sunday 5:25 am to 2:00 am. However the smaller counties, Iredell and Lincoln, are only serviced by community transit systems which includes para-transit and ridesharing. DSB clients who reside outside Cabarrus, Gaston, and Mecklenburg counties have very limited transportation.

Fayetteville District Office. Cumberland county offers community and urban transportation. The other five counties only offer community transportation. Therefore, DSB clients in those five counties have quite limited transportation.

Greenville District Office. The seven counties surrounding the Greenville District Office are all rural counties. Five counties offer contracted community transportation. Craven offers regional community and Edgecombe offers Community and Urban. DSB clients who reside in rural Pitt and the surrounding counties have very limited transportation access.

Raleigh District Office. Two counties have regional community and one has community and urban. The other three counties only have access to community transportation. Therefore, DSB clients in the rural areas and outside of the transportation routes have limited access.

Table 13

Available Transportation in Close Proximity to 7 DSB District Offices by County

Asheville District Office		Charlotte District Office	
County	Types of Transportation	County	Types of Transportation
Buncombe	Community & Urban	Cabarrus	Community & Urban
Haywood	Community	Gaston	Community & Urban
Henderson	Community & Urban	Iredell	Community
McDowell	Community	Lincoln	Community
Yancey	Community	Mecklenburg	Community & Urban
		Union	Community

Fayetteville District Office		Greenville District Office	
County	Types of Transportation	County	Types of Transportation
Bladen	Community	Beaufort	Community
Cumberland	Community & Urban	Craven	Regional Community
Harnett	Community	Edgecombe	Community & Urban
Hooke	Community	Greene	Community
Robeson	Community	Lenoir	Community
Sampson	Community	Martin	Community
		Wilson	Community & Urban
Raleigh		Winston -Salem	
County	Types of Transportation	County	Types of Transportation
Chatham	Community	Davidson	Community & Regional Urban
Franklin	Regional Community	Davie	Regional Community & Urban
Granville	Regional Community	Guilford	Community & Regional Urban
Hartnett	Community	Yadkin	Regional Community & Urban
Johnston	Community	Stokes	Regional

			Community & Urban
Nash	Community & Urban		

Wilmington	
County	Types of Transportation
Brunswick	Community
Pender	Community

Summary

There are five modes of transportation currently running. They include Community, Regional Community, Urban and Regional Urban transportation. Although there 68 rural single-county transit systems in North Carolina, the demand for transportation continues as grow as our communities experience an increase in the number of people moving into these areas. Furthermore the rural single-county transit only transports week days which poses a problem for individuals who are blind and visually impaired who may need transportation to a job on the weekends or late evenings. In an effort to address these needs, the NCDOT is encouraging single county systems to consider mergers to from other regional systems. Demands for transit trips become more regional in nature as regions grow in population and geographic area. Therefore, as the population increases, demand for transportation will become greater for citizens and individuals who are blind and have low vision.

Based on the literature, there appears to be a comparative lack of transportation in the rural areas of North Carolina...
Therefore, individuals with disabilities have to compete for rides with individuals without disabilities and also individuals with other types of disabilities. The list of need for transportation increases as the population increases. .

Recommendations

DSB staff could participate in Health and Human Services Regional Office forums and other community resource forums related to public transportation to advocate for system improvements.

Plan meetings with other community agencies who use transportation in order that an agreement may be negotiated to share a ride in designated areas.

Programs and Services

Research Question 6: What are current and needed programs and services for persons who are blind or visually impaired?

This section addresses several areas. First are the survey responses from DSB clients, DSB personnel, community rehabilitation program administrators and disability navigators. Feedback from interviews and focus groups are also presented.

Individuals who are blind or have low vision need a multitude of services in order to get them on track. Identified themes, key activities and supporting actions are aligned with recommendations in order to guide DSB in effective implementation of services. The needs for adjustment to blindness training which includes O & M services, home and personal management, vocational testing, job training and work adjustment for individuals are crucial. Technology has revolutionized the way in which we live our lives. The necessity for its use has permeated every aspect of our lives, from work to home to home to school and to leisure activities. Technology is playing an ever increasing role in facilitating the independence and inclusion of people who are blind or visually impaired. Its use can be a bridge to participate in society but it can also be a barrier to inclusion. However, an understanding and practice among the providers of services and employers of people who are blind can be fostered and support in such a way to ensure that their services are accessible to people who are blind or visually impaired. Furthermore, informed application of technology by businesses and service providers could alter the way DSB works and provide key services to their clients.

DSB Client Survey Analysis

> *(DSB) advised me that my condition did not mean that I was never going to be able to work. They taught me that there are others out there with my same condition, and that many good companies are aware of it.*
> DSB client

1138 clients were invited to participate and 94 responded, which yielded an 8.3% response rate. This survey consisted of 33 questions arranged in 5 sections: 1) experiences with DSB, 2) DSB Services, 3) any complaints, 4) final comments and 5) basic information. Due to the low N responses to strongly agree and agree were combined as were the responses disagree and strongly disagree. This combination provides for agree/disagree comparison... Example comments are provided for clarification. .

Section 1 Tell us about your experiences with NCDSB

Question 1 DSB helped me to learn/know about my disability and how it affects me. 54 (58.7%) agreed, 15 (16.3%) disagreed, and 23 (25%) responded neutral to the question. There were 15 comments. Neutral responses were similar to:

> *this (question) doesn't apply to me, since I am middle-aged and been blind all my life, but I think someone younger or new to blindness would strongly agree with this or*
>
> *I already knew most of what I needed to know about my disability before I came to North Carolina.*

NCDSB helped me to learn/know about my disability and how it affects me.

strongly agree
agree
neutral
disagree
strongly disagree
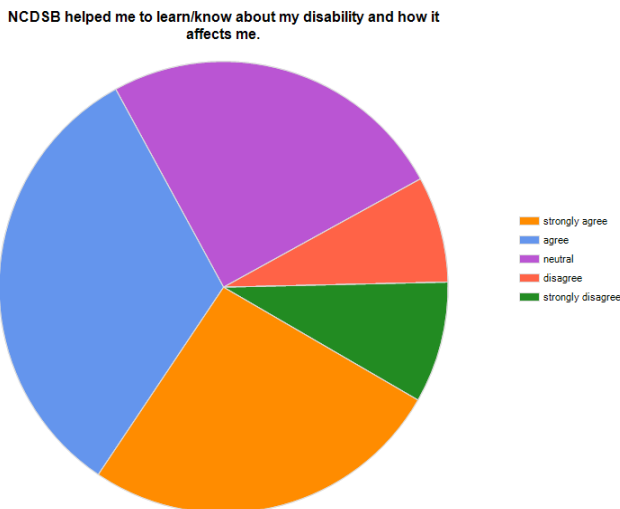
Question 2: DSB helped me to understand myself better.

47 (51.7%) agreed, 21 (23.1%) disagreed and 23 (25.3%) responded neutral. There were 12 comments. One affirmative comment was *My Evaluation was a true eye opener on my present skills and strong points and also my weaknesses*.

NCDSB helped me to understand myself better.

- strongly agree
- agree
- neutral
- disagree
- strongly disagree
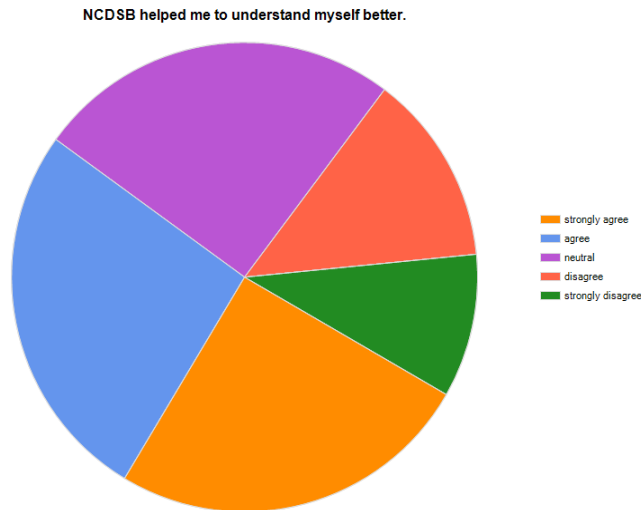
Question 3: – NCDSB helped me to make decisions about work.

59 (67.1%) agreed, 16 (18.2%) disagreed and 13 (14.8%) responded neutral. There were 14 comments (8 positive, 2 negative and 3 observations). An example of each follows:

Positive-*(DSB) advised me that my condition did not mean that I was never going to be able to work. They taught me that there are others out there with my same condition, and that many good companies are aware of it.*

Negative-*I am in graduate school earning a Master of Arts and plan to teach school. NCDSB had no influence on that decision.*

Neutral-True. *But (I) did not listen because I am a carpenter.*

NCDSB helped me to make decisions about work.
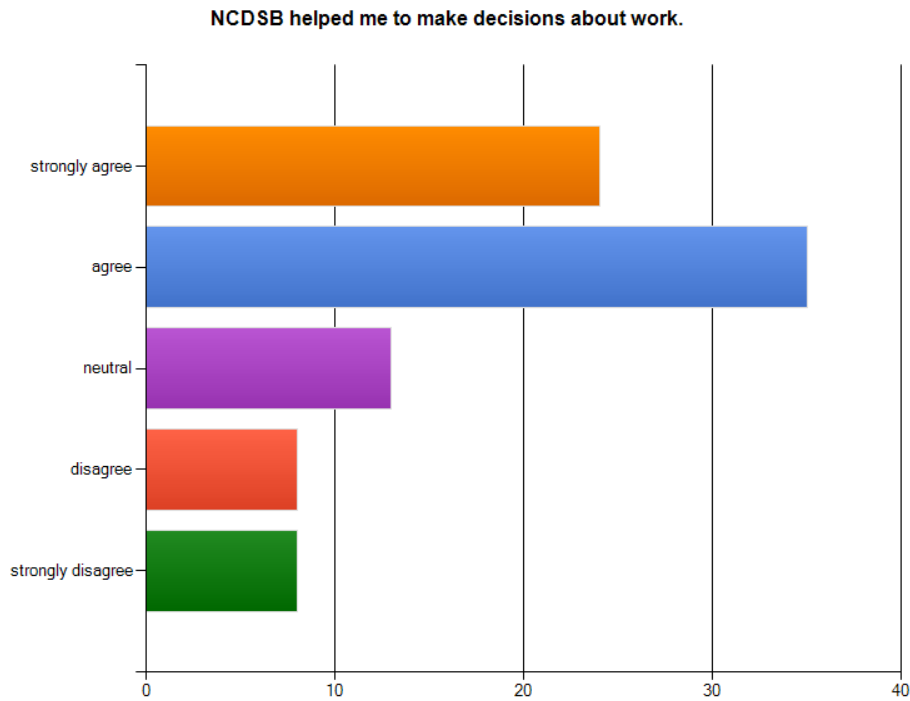
Question 4: NCDSB helped me to feel more independent with my daily living skills. 58 (60.7%) agreed, 14 (14.9%) disagreed and 22 (23.4%) responded neutral to this question. There were 10 comments. An example of a neutral comment: *I was already doing the best I could.*

NCDSB helped me to feel more independent with my daily living skills.
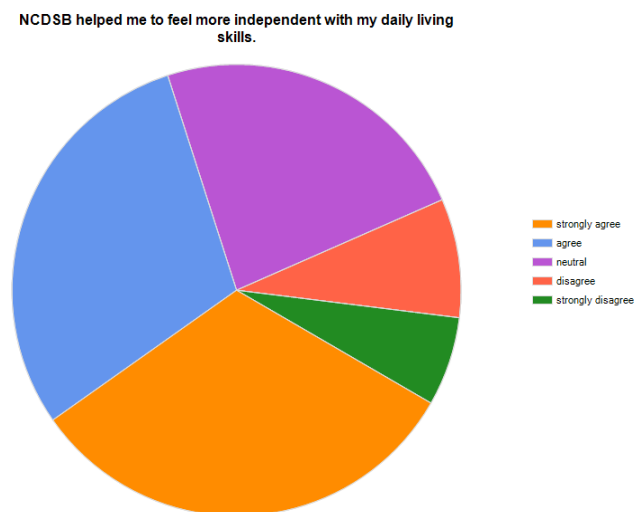
Question 5: NCDSB helped me to become better able to interact with others.

50 (55.6%) agreed. 20 (22.2%) disagreed, and 20 (22.2%) responded neutral. There were 10 comments. The disagree and neutral responses are exemplified by *I do not remember* (2 comments) and

Never discussed it. Cause I have always been able to interact with others my whole life. Just because I am blind in one eye do not mean I am not able to interact with others

NCDSB helped me to become better able to interact with others.
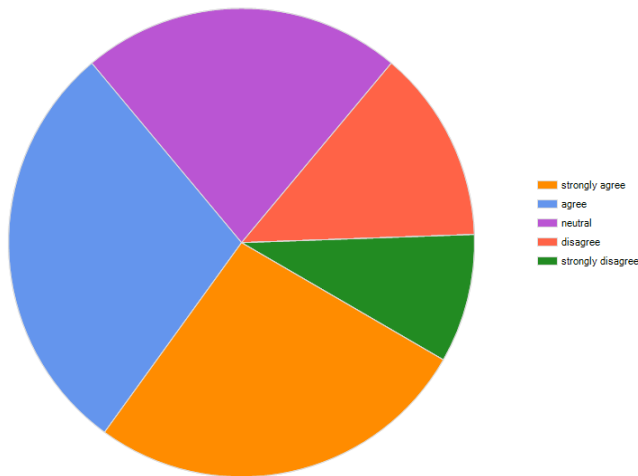
Question 6: NCDSB helped me to be able to use technology.

51 (56.7%) agreed, 18 (20%) disagreed and 21 (23.3%) responded neutral. There were 10 comments (9 positive and 1 negative).

NCDSB helped me to be able to use technology.
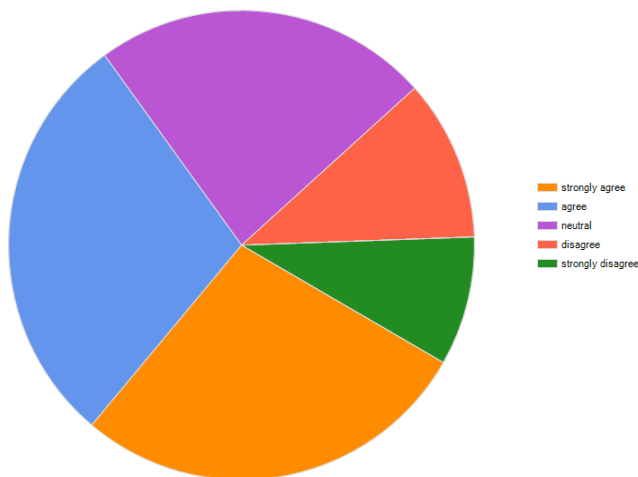
Question 7: NCDSB helped me to know how to get and keep a job.

37 (41.1%) agreed, 29 (32.2%) disagreed and 24 (26.7%) responded neutral. There were 16 comments and most were neutral with explanations of still looking or in school. One negative comment was *I had held a number of jobs before moving to NC. I found my experience in this area to be less than satisfactory*.

NCDSB helped me to know how to get and keep a job.

- strongly agree
- agree
- neutral
- disagree
- strongly disagree
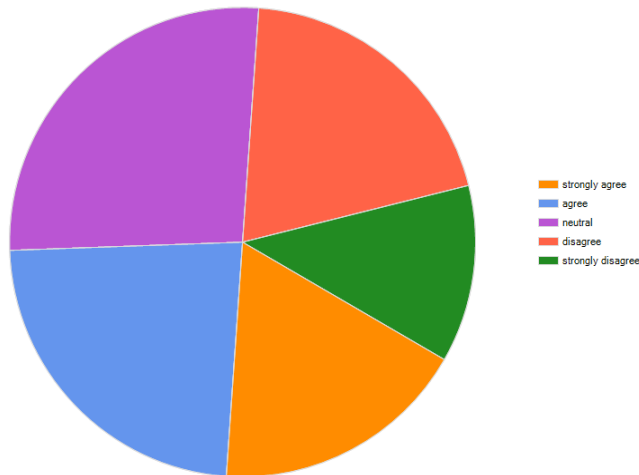
Question 8:– NDSB helped me to have a job that I want.

33 (36.6%) agreed, 26 (28.9%) disagreed and 31 (34.4 %) responded neutral. There were 12 comments with most (5) related to explanation of neutral response such as currently working with counselor, retired, or in school.

NCDSB helped me to have a job that I want.

- strongly agree
- agree
- neutral
- disagree
- strongly disagree
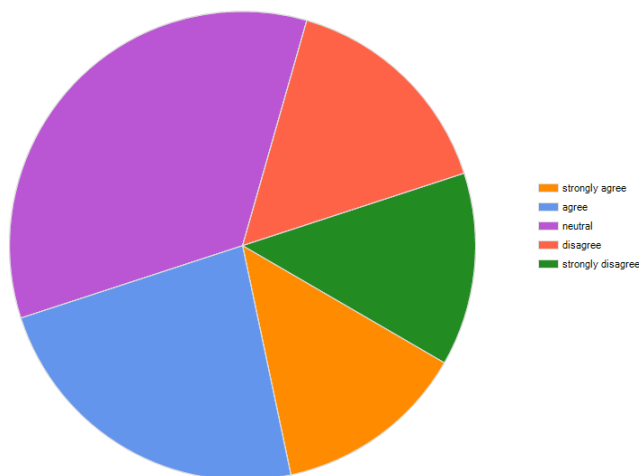
Question 9: NCDSB helping them to receive the training I needed, for example orientation & mobility, academic, activities of daily living, etc.

45 (50%) agreed and 24 (26.7%) disagreed and 21 (23.3%) responded neutral. There were 10 comments with 4 positive and 4 neutral explanations such as in school or working with counselor.

NCDSB helped me to receive the training I needed, for example orientation & mobility, academic, activities of daily living, etc.

strongly agree
agree
neutral
disagree
strongly disagree
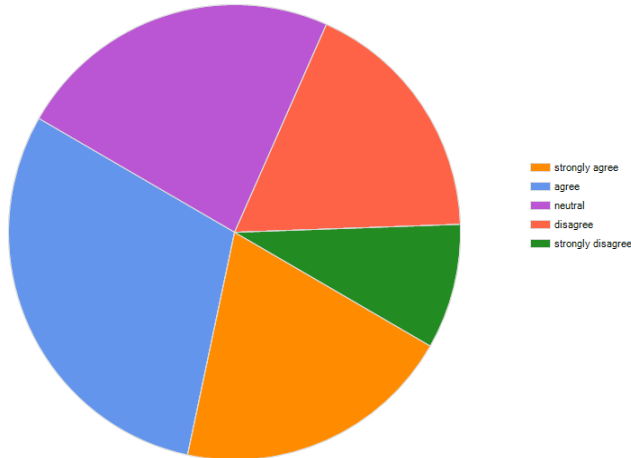
Question 10 NCDSB helped me in other ways.

73 (82.1%) agreed, 8 (8.9%) disagreed and 9 (10%) responded neutral. There were 14 comments with 8 positive. Of those 5 were about medical services as one client stated

> (DSB) *helped me to understand my disability in a positive way. They have monitored and kept me from keeping my condition well in check especially my mentor (staff name). She has been a positive, understanding and has shown me how much passion she has for her job and the people she serves.*

NCDSB helped me in other ways.

Legend:
- strongly agree
- agree
- neutral
- disagree
- strongly disagree
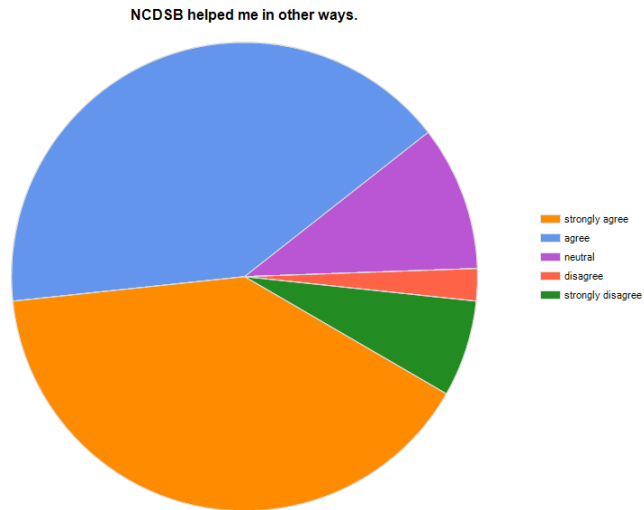
Section 2 NCDSB Services

Question 11 NCDSB services were clearly explained to me.

75 (81.5%) agreed, 9 (9.8%) disagreed and 8 (8.7%) responded neutral. There were 4 responses. There were 4 responses that did not represent the quantitative results. These four are:

- *My mentor was awesome she came to my home and explained everything to my understanding.*
- *(DSB) showed me and explained me clearly the services*
- *Unfortunately and often all my questions were met with either silence or evasions*
- *took `5 years to get a VR client manual*

NCDSB services were clearly explained to me.
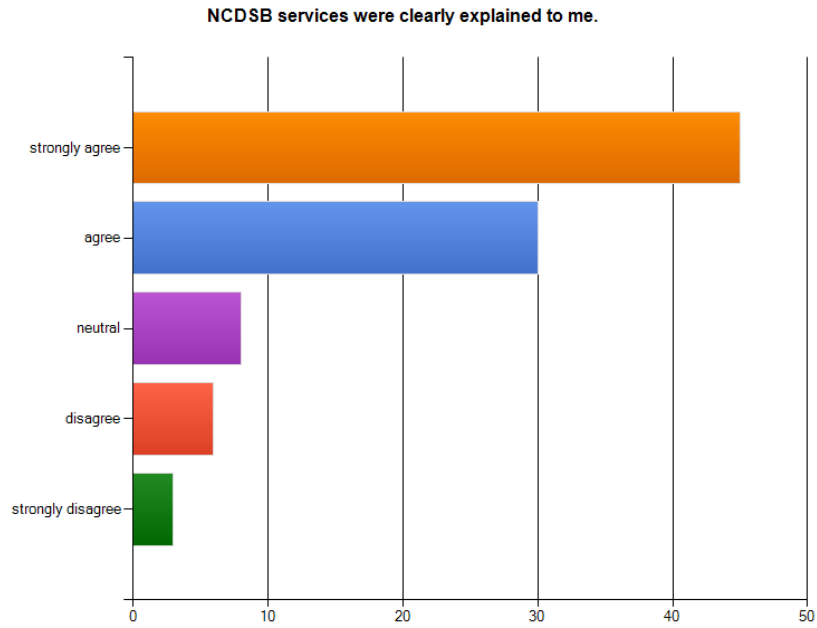
Question 12 Communication with my NCDSB counselor was easy.

75 (80.6%) agreed, 10 (10.7%) disagreed and 8 (8.6%) responded neutral. There were 10 responses that were generally positive and no neutral explanations.

Communication with my NCDSB counselor was easy.
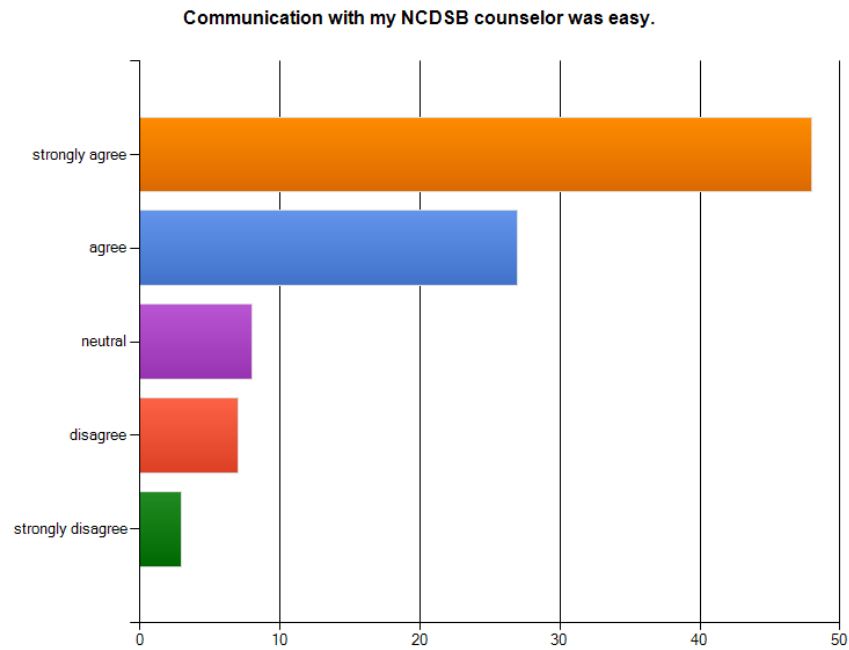
Question 13 My NCDSB counselor understands my disability.

39 (80.4%) agreed, 8 (8.6%) disagreed and 10 (1.9%) responded neutral. There were 6 comments with 5 positive and 1 neutral: *I would like to make an appointment to meet with my counselor.*

My NCDSB counselor understands my disability.
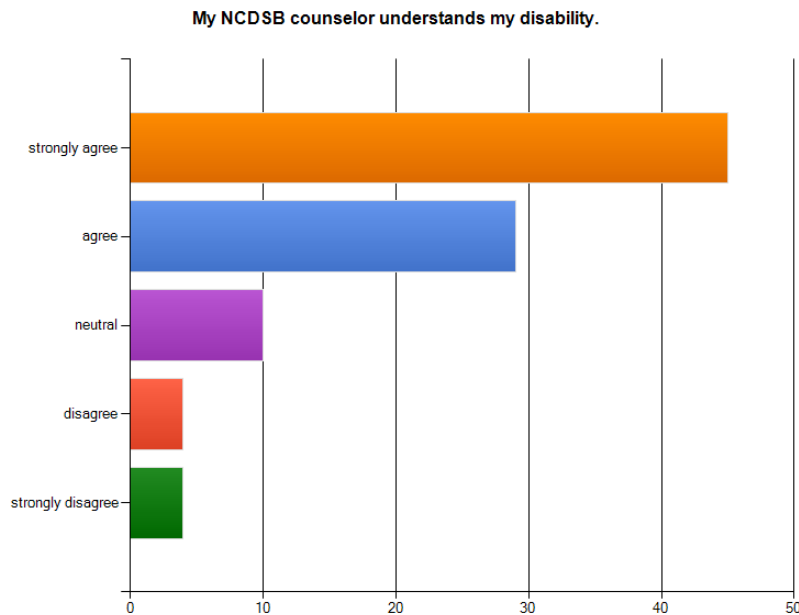
Question 14 I was encouraged to ask questions when I received NCDSB services. 79 (84%) agreed, 6 (6.4) disagreed and 9.6% responded neutral. There were 7 comments that reflect two opposing views. 3 positive comments were like *Yes; I was very interested and had many questions. My counselor made it very easy for me to do so* and the 3 negative were:

- *I found mostly that my questions or ideas had little or no merit in their eyes.*
- *I asked but got no answer*
- *never encouraged*

I was encouraged to ask questions when I received NCDSB services.
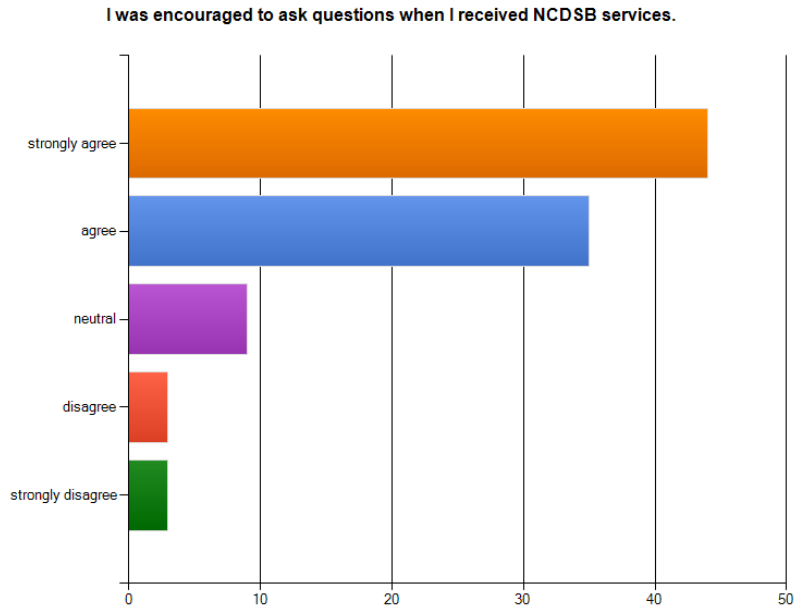
Question 15 I always felt welcome at the NCDSB office.

62 (69.6%) agreed, 9 (10.1%) disagreed and 18 (20.2%) responded neutral. There were 16 comments with 8 positive and 7 that explained the client had not been in an office.

I always felt welcome at the NCDSB office.
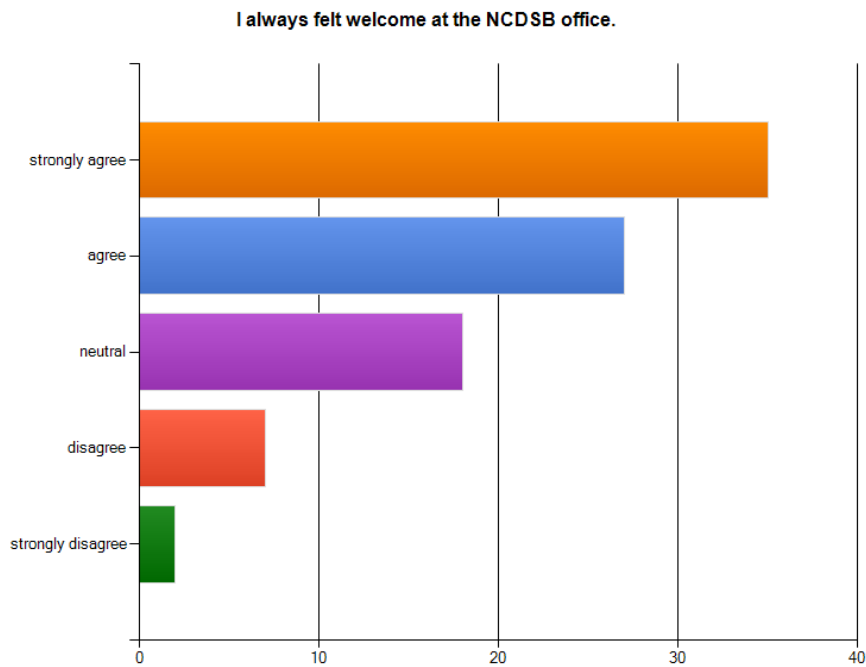
Question 16 My NCDSB counselor was sensitive to my culture and background.

71 (77.2%) agreed, 6 (6.5%) disagreed and 15 (16.3%) responded neutral. There were 5 comments.

My NCDSB counselor was sensitive to my culture and background.
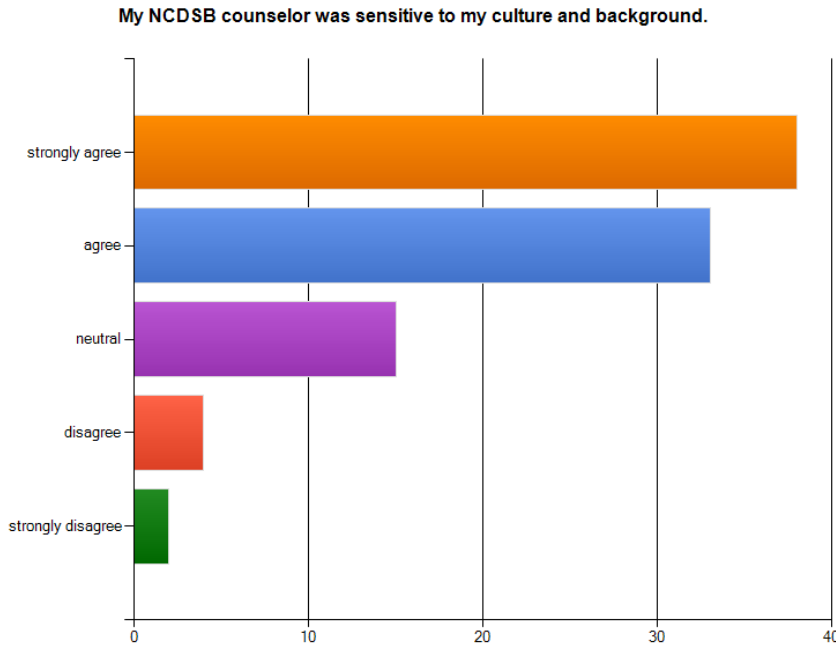
Question 17 I was able to meet with my NCDSB counselors as needed.

75 (81.5%) agreed, 8 (8.7%) disagreed and 9 (9.8%) responded neutral. There were 9 comments.

I was able to meet with my NCDSB counselor as needed.
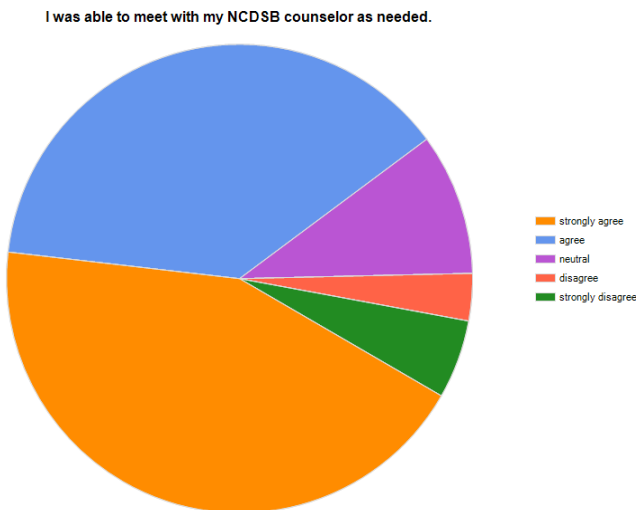
Question 18 My phone calls were returned promptly.

72 (77.6%) agreed, 9 (9.6%) disagreed and 12 (12.8%) responded neutral. There were 7 comments.

My phone calls were returned promptly.
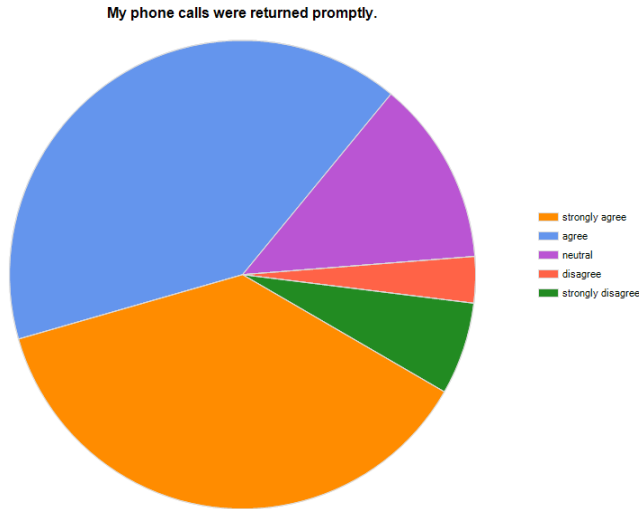
Question 19 When needed, I was referred to programs and resources that could help me with my employment goal.

41 (49.4%) agreed and 14 (16.8%) disagreed and 28 (33.7%) responded neutral. There were 14 comments with 6 explaining neutral comments such as NA, self-employed, and retired.

When needed, I was referred to programs and resources that could help me with my employment goal.
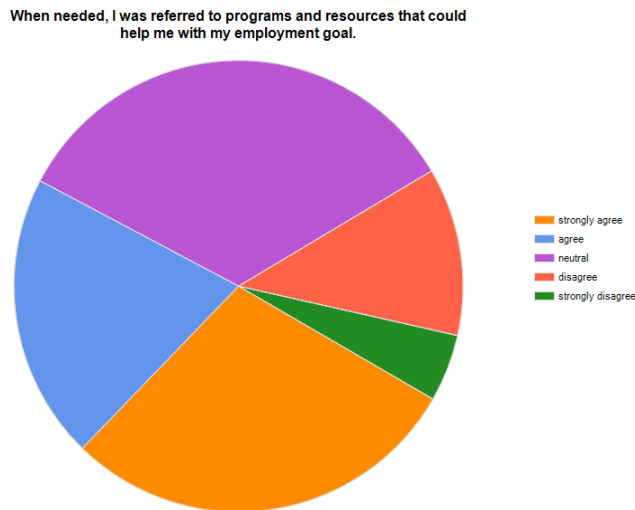
Question 20 My NCDSB counselor clearly described what services were available to me.

72 (79.2%) agreed, 8 (8.8%) disagreed and 11 (12.1%) responded neutral. There were 4 comments.

My NCDSB counselor clearly described what services were available to me.

- strongly agree
- agree
- neutral
- disagree
- strongly disagree
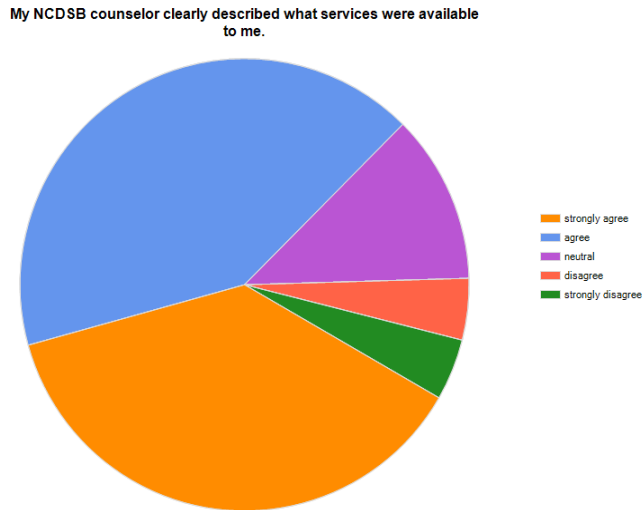
Question 21 Overall, I was satisfied with the services provided by NCDSB included in my employment plan.

58 (66.7%) agreed, 12 (13.7%) disagreed and 19 (19.5) responded neutral. There were 9 comments with 5 explaining neutral responses such as still working with counselor, retired, or services no complete.

Overall, I was satisfied with the services provided by NCDSB included in my employment plan.
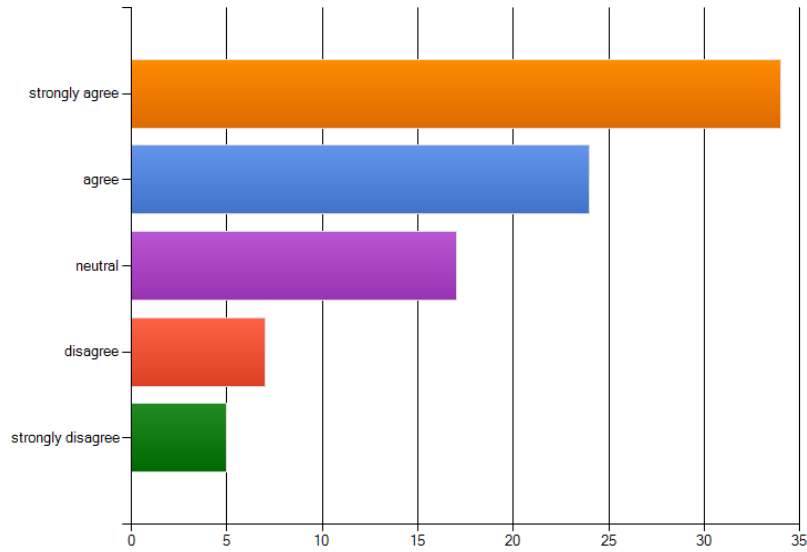
Question 22 I received all the services I was told I would receive (on my plan).

69 (76.6 %) agreed, 8 (8.9%) disagreed and 13 (14.4%) percent responded neutral. There were 13 comments with 5 positive like *everything, he said to me I would receive, it happened.* 6 clients explained neutral comments with statements about still being in plan development or still in services. 2 commented that neither received a plan.

I received all the services I was told I would receive (on my plan).
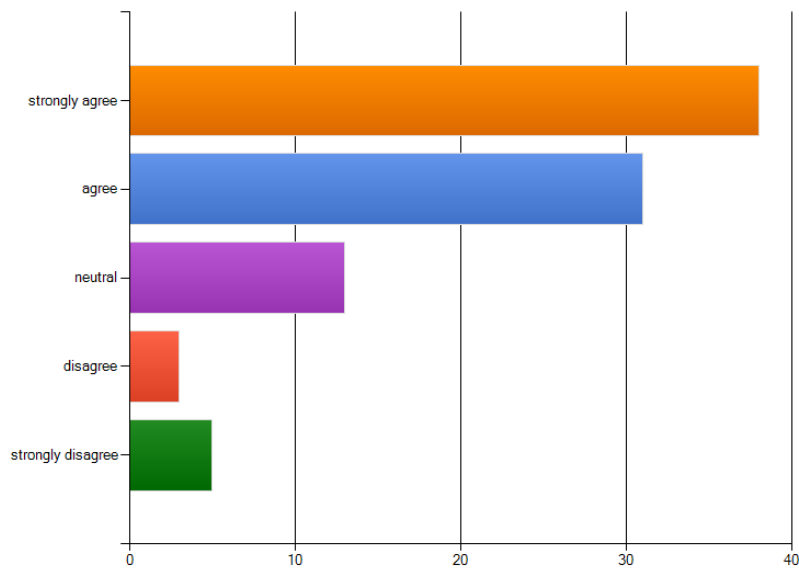
Question 23 Overall, my NCDSB services were provided in a timely manner.

73 (81.1%) agreed, 7 (7.8%) disagreed and 10 (11.1%) responded neutral. There were 6 comments: 3 positive and 3 negative including *I am sorry but I feel like they were lazy. Even working in the same office they had to email each other*.

Overall, my NCDSB services were provided in a timely manner.
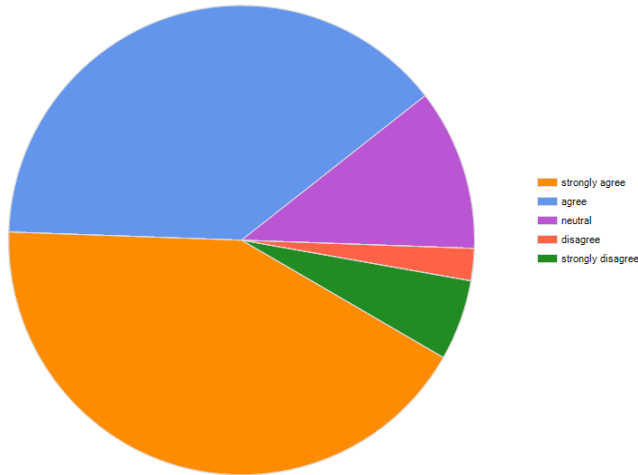
Question 24 I was told about delays in my service.

51 (58.6%) agreed, 12 (13.7%) disagreed and 24 (27.6%) responded neutral. There were 11 comments with 6 explaining neutral comments by stating there were no delays.

I was told about delays in my service.
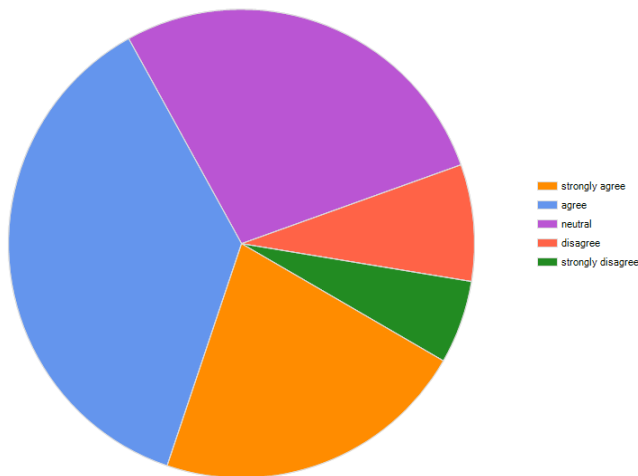
Question 25 Overall, the NCDSB services I received met my needs.

72 (81.9%) agreed, 11 (12.3%) disagreed and 6 (6.7%) responded neutral. There were 11 comments.

Overall, the NCDSB services I received met my needs.

- strongly agree
- agree
- neutral
- disagree
- strongly disagree
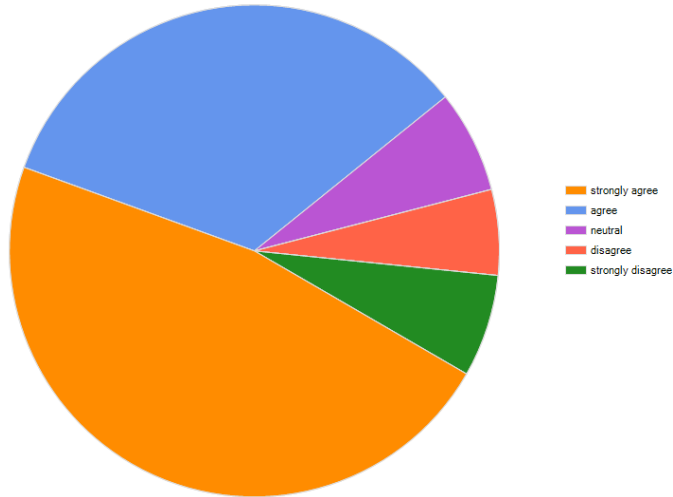
Question 26 NCDSB helped me finish high school using transition services.

6 (7.4% agreed), 3 (3.7%) disagreed, 21 (25.9%) responded neutral, and 51 (63%) felt the question did not apply to them. There were 9 comments that explained the question did not apply.

Section 3 Any complaints?

Question 27 NCDSB did NOT provide me with the services I needed.

12 (15.3%) agreed, 69 (81.1%) disagreed and 3 (3.5%) responded neutral. There were 7 comments with 2 agreeing, 2 not agreeing and 3 explaining neutral.

- Agree-*When I applied for help in the Charlotte office I was told they couldn't help me*
- Agree-*I have been waiting for about 5 years for service. Still waiting for a stick, on dialysis and they said they could not help me go to school. I wanted to go to school. I wanted to learn how to use a computer but they would not help me. Not employed and need help.*
- Neutral-*Overall, everyone involved did the best they could given the limitations we had to work with, but I'm still unemployed and I guess that's the bottom line for me.*
- Neutral-*I am still a bit vague about other services I may qualify for. However I am sure all I need to do is ask the proper questions of my counselor.*
- Neutral-*We'll just have to wait and see.*

77

NCDSB did NOT provide me with the services I needed.

Legend:
- strongly agree
- agree
- neutral
- disagree
- strongly disagree
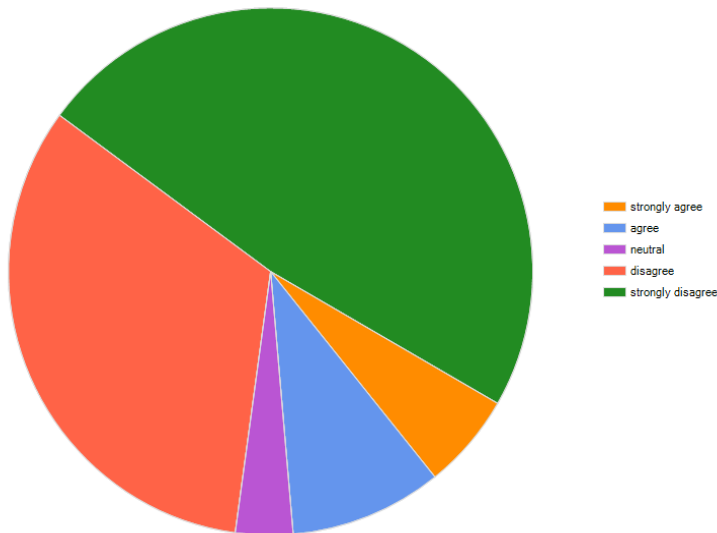
Section 4 Final Comments

Question 28 Do you have any other comments? If so, please tell us.

There were 51 comments and overall clients (31) are extremely satisfied with the services. Clients commented on the professionalism displayed by DSB employees and how the counselors helped them every step of the way. Example comments include:

- *I have been extremely pleased with all those who I came in contact with: my counselor, (name), the technology guy, (name), and the low-vision/diabetes educator, (name.) All from the (city) office.*

- *I found everyone very professional and pleasant to work with. They were helpful in the part they specialized in and if they couldn't help me with something, they brought me directly to the person who could.*

- *I have never had an experience with any group that was quite as professional, yet warm and friendly as this group. They certainly helped me with a difficult transition period in my life, and I will be forever grateful to them.*

- *without counselor's help, I do not know what I would had done, to God be the glory. Keep up the good work*

- *There were 10 requests for additional services including:*

- *I think I would of done better if they had of reevaluated me to continue my education. I was doing customer service which is way out of my field. I know they paid on some*

78

schooling in the past, but each new case is different. The economy is up and down and if you have a vision disability it is even harder to find a good job.

- *I need a list of services. counselor provides for NCDSB*
- *I have been out of work for a while. I have been caring for my small children and preciously caring for an elderly grandmother before she passed away. At some point in the near future if I returned to work. Would I qulity for this program again?*

There were 9 complaints such as:

- *I felt like I wasn't told the truth in the (city) office when I lived there. I knew of people that had no intention of working that received services yet I was turned away and had a proven work history.*
- *I am very satisfied with the vision care assistance I received, but much less so in regards to employment assistance.*
- *This survey seems highly useless. Very little effort is made by NCDSB to help advanced-degree professionals find meaningful work.*
- *some supervisor make the counselor job difficult*
- *I feel that I was just pushed through the process and never actually had any needs met. I am no better today than I was when I went in for the interview, which I thought was very discouraging. I went to get help with my vision and now my vision is worse than when I went to apply. Your organization did nothing for me.*

Section 5 Basic information

The respondents to the basic information contained in Section 5 were white females between the ages of 45-54 and 60-64 followed by African Americans.

Question 29 What is your age?
Age distribution follows.
2 (2.2%) age 15-19
5 (5.4%) age 20-24
9 (9.7%) age 25-34
6 (6.5%) age 35-44
25 (26.9%) age 45-54

18 (19.4%) age 55-59

24 (25.8%) age 60-64
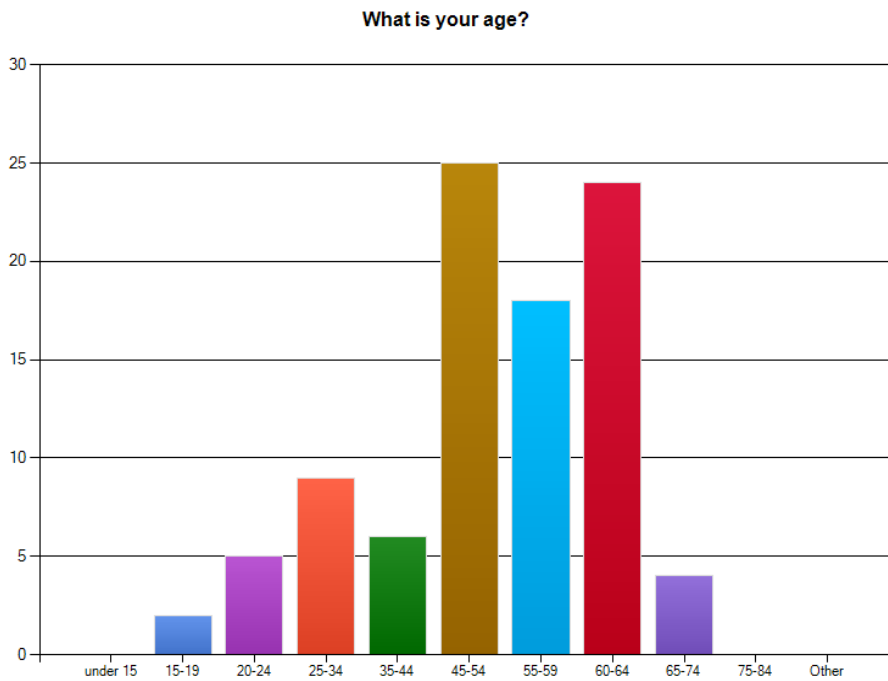
What is your age?

Question 30 What is your sex?

36 (40%) of clients are male and 54 (60%) of clients are female.

Question 31 What is your race or ethnic background?

35 (38%) are African American, 49 (53.3%) are Caucasian, 2(2.2%) are Hispanic, 2 (2.2%) are Native American and 4 (4.3%) are other.

What is your race or ethnic background?

African American
Asian/Pacific Islander
Caucasian
Hispanic
Native American
Other (please specify)
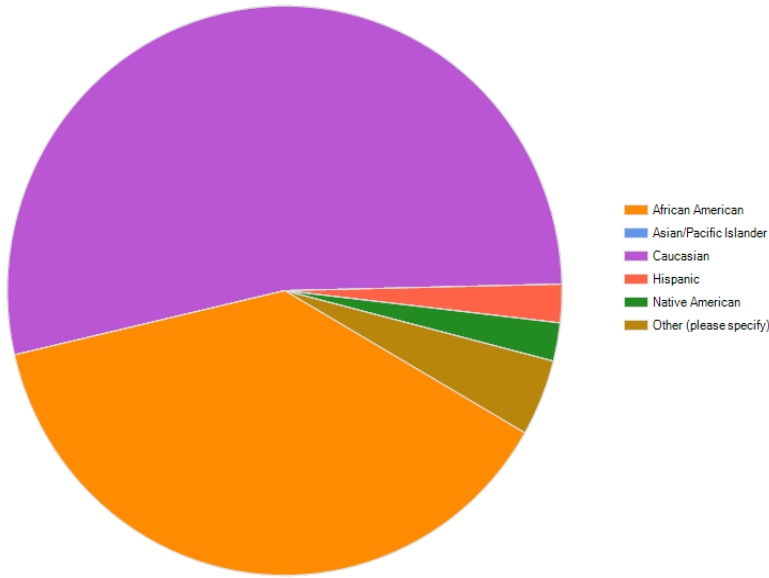
Question 32 What was the year you stopped services with the NCDSB?

12 (13.5%) stopped services in 2007 or before, 8 (9%) stopped services in 2008, 22 (24.7%) stopped in 2009, 43 (48.3%) are still clients. 4 (4.5%) never received services. The majority of clients are in active status.

What was the year you stopped services with the NCDSB?

2007 or before
2008
2009
Still a client
Never received services
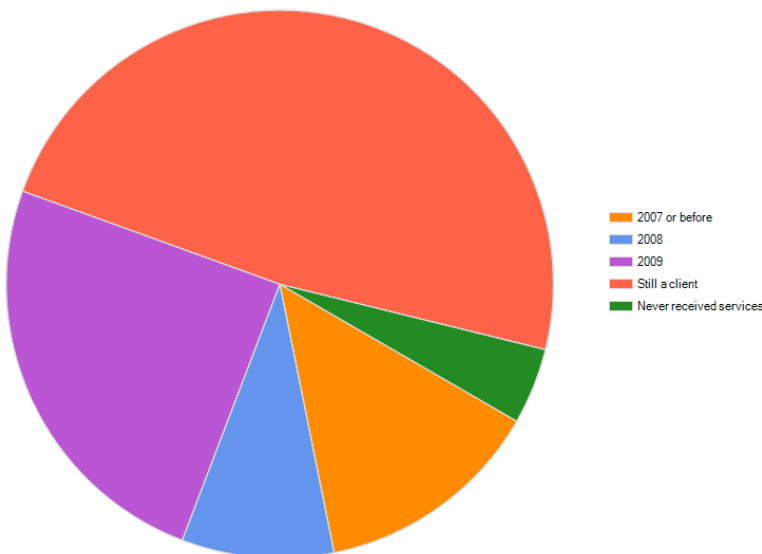
Question 33 Were you still employed when you left NCDSB?

37 (50.7%) responded no and 36 (49.3%) responded yes. There were 31 comments and the following occupations were reported:

Managerial   2

Professional   4

Clerical   2

Service   12

Miscellaneous   1

The remainder of the comments were not useable.

DSB Personnel Survey Analysis

…always put the Blind/VI person 1st, working together within the DSB programs to meet their service need and achieve their goals.

126 email requests were sent to DSB Personnel with 4 bouncing back and 2 personnel opting out yielding 120 invitations. 94 personnel responded with a response rate of 62.5%. This survey consisted of 20 questions arranged in 7 sections: 1) job titles, 2) service needs and barriers, 3) vocational rehabilitation needs, 4) needs and barriers for minorities, 5) unserved and underserved populations, 6) community rehabilitation programs and workforce development, and 7) final comments. Due to the low N responses to strongly agree and agree were combined as were the responses disagree and strongly disagree. This combination provides for agree/disagree comparison. Many of the comments were explanation of respondent's selection of neutral

Section 1 DSB Survey

Question 1 Are you a counselor, a social worker, or a supervisor?

Responses include 18 (24%) VR counselors, 7 (9.3%) IL counselors, 37 (49.3%) social workers and 13 (17.3%) supervisors.

Are you a counselor, a social worker, or a supervisor?
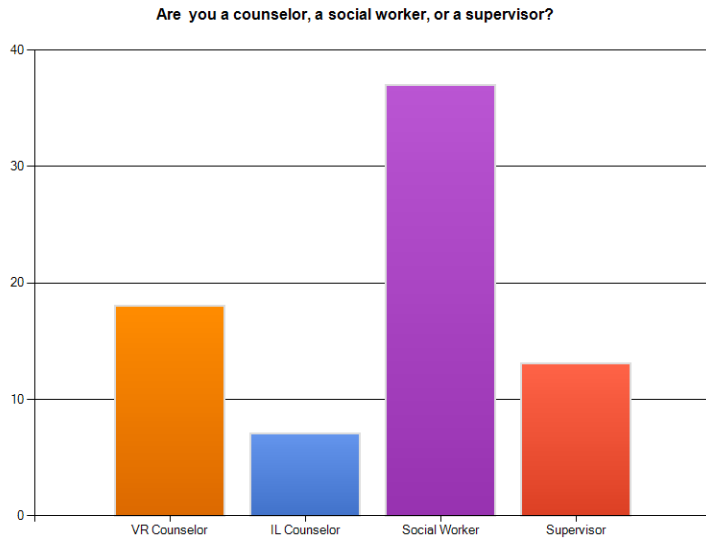
Section 2 Service Needs and Barriers

Question 2 Are there services that you feel are needed for individuals who are blind or have low vision?

55 (85.9%) responded yes and 9 (14.1%) responded no. There were 86 comments and most (74C or 86%) described various services already offered by DSB. The top three listed services were: transportation (17C or 20%), technology and training (both 12C or 14%), and independent living 8 (or 9%). Non-service comments included the need for public education and skilled personnel. Four (5%) personnel felt that the agency was already meeting the needs of people who are blind or have low vision. One person noted: *I feel that we provide wonderful services although I see an overlap in the services provided by ILR and the Social Workers.*

Question 3 Are there barriers to the provision of services for individual who are blind or have low vision?

53 (86.9%) responded yes and 8 (13.1%) responded no. There were 72 comments that described 8 different barriers and these are listed below.

22C (31%) **Funding** as exemplified by *Not enough funds to provide relevant services.* 5C were specifically about the lack of technology funding: *Many persons do not have technology in their homes due to economic conditions. Without technology and training to succeed, many persons resort to low paying jobs with little with regard to benefits.*

Persons may be trained on technology but they do not have access at home therefore lose the skills.

17C (24%) **Transportation** as one person noted: *Transportation is a huge barrier for folks looking for employment, participating in activities, etc.*

13C (18%) **Administrative issues** that included 6 comments about staff vacancies and regulation barriers such as: *state, federal and agency regulations, requirements and limitations.* Also noted were *accountability/paperwork volume significantly limits time for direct service* and *high caseload size.*

7C (10%) felt a need for **more public relations**:

- *(clients) not knowing how to access services. There is no easy way to locate the phone numbers of the SWBs in the counties.*
- *The only issue I see is individuals who do not know about our agency and services.*
- *Not enough doctors refer and the American Indian population is underserved because of the bureaucracy's failure to refer.*

6C (8%) **Attitudes and lack of understanding** on the part of the policy makers and the public present a barrier. Another opinion was stated as: *The barriers are usually themselves* (clients) *and often the small communities they* (clients) *live in. The clients who experience low vision or blindness feel that they are defective in many cases and cannot do anything. The community feels the same way and will not hire some in small cities because of stigmas.*

Three more barriers include the need for training counselors with high expectations for clients; provision of services in a timely manner and problems finding work.

Question 4 What can the NCDSB agency or your local office do to improve the provision of services to those who are blind or have low vision?

101 suggestions were made that described:

Administrative changes (24)

        Add more staff (6) including hire a director

        Improve teamwork and communication (5)

        Reduce paper work (3)

Lower caseloads (2),

Other suggestions: direct referral to deafblind specialist, streamline purchasing/accountability procedures, improve response time for specialist referrals and adjustment to blindness training, individualize evaluation process, allow aide to work with more than one customer.

<u>Provide training</u> for staff (9) and clients (9)

Staff training to include: information on other disabilities and medical information on diseases of the eye, how to identify resources.

Client training to include: community college courses on job finding, provide training in the home community that includes workshops (job seeking, adjustment to blindness), on the job training at DSB rehab center,

<u>Financial</u> (16)

Increase funding for case services and travel (10), purchase technology (4), provide transportation (2), housing,

<u>Public relations and outreach</u> (11)

List SWB and DSB offices in every phone book (2), provide public service announcements, and place DSB literature in every eye doctor's office.

<u>Other suggestions</u>

Collaborate (6) with other agencies to fill in missing gaps or services.

Expand services (6).

Improve employment related services (5) such as talk with employers on a regular basis, and evaluate and provide training for persons for those career matches.

Provide technology (3).

Provide transportation (2).

<u>Expectations and respect</u> (2) *Hold the client more accountable for their actions. They are given too much services for them not to be held accountable for participating in their own rehab case.*

Staff need to throw out the excuses of both consumers and DSB staff that have accumulated from the past and begin by treating consumers with respect and

following through on what was said and demanding follow through from consumers as well.

Others (9): Provide holistic care and create volunteer programs.

Section 3 Vocational Rehabilitation Needs

Question 5: Are there VR services that you feel are needed for individuals who are blind or have low vision?

43 (78.2%) responded yes and 12 (21.8%) no. There were 51 comments that described 14 different topics.

Adjustment to blindness (2) for example *More education to understand their eye condition and more focus on their capabilities through activities but this would also mean more time with the counselor*

Administrative (2) for example clarification of how many hours a person (client) can work w/o it affecting their income

Counseling (2)

Current services are adequate (2)

Education (3) with references to assist clients with remedial education or to obtain a GED, high school or college degree with related study skills training.

Funding (4) in the areas of tuition assistance, housing, and more funds (2).

Information about DSB's VR services (2)

Job finding and keeping skill training (9)

Medical services (2)

Conduct outreach (1)

Increase assistive technology services (3)

Job Training (10)

Transportation (1)

Transition services (1)

Question 6: Are there barriers to the provision of VR services for individuals who are blind or have low vision?

41 (78.8%) responded yes and 11 (21.2%) no. there were 46 comments about 12 different barriers.

Administrative (8) included part time work limitation (loss of benefits), wait time for services, and

- *…cannot provide maintenance for housing unless the person has located a job and is going to work but not for the person who is actively looking for work,*
- *VR Counselors need to be concerned with making a quota and that makes it difficult to be a Counselor, and*
- *Variable interpretation of services guidelines among administration.*

Attitude of employers/clients (4) employers are not aware of workers who are blind or problems with clients as one person wrote:

- *the biggest problem I encounter at the current time is not being able to locate the person who is looking for a job; phone turned off, very low motivation level, not taking initiative to find a job, not staying in contact on a regular basis, not returning phone calls*

Collaborate (2) with other agencies including MH/SA/DD service providers.

Improve counselor knowledge and skills (1)

Current economy (1)

Difficulty finding work/jobs (6)

Funding (1)

Information about services (3)

Not enough staff (3)

Training (3) for clients who need AT training and staff:

- *I feel that staff need to have a firmer grasp of policies for each of the programs. For example, ILR staff or SW need to be familiar with VR services so that to ensure an appropriate referral is made*

Transportation (11) as exemplified by *transportation, again... if a person can't get to a job it's hard to keep employment.*

Other (4) include medical services, counselors not returning phone calls and *counselors who reject most cases.*

Question 7: What can the NCDSB agency or local office do to improve the provision of VR services to those who are blind or have low vision?

There were 51 comments about 6 different topics.

Administrative (11) that included more staff (6), consistent interpretation of guidelines, communication & cooperation,

- *Take a look at the regulations with an eye to providing the services the clients need rather than what sounds like the right boundaries,*
- *increase ability to decline service if no motivation to work, and*
- *pay better to attract and keep qualified employees.*

Public relations and outreach (9) included *hand each client a VR brochure* and *educate the public.*

Expand services (2)

Training (12) for staff (6) and clients (2). Suggestions for staff include training in blindness, programs and eligibility requirements, sign language (and other) secondary languages, positive aspects of employment, and have one meeting for all staff annually.

Transportation (6) that included lobbying for better services, become involved in local transportation boards.

Other (11) that included: return phone calls, work closer with SWB, advocacy, refer clients to other services when needed; make more referrals to VR,

- *Lobby for a cell phone tax that would pay for phone access software, and*
- *Be straightforward with them (clients) about their place in the job market.*

Section 4 Needs and Barriers for Minorities

Question 8: Are there services you feel are needed for minorities?

33 (60%) responded yes and 22 (40%) no. There were 32 comments with 14 of these stating that minorities have the *same needs as anyone else.* The remaining 18 comments were about 6 needs.

Citizenship status (1)

Knowledge of cultural differences (1)

Need for interpreters (2)

Linguistic differences (4)

<u>Public relations and outreach</u> (8) with a need to educate the medical, Latino, and the public.

<u>Other </u>(2) that included

- *at this time so many of these (minorities) have not been to school and did not go very long when they did and were not pushed to learn.*

- *DSB is making efforts in providing services to all minorities but the staff continue to need awareness of resources in the community. DSB has made numerous efforts and is making some headway.*

Question 9: Are there barriers to the provision of services for minorities?

32 (59.3%) responded yes and 22 (40.7%) responded no. There were 35 comments.

with 7 of those stating that minorities have the *same barriers (lack of O & M instructor, transportation) as all individuals*. The remaining 28 were about 7 barriers.

<u>Access</u> (1)

<u>Attitude</u> (2) of case managers.

<u>Cultural</u> (3) with two comments:

- *Multiculturalism in counseling and one on one directives with minority clients are needed. Many minority clients only understand the basic depending on their education background. Counselors need to be able to meet the clients where they are and many minorities will need more assistance and one on one time to develop skills.*

- *We have developed methods of minimally dealing with language barriers, but staff need better training and appreciation of cultural barriers.*

<u>Do not know about services</u> (4)

<u>Need interpreters and translators</u> (3) as one person wrote:

- *There is a lack of staff who speak languages other than English. While we can have an interpreter present at the initial appointment, the screening over the phone is quite difficult at times.*

<u>Language</u> (11) is a barrier and one person reported:

- *I don't speak another language so it is hard to communicate with minorities that don't speak English.*

<u>Legal</u> (4) barriers are exemplified by

- *we cannot provide services to illegal immigrants and I have seen several very needy individuals (mostly Hispanics) who are illegal and legally blind or totally blind.*

Question 10: What can the NCBSB agency or your local office do to improve the provision of services to minority individuals who are blind or have low vision?

There were 33 comments with 8 of those stating to continue providing the same services. The remaining 25 were about 5 topics.

<u>Provide interpreter</u> (5)

<u>Resolve undocumented workers need for services</u> (1)

<u>Public relations and outreach</u> (4) with suggestions to market to Spanish speaking groups, advocacy groups for minorities, groups serving other disabilities, and to host public forums.

<u>Staff development</u> (4) to include information about Native Americans and sensitivity training.

<u>Other </u>(7) includes more collaboration and educate all populations.

Section 5 Unserved and Underserved Populations.

Please see Research Question 2: Unserved and Underserved Populations for survey results.

Section 6 Community Rehabilitation Programs (CRP) and Workforce Development

Question 16: There is a need to establish new CRPs.

26 (50%) agreed, 6 (11.5%) disagreed and 20 (38.5%) responded neutral. There were 11 comments with 2 who *are not familiar with CRPs*. The others stated *there are enough already, always room for improvement, CRPs are located in major population centers,* and

- *CRPs should be held to a high standard. IF no progress on job development is forthcoming within a reasonable amount of time, another CRP should be used if little activity and little contact with the consumer has not been done.*
- *Community Rehabilitation Programs might be able to be more flexible in service provision and especially in cooperation with other agencies also working to*

90

rehabilitate the client in areas which impact his or her ability to learn for the job market.

There is a need to establish new CRPs
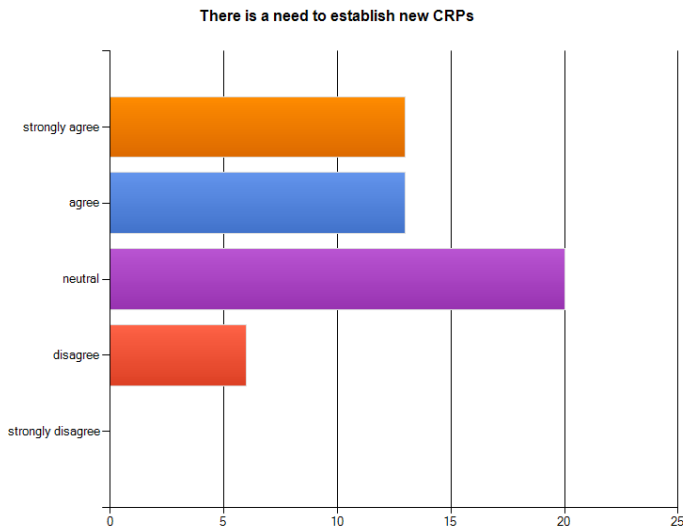
Question 17: There is a need to develop recently established CRPs.

24 (47.1%) agreed, 4 (7.8%) disagreed and 23 (45.1%) responded neutral. There were 2 comments:

- *The CRP will only benefit if knowledge of vision loss / training of provider in regards to vision loss has been established*

- *More information regarding other available services and reliable/consistent interpretation of guidelines could increase service delivery and shorten time for CRP to reach productive level*

There is a need to develop recently established CRPs
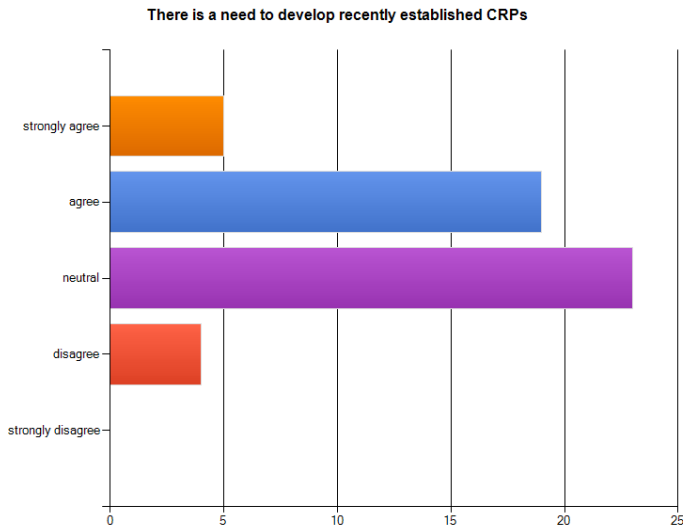
Question 18: There is a need to expand current CRPs.

26 (53.1% agreed), 3 (6.1%) disagreed and 20 (40.8%) responded neutral. There were 6 comments including 1 who has never worked with a CRP. The others stated that more CRPs could serve more people, training of CRP personnel in blindness was necessary, and another suggested going to a fee based service in lieu of outcome based to increase services.

There is a need to expand current CRPs
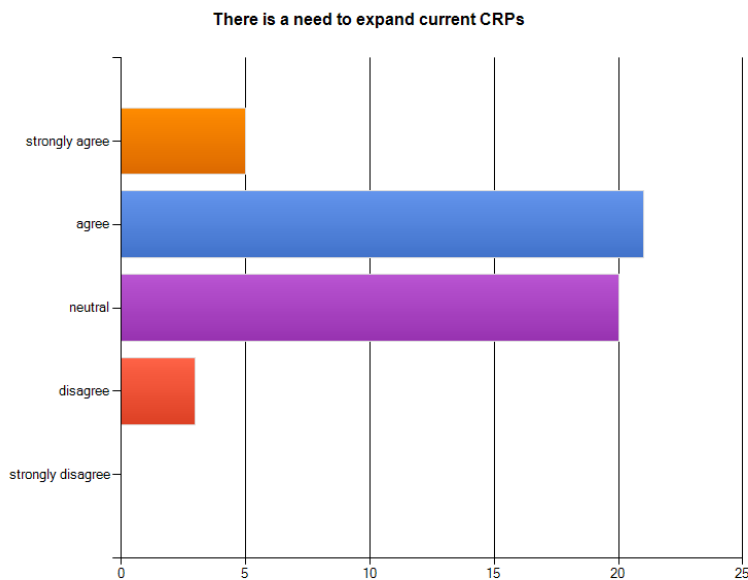
Question 19: There is a need to develop services with the Workforce Development Board (e.g., One Stop centers).

27 (52.9%) agreed, 2 (3.9%) disagreed and 22 (43.1%) responded neutral. There were 3 comments with 2 who were *not sure* and another who suggested more coordination.

There is a need to develop services with the Workforce Development Board (e.g., OneStop centers).
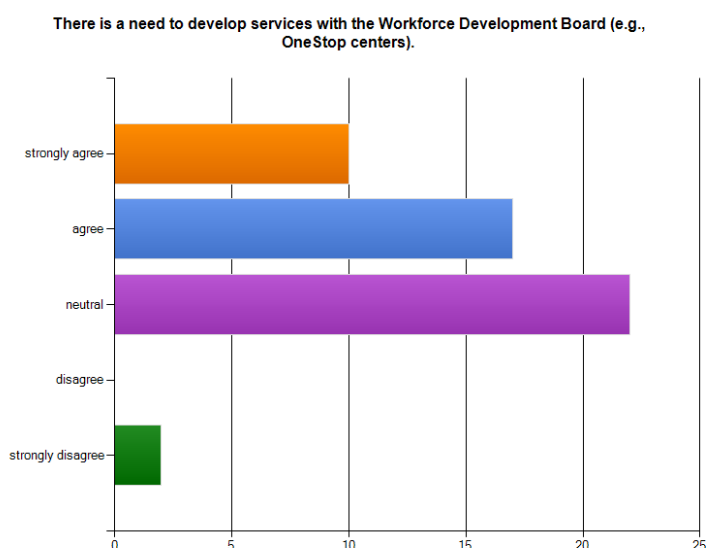
Section 7 Final Comments

Question 20: What else would you like to tell us about services for person w who are blind or have low vision, including minorities, unserved and underserved?

There 26 comments including 6 who wrote *none*. The remaining 21 were about 2 topics.

Reflections (11)

- *Unfortunately, satisfaction & success of the consumer sometimes depends on the counselor*
- *This agency provides a tremendous amount of services that are available to blind and visually impaired consumers*
- *I think that what this agency is about is more money, numbers, and policy and less about the consumer and their needs*
- *Our services should continue to instill hope in coping with blindness, maintaining as much independence as possible, and the idea that goals can be reached for each individual*
- *Individuals with VI are just like everyone else. Some are motivated and some are not, some are highly educated and some are not*

- *Many times it is hard to convince the person who is VI that he can achieve a higher level of independence. Families overprotect and facilitate dependence which affects how we can achieve success with IL services, training services, and job placement services*

- *Most of my Social Workers truly desire to serve all persons that are blind or VI to achieve their goals towards their highest good*

- *Our clients are very motivated to recover and become contributing members of our communities but they also have some serious barriers to overcome. NCDSB needs to work to remove the barriers to cooperation while remaining the best source of information and assistance these folks need to reach their goals. Don't destroy the good, just fix the problems*

- *That is not very fair, especially if a client cannot afford an item that can change their life.*

- *I am glad there are services available and hope all areas will be expanded*

- *A counselor and the DSB agency needs to believe in the beauty of individuals and love working with the consumers to help them learn how to reach their own goals, eventually without the help of the agency*

Suggestions (10)

- *It would be great to have a stronger service base within the school systems*

- *Making regular contacts with clients are blind and/or is a greatly \appreciated service client seen to like very much. But due to lack of funding Social Workers have to limited their visits with clients. I do not know what the statistic is but clients believe you care for them more if you visit them and address their concerns in person instead of by phone.*

- *Not all county recreational facilities serve the visually impaired. Feel there should be more recreational programs for the VIP's*

- *increase budget; give us raises to increase morale and stop the loss of income for workers; upgrade AT available to clients at GMS, Rehab Center for the Blind and give the opportunity to clients to use a lend lease program to try out AT for longer periods of time*

- *Keep our services in the State of North Carolina*

- *There are many blind and low vision persons who do not meet the criteria to receive services, but do need assistance to remain in their current lifestyle and/or position. There is no resource center and/or general support person to assist persons in the community who are not on a caseload.*
- *Money is also a factor. Equipment cannot be purchased if budgets are limited and Consumers who may need Assistive Technology and/or Low Vision Aids may not receive them for that reason.*
- *I would like to see a willingness on behalf of the VR counselor to work with more cases in this area, to be an advocate for these consumers to retain employment or seek training leading to employment.*
- *Agency should increase focus on service delivery and decrease emphasis on/reward for "playing nice in the administrative sandbox"*
- *Transportation is a very big problem in all of Eastern NC for people who no longer can drive. The best program can be successful if people cannot get there*
- *Get the word out especially in rural area*

Community Rehabilitation Program Survey Analysis

11 surveys were distributed and 8 returned which yielded a 72.7% response rate. This survey consisted of 18 questions with space for comments and was divided into 4 sections: 1) respondent and agency information; 2) census of persons served, 3) plans, objectives, policies, specific funding, development of skills to work with those who are blind and visually impaired, and 4) final comments. There were 81 comments.

Section 1 Respondents and Agency Information

Question 1 Job title of person completing the survey.
Responses included 2 agency directors (25%), 5 program supervisors (62.5%) and 1 development manager (12.5%).

Job title of person completing the survey.

Legend:
- Administrative assistant
- Agency director
- Program supervisor
- Other (please specify)
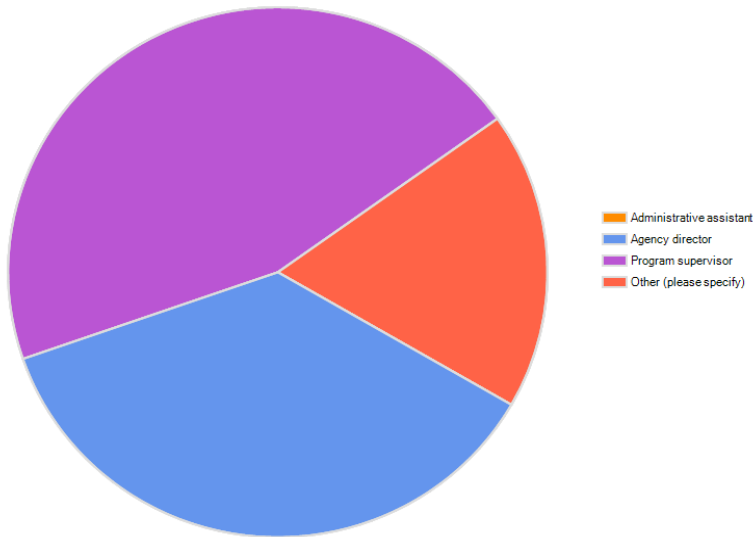
Section 2 Census of Persons Served

Question 2 How many clients did you serve last year?

7 respondents reported: 1000+, 188, 112, 98, 72 (my caseload), 51 and 6.

Question 3 How many clients who were blind?

7 respondents reported: 15, 8-10, 4, 2, 2, 1, and 0.

Question 4 How many clients with low vision?

7 respondents reported: 57 (my caseload), 4, 3, 2, 2, and 1.

Question 5 How many clients who were deaf/blind?

7 respondents reported: 6, 3 (my caseload), 2, 0, 0, 0, and 0.

Section 3 Plans, Objectives, Policies, Funding, and Development

Question 6 Do you have written business plans to develop/expand services for persons who are blind or have low vision?

4 (57.1%) responded yes and 3 (42.9%) did not have plans. There were 5 comments:

- *As a vocational Services provider, we want to expand our work with the BVI folks*

- *PAI has a VR approved form that is used to develop a business plan for each client*

- *Already have a contract for Services for the Blind but have had not referrals*

- *There is a state plan that outlines these plans/objectives and how the agency plans to accomplish them.*

- *We have a program and a contract, but our referral source does not use us as much as they could*

Question 7 Do you have specific objectives to serve persons who are blind or have low vision?

5 (57.1%) responded yes, while 4 (42.9%) responded no to having any objectives.

There were 4 useable comments:

- *As mandated/implied by federal, state, department, and division/agency law, acts, amendments, regulations, and/or policy*

- *No. If we got referrals we would work from there*

- *It depends on the client's limitations and their desires*

- *Expand form our current "evaluation only" program into other employment services with these individual*

Question 8 Do you have a program evaluation in place to determine who effective, efficient, consumer friendly and accessible your services are for persons who are blind or have low vision?

5 (57.1%) responded yes and 4 (42.9%) no. There were 3 useable comments.

- *After placing a client in a job and stabilizing them we have an exit survey for the client to fill out that will assist us in improving our services for them and future clients. They are asked to comment whether good or bad so we can improve our services if needed*

- *Quality assurance surveys are sent out to all closed cases each year. Case reviews are also done by supervisors and program specialists twice a year for all counselors regardless of independent status. All cases are reviewed by supervisor for non independent counselors when case is moved to status 12 or above and when substantial services or actions are being taken on the case. It is noted that case*

reviews may not tell you as much about how consumer friendly and accessible services are as it is presented primarily from the counselor's viewpoint

- *Consumer surveys address our services. Employment status addresses the effectiveness*

Question 9 Is there a Board or governing body support for serving persons who are blind or have low vision?

6 (85.7%) responded yes and 1 (14.3%) no. There were 3 useable comments.

- *Same support as the rest of our programs*
- *Our Board would support us working with people who are blind or have low vision*
- *We don't have a special board just for blind clients; however we have a client's rights committee, and have monthly meetings state wide to discuss any issues that may have occurred. All supported employment clients are included in this review no matter their disability*
- *the BOD supports services for all disability types*

Question 10 Are their policies in place to develop or expand the program for persons who are blind or have low vision?

2 (28.6%) responded yes and 5 (71.4%) no. There were 2 useable comments.

- *Because we receive very few referrals from DSB, and poor follow through from the DBS counselors, we have no plans to further develop programs for persons who are blind/low vision*
- *Our referral sources are not utilizing us much now, so there is no point in expanding the program*

Question 11 Do you have specific services for persons who are blind or have low vision? HERE

5 (55.6%) responded yes in the areas of job placement, supported employment, training assistance, evaluations, job developments and placement assistance. The responses for specific services of assistive technology, counseling and orientation and mobility were all equal at (22%). Other specific services yielded a response of 33%. 5 comments

listed other services of job placement (3), job coaching, assessments/evaluations, job development, supported employment (2), and employment readiness.
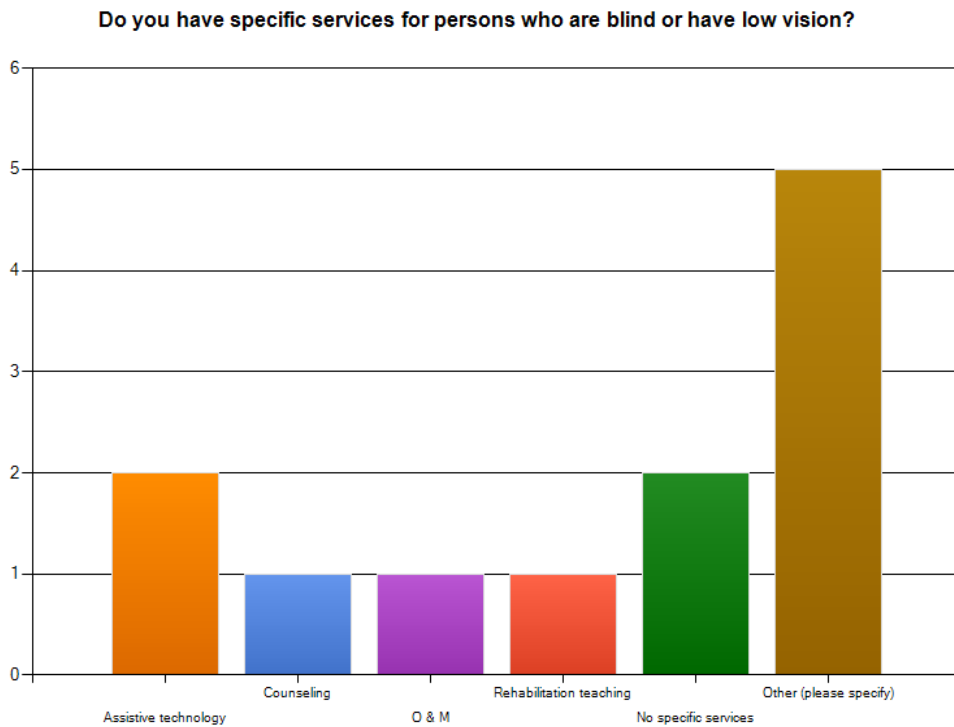
Do you have specific services for persons who are blind or have low vision?

Question 12 Do you have access to and use of technology for persons who are blind or have low vision?

4 (57%) indicated access to and use of Braille and screen magnification software, while 4 (57%) reported access to screen reading software. One commented *special lights*.

Do you have access to and use of technology for persons who are blind or visually impaired?
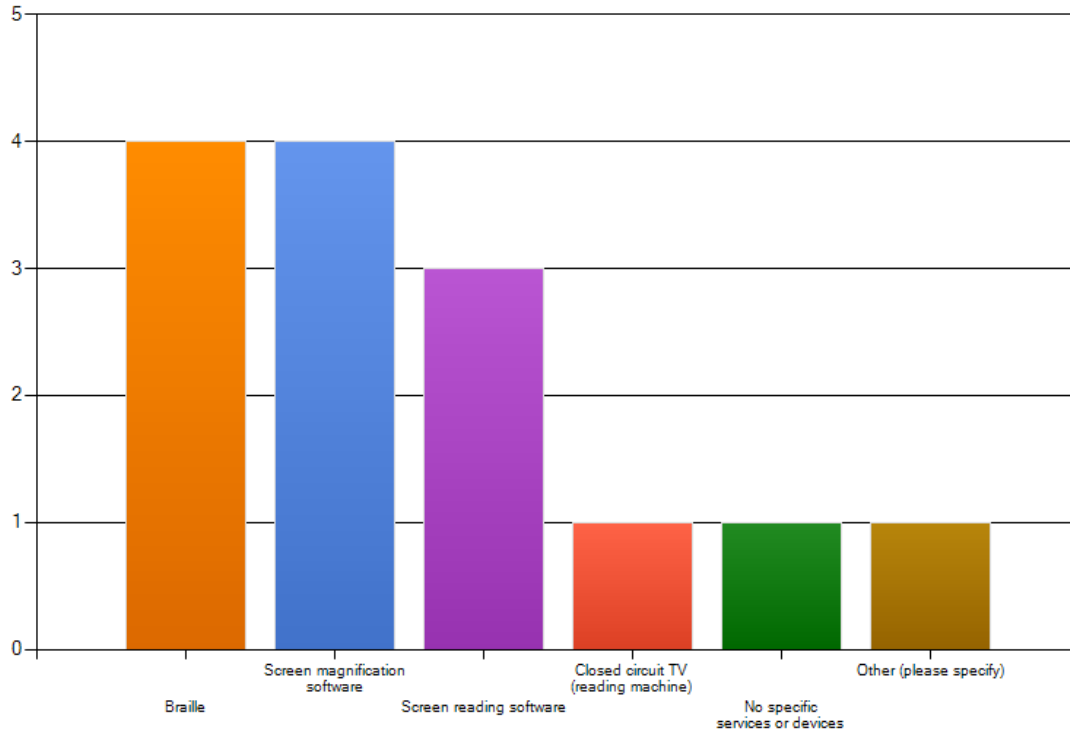
Question 13 Do you have specific funding for services for person who are blind or have low vision?

3 (42.9%) responded yes and 4 (57.1%) no. 2 reported a contract with DSB and one has federal and state monies.

Question 14 Do you have sufficient funding to meet your program objectives related to persons who are blind or have low vision?

3 (42.9%) responded yes and 4(57.1%) no. There were 4 comments.

- *Funding is outcome based. We don't get paid unless we find the consumer a job.*
- *Don't have any referrals or outcomes therefore no funding.*
- *We have two different contracts with DSB which allows us to provide supported employment services for persons who are blind.*
- *Though we have been able to work within the budgets we have, our programs/services could always use more funding to expand and improve services*

for people who are blind or visually impaired as well as to provide training and educational opportunities for staff...

Question 15 Is your physical plant accessible (raised letter/Braille signage, audible alarms, etc.) for person who are blind or have low vision?

6 (85.7%) responded yes and 1 (14.3%) no. There were 3 comments.

- *We do have audible alarms, but signage not in Braille*
- *It could definitely be better, but we can't afford to upgrade without referrals.*
- *We do have adaptive aids, appliances, technology, and raised/Braille signage in our workplace*

Question 16 Does staff need to develop specific skills to work with persons who are bind or have low vision?

7 (100.0%) responded yes to staff needing to develop specific skills to work with persons who are blind or have low vision. There were 5 comments.

- *O& M. Specific training for persons who are blind and DD.*
- *Staff needs to better understand the psychological, emotional, and social effects blindness/vision loss can have on individuals and how to help them get past some of these barriers in order to help them move on to a more healthier/independent life.*
- *We might need training for a person's specific needs if we had referrals*
- *Although some staff have experience there is always need for more training*
- *We are currently scheduled to have a training session with DSB and all Employment Coaches in February to specifically address this.*

Question 17 Does your program meet the needs of person who are blind or have low vision in the community?

3 (42.9 %) responded yes and 4 (57.0%) no. There were 4 comments: 1 was not sure, 2 need more referrals, and the last one reported:

- *In a general sense, we do have the services and programs in place to meet the basic needs of consumers. However, more work needs to go into computer/technology training (especially advanced training that will allow consumers*

to better compete in advanced employment opportunities and higher wages);Braille literacy; reaching/educating employers to open more doors of opportunity for employment; and educating the general public about DSB services.

Section 4 Final Comments.

Question 18 – Please, add additional comments or suggestions to develop policies for people who are blind or have low vision? Four individuals commented:

- *Maybe policy needs to be implemented that will open the eyes of those people who are blind to the potential of people with blindness and vision loss.*
- *I was lucky enough to have had the opportunity to complete the one week training at Gov. Morehead. However, I will be retiring and we need to have BVI focused training available to cover staff losses such as this.*
- *For our programs, folks with blindness and low vision can access/utilize services as any other disability type.*
- *Give us more money and we will do the job.*

Disability Navigator Survey Analysis

15 Disability Navigators were invited to participate and 10 responded which yielded a 66.7% response rate. The survey is divided into 4 sections: 1) respondent and agency information, 2) census of persons served, 3) tell us about your plans, and 4) final comments. Due to the low N responses to strongly agree and agree were combined as were the responses disagree and strongly disagree. This combination provides for agree/disagree comparison. There were 49 comments.

Section 1 Respondents and Agency Information

Question 1 Job title of person completing the survey

8 (80%) disability navigators and 2 (20%) agency directors.

Section 2 Information about the Census of Persons Served.

Question 2 How many clients did you serve last year?

6 reported the following: assisted over 50 clients, 0, 50, 35, discouraged from serving clients directly and one stated We are not case managers; we work with One Stop staff providing training to help them better serve persons with disabilities.

Question 3 How many clients did you serve who were blind?
6 reported the following: 0, 0,8,10, and I have about 5 and facilitated services. One wrote Info to JobLinks and partners include vision issues.

Question 4 How many clients did you serve with low vision?
3 reported serving 10, 6, and 2 and three respondents reported 0.

Question 5 How many clients did you serve who were deaf/blind?
5 persons responded no services to clients who were deaf/blind.

Section 3 Plans and Services for Clients who are Blind or have Low Vision.

Question 6 Do you have written business plans to develop/expand services for those who are blind of have low vision?
7 (100%) responded yes and 3 (30%) no. There were 3 comments.

- *I assist case managers with their clients so a business plan would be written by that individual*
- *I provide information and training regarding persons with disabilities to whomever I can get an audience with.*
- *Although a vital source for training and consultation for Job Link staff regarding serving persons with disabilities, Disability Program Navigators are not responsible for service provision by Job Links and partners otherwise*

Question 7 Do you have specific objectives to serve persons who are blind or have low vision?
2 (28.6%) responded yes and 5 (71.4%) no. There were 4 useable comments.

- *I share info related to serving these consumers to Job Links and partners*

103

- *I do provide information about various technologies available as accommodations to employers, agencies, and individuals*
- *By assisting with identifying and purchasing assistive technology to aid the customer in working independently when accessing information in the Career Centers.*

Question 8 Do you have a program evaluation in place to determine how effective, efficient, consumer friendly and accessible your services are for persons who are blind or have low vision?

1 (14.3%) responded yes and 6 (85.7%) no. One noted that a customer satisfaction survey is available at Job Link.

Question 9 Is there administrative support for serving person who are blind or have low vision?

2 (33.3%) reported yes and 4 (66.7%) no. One person responded:

- *I do not serve individuals, but instead provide information and resources to employers and agencies regarding better accommodating individuals with disabilities including visually impaired, so I do not necessarily need admin support.*

Question 10: Are there policies in place to develop or expand the program for persons who are blind or have low vision?

2 (20%) responded yes and 8 (80%) no. No useable comments.

Question 11 Do you have specific services for person who are blind or have low vision?

5 (71.4%) have assistive technology, 4 (57.1%) use counseling, 1 (14.3%) rehabilitation teaching, 1 (14.3%) no specific services, and 1 (14.3%) have other (*We make clients aware of resources they might qualify for such as AT equip & other equipment*).

Do you have specific services for persons who are blind or have low vision? Click all that apply
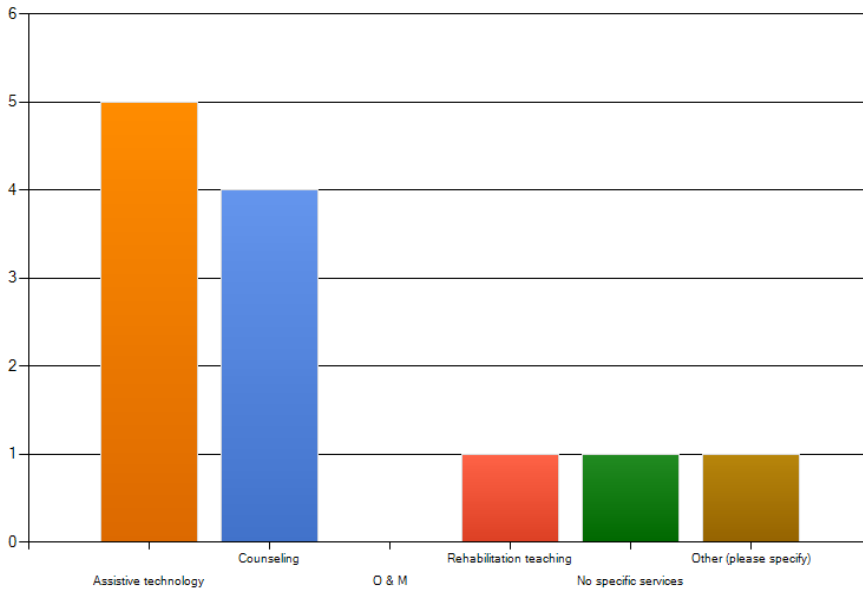
Question 12 Do you have access to and use of technology for persons who are blind or visually impaired?

1 (16.7%) reported access to Braille, 5 (83.3%) have screen magnification software or screen reading software, 2 (33.3%) have closed circuit TV (reading machine), 1(16.7%) no specific devices or services, and 1(16.7%) other services (*JobLinks are encouraged and have resources for getting necessary accommodation*). . .

Do you have access to and use of technology for persons who are blind or visually impaired? Click all that apply
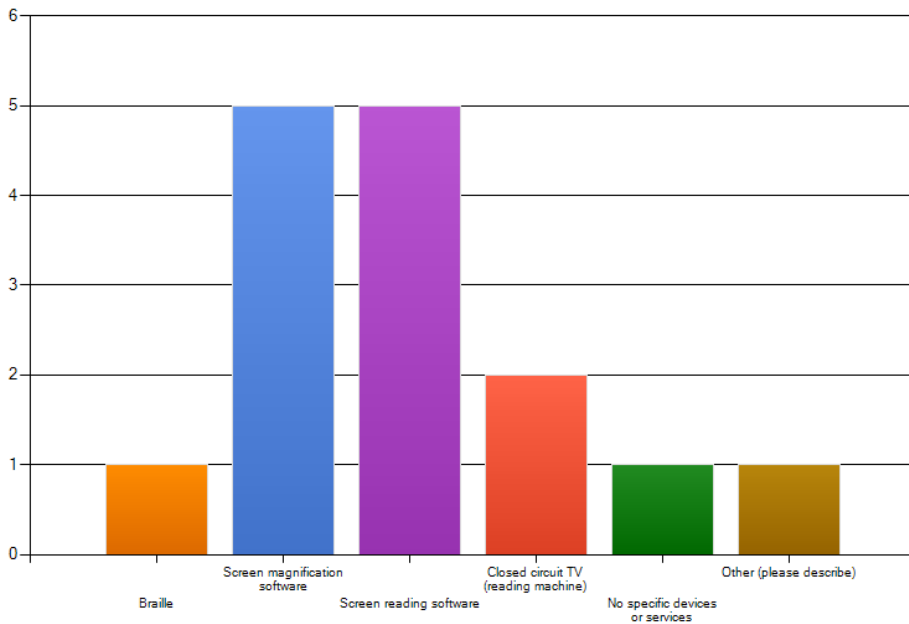
Question 13 Do you have specific funding for services for persons who are blind or have low vision?

100% responded no.

Question 14 Do you have sufficient funding to meet your program objectives related to persons who are blind or have low vision?

3 (50%) responded yes and 3 (50%) no.

Question 15 Is your physical plant accessible (raised letter/Braille signage, audible alarms, etc.) for persons who are blind or have low vision?

5 (71.4%) responded yes and 2 (28.6%) no. One commented that accessibility is *available in some JobLinks*

Question 16 Does staff need to develop specific skills to work with persons who are blind or have low vision?

5 (100%) responded yes to staff needing to develop specific skills.

Question 17 Does your program meet the needs of person who are blind or have low vision in the community?

2 (50%) responded yes and 2(50%) no.

Section 4 Final comments.

Question 18 Please add additional comments or suggestions to develop policies or improve services for people who are blind or have low vision. Two comments were:

- *I feel there is a need to improve services for people who are blind and have low vision*
- *My program serves Persons who have all types of disabilities I am mostly a referral source for them I refer them to places where they can get help and assist them in working through the system. I advocate for them and follow up to make sure they get services.*

Interviews and Focus Groups Analysis

> ***People who are going blind and do not know about NCDSB. Need to improve outreach. Certainly turned my life around. I had to go find it. Well kept secret.*** DSB client

The following is based on 7 interviews and 4 focus groups. All of the comments are coded as one data set. For ease of comparison the comments are arranged in 7 sections: 1) VR services; 2) Individuals who are blind with other disabilities; 3) populations who are unserved and underserved; 4) supported employment; 5) workforce development; 6) CRPs; and 7) other comments.

Section 1 VR Services

Question 1 What do you see as the VR service needs for individuals who are blind and visually impaired?

Question 1 has 3 parts: service needs, service barriers, and suggestions of how to meet the needs.

Service Needs. There were 47 comments about 6 different topics.

Administrative & finance (7) including the following needs:

Had to submit income verification repeatedly. Agency felt she could not qualify for services because of the income. Had to keep applying for services.

Had cataracts and the state paid for the surgery. Some of the questions asked should have geared more and did not take into consideration list cost of living, groceries, etc.

Allocate more resources to purchase assistive technology for clients and non-clients.

Counselor knowledge & skills (2)

Family (2) need to be included.

Information about VR (3) All 3 did *not know much about VR.*

Specific services (30) that are needed include: IL training, more mini-centers, job finding and keeping training (9), medical services, the rehab center, technology and related training (8) as well as job related training (5).

Transportation (3)

Service Barriers. There were 46 comments including one who stated there were no barriers. The remaining 45 were about 9 barriers.

Access (1). Access—counselors are not accessible. Only in the office for 1-2 days and then gone to the next office. Need to be phone accessible

Administrative and funding (10) The responses varied and included caseloads are too high, inconsistent policy interpretation by counselors, delays in service due to large areas covered by counselors, and eligibility requirements especially as related to equipment purchase.

Attitude (7) Comments about DSB employees (need cultural sensitivity training), and other professionals, employers, and the public (need information about blindness and how people who are blind can work)...

DSB Personnel (4) All commented that their DSB counselor lacked knowledge of blindness.

Economy (3) All indicated the economy is negatively affecting their job search.

Employment related (5) All reported they need help finding job leads.

Information about services (8) All made statement similar to the following:

There aren't any barriers except that people need to know about the services. Had it not been for my mother-in-law, I would not have known about NCDSB. People will do anything to help themselves. My mother gave me the number for the (local) office and could have been seen out of (my) county.

Well, we (DSB) do not advertise but we have a website. If they (potential clients) find out, they sometimes find out about services from DSS, VR. If family members can't assess the internet or sometimes they don't even have computers. Furthermore, they do not have (assistive) software.

People who are going blind and do not know about NCDSB. Need to improve outreach. Certainly turned my life around. I had to go find it. Well kept secret.

Other agencies (1)

Transportation (7)

How to Meet the Needs. There were 50 comments about 7 different topics

Employment related (9) Suggestions included need to have a list of jobs, need to work closely with and fund travel for the BRR (3), and the following:

- *Would like to have a plan on how to network and market myself (DSB client)*

- *Having somebody put the human effort (money) into going out and contacting people. Overcoming the stigma of the visually impaired. For example, what can blind people do? Dispel the myth about blind people making brooms. We need to form relationships with state, local and federal government. They all need to work together.*

Financial assistance (5) to pay for transportation, community college, and one stated: Keep doing what they (DSB) are doing and keep up the liberal attitude that they have about providing services.

Other (11) Specific suggestions follow:

- *Suggestions for rehab center? Some people go and not like it and then there are people like me who go and get good use out of it. Need to have better information on what to expect. (orientation?) Need to get a tour and have services explained to me. Need to meet people on the first day. Then I was evaluated and then just thrown into classes.*

- *I want counselor to be with me (advocate). I am self-advocate but I may need help if I cannot get it done. Need help with the boxing gloves. People want to scream at me, pull on me, treat me like I do not have a mind.*

- *Ask people what they need.*

- *What can VR do to meet the need- Every six months do a re-evaluation or training such as technology training, how to obtain resources*

- *You can put you name on the "wish list". Such as needle threaders.*

- *Counselors need to have a cell phone to be accessible while out of the office. Example of student who needed books (was standing in line) and could not get in touch with counselor.*

- *Counselors need to call in to their offices and check for messages.*

- *There needs to be a relationship built instead of just giving you a job or relationship but with the community wherever you can apply and to the work. I have a college degree but I am willing to work as a dispatcher. I can also be a HAM radio. I applied for a job as library assistance and it's a shame that they would not give me that job. VR needs to work with private industry and form bonds with people. For the jobs that we can do, it would be better to have a dialogue. I feel that we have thought that are not well defined.*

Public relations (8) Suggestions include more television ads, increased communication with advocacy groups including the NCFB and NCCB, and the following:

- *Continue to find new ways to get the word out to eye MD's, Ophthalmologists, Optometrists, public libraries. Librarians will see patron change type of books; Senior Centers will see people squinting. People hide and do not want people to know that they are blind. I had to squint and things like that—there are services out there.*

- *Community support groups, such as African American churches and especially in the AA community. So many African Americans losing sight because of diabetes and glaucoma.*

- *Capacity. Mini-centers need to be beefed up. Need to learn how to do stuff as a blind guy. Need to find these blind guys out there in the communities. Getting access for services for older folks. Need to find people.*

- *Well, one of things they can do is to continue with the group training and mini centers and that would increase and serve a larger number of consumers. Serve them as a group. They would go into the neighborhood such as going to churches and DSB could provide the transportation like they do now*
- *An annual picnic to get people (other blind and visually impaired) together.*

<u>Provide technology</u> (7) Need for more assistive technology with the following specifically mentioned: magnifiers and supplies, CCTV, increase coverage of AT by partnering with VR's AT Labs, and special training for dogs.

<u>Expand services</u> (7) One specific suggestion was

- *A small version of a mini-center. Speak about blindness, you can use the equipment, let you try out new "gadgets" to use in the kitchen, show you writing tools, pens and note takers.*

<u>Provide training</u> (3) Two related to training DSB personnel because *they* (counselors) *should have a different knowledge base from the general VR counselors.* The other was a client who wanted *a little more training*.

Section 2 Individuals who are Blind with Other Disabilities

Question 2 What about people who are blind and have other disabilities (multiple disabilities as in blind+, vision loss due to diabetes or MS, etc.)?

Question 2 has 3 parts: service needs, service barriers, and suggestions of how to meet the needs. There were 32 comments in this section and 7 of those were statements that the participant did not know anyone who fit in this section.

Service Needs. There were 8 comments...

Specific disabilities/medical conditions mentioned were MS, diabetes, deaf blind, high blood pressure, mobility (wheelchair user), and kidney transplant.

Needs included transportation, medical stabilization (funding), and weight management.

Service Barriers. There were 5 comments.

The barriers included services for children, those with diabetes and obesity, and transportation.

How to Meet the Needs. There were 11 comments and specific suggestions follow.

- *(Provide) advocacy, and knowledge of services that are available.*
- *Need to develop a MOU with other agencies including VR. Should be shared cases because of the need for shared expertise.*
- *Service agencies make a link or web site to give and take information of services (communication of services) such as what agency can help people with disabilities, how much is agency's funding, and what is basic information of the knowledge about agency*
- *People with blindness want to make emergency line to call*
- *Because of insufficient AT trainers, people with blindness cannot maintain their job retention and enjoy leisure*
- *I do not know because transportation is governed by people's income. If they fall within a certain income level, it depends. If it exceeds that, they just exclude and the people (family members) are being asked to transport. The family members who work can't do it and the ones who don't work don't have the gas money to transport their family.*
- *Education is needed about other medical conditions. Some people need glucometers, large print and diabetes education It is hard to work because of the gap in services.*
- *There should be better coordination between various staff.*
- *Provide ongoing education for staff*
- *Encourage more interaction with other programs, and provide encouragement to collaborate with other agencies.*

Section 3 Populations who are Unserved and Underserved

Please see Research Question 2: Unserved and Underserved Populations for results.

Section 4 Supported Employment

Question 6 What about the need for supported employment (assistance from NCDSB to perform job duties: job coach) for individuals who are blind and visually impaired? This question has 2 parts: barriers and suggestions.

112

Barriers to SE. There were 6 comments including 1 that did not see a barrier. The barriers included employer attitudes and resources especially funding (4).

Suggestions for SE. There were 6 suggestions and these follow.

- *Need to develop SE for each area of the state.*
- *Need to be able to count employment at a workshop as a closure. That is where some people want to work. If client gets benefits and pay, then that should get a 26. Example of NIB: stigma of certain employees is out of date.*
- *I do not know the process of how they receive their money and make requests for their money. With the nation's economic situation, probably the only way to make their voice heard is through their legislators.*
- *Get the administrators together and develop a set of rules to be followed and make it happen so that everyone can be on the same page.*
- *Money. Liberty Corners thought outside of the box. Other programs were not successful. Liberty Corners looked at the person and what they could do.*
- *Education. VR is doing a better job of preparing applicants to participate in the process. Helping people know how to interview. (The) employer is least qualified to hire blind. I had experience in senior management never had a person with a disability and I am not sure how I would have.*

Section 5 Workforce Development

Question 7 If you look at the entire workforce investment system (One Stop Center, Job Link, ESC, unemployment, job training) in the state, are there additional service needs for individuals who are blind and visually impaired?
Question 7 has 3 sections: general comments, barriers and suggestions.

General comments There were 7 comments in 2 areas.

Positive (4)

- *Yes, I had a pretty good experience there from the (local) office.*
- *One Stop does a good job at providing services. They teach workers not to look at the person's income.*

- *I use the ESC—to look for jobs, send applications. They were helpful. I used my personal computer at home and then would go in to pick up an application.*
- *I would think that they could and be a real good resource because we look to one stop centers for people to work and it almost always work out for us.*

Negative (3)

- *You have to walk in with job in mind and then they will help you. They do not know how to work with us.*
- *One Stops have not had much to offer. The one stop workers ask you to check the computer. One stop counselors ask you to look at the jobs that are available and they will send your resume to the employers. They do not know what to do with people who are blind and visually impaired in the one stop shops*
- *Not familiar with the one-stop but would think that if they don't have anyone to advocate for them, they will not be served.*

Barriers There were 14 comments.

Barriers included access (3), lack of knowledgeable staff, narrow focus on jobs only, and inconsistent referrals to VR.

Suggestions There were 14 suggestions in 3 areas. .

    Education (3) All 3 commented on the need to educate ESC staff and 1 pointed out the need for continual education due to staff turnover.

    Partnership (4) All 4 encouraged collaboration as one stated *NCDSB needs to get in touch with ESC and stay there*. 2 also suggested development of a policy manual.

    Other (7) 3 specific suggestions include:

- *Have someone present one day a week as part of the job placement.*
- *They* (DSB) *would have to work very closely with the employment agency. The way they work with us I know they are capable of doing it because they certainly work with us.*
- *Set up special center that brings up transportation and segregation issues. Rehabilitation for the blind is a very special kind of industry.*

Section 6 CRPs

Question 8 What do you see as the need for establishment, development and improvement of CRP's (ask for examples)?

Question 8 has 3 sections: descriptions of CRPs, barriers and suggestions. There were .24 comments with 4 who had no experience with CRPs.

Descriptions of CRPs (5)

- *CRPs deal with general agency.*

- *Lots of people lost jobs and need to be retrained for other kids of job so there is a need for community rehabilitation programs so that people can have the opportunity to work. If I knew in the beginning that there was help, it would have saved me a whole lot of stress.*

- *CRPs help with resumes and job leads.*

- *I feel there is a great need. Use to have it years and years ago with the increase of the number of people going to college. Time came that caning chairs became outdated. People have a desire to want to learn a job skill that they can use to be employed in the local areas. I don't think they cover that area anymore. That would be listed as a need.*

- *I think they key is that people being aware of what they are doing and offering. As we speak with groups, we have limitation because we cannot hire anyone with criminal backgrounds. We are not working through very much of those resources right now.*

Barriers (8) include (criminal) background checks, inadequate programs,

Suggestions (7)

Section 7 Other Comments

Question 9 Is there something else you would like to tell us?

There were 10 comments including 2 about the need to develop DSB counselors in the areas of blindness and cultural competencies.

- *There are great opportunities and things going on. There are many opportunities for improvement.*

- *If services for the blind can figure out a way to get the word out. Communication is the key. Everyone who need the service needs to know about the service. Eye doctors needs to know to refer people to services for the blind. I just can't say enough about the services for the blind. They helped me and I wish they could come up with ways in which to get the word out. If I can do something to get the word out, let me know. Thanks for your time.*

- *Like I said, everybody's trying real hard and do not know whether this is a good time to do an assessment. It's not much out there. There are jobs that I am overqualified to do but I will do them just to have some work. People will not give me those jobs. This is a tough time to judge anything and to make recommendations. I feel that the counselors are good but they have not been in jobs long enough to know all the ins and outs of their agency. It bothers me to not make a difference. I will even volunteer to do a research project on Appalachian religion*

- *If things were better, (individuals, who desired to work, would find jobs.) Even elderly people who want to work would find employment if there were jobs out there.*

- *Once the economy gets better, we can all breathe a sigh of relief.*

- *Nothing is going to help until there are jobs to place people on.*

- *Need to educate employers. When self-disclose, then that "pulls the plug" on the interview. Education is only way to overcome that.*

- *Substance Abuse is one of the unmentioned areas in our field. If a person is seriously abusing substances, then adjusting to blindness just will not happen and the rehab counselor cannot recognize the tell tales signs of people in recovery. Example: diabetes prevent adj to blindness—same with SA. Put a plug in the jug.*

Analysis of CSNA from Other States

The summary of CSNA Recommendations from Region Four States is in Table 14. All eight states reports were available either on line or by request. The common areas of recommendations are: staffing concerns (AL, FL, GA, and NC), service delivery (AL, FL, GA, KY and MS), assistive technology availability ((AL and KY), delivery of employment

related services (AL, FL and SC), collaboration with other agencies (GA, MS, and NC), improve communication (NC, SC, and TN), and other recommendations (AL, FL, KY, and NC). See Appendix A for recommendations from each state.

Table 14

Summary of State CSNA Recommendations

Topic	AL	FL	GA	KY	MS	NC	SC	TN
Staffing	X	X	X			X		
Recruit & retain	X	X	X					
Provide training			Transition			X		
Increase diversity	X	X						
Services	X	X	X	X	X			
Independent living	X			X				
Education	X	X		X	X			
Transition			X		X			
Medical				X	X			

restoration								
Other	Comprehensive		Core scvs					
Assistive Tech.	X			X				
Employment Scvs	X		X	X			X	
Other			Career info				Job leads	
			Job seeking				Sup. Emplnt.	
Collaboration			X		X			
One Stop			X		X			
Other			Veterans		CRP		Transportation	
Communication						X	X	X
Outreach						X	X	X
Other						Web site		Public awareness

						Educate consumers		Solicit input
Miscellaneous	Timely services	Support at application		Basic right		Rehab Center		
						Separate state plan		

References

American Community Survey (ACS), U. S. Census Bureau, (2007). www.census.gov/acs

Centers for Disease Control and Prevention. (2009). *State programs.* Retrieved February 2, 2010, from
http://www.cdc.gov

Centers for Disease Control and Prevention. (2008). Vision health initiative. Retrieved from
http://www.cdc.gov/visionhealth/projects/pba.htm

Comprehensive Needs Assessment Guide, (U. S. Department of Education, 2008).

Creswell, J. W. (2007). *Qualitative inquiry and research design: Choosing among five traditions* (2nd ed.). Thousand
Oaks, CA: Sage. https://www.ncesc1.com/pmi/rates/PressReleases/County/NR_Dec_09_CountyRate.pdf

Cubero, C. (2009). An Investigation of Master's Level Counselor-In-Training Multicultural Counseling Skill Competence
and Personality

Fulks, C. (2007). *Community based assessment practices*. Unpublished manuscript.

Griffin-Shirley, N., Almon, P., & Kelley, P. (2002). Visually impaired personnel preparation program: A collaborative
distance education model. Journal of Visual Impairment & Blindness, 96(4), 233.

Holcomb, Pamela & Barnow, Burt S. (2004) Serving People with Disabilities through the Workforce Investment Act's *One-
Stop Career Centers*. Paper prepared for Ticket to Work & Work Incentives Advisory Panel.

Kuipers, P., & Quinn, R. (2003). The template: A cooperative approach to evaluating community rehabilitation services.
Journal of Rehabilitation, 69(1), 4-14.

Lee, D. J., Gomez-Martin, O., & Lam, B.L. (2004). Trends in visual acuity impairment in US adults. *Archives of
Ophthalmology*, Vol. 122.

Lewis, S. (2004). Social Security Disability Benefits for the Visually Impaired Claimants.

Moore, J. E. (2003). Using program evaluation to improve service delivery for older individuals who are blind. *Journal of Visual Impairment & Blindness, 97*(1), 42.

Moore, J. E., Giesen, J. M., Weber, J. M., & Crews, J. E. (2001). Functional outcomes reported by consumers of the independent living program for older individuals who are blind. *Journal of Visual Impairment & Blindness, 95*(7), 403-417.

National Institute of Health Website Retrieved, February 24, 2010. *National Center on Health Statistics.* (2006).

North Carolina State Center for Health Statistics. (2003). *A health profile of older North Carolinians.* Retrieved 2/2/2010 from http://www.schs.state.nc.us/SCHS/pdf/Elderly.pdf

North Carolina Diabetes Prevention & Control Fact Sheet, September, 2009.

North Carolina Rural Economic Development Center, Inc. (2005). *Rural data bank* from http://www.ncruralcenter.org/databank/trendpage_Population.asp

North Carolina State Demographics. (2010). *North Carolina state demographics,* 2010, from http://demoq.state.nc.us/

Outreach program aims to reduce information and services gap. (2004). *Journal of Visual Impairment & Blindness, 98*(7), 439-442.

Richards, L. (2000). *Using NVivo in qualitative research.* Bundoora Victoria, Australia, QSR International Pty. Ltd.

Social Security Administration (2010). Retrieved January 20, 2010 from www.ssi.gov

SurveyMonkey (n.d.). *SurveyMonkey Section 508 certification and accessibility.* Retrieved from http://s3.amazonaws.com/SurveyMonkeyFiles/508_Guide.pdf

Weathers, R., R. (2005). *A guide to disability statistics from the American community Survey.* Retrieved 2/2, 2010, from http://digitalcommons.ilr.cornell.edu/edicollect/123

U S Census Bureau. (2006). *United States - DP-1. general demographic characteristics.* Retrieved 2/2, 2010, from http://www.factfinder.census.gov/servlet/QTTable?_bm=d&-context=qt&-qr_name=PEP_2008_EST_DP1&

U.S. Census Bureau Population Division. Population Pyramids and Demographic Summary. Indicators for States. (2010) Retrieved from http://www/census.gov/population/www/projects/statepyramid.html

U.S. Census Bureau *Population division. Population pyramids and demographic summary.* http://www.ors2.state.sc.us/abstract/chapter14.asp

Weathers, R., R. (2005). *A guide to disability statistics from the American Community Survey.* Retrieved 2/2/2010, from http://digitalcommons.ilr.cornell.edu/edicollect/123

Zuckerman, D. M. (2004). *Blind adults in America: Their lives and challenges.* Washington, DC: National Center for Policy Research for Women & Families. Retrieved from http://www.center4research.org/blind0204.html

Appendix A

CSNA Recommendations from Region Four States -2008

Alabama

Alabama Department of Rehabilitation Services summarized five strategic plan goals for individuals who are blind based on responses from focus groups, interviews and other comments. These were:

1. Recruit, train, and retain a highly qualified diverse staff to work with individuals who are blind or have low vision;

2. Provide a seamless, comprehensive, individual array of appropriate quality services leading to independence and employment for youth who are blind and visually impaired;

3. Provide individualized, comprehensive, quality independent living services to persons who are blind or have low vision in a timely manner throughout the state of Alabama to maximize independence and improve employability;

4. Provide individualized, comprehensive, quality assistive technology services to persons who are blind or have low vision in a timely manner throughout the state of Alabama to maximize independence and improve employability; and

5. Provide comprehensive, consistent quality employment services throughout the state of Alabama to consumers who are blind or have low vision and employers in a timely manner resulting in increased and improved career opportunities.

Florida

Florida Division of Blind Services has three recommendations derived from different methods and sources. These are:

1. Recruitment of culturally and diverse staff, expansion of pre-service and continuing education training in multiculturalism to ensure equitable treatment and cultural sensitivity for clients of all racial and ethnic backgrounds;

2. Increase the educational accomplishments for all consumers, regardless of race/ethnicity leading to increased competitive employment closure rates; and

3. Support at the initial stage of application to insure acceptance and competitive employment closure.

Georgia

Georgia Department of Labor Vocational Rehabilitation Program has five recommendations:

1. Address staffing issues specifically in the areas of recruitment retention, turnover and competitive salary structure;

2. Provide access to information and guidance about careers options, occupational classroom training, financial aid resources and on the-job-training. Work with Career Centers and One Stops to increase accessibility of services;

3. Provide continuous staff training on transition, IDEA, and transition related services. Additionally, it is recommended that VR partner with Parents Educating Parents and Professionals (PEPP) to train students, parents, and professionals on VR services, eligibility requirements, and policy;

4. A high level of demand for core services such and counseling and job seeking skills needed and will be provided;

5. VR to increase development efforts to develop community employment and also increase vocational rehabilitation services to veterans by developing a Memorandum of Understanding to provide services for eligible veterans who are blind and have low vision.

Kentucky

Kentucky Office for the Blind in collaboration with the State Rehabilitation council (SRC) made the following recommendations:

1. Recommendations yielded the need for assistive technology, employment, medical restoration, educational assistance and the area of independent living or self sufficiency;

2. Availability and knowledge of resources to meet the needs of individuals who are blind and visually impaired will be available; and

3. Recommendation for the need for the very basic right to self sufficiency in life.

Mississippi

Office of Vocational Rehabilitation for the Blind recommendations:

1. Transition Services for individuals who are blind exiting high school as they enter employment or post secondary educational settings, training or technical schools;

2. Educational supports for individuals who are blind and have low vision and medical restoration services assuring that an individual's medical needs are met in order to assure the feasibility of employment;

3. Development and expansion of Community Rehabilitation Provider relationships for supported employment services;

4. Increase participation with One Stop Service Delivery System utilizing existing partnerships and the provision of information sharing and training initiatives.

North Carolina

North Carolina Division of Services for the Blind offers the following recommendations:

1. Investigate strategies for reaching out to undeserved and underserved populations, especially Hispanics, who tend to exhibit higher prevalence rates of blindness and severe visual impairments;

2. Consideration in offering additional in-service training to VR counselors' placement staff relative to job placement activities for individuals who are blind and have low vision;

3. Investigate strategies for educating consumers about the NCDSB website and its content;

4. Investigate strategies for making the NCSB website fully accessible and more user friendly to blind and visually impaired consumers throughout the state;

5. NCDSB administrative staff, in conjunction with Rehabilitation center staff, and Center trainees should evaluate the needs for upgrading the Center's facilities;

6. Rehabilitation Center Staff should carefully evaluate the ongoing needs for classes that receive low rating by consumers in terms of average degree of helpfulness;

7. NCDSB to carefully evaluate the utilization of support groups & the programs offered at the Rehabilitation Center and other areas of services;

8. NCDSB to continue to work closely with the Department of Health and Human Services personnel and the Division of Vocational Rehabilitation personnel to ensure that a separate state Plan for the Blind is maintained in North Carolina.

South Carolina

South Carolina Commission for the Blind did not conduct a CSNA. Instead SCCB presented an Accountability Report which revealed needs of individuals who are blind. These recommendations include the following:

1. Need to develop job in the local area and in the upstate for individuals who are blind and or visually impaired;

2. Need for supported employment to assist in maximizing employment outcomes;

3. Need for regional Tri County Transportation systems focusing in the rural areas of the state of South Carolina;

4. The needs for outreach services to meet the needs of the masses on individuals in rural areas of the state that are blind and have low vision.

Tennessee

Tennessee Department of Human Services/Division of Rehabilitation Services made two overriding recommendations:

1. Increasing funding and increasing employment opportunities through rigorous efforts in communicating awareness in the public and private sectors of the benefits of employing vocational rehabilitation participants. Increase public awareness and outreach through advertisement brochures, media and provider fairs;

2. Communication is a key element in improving and increasing the overall success rate of participants. Each group indicated some sort of communication and/or awareness could greatly enhance the program. Therefore, a concerted effort regarding communication, coordination, cooperation and collaboration are needed to improve program success in the following manner;

    a. Staff communicating to the participants exactly how the program works and what to expect;

    b. Participants communicating their needs;

    c. Staff communicating with the advocates, services providers, and employers what is most needed now for success;

    d. All entities interacting together; and

    e. Cost effective workshops could be established to achieve communication along with frequent survey questionnaires designed to invoke more communication and awareness, enhance education and training and influence attitudes, perceptions and behavior

Appendix B

Invitation Letter to DSB Clients

Follow-up Letter to DSB Clients

Invitation Letter to DSB Clients

Dear Client,

You can help to improve the North Carolina Division of Services for the Blind (NCDSC) Vocational Rehabilitation (VR) Program. Will you please complete a survey about your needs? There are questions about how the NCDSB can help you get the services you need to choose, get or keep a job. The NCDSB has contracted with East Carolina University to conduct this survey.

You can help us improve the VR program by answering survey questions. Answering the questions is voluntary and you may skip any item that you do not want to answer. Your answers are confidential and we do not need your name or address. When you complete the survey that shows you consented to participate and you are eligible to win a $50 prize.

There are three ways to complete the survey. First is on the computer. You need to send an email to NCDSB@ecu.edu. In your email mail, all you need to put is ***send me a survey***. After you send the email you will receive a link. When you click on the link you will be directed to the survey.

The second way is to complete the survey using a paper copy. If you want a paper copy, call 1-866-222-1546 and a survey will be mailed to you. The phone call is free.

The third way is to use a reader. You may call 1-866-222-1546 and request a reader. The reader will call you and set a time to read the survey to you and write your response. The phone call is free.

if you have any questions about the survey or your participation, then contact Ms. Shirley Madison or Dr. Steven Sligar (252-744-6300 or email NCDSB@ecu.edu) at East Carolina University. If you would like results of the survey, please contact us.

Your responses are greatly appreciated.

Sincerely,

Mary Flannigan
Interim Director

Follow-up Letter to DSB Clients

Dear Client,

You can help to improve the North Carolina Division of Services for the Blind (NCDSC) Vocational Rehabilitation (VR) Program. Last week you received an invitation to participate in a survey about your needs.

If you have finished the survey, then thank you for your help.

If you have not, then please will you take a few moments to answer questions about how the NCDSB can help you get the services you need to choose, get or keep a job. The NCDSB has contracted with East Carolina University to conduct this survey.

You can help us improve the VR program by answering survey questions. Answering the questions is voluntary and you may skip any item that you do not want to answer. Your answers are confidential and we do not need your name or address. When you complete the survey that shows you consented to participate and you are eligible to win a $50 prize.

There are three ways to complete the survey. First is on the computer. You need to send an email to NCDSB@ecu.edu. In your email mail, all you need to put is ***send me a survey***. After you send the email you will receive a link. When you click on the link you will be directed to the survey.

The second way is to complete the survey using a paper copy. If you want a paper copy, call 1-866-222-1546 and a survey will be mailed to you. The phone call is free.

The third way is to use a reader. You may call 1-866-222-1546 and request a reader. The reader will call you and set a time to read the survey to you and write your response. The phone call is free.

Please complete the survey by Friday February 5, 2010.

If you have any questions about the survey or your participation, then contact Ms. Shirley Madison or Dr. Steven Sligar (252-744-6300 or email NCDSB@ecu.edu) at East Carolina University. If you would like results of the survey, please contact us.

Your responses are greatly appreciated.

Sincerely,

Mary Flannigan
Interim Director

Appendix C

Listing of Tables

1) North Carolina Racial Demographics by County

2) Estimated Number of Blind and Low Vision Residents in each North Carolina County by Age Group

3) Estimated Number of Individuals who are Blind/Low Vision Receiving SSI by District Office and County

4) Percentage of Spoken Language by County in North Carolina

5) Percentage of Religion practiced in North Carolina by County

6) Estimated Number and Percentage of Individuals receiving SS in North Carolina 2002-2009

7) Estimated Population of Blind, low vision and title by District

8) Estimated Population of Blind, low vision and title by Area

9) Population Utilizing North Carolina Transportation System

Table C1

Percentage of Total Population by Race for Each of the 100 counties in NC

NC County	Total	White	Black	Asian/Pacific Islander	Native American/ Native Alaskan	Hispanic
Alamance	148,053	78.50%	18.70%	1.20%	0.50%	11.30%
Alexander	36,537	91.70%	6.10%	1%	0.30%	3.40%
Alleghany	10,951	97.00%	1.70%	0.20%	0.30%	8.90%
Anson	25,162	69.60%	48.30%	0.90%	0.60%	1.40%
Ashe	25,702	98.00%	0.90%	0.20%	0.40%	3.70%
Avery	17,884	93.40%	5.20%	0.30%	0.40%	3.90%
Beaufort	46,035	71.50%	27.20%	0.30%	0.30%	4.40%
Bertie	19,337	38.20%	60.40%	0.30%	0.60%	1.50%
Bladen	32,312	60.70%	35.80%	0.30%	2.30%	5.90%
Brunswick	103,160	85.90%	11.80%	0.50%	0.70%	4.00%

Buncombe	229,047	90.10%	7.20%	1.10%	0.40%	4.50%
Burke	89,361	88.40%	6.70%	3.50%	0.50%	5.40%
Cabarrus	168,740	81.80%	15.10%	1.60%	0.40%	7.40%
Caldwell	80,059	93.00%	5.40%	0.60%	0.30%	4.20%
Camden	9,682	82.00%	15.80%	0.80%	0.40%	1.70%
Carteret	63,195	90.10%	7.40%	0.80%	0.50%	2.50%
Caswell	23,248	64.60%	34.00%	0.20%	0.20%	2.60%
Catawba	157,079	87.30%	8.50%	3.00%	0.30%	9.10%
Chatham	63,077	83.30%	13.30%	2.10%	0.40%	12.50%
Cherokee	26,568	95.10%	2.00%	0.30%	1.50%	1.40%
Chowan	14,565	62.90%	35.90%	0.30%	0.30%	2.00%
Clay	10,389	97.70%	1.30%	0.20%	0.30%	1.90%
Cleveland	99,015	77.50%	20.80%	0.80%	0.20%	2.30%
Columbus	54,212	65.00%	30.50%	0.30%	3.40%	3.30%

Craven	96,829	72.70%	23.80%	1.40%	0.40%	3.90%
Cumberland	312,696	56.10%	37.00%	2.40%	1.60%	6.70%
Currituck	24,183	90.50%	7.50%	0.50%	0.40%	2.20%
Dare	33,584	94.70%	3.30%	0.50%	0.30%	3.60%
Davidson	158,166	88.20%	9.40%	1.10%	0.40%	6.00%
Davie	40,971	91.40%	6.90%	0.50%	0.30%	6.30%
Duplin	53,362	72.50%	26.00%	0.40%	0.40%	21.40%
Durham	262,715	56.60%	37.20%	4.50%	0.40%	12.30%
Edgecombe	52,682	41.90%	56.80%	0.40%	0.30%	4%
Forsyth	343,028	70.70%	26%	1.50%	0%	11%
Franklin	58,927	71.60%	26.60%	0.50%	0.40%	7.50%
Gaston	206,679	82.40%	15.20%	1.10%	0.30%	5.70%
Gates	11,708	63.60%	34.50%	0.60%	7.70%	1.10%
Graham	7,825	90.20%	0.60%	0.50%	7.70%	1.50%

Granville	57,044	64.60%	33.10%	0.60%	0.80%	6.40%
Greene	20,677	58.20%	40.60%	0.10%	0.50%	12.20%
Guilford	472,216	63.20%	31.60%	3.30%	0.60%	6.40%
Halifax	54,983	41.10%	53.90%	0.70%	3.50%	1.30%
Harnett	112,030	74.20%	22.20%	1.10%	0.90%	8.60%
Haywood	56,590	96.90%	1.50%	0.30%	0.50%	2.10%
Henderson	102,367	94.50%	3.30%	0.80%	0.40%	8.70%
Hertford	23,224	35.90%	61.60%	0.50%	1.20%	2.20%
Hoke	43,409	53.20%	34%	1.30%	9.50%	11.20%
Hyde	5,181	62.80%	35.50%	0.50%	0.40%	2.70%
Iredell	155,359	84.90%	12.30%	1.60%	0.30%	5.80%
Jackson	36,739	84.90%	2.40%	0.70%	10.50%	2.40%
Johnston	163,428	82.20%	15.70%	0.80%	0.50%	11.40%
Jones	10,113	65.10%	33.30%	0.20%	0.40%	4.00%

Lee	59,091	77.90%	19.90%	0.90%	0.80%	16.70%
Lenoir	56,826	57.70%	40.90%	0.50%	0.40%	4.80%
Lincoln	74,746	91.80%	6.70%	0.40%	0.30%	8.50%
McDowell	43,843	93.70%	4.00%	1.10%	0.30%	4.60%
Macon	33,005	96.30%	1.80%	0.70%	0.30%	3.10%
Madison	20,432	97.20%	1.40%	0.40%	0.30%	1.90%
Martin	23,398	54.50%	43.90%	0.40%	0.40%	3.40%
Mecklenburg	890,515	64.40%	29.60%	4.00%	0.50%	10.80%
Mitchell	15,784	97.70%	0.70%	0.20%	0.50%	3.60%
Montgomery	27,358	76.80%	19.80%	1.90%	0.70%	16.00%
Moore	85,608	83.10%	14.40%	0.80%	0.80%	5.80%
Nash	93,674	60.60%	37.20%	0.80%	0.50%	4.70%
New Hanover	192,538	81.70%	15.60%	1.30%	0.40%	3.50%
Northampton	20,487	40.60%	58.00%	0.30%	0.40%	1.20%

Onslow	165,938	76.80%	17.40%	2.20%	0.80%	7.10%
Orange	126,532	78.90%	13.30%	5.80%	0.50%	6.30%
Pamlico	12,502	75.20%	22.90%	0.40%	0.60%	1.60%
Pasquotank	41,111	58.70%	38.50%	1.10%	0.40%	2.40%
Pender	51,314	79.00%	19.20%	0.40%	0.50%	5.10%
Perquimans	12,856	73.60%	25.30%	0.30%	0.20%	1.20%
Person	37,438	70.50%	27.80%	0.20%	0.60%	3.10%
Pitt	156,081	63.90%	33.50%	1.30%	0.30%	4.80%
Polk	19,074	73.90%	21.60%	2.00%	0.10%	7.40%
Randolph	141,186	91.70%	5.90%	0.80%	0.50%	10.60%
Richmond	46,005	91.70%	5.90%	0.80%	0.50%	10.60%
Robeson	129,123	35.80%	24.10%	0.70%	38%	8.60%
Rockingham	92,282	79.20%	19.10%	0.60%	0.30%	5.30%
Rowan	139,225	82.10%	15.70%	0.90%	0.40%	6.60%

Rutherford	63.424	87.30%	11.00%	0.40%	0.20%	2.40%
Sampson	63,927	68.20%	28.20%	0.70%	1.90%	16.50%
Scotland	36,508	49.50%	38.20%	0.60%	10.10%	1.40%
Stanly	59,614	85.50%	11.70%	1.80%	0.30%	3.40%
Stokes	46,171	93.90%	4.80%	0.40%	0.30%	2.30%
Surry	72,468	94.40%	4.10%	0.50%	0.30%	9.50%
Swain	13,512	69.80%	1.50%	0.20%	26.10%	2.90%
Transylvania	30,187	93.10%	4.80%	0.50%	0.30%	1.50%
Tyrell	4,087	56.00%	41.60%	1.40%	0.20%	6.40%
Union	193,255	84.80%	12.20%	1.50%	0.50%	10.10%
Vance	42,891	48.80%	49.50%	0.60%	0.30%	6.60%
Wake	866,410	72.80%	20.50%	4.70%	0.50%	8.80%
Warren	19,388	39.90%	54.00%	0.20%	5.10%	2.50%
Washington	12,946	48.30%	50.20%	0.60%	0.10%	3.30%

Watauga	45,196	95.90%	2.10%	0.80%	0.30%	2.10%
Wayne	113,671	64.80%	32.60%	0.90%	0.40%	7.10%
Wilkes	66,655	94.20%	4.20%	0.80%	0.20%	5.60%
Wilson	77,527	58.90%	39.40%	0.70%	0.30%	8.90%
Yadkin	37,954	95.20%	3.60%	0.30%	0.20%	9.20%
Yancey	18,503	97.80%	1.00%	2.00%	0.40%	5.40%

C2

Table C2

Estimates of Blindness and Low Vision Distributed by County and Age Group (35-45 and 45-54)

NC County	Residents aged 35-44			Residents aged 45-54		
	Total N	# of Blind	# of LV	Total N	# of Blind	# of LV
Alamance	21,288	17	32	20,883	21	52
Alexander	5,647	5	8	5,359	5	13
Alleghany	1,415	1	2	1,534	2	4
Anson	3,511	3	5	1,654	2	4
Ashe	3,299	3	5	3,696	4	9
Avery	2,674	2	4	2,276	2	6
Beaufort	5,420	4	8	6,723	7	17
Bertie	2,176	2	3	2,958	3	7
Bladen	4,053	3	6	4,661	5	12
Brunswick	13,130	11	20	13,121	13	33
Buncombe	31,365	25	47	33,961	34	85
Burke	12,861	10	19	13,220	13	33
Cabarrus	25,664	21	38	24,237	24	61
Caldwell	11,828	9	18	11,891	12	30
Camden	1,422	1	2	1,442	1	4
Carteret	7,981	6	12	10,030	10	25
Caswell	3,311	3	5	3,694	4	9
Catawba	23,369	19	35	22,691	23	57
Chatham	9,409	8	14	9,097	9	23
Cherokee	3,113	2	5	3,512	4	9
Chowan	1,626	1	2	2,157	2	5
Clay	1,115	1	2	1,468	1	4
Cleveland	13,805	11	21	14,257	14	36
Columbus	7,046	6	11	7,567	8	19
Craven	11,319	9	17	13,284	13	33
Cumberland	44,918	36	67	43,730	44	109
Currituck	3,490	3	5	3,960	4	10
Dare	4,853	4	7	5,887	6	15
Davidson	23,862	19	36	24,141	24	60

Davie	5,915	5	9	5,973	6	15
Duplin	7,423	6	11	7,343	7	18
Durham	42,875	34	64	35,377	35	88
Edgecombe	6,766	5	10	8,628	9	22
Forsyth	49,381	40	74	50,477	50	126
Franklin	9,057	7	14	8,824	9	22
Gaston	30,656	25	46	30,121	30	75
Gates	1,609	1	2	1,991	2	5
Graham	974	1	1	1,121	1	3
Granville	8,831	7	13	8,456	8	21
Greene	3,098	2	5	3,039	3	8
Guilford	69,500	56	104	68,722	69	172
Halifax	7,054	6	11	8,227	8	21
Harnett	17,536	14	26	14,500	15	36
Haywood	7,677	6	12	7,924	8	20
Henderson	12,927	10	19	13,670	14	34
Hertford	2,738	2	4	3,672	4	9
Hoke	6,648	5	10	5,660	6	14
Hyde	755	1	1	851	1	2
Iredell	22,891	18	34	22,772	23	57
Jackson	4,059	3	6	4,604	5	12
Johnston	27,059	22	41	22,461	22	56
Jones	1,242	1	2	1,614	2	4
Lee	7,950	6	12	8,683	9	22
Lenoir	7,133	6	11	8,735	9	22
Lincoln	11,550	9	17	11,281	11	28
McDowell	6,079	5	9	6,399	6	16
Macon	3,643	3	5	4,313	4	11
Madison	2,633	2	4	2,820	3	7
Martin	2,933	2	4	3,520	4	9
Mecklenburg	151,368	121	227	131,344	131	328
Mitchell	2,099	2	3	2,251	2	6
Montgomery	3,591	3	5	3,887	4	10
Moore	10,726	9	16	11,371	11	28
Nash	12,565	10	19	14,264	14	36
New Hanover	27,407	22	41	26,860	27	67

Northampton	2,481	2	4	3,128	3	8
Onslow	18,285	15	27	17,947	18	45
Orange	16,016	13	24	18,179	18	45
Pamlico	1,520	1	2	1,904	2	5
Pasquotank	5,147	4	8	5,849	6	15
Pender	7,138	6	11	7,462	7	19
Perquimans	1,539	1	2	1,845	2	5
Person	5,407	4	8	5,985	6	15
Pitt	20,381	16	31	20,001	20	50
Polk	2,315	2	3	2,650	3	7
Randolph	21,334	17	32	21,048	21	53
Richmond	5,964	5	9	6,343	6	16
Robeson	17,223	14	26	17,272	17	43
Rockingham	12,898	10	19	14,311	14	36
Rowan	19,419	16	29	20,319	20	51
Rutherford	8,569	7	13	8,964	9	22
Sampson	9,073	7	14	3,757	4	9
Scotland	4,706	4	7	5,163	5	13
Stanly	8,296	7	12	8,617	9	22
Stokes	6,869	5	10	7,385	7	18
Surry	10,305	8	15	10,419	10	26
Swain	1,725	1	3	1,885	2	5
Transylvania	3,068	2	5	4,086	4	10
Tyrell	628	1	1	646	1	2
Union	29,852	24	45	26,532	27	66
Vance	5,790	5	9	6,172	6	15
Wake	142,110	114	213	128,845	129	322
Warren	2,318	2	3	2,846	3	7
Washington	1,457	1	2	1,950	2	5
Watauga	4,401	4	7	5,604	6	14
Wayne	15,597	12	23	17,006	17	43
Wilkes	9,395	8	14	9,987	10	25
Wilson	10,318	8	15	11,545	12	29
Yadkin	5,514	4	8	5,582	6	14
Yancey	2,432	2	4	2,569	3	6

Table C3

Estimates of Blindness and Low Vision Distributed by County and Age Group (55-59 and 60-64)

NC County	County residents aged 55-59			County residents aged 60-64		
	Total N	# of Blind	# of Low Vision	Total N	# of Blind	# of Low Vision
Alamance	8,955	9	27	7,641	23	69
Alexander	2,477	2	7	2,191	7	20
Alleghany	797	1	2	737	2	7
Anson	1,373	1	4	1,373	4	12
Ashe	1,912	2	6	1,682	5	15
Avery	1,119	1	3	1,018	3	9
Beaufort	3,382	3	10	3,078	9	28
Bertie	1,319	1	4	1,035	3	9
Bladen	2,263	2	7	2,065	6	19
Brunswick	6,164	6	18	6,189	19	56
Buncombe	16,292	16	49	13,594	41	122
Burke	6,058	6	18	5,321	16	48
Cabarrus	9,689	10	29	8,319	25	75
Caldwell	5,491	5	16	4,784	14	43
Camden	540	1	2	519	2	5
Carteret	4,730	5	14	4,506	14	41
Caswell	1,734	2	5	1,461	4	13
Catawba	10,102	10	30	8,796	26	79
Chatham	3,965	4	12	3,368	10	30
Cherokee	1,888	2	6	1,925	6	17
Chowan	1,073	1	3	829	2	7
Clay	721	1	2	771	2	7
Cleveland	6,525	7	20	5,898	18	53
Columbus	3,714	4	11	3,237	10	29
Craven	5,964	6	18	5,335	16	48
Cumberland	17,539	18	53	14,341	43	129

Currituck	1,548	2	5	1,435	4	13
Dare	2,653	3	8	2,269	7	20
Davidson	10,310	10	31	9,181	28	83
Davie	2,740	3	8	2,414	7	22
Duplin	3,194	3	10	2,578	8	23
Durham	14,952	15	45	11,776	35	106
Edgecombe	3,748	4	11	3,006	9	27
Forsyth	22,068	22	66	18,101	54	163
Franklin	3,447	3	10	2,927	9	26
Gaston	13,472	13	40	11,740	35	106
Gates	741	1	2	717	2	6
Graham	520	1	2	531	2	5
Granville	3,353	3	10	2,763	8	25
Greene	1,175	1	4	1,005	3	9
Guilford	30,190	30	91	24,574	74	221
Halifax	3,671	4	11	3,103	9	28
Harnett	5,984	6	18	4,891	15	44
Haywood	3,799	4	11	3,858	12	35
Henderson	6,497	6	19	5,921	18	53
Hertford	1,569	2	5	1,344	4	12
Hoke	2,061	2	6	1,591	5	14
Hyde	382	0	1	303	1	3
Iredell	9,539	10	29	8,239	25	74
Jackson	2,334	2	7	2,340	7	21
Johnston	9,058	9	27	7,793	23	70
Jones	734	1	2	622	2	6
Lee	3,759	4	11	3,132	9	28
Lenoir	3,998	4	12	3,422	10	31
Lincoln	4,720	5	14	4,326	13	39
McDowell	2,906	3	9	2,447	7	22
Macon	2,556	3	8	2,255	7	20
Madison	1,496	1	4	1,241	4	11
Martin	1,734	2	5	1,460	4	13
Mecklenburg	51,638	52	155	41,840	126	377
Mitchell	1,142	1	3	1,087	3	10
Montgomery	1,796	2	5	1,554	5	14

Moore	5,026	5	15	4,779	14	43
Nash	6,408	6	19	5,221	16	47
New Hanover	12,252	12	37	10,788	32	97
Northampton	1,430	1	4	1,275	4	11
Onslow	7,191	7	22	6,103	18	55
Orange	8,454	8	25	6,203	19	56
Pamlico	929	1	3	907	3	8
Pasquotank	2,298	2	7	2,113	6	19
Pender	3,210	3	10	3,124	9	28
Perquimans	774	1	2	778	2	7
Person	2,613	3	8	2,147	6	19
Pitt	8,665	9	26	6,585	20	59
Polk	1,420	1	4	1,297	4	12
Randolph	8,877	9	27	8,146	24	73
Richmond	2,909	3	9	2,518	8	23
Robeson	7,638	8	23	6,236	19	56
Rockingham	6,417	6	19	5,585	17	50
Rowan	8,914	9	27	7,533	23	68
Rutherford	4,317	4	13	3,776	11	34
Sampson	3,757	4	11	3,264	10	29
Scotland	2,651	3	8	2,032	6	18
Stanly	3,886	4	12	3,388	10	30
Stokes	3,074	3	9	2,885	9	26
Surry	4,708	5	14	4,376	13	39
Swain	874	1	3	859	3	8
Transylvania	1,973	2	6	2,080	6	19
Tyrell	236	0	1	190	1	2
Union	10,259	10	31	8,685	26	78
Vance	2,784	3	8	2,319	7	21
Wake	49,542	50	149	39,363	118	354
Warren	1,369	1	4	1,188	4	11
Washington	956	1	3	826	2	7
Watauga	2,757	3	8	2,300	7	21
Wayne	7,309	7	22	5,866	18	53
Wilkes	4,689	5	14	4,102	12	37
Wilson	5,102	5	15	4,285	13	39

Yadkin	2,519	3	8	2,208	7	20
Yancey	1,431	1	4	1,208	4	11

Table C4

Estimates of Blindness and Low Vision Distributed by County and Age Group (65-74 and 75-84)

NC County	Residents aged 65-74			Residents aged 75-84		
	Total N	# of Blind	# of Low Vision	Total N	# of Blind	# of Low Vision
Alamance	10,321	52	196	7,082	212	567
Alexander	2,902	15	55	1,578	47	126
Alleghany	1,163	6	22	731	22	58
Anson	1,821	9	35	1,219	37	98
Ashe	2,663	13	51	1,660	50	133
Avery	1,606	8	31	1,110	33	89
Beaufort	4,421	22	84	2,683	80	215
Bertie	1,580	8	30	1,093	33	87
Bladen	2,493	12	47	1,509	45	121
Brunswick	11,050	55	210	6,496	195	520
Buncombe	18,018	90	342	12,133	364	971
Burke	7,542	38	143	4,374	131	350
Cabarrus	9,724	49	185	5,636	169	451
Caldwell	6,929	35	132	3,864	116	309
Camden	666	3	13	367	11	29
Carteret	6,129	31	116	3,891	117	311
Caswell	2,043	10	39	1,125	34	90
Catawba	11,574	58	220	6,756	203	540
Chatham	4,339	22	82	2,979	89	238
Cherokee	3,088	15	59	1,850	56	148
Chowan	1,335	7	25	881	26	70
Clay	1,197	6	23	841	25	67
Cleveland	7,809	39	148	4,838	145	387
Columbus	4,474	22	85	2,583	77	207
Craven	7,785	39	148	5,538	166	443
Cumberland	17,506	88	333	8,875	266	710
Currituck	1,655	8	31	844	25	68
Dare	2,623	13	50	1,433	43	115

Davidson	12,068	60	229	6,897	207	552
Davie	3,357	17	64	1,996	60	160
Duplin	3,718	19	71	2,250	68	180
Durham	13,091	65	249	7,685	231	615
Edgecombe	3,520	18	67	2,012	60	161
Forsyth	23,005	115	437	14,643	439	1,171
Franklin	3,520	18	67	1,993	60	159
Gaston	14,557	73	277	8,783	263	703
Gates	868	4	16	494	15	40
Graham	768	4	15	438	13	35
Granville	3,429	17	65	2,013	60	161
Greene	1,366	7	26	818	25	65
Guilford	30,455	152	579	18,682	560	1,495
Halifax	4,424	22	84	2,957	89	237
Harnett	6,023	30	114	3,370	101	270
Haywood	5,835	29	111	3,904	117	312
Henderson	10,183	51	193	8,560	257	685
Hertford	1,855	9	35	1,152	35	92
Hoke	1,903	10	36	996	30	80
Hyde	448	2	9	284	9	23
Iredell	10,592	53	201	6,204	186	496
Jackson	2,918	15	55	1,615	48	129
Johnston	8,624	43	164	4,438	133	355
Jones	964	5	18	667	20	53
Lee	4,364	22	83	2,909	87	233
Lenoir	4,910	25	93	3,315	99	265
Lincoln	5,213	26	99	2,834	85	227
McDowell	3,836	19	73	2,215	66	177
Macon	3,867	19	73	2,833	85	227
Madison	1,874	9	36	1,137	34	91
Martin	2,103	11	40	1,315	39	105
Mecklenburg	42,114	211	800	22,370	671	1,790
Mitchell	1,624	8	31	1,116	33	89

Montgomery	2,075	10	39	1,223	37	98
Moore	8,036	40	153	6,934	208	555
Nash	6,949	35	132	4,704	141	376
New Hanover	13,988	70	266	8,729	262	698
Northampton	1,978	10	38	1,443	43	115
Onslow	7,423	37	141	3,544	106	284
Orange	6,868	34	130	4,074	122	326
Pamlico	1,495	7	28	925	28	74
Pasquotank	2,587	13	49	1,882	56	151
Pender	4,315	22	82	2,655	80	212
Perquimans	1,372	7	26	905	27	72
Person	2,821	14	54	1,684	51	135
Pitt	8,274	41	157	5,056	152	404
Polk	1,992	10	38	1,593	48	127
Randolph	10,515	53	200	6,142	184	491
Richmond	3,456	17	66	2,200	66	176
Robeson	7,981	40	152	4,375	131	350
Rockingham	7,676	38	146	4,869	146	390
Rowan	10,002	50	190	6,756	203	540
Rutherford	5,587	28	106	3,492	105	279
Sampson	4,574	23	87	2,742	82	219
Scotland	2,515	13	48	1,434	43	115
Stanly	4,734	24	90	3,063	92	245
Stokes	3,998	20	76	2,223	67	178
Surry	6,146	31	117	4,105	123	328
Swain	1,280	6	24	786	24	63
Transylvania	3,673	18	70	2,659	80	213
Tyrell	324	2	6	217	7	17
Union	9,617	48	183	4,779	143	382
Vance	3,136	16	60	1,905	57	152
Wake	39,571	198	752	20,232	607	1,619
Warren	1,860	9	35	1,233	37	99
Washington	1,220	6	23	716	21	57
Watauga	3,054	15	58	1,785	54	143
Wayne	8,220	41	156	4,775	143	382
Wilkes	6,036	30	115	3,443	103	275

Wilson	5,744	29	109	3,479	104	278
Yadkin	3,349	17	64	1,931	58	154
Yancey	1,907	10	36	1,242	37	99

Table C5

Estimates of Blindness and Low Vision Distributed by County and Age Group (85 and above)

NC County	Residents aged 85 and above		
	Total N	# of Blind	# of Low Vision
Alamance	3,014	241	543
Alexander	516	41	93
Alleghany	291	23	52
Anson	621	50	112
Ashe	669	54	120
Avery	425	34	77
Beaufort	1,014	81	183
Bertie	417	33	75
Bladen	556	44	100
Brunswick	1,729	138	311
Buncombe	5,544	444	998
Burke	1,809	145	326
Cabarrus	2,279	182	410
Caldwell	1,490	119	268
Camden	135	11	24
Carteret	1,285	103	231
Caswell	437	35	79
Catawba	1,384	111	249
Chatham	1,384	111	249
Cherokee	798	64	144
Chowan	410	33	74
Clay	395	32	71
	2,016	161	363
Columbus	989	79	178
Craven	1,663	133	299
Cumberland	2,904	232	523
Currituck	305	24	55
Dare	403	32	73
Davidson	2,551	204	459

Davie	735	59	132
Duplin	897	72	161
Durham	3,608	289	649
Edgecombe	798	64	144
Forsyth	5,733	459	1,032
Franklin	755	60	136
Gaston	3,341	267	601
Gates	204	16	37
Graham	168	13	30
Granville	719	58	129
Greene	327	26	59
Guilford	7,866	629	1,416
Halifax	1,243	99	224
Harnett	1,311	105	236
Haywood	1,577	126	284
Henderson	3,766	301	678
Hertford	490	39	88
Hoke	327	26	59
Hyde	135	11	24
Iredell	2,456	196	442
Jackson	696	56	125
Johnston	1,766	141	318
Jones	243	19	44
Lee	151	12	27
Lenoir	1,166	93	210
Lincoln	1,017	81	183
McDowell	870	70	157
Macon	1,090	87	196
Madison	494	40	89
Martin	535	43	96
Mecklenburg	9,270	742	1,669
Mitchell	436	35	78
Montgomery	494	40	89
Moore	3,065	245	552
Nash	1,728	138	311
New Hanover	3,265	261	588

Northampton	614	49	111
Onslow	1,160	93	209
Orange	1,674	134	301
Pamlico	327	26	59
Pasquotank	822	66	148
Pender	909	73	164
Perquimans	361	29	65
Person	675	54	122
Pitt	2,108	169	379
Polk	902	72	162
Randolph	2,349	188	423
Richmond	857	69	154
Robeson	1,748	140	315
Rockingham	2,008	161	361
Rowan	3,083	247	555
Rutherford	1,646	132	296
Sampson	1,144	92	206
Scotland	587	47	106
Stanly	1,233	99	222
Stokes	897	72	161
Surry	1,738	139	313
Swain	327	26	59
Transylvania	1,166	93	210
Tyrell	94	8	17
Union	1,784	143	321
Vance	705	56	127
Wake	7,822	626	1,408
Warren	483	39	87
Washington	332	27	60
Watauga	692	55	125
Wayne	1,544	124	278
Wilkes	1,304	104	235
Wilson	1,330	106	239
Yadkin	776	62	140
Yancey	513	41	92

Table C6

Estimates of Individuals who are Blind or Visually Impaired and Receiving SSI by District Office and County

NC County	Total	Blind & Disabled
Asheville District		
Ashe	855	702
Alleghany	312	257
Avery	383	303
Buncombe	5079	4504
Burke	2000	1834
Caldwell	1564	1440
Catawba	2506	2215
Cherokee	861	732
Clay	310	259
Graham	285	250
Haywood	1492	1316

Henderson	1726	1523
Jackson	672	564
Macon	722	592
Madison	827	680
McDowell	1183	1075
Mitchell	482	393
Polk	298	262
Rutherford	1755	1592
Swain	381	329
Transylvania	564	516
Watauga	650	539
Wilkes	1981	1726
Yancey	714	553

Winston-Salem District		
Alexander	571	505
Alamance	2675	2337
Anson	1113	1012
Cabarrus	1113	1012
Caswell	2229	2036
Chatham	820	692
Cleveland	2897	2653
Davidson	1883	1614
Davie	2790	2591
Forsyth	2940	2566
Gaston	2897	2653
Guilford	757	629
Iredell	526	459

Lincoln	1245	1128
Mecklenburg	13343	11687
Rockingham	2675	2337
Rowan	2280	2057
Stanly	2892	2601
Stokes	901	775
Surry	2579	2409
Union	1883	1614
Yadkin	757	629
Raleigh District		
Caswell	820	692
Chatham	740	643
Durham	5153	4760
Franklin	1447	1238

Granville	1498	1277
Harnett	2684	2413
Johnston	3600	3169
Lee	1166	1029
Montgomery	721	645
Moore	1476	1304
Orange	1457	1298
Person	1002	855
Randolph	2474	2229
Richmond	2093	1914
Vance	2230	2041
Wake	9953	8730
Warren	991	860
Wilmington District		

Bladen	1882	1672
Brunswick	1989	1827
Carteret	1186	1058
Chowan	524	442
Columbus	3344	3043
Craven	2315	2069
Cumberland	8812	8212
Duplin	1925	1631
Hoke	1257	1121
Jones	373	311
New Hanover	3694	3443
Onslow	2612	2401
Pamlico	331	291
Pender	1087	965

Robeson	7115	6438
Sampson	2281	1968
Scotland	1992	1840
Wayne	4495	4091
Greenville District		
Beaufort	1849	1642
Bertie	1442	1230
Camden	135	112
Chowan	524	442
Currituck	263	236
Dare	277	247
Edgecombe	2800	2523
Gates	321	263
Greene	771	650

Halifax	4122	3738
Hertford	1309	1112
Hyde	219	170
Lenoir	2683	2337
Martin	1140	980
Nash	3289	2860
Northampton	1333	1170
Pasquotank	1151	1009
Perquimans	361	320
Pitt	5297	4742
Tyrell	153	126
Washington	674	629
Wilson	8966	8104

Table C7

Spoken Languages by County in North Carolina

NC County	English		Spanish		Asian		Other		Total	
	N	%								
	6,909,650	92.11%	378,940	5.05%	12,835	0.17%	199,710	2.66%	7,501,135	100%
Alamance	110,935	90.93%	8,895	7.29%	265	0.22%	1,900	1.56%	121,995	100%
Alexander	30,055	96.42%	835	2.68%	0	0.00%	280	0.90%	31,170	100%
Alleghany	9,505	94.39%	515	5.11%	0	0.00%	50	0.50%	10,070	100%
Anson	23,010	97.54%	445	1.89%	0	0.00%	135	0.57%	23,590	100%
Ashe	22,320	96.92%	610	2.65%	0	0.00%	100	0.43%	23,030	100%
Avery	15,535	95.98%	475	2.93%	20	0.12%	155	0.96%	16,185	100%
Beaufort	40,265	95.85%	1,595	3.80%	0	0.00%	150	0.36%	42,010	100%
Bertie	18,140	97.84%	315	1.70%	15	0.08%	70	0.38%	18,540	100%
Bladen	28,510	95.08%	1,320	4.40%	30	0.10%	125	0.42%	29,985	100%
Brunswick	65,810	95.32%	2,215	3.21%	30	0.04%	985	1.43%	69,040	100%

Buncombe	183,265	94.32%	6,440	3.31%	590	0.30%	4,005	2.06%	194,300	100%
Burke	76,905	92.20%	3,210	3.85%	160	0.19%	3,140	3.76%	83,415	100%
Cabarrus	112,950	93.08%	6,775	5.58%	370	0.30%	1,250	1.03%	121,345	100%
Caldwell	69,955	96.82%	1,940	2.68%	45	0.06%	315	0.44%	72,255	100%
Camden	6,335	97.46%	165	2.54%	0	0.00%	0	0.00%	6,500	100%
Carteret	54,290	96.49%	1,150	2.04%	130	0.23%	695	1.24%	56,265	100%
Caswell	21,300	73.30%	7,605	26.17%	0	0.00%	155	0.53%	29,060	100%
Catawba	119,785	96.44%	0	0.00%	255	0.21%	4,165	3.35%	124,205	100%
Chatham	41,350	89.88%	4,305	9.36%	30	0.07%	320	0.70%	46,005	100%
Cherokee	22,300	97.32%	265	1.16%	0	0.00%	350	1.53%	22,915	100%
Chowan	13,220	97.38%	330	2.43%	0	0.00%	25	0.18%	13,575	100%
Clay	8,205	98.44%	100	1.20%	0	0.00%	30	0.36%	8,335	100%
	86,300	96.39%	1,860	2.08%	20	0.02%	1,350	1.51%	89,530	100%
Columbus	49,330	96.64%	1,370	2.68%	30	0.06%	315	0.62%	51,045	100%

Craven	79,360	94.08%	2,890	3.43%	425	0.50%	1,680	1.99%	84,355	100%
Cumberland	248,240	89.25%	16,535	5.95%	2,755	0.99%	10,595	3.81%	278,125	100%
Currituck	16,560	97.58%	270	1.59%	20	0.12%	120	0.71%	16,970	100%
Dare	27,255	96.26%	660	2.33%	0	0.00%	400	1.41%	28,315	100%
Davidson	129,865	94.61%	5,595	4.08%	20	0.01%	1,780	1.30%	137,260	100%
Davie	30,825	95.23%	1,380	4.26%	0	0.00%	165	0.51%	32,370	100%
Duplin	38,700	85.08%	6,600	14.51%	0	0.00%	185	0.41%	45,485	100%
Durham	179,175	86.46%	17,070	8.24%	1,945	0.94%	9,045	4.36%	207,235	100%
Edgecombe	49,580	95.71%	1,840	3.55%	0	0.00%	385	0.74%	51,805	100%
Forsyth	259,565	90.96%	19,295	6.76%	1,030	0.36%	5,480	1.92%	285,370	100%
Franklin	41,095	93.85%	2,265	5.17%	0	0.00%	430	0.98%	43,790	100%
Gaston	167,520	94.54%	6,705	3.78%	350	0.20%	2,620	1.48%	177,195	100%
Gates	9,660	98.32%	90	0.92%	0	0.00%	75	0.76%	9,825	100%
Graham	7,235	96.98%	70	0.94%	0	0.00%	155	2.08%	7,460	100%

Granville	42,700	94.21%	2,175	4.80%	20	0.04%	430	0.95%	45,325	100%
Greene	16,200	91.81%	1,420	8.05%	0	0.00%	25	0.14%	17,645	100%
Guilford	357,625	91.40%	18,260	4.67%	0	0.00%	15,375	3.93%	391,260	100%
Halifax	52,345	97.78%	855	1.60%	95	0.18%	240	0.45%	53,535	100%
Harnett	77,610	92.45%	4,925	5.87%	300	0.36%	1,110	1.32%	83,945	100%
Haywood	49,505	97.00%	965	1.89%	25	0.05%	540	1.06%	51,035	100%
Henderson	77,570	92.50%	4,820	5.75%	165	0.20%	1,300	1.55%	83,855	100%
Hertford	20,680	97.23%	500	2.35%	0	0.00%	90	0.42%	21,270	100%
Hoke	27,455	90.70%	2,145	7.09%	115	0.38%	555	1.83%	30,270	100%
Hyde	5,305	96.37%	175	3.18%	0	0.00%	25	0.45%	5,505	100%
Iredell	107,945	94.73%	4,135	3.63%	325	0.29%	1,540	1.35%	113,945	100%
Jackson	29,690	95.08%	660	2.11%	30	0.10%	845	2.71%	31,225	100%
Johnston	101,915	91.24%	8,700	7.79%	145	0.13%	940	0.84%	111,700	100%
Jones	9,310	99.47%	0	0.00%	0	0.00%	50	0.53%	9,360	100%

Lee	40,035	87.97%	5,135	11.28%	75	0.16%	265	0.58%	45,510	100%
Lenoir	52,825	95.18%	2,275	4.10%	55	0.10%	345	0.62%	55,500	100%
Lincoln	55,655	93.65%	3,505	5.90%	0	0.00%	270	0.45%	59,430	100%
McDowell	37,845	96.02%	1,135	2.88%	30	0.08%	405	1.03%	39,415	100%
Macon	27,320	97.41%	445	1.59%	30	0.11%	250	0.89%	28,045	100%
Madison	17,815	97.06%	350	1.91%	85	0.46%	105	0.57%	18,355	100%
Martin	23,305	97.25%	570	2.38%	0	0.00%	90	0.38%	23,965	100%
Mecklenburg	560,785	86.99%	45,065	6.99%	4,725	0.73%	34,105	5.29%	644,680	100%
Mitchell	14,335	96.76%	400	2.70%	0	0.00%	80	0.54%	14,815	100%
Montgomery	21,960	88.25%	2,525	10.15%	0	0.00%	399	1.60%	24,884	100%
Moore	66,365	94.34%	2,895	4.12%	20	0.03%	1,070	1.52%	70,350	100%
Nash	76,805	94.40%	3,310	4.07%	199	0.24%	1,050	1.29%	81,364	100%
New Hanover	142,835	94.85%	4,200	2.79%	485	0.32%	3,075	2.04%	150,595	100%
Northampton	20,290	97.71%	290	1.40%	30	0.14%	155	0.75%	20,765	100%

Onslow	124,225	90.91%	8,060	5.90%	895	0.65%	3,470	2.54%	136,650	100%
Orange	99,035	88.50%	5,880	5.25%	2,445	2.18%	4,550	4.07%	111,910	100%
Pamlico	11,660	95.85%	385	3.16%	0	0.00%	120	0.99%	12,165	100%
Pasquotank	31,455	96.62%	755	2.32%	60	0.18%	285	0.88%	32,555	100%
Pender	36,615	95.05%	1,460	3.79%	15	0.04%	430	1.12%	38,520	100%
Perquimans	10,555	98.00%	140	1.30%	0	0.00%	75	0.70%	10,770	100%
Person	32,090	96.63%	835	2.51%	20	0.06%	265	0.80%	33,210	100%
Pitt	117,685	94.33%	4,780	3.83%	390	0.31%	1,905	1.53%	124,760	100%
Polk	16,300	94.77%	625	3.63%	0	0.00%	275	1.60%	17,200	100%
Randolph	112,135	92.44%	7,890	6.50%	140	0.12%	1,140	0.94%	121,305	100%
Richmond	41,455	95.84%	1,270	2.94%	0	0.00%	530	1.23%	43,255	100%
Robeson	105,980	93.60%	5,915	5.22%	160	0.14%	1,175	1.04%	113,230	100%
Rockingham	82,155	95.70%	3,095	3.61%	60	0.07%	540	0.63%	85,850	100%
Rowan	114,645	94.37%	5,170	4.26%	40	0.03%	1,630	1.34%	121,485	100%

Rutherford	57,005	97.05%	1,315	2.24%	75	0.13%	340	0.58%	58,735	100%
Sampson	49,455	89.10%	5,605	10.10%	40	0.07%	405	0.73%	55,505	100%
Scotland	32,390	97.50%	620	1.87%	0	0.00%	210	0.63%	33,220	100%
Stanly	51,940	95.65%	1,475	2.72%	0	0.00%	885	1.63%	54,300	100%
Stokes	40,305	96.63%	1,130	2.71%	0	0.00%	275	0.66%	41,710	100%
Surry	61,525	92.37%	4,405	6.61%	0	0.00%	680	1.02%	66,610	100%
Swain	11,550	95.14%	170	1.40%	0	0.00%	420	3.46%	12,140	100%
Transylvania	26,770	97.05%	520	1.89%	0	0.00%	295	1.07%	27,585	100%
Tyrell	3,730	94.43%	185	4.68%	0	0.00%	35	0.89%	3,950	100%
Union	104,310	92.08%	7,360	6.50%	90	0.08%	1,520	1.34%	113,280	100%
Vance	37,560	94.47%	1,955	4.92%	75	0.19%	170	0.43%	39,760	100%
Wale	511,975	87.89%	33,840	5.81%	6,400	1.10%	30,285	5.20%	582,500	100%
Warren	17,960	95.84%	615	3.28%	0	0.00%	165	0.88%	18,740	100%
Washington	12,385	97.33%	340	2.67%	0	0.00%	0	0.00%	12,725	100%

Watauga	39,130	95.82%	915	2.24%	25	0.06%	765	1.87%	40,835	100%
Wayne	97,985	93.06%	5,495	5.22%	275	0.26%	1,540	1.46%	105,295	100%
Wilkes	58,405	95.54%	2,375	3.89%	0	0.00%	350	0.57%	61,130	100%
Wilson	63,285	92.35%	4,760	6.95%	70	0.10%	415	0.61%	68,530	100%
Yadkin	31,495	92.84%	2,345	6.91%	25	0.07%	60	0.18%	33,925	100%
Yancey	16,150	96.39%	525	3.13%	15	0.09%	65	0.39%	16,755	100%

http://www.census.gov/population/www/socdemo/lang_use.html

Table C8

Religions Practiced in North Carolina by County

	Evangelical Protestant	Mainline Protestant	Orthodox	Catholic	Others	Unclaimed	Total
NC County	2045910	1163720	9260	315754	96963	4395831	8027438
Alamance	23493	27636	132	3047	1020	75472	130800
Alexander	16666	4945	0	416	2	11574	33603
Alleghany	1929	792	0	170	78	7708	10677
Anson	9053	3135	0	117	26	12944	25275
Ashe	9289	2654	0	306	9	12126	24384
Avery	6042	1545	0	389	11	9180	17167
Beaufort	13830	7472	0	690	252	22714	44958
Bertie	7305	1219	0	0	24	11225	19773
Bladen	11169	3321	0	95	11	17682	32278

Brunswick	14677	6644	0	2318	11	49493	73143
Buncombe	73413	26692	612	8470	3485	93658	206330
Burke	41892	10360	0	926	652	35318	89148
Cabarrus	38290	24880	0	4725	620	62548	131063
Caldwell	38700	7924	0	758	175	29858	77415
Camden	2223	746	0	0	0	3916	6885
Carteret	12690	9510	0	1798	835	34550	59383
Caswell	3740	2832	0	0	0	16929	23501
Catawba	45871	34198	0	4399	1263	55954	141685
Chatham	11665	6386	0	666	19	60593	79329
Cherokee	10582	1829	0	671	2	11214	24298
Chowan	5270	1153	0	464	7	7632	14526
Clay	3698	1067	0	389	0	3621	8775
Cleveland	47156	11603	0	1071	459	35998	96287

Columbus	24119	4407	0	390	478	25355	54749
Craven	17901	15128	27	5338	1232	51810	91436
Cumberland	61797	31029	521	9182	2915	197519	302963
Currituck	3947	1544	0	0	5	12694	18190
Dare	3391	5935	0	2097	354	18290	30067
Davidson	29139	32547	0	1809	651	83100	147246
Davie	8278	7640	0	1115	5	17797	34835
Duplin	12410	4514	0	561	176	31402	49063
Durham	39314	29638	291	9818	8754	135499	223314
Edgecombe	11297	4646	0	2020	509	37134	55606
Forsyth	70927	64772	786	13052	4608	151922	306067
Franklin							
Gaston	76199	26004	0	5304	1857	81001	190365
Gates	2970	1517	0	0	89	5940	10516

Graham	2159	307	0	89	0	5439	7994
Granville	14100	3925	0	86	309	30078	48498
Greene	3620	2013	0	0	7	13334	18974
Guilford	84662	81243	648	21628	8343	224524	421048
Halifax	12226	7019	0	537	77	37511	57370
Harnett	19978	8549	0	843	312	61343	91025
Haywood	29526	8684	0	995	264	14574	54043
Henderson	32018	11644	0	5059	1059	39393	89173
Hertford	8378	1255	0	151	0	12817	22601
Hoke	4746	2460	0	349	3	26088	33646
Hyde	574	1196	0	49	1	4006	5826
Iredell	33845	22107	0	4897	618	61193	122660
Jackson	10430	3131	0	723	13	18824	33121
Johnston	29249	10736	0	2084	871	79025	121965

Jones	2563	1468	0	0	0	6350	10381
Lee	10804	9034	0	1989	381	35832	58040
Lenoir	12707	9004	0	794	1239	35904	59648
Lincoln	19497	13853	0	1341	4	29085	63780
Macon	14659	3886	0	1493	286	9487	29811
Madison	9355	898	0	275	2	9105	19635
Martin	9570	3403	0	208	21	12391	25593
McDowell	16480	3131	0	311	278	21951	42151
Mecklenburg	128640	120641	3471	59292	21561	361849	695454
Mitchell	9917	1011	0	198	2	4559	15687
Montgomery	7508	4228	0	367	1	14718	26822
Moore	11897	14331	0	3913	405	44223	74769
Nash	27643	9871	0	1681	312	47913	87420
New Hanover	34773	24336	939	12887	2708	84664	160307

Northampton	4476	2447	0	0	5	15158	22086
Onslow	21898	9165	0	6457	1228	111607	150355
Orange	11690	16752	0	6905	685	82195	118227
Pamlico	2050	2543	0	0	0	8341	12934
Pasquotank	5596	3861	0	1250	628	23562	34897
Pender	8467	3958	0	922	284	27451	41082
Perquimans	2234	2428	0	0	192	6514	11368
Person	10909	4444	0	678	211	19692	35934
Pitt	20371	16396	0	3938	1628	91465	133798
Polk	7714	2631	0	1214		6758	18324
Randolph	26120	19762	0	1552		82621	130454
Richmond	13503	7712	0	393		24766	46564
Robeson	36955	12009	0	2086		71012	123299
Rockingham	21603	12684	0	1143		56242	91928

Rowan	27595	32599	0	2854		67005	130340
Rutherford	36410	6814	0	563		18737	62899
Sampson	17994	5246	0	4405		21231	49161
Scotland	6682	6102	0	488		22662	35998
Stanly	24524	10690	0	759		21699	58103
Stokes	11513	4159	0	532		28506	44711
Surry	26837	7840	0	806		35086	71219
Swain	4215	436	0	226		7693	12968
Transylvania	13199	2685	0	1632		11761	29334
Tyrell	1318	472	0	9		2349	4149
Union	36736	16428	0	5750		64714	123677
Vance	11378	7326	0	795		23331	42954
Wake	109862	89757	1809	59610		352716	
Warren	4884	2933	0	58		12086	19972

Washington	5217	1632	0	108		6554	13723
Watauga	13333	5419	24	1088		22411	42695
Wayne	21468	13139	0	2417		71087	110329
Wilkes	32824	4610	0	601		27356	65632
Wilson	16069	10676	0	1196		45464	73814
Yadkin	11681	5140	0	287		19228	36348
Yancey	6729	1597	0	222		9221	17774

Table C9 Estimated Employment Rate by County

County	Rate	County	Rate	County	Rate
Statewide	10.9	Forsyth	9.9	Orange	6.2
Alamance	12.1	Franklin	10.3	Pamlico	9.8
Alexander	13.5	Gaston	13.9	Pasquotank	10.1
Alleghany	12.3	Gates	6.7	Pender	11.1
Anson	14.8	Graham	17.6	Perquimans	9.9
Ashe	12.3	Granville	10.6	Person	10.8
Avery	9.7	Greene	10.1	Pitt	10.1
Beaufort	11.9	Guilford	11.2	Polk	8.9
Bertie	10.8	Halifax	13.8	Randolph	11.4
Bladen	12.7	Harnett	11.4	Richmond	14
Brunswick	12.4	Haywood	10.3	Robeson	12
Buncombe	8.3	Henderson	8.8	Rockingham	12.6

Burke	14.2	Hertford	9.3	Rowan	13.2
Cabarrus	12.1	Hoke	8.4	Rutherford	16.9
Caldwell	16.7	Hyde	12.2	Sampson	9
Camden	8.2	Iredell	13	Scotland	17.1
Carteret	9.7	Jackson	9.4	Stanly	12.9
Caswell	12.5	Johnston	9.8	Stokes	10.5
Catawba	14.4	Jones	10.7	Surry	12.3
Chatham	7.9	Lee	14.6	Swain	14.5
Cherokee	15.5	Lenoir	11.9	Transylvania	10
Chowan	11.5	Lincoln	14.1	Tyrell	12.6
Clay	11.6	Macon	15.1	Union	10.5
	15.1	Madison	11.4	Vance	14.1
Columbus	13.8	Martin	9.7	Wake	8.4
Craven	10.7	McDowell	10.8	Warren	13

Cumberland	9.4	Mecklenburg	11.2	Washington	12.8
Currituck	8.9	Mitchell	13	Watauga	7.8
Dare	15.5	Montgomery	13.2	Wayne	9.2
Davidson	13.4	Moore	10	Wilkes	13.4
Davie	10.8	Nash	12.4	Wilson	12.5
Duplin	9.3	New Hanover	9.7	Yadkin	10
Durham	7.9	Northampton	11.3	Yancey	12.4
Edgecombe	16.7	Onslow	8.2		

https://www.ncesc1.com/pmi/rates/PressReleases/County/NR_Dec_09_CountyRate.pdf

Table 10. Population of blind, low vision and total by District

NC State		Asheville	Charlotte	Wilmington	Fayetteville	Greenville	Raleigh	Winston-Salem	Total
35-44	Total	130,265	293,183	136,396	132,214	111,379	271,209	266,162	1,340,808
	Blind	1,042	2,345	1,091	1,058	891	2,170	2,129	10,726
	Low Vision	195	440	205	198	167	407	399	2,011
45-54	Total	137,815	271,058	138,325	128,082	127,190	245,473	270,706	1,318,649
	Blind	138	271	138	128	127	245	271	1,319
	Low Vision	345	678	346	320	318	614	677	3,297
55-59	Total	66,014	112,983	60,604	56,614	56,186	98,772	119,715	570,888
	Blind	66	113	61	57	56	99	120	571

	Low Vision	198	339	182	170	169	296	359	1,713
	Total	59,117	95,418	54,139	47,127	47,117	79,051	102,368	484,337
	Blind	177	286	162	141	141	237	307	1,453
60-64	Low Vision	532	859	487	424	424	711	921	4,359
	Total	86,462	110,548	73,451	62,894	63,358	85,807	135,680	618,200
	Blind	432	553	367	314	317	429	678	3,091
65-74	Low Vision	1,643	2,100	1,396	1,195	1,204	1,630	2,578	11,746
	Total	57,412	64,168	43,566	38,219	39,955	46,722	82,756	372,798
	Blind	1,722	1,925	1,307	1,147	1,199	1,402	2,483	11,184
75-84	Low Vision	4,593	5,133	3,485	3,058	3,196	3,738	6,620	29,824
	Total	23,493	26,323	14,807	13,711	15,676	18,813	33,066	145,889
85 and	Blind	1,879	2,106	1,185	1,097	1,254	1,505	2,645	11,671

above	Low Vision	4,229	4,738	2,665	2,468	2,822	3,386	5,952	26,260
Total		577,769	995,567	534,365	490,636	473,146	862,716	1,036,592	4,970,794

Table 11. Population of blind, low vision and total by Area

NC State		Area I	Area II	Area III	Area IV	Total
	Total	423,448	266,162	403,423	247,775	1,340,808
	Blind	3,388	2,129	3,227	1,982	10,726
35-44	Low Vision	635	399	605	372	2,011
	Total	408,873	270,706	373,555	265,515	1,318,649
	Blind	409	271	374	266	1,319
45-54	Low Vision	1,022	677	934	664	3,297
	Total	178,997	119,715	155,386	116,790	570,888
	Blind	179	120	155	117	571
55-59	Low Vision	537	359	466	350	1,713
	Total	154,535	102,368	126,178	101,256	484,337
	Blind	464	307	379	304	1,453
60-64	Low Vision	1,391	921	1,136	911	4,359

65-74	Total	197,010	135,680	148,701	136,809	618,200
	Blind	985	678	744	684	3,091
	Low Vision	3,743	2,578	2,825	2,599	11,746
75-84	Total	121,580	82,756	84,941	83,521	372,798
	Blind	3,647	2,483	2,548	2,506	11,184
	Low Vision	9,726	6,620	6,795	6,682	29,824
85 and above	Total	49,816	33,066	32,524	30,483	145,889
	Blind	3,985	2,645	2,602	2,439	11,671
	Low Vision	8,967	5,952	5,854	5,487	26,260
Total		1,573,337	1,036,592	1,353,352	1,007,512	4,970,794

Table C12

Utilization of Transportation by County in North Carolina

NC County	Community	Regional Community	Urban	Regional Urban	Other
Alamance	Yes			yes	
Alexander		Yes	Yes		
Alleghany	Yes				
Anson	Yes				
Ashe	Yes				
Avery	Yes				
Beaufort	Yes				
Bertie		Yes			
Bladen	Yes				

Brunswick	YEs			
Buncombe	YEs		Yes	
Burke		YEs	YEs	
Cabarrus	YEs		Yes	
Caldwell		Yes	YEs	
Camden		Yes		
Carteret	Yes			
Caswell	Yes			
Catawba	Yes	Yes	Yes	
Chatham	Yes			
Cherokee	YEs			
Chowan		Yes		
Clay	Yes			
Cleveland	Yes			

Columbus	Yes			
Craven	Yes			
Cumberland	Yes		Yes	
Currituck		Yes		
Dare	Yes			
Davidson				Yes
Davie		Yes		Yes
Duplin	Yes			
Durham			Yes	Yes
Edgecombe	Yes		Yes	
Forsyth			Yes	Yes
Franklin		Yes		Yes
Gaston	Yes		Yes	
Gates	Yes			

Graham	Yes				
Granville		Yes			
Greene	Yes				
Guilford	Yes		Yes	Yes	
Halifax	Yes	Yes			
Harnett	YEs				
Haywood	Yes		Yes		
Henderson	Yes		Yes		
Hertford		Yes			
Hoke	Yes				
Hyde	Yes				
Iredell	YEs				
Jackson	Yes				
Johnston	Yes				

Jones		Yes			
Lee	Yes				
Lenoir	Yes				
Lincoln	Yes				
McDowell	Yes				
Macon	Yes				
Madison	Yes				
Martin	Yes				
Mecklenburg	Yes		Yes		
Mitchell	Yes				
Montgomery		Yes			
Moore	Yes				
Nash	Yes		Yes		
New Hanover	Yes		Yes		

Northampton		Yes			
Onslow	Yes		Yes		
Orange	Yes		Yes	Yes	
Pamlico		Yes			
Pasquotank		Yes			
Pender	Yes				
Perquimans		Yes			
Person	Yes				
Pitt	Yes		Urban		
Polk	Yes				
Randolph		Yes		Yes	
Richmond	Yes				
Robeson	Yes				
Rockingham	Yes			Yes	

Rowan	Yes		Yes		
Rutherford	Yes				
Sampson	YEs				
Scotland	Yes				
Stanly	Yes				
Stokes		Yes		Yes	
Surry		Yes		Yes	
Swain	Yes				yes
Transylvania	Yes				
Tyrell	Yes				
Union	Yes				
Vance		Yes			
Wake	Yes		Yes	Yes	Yes
Warren		Yes			

Washington	Yes				
Watauga	Yes		Yes	Yes	
Wayne	Yes		Yes		
Wilkes	Yes			Yes	
Wilson	Yes		Yes		
Yadkin		Yes		Yes	
Yancey	Yes				