

## SUMMARY OF SERVICES BY CHAPTER 2 PROGRAMS

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A Summary of Services Provided by Chapter 2 Programs:

A Review of RSA-7-OB Data from Years 2008-2013

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**A Summary of Services Provided by Chapter 2 Programs:****A Review of RSA-7-OB Data from Years 2008-2013**

Policy makers have failed to prioritize services for those facing vision loss despite the implications including increased risk of falls, injuries, depression, social isolation, and heightened effects of other health conditions (National Academies of Sciences, Engineering, and Medicine, 2016). This lack of prioritization could particularly impact an aging population. By 2030, 60 million baby boomers will be between the ages of 66 and 84, when more than 20 percent of the United States population will be over the age of 65 (Brandon, 2014), compared to 13 percent of the U.S. population in 2010 that was over the age of 65. Since advancing age is associated with higher prevalence of vision loss, the Independent Living Services for Older Individuals who are Blind (OIB) programs will likely face an increasing demand for services.

The Rehabilitation Act of 1973 established the framework for funding for providing services to individuals age 55 years and older who faced vision loss and do not have an employment goal. Recognizing this group of individuals could benefit from services to help them maintain independence in their homes, the Title VII, Chapter 2 legislation, which authorizes rehabilitation services for persons who are older with vision loss, was first funded in federal fiscal year (FFY) 1987. The initial funding of \$5 million was not available to all 50 states (Rogers & Orr, 1999). However, in FFY 2000, funding reached \$15 million and crossed the threshold to become a formula grant program (The Rehabilitation Act of 1973, as amended, 1999). Formula grant status allows all states and territories to receive funding with a minimum allotment to states of \$225,000 and territories of \$40,000 (Rehabilitation Act Amendments of 1998). Although the transition to formula grant status was a tremendous success for advocates, no reviews of the subsequent reports have been undertaken to review its effectiveness.

Several articles address the overall need for more OIB services and call for better collection of outcome data (Cavanaugh & Steinman, 2005; Head, 1998; Rogers, Menchetti, & Lai, 2000). However, there are only a few articles that indicate the average number of people served and the cost of those services. One study, Herndon and Landry (1995) specifically reviewed OIB data from over a three-year period and reported number of individuals served by age, race, gender, incidence of other disabilities, and types of services received. Based on data from 28 states, Herndon & Landry (1995) reported that the average number of individuals served per state was 518, with a mean expenditure per person at \$500. In another study, Moore and Sansing's 2005 report (as cited in Moore et al., 2006) provides data for all 50 states and territories for FFY 2004, where an average of 1,159 individuals were served per state/territory. Our investigation reviewed data from all 50 states receiving Title VII, Chapter 2 funds to document the changes in the number of people served and cost of services, and to examine the ability of the current system to accommodate the expected increase in need for services.

### **Method**

Agencies receiving Title VII, Chapter 2 funds must complete an ED RSA-7-OB report (7-OB) each fiscal year, and submit the report to the Rehabilitation Services Administration (RSA). The reports are published on RSA's website, [www.rsa.ed.gov](http://www.rsa.ed.gov), which is made available to the public at large. For our study, a dataset including grant and state funds, funds expended, direct services, number of individuals served, age, gender, race, level of vision impairment, type of eye condition, other age-related health conditions, living situation, referral source, types of services, and service outcomes for each state for the years 2008 to 2013 was manually transposed to an Excel spreadsheet and imported to SPSS (23) for analysis. The Institutional Review Board for the Protection of Human Subjects at the authors' university reviewed the project and

exempted this study because it is analysis of secondary data without direct contact with human subjects.

### **Participants**

Participants for the study were the 50 state vocational rehabilitation or blind services agencies that received Title VII, Chapter 2 funding from the RSA for their Independent Living Services for Older Blind programs from 2008 to 2013. Data for North Dakota was not available at the time of data collection for 2008. In our study, we did not include information for the United States Territories and the District of Columbia.

### **Data Analysis**

SPSS (23) was used to generate descriptive statistics and a one-way repeated measures analysis of variance (ANOVA) for the average number of persons served by year and to calculate the percentages for the demographics, vision conditions, and the services provided. This data was compared across years to identify any changes over the six-year span. To examine the development of service delivery and fiscal differences, SAS 9.4 was used to adjust reported dollars to 2008 dollars to control for inflation and to generate descriptive statistics. SPSS (23) was used to conduct one-way repeated measures ANOVAs for the overall amount of grant and state funds awarded, the amount of funds expended, and the total cost per person by year. Although data for race were available, we did not include analysis of this data due to indications of potential inaccuracies.

## **Results**

### **Demographics**

Average numbers of individuals served from 2008 to 2013 and demographic information is displayed in Table 1. Out of the six years studied, the lowest average number of people served

was 1193 ( $SD = 1130.59$ ) in 2013. A one-way repeated measures analysis of variance was conducted to check for differences in the mean number of people served over time, but found no significant difference across the years 2008 to 2013 as seen in Table 1. Thirty-five of the fifty state agencies reported a decrease in people served over the six years. Three state agencies (i.e., New York, California, and Michigan) had very large decreases (between 500 to 1,862 people). The number of people served varied greatly across state agencies. Over the course of the six-year period analyzed, there has been an increase of persons served in the lower age groups 55 to 64 by 3% and 65 to 74 by 2.1%.

The percentage of individuals served who are totally blind decreased slightly over the time period, while percentage of individuals served with a severe visual impairment has increased slightly. RSA allows agencies to report different eye conditions in the following categories: age-related macular degeneration, glaucoma, diabetic retinopathy, cataracts, and other eye conditions. Percentages of individuals served with the different types of eye conditions have stayed approximately the same across the six-year span. Age-related macular degeneration is the most commonly reported eye condition for all years, followed by glaucoma, diabetic retinopathy, and cataracts.

### **Cost of Services**

Table 2 displays the average funding received (Title VII, Chapter 2 and state funds), funds expended, and average cost per person for all six years. All funds were adjusted to 2008 dollars to control for inflation. There is a great deal of variability among the state agencies in all financial variables per year; however, when one-way repeated measures ANOVAs were conducted to test for differences across time on these four variables significant statistical differences were found for Title VII, Chapter 2 funding, funds expended, and cost per person as

seen in Table 2. In 2009, the highest average Title VII, Chapter 2 funds and the highest average funds expended were observed. Since 2009, both numbers have decreased over time. In contrast, the highest mean of state funds was observed in 2013, and overall funding peaked in 2011. Similar to the Title VII, Chapter 2 funds and funds expended, the highest mean for cost of services per person was \$1141.35 in 2009. Cost of services per person varies considerably among the states and across the years, from a high of \$3768.06 in 2009 in one state to a low of \$94.39 in 2012 in another state.

### **Types of Services Provided**

Figure 1 shows a list of selected services provided and number of people who received those services across the six years studied. Percentage of persons receiving low vision exams has steadily increased over the six-year period from 35.3% in 2008 to 50.4% in 2013. However, it is interesting that assistive technology devices and aids and assistive technology services have not increased, but have varied over the time period. Communication services have varied somewhat but have generally increased slightly over time. The biggest decrease was seen in counseling services (50.6% in 2008 vs. 38.4% in 2013). A smaller decrease was seen in advocacy training (21.0% in 2008 vs. 16.3% in 2013).

### **Discussion**

It is discouraging to find the number of individuals served by OIB programs decreasing at a time where we anticipate the need to be increasing. Since 2008, there has been a 4.5% increase in the U.S. population aged 55 and older with a visual impairment (U.S. Census Bureau, 2012, 2016). Considering that 4.4 million, or 5.3%, of the U.S. population aged 55 and older has a visual impairment (U.S. Census Bureau, 2016), the percentage of the older adult population with vision loss currently served by the OIB program ( $n = 59,659$  in 2013) is less than 1.4%. As the

majority of those receiving services are age 75 or older, we can estimate that the full impact on services for the baby boomer population will not begin to make itself felt until 2021 when the leading edge of this generation reaches 75 years of age (Colby & Ortman, 2014).

The average number of individuals served has increased since 1991 when Herndon and Landry (1995) found an average of 518 (n=28) individuals served per state. However, in our 2013 findings (see Table 1), the average number of individuals served has remained relatively unchanged since 2004, when Moore and Sansing reported an average of 1,159 individuals served (n=56), in their 2005 report as cited in (Moore et al., 2006).

Our study showed federal funds and funds expended decrease after 2009. One explanation for the decrease in spending is the availability of the American Recovery and Reinvestment Act (ARRA) of 2009 stimulus funds that were depleted by 2011 (U.S. Department of Education, 2009). We found the states with the highest levels of state contributions funded more than \$1 million, which is far beyond their required match. We believe this represents a recognition of the growing need for services by these states.

One encouraging finding was the increase in number of individuals receiving a low vision evaluation. Unfortunately, the wide range of dollars spent per consumer raises questions about how these services can be compared between states. It is difficult to imagine how services that cost \$100 would be equivalent to those that cost over \$3,700. Clearly, more information is needed to better interpret these data.

### **Limitations**

Based on our analysis, we suspect that there are probable limitations in the accuracy of the 7-OB data such as a lack of uniformity in the data reporting and collection methods by each state. Due to these concerns, conclusions about service trends may be tenuous.

Additionally, 7-OB instructions are unclear. For example, in the definition of the low vision examiner. The 7-OB instructions state the examiner should be an optometrist or ophthalmologist, and then later state that low vision assessments are typically conducted by a professional with a master's degree in low vision rehabilitation. These ambiguities lead to inconsistencies in data collection and reporting. The complete 7-OB instructions can be found at <https://www2.ed.gov/policy/speced/guid/rsa/pd/2015/pd-15-03.pdf>.

### **Implications for the Field**

It is clear that to meet an increasing demand for OIB services, efforts will need to be focused on this looming challenge. Establishing clear usable data collection and reporting needs to be at the forefront for improvement to occur. Since the 7-OB instrument is due to be revised, careful revisions along with targeted training on collecting and reporting data could greatly improve our knowledge of OIB Services. Accurate data will help guide the conversation about best practices, costs, and accessing funding streams to address the needs of the growing older blind population.



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Table 1

*Demographics of Individuals Served Each Year under the OIB Program*

Variable	2008 (n=49)	2009 (n=50)	2010 (n=50)	2011 (n=50)	2012 (n=50)	2013 (n=50)
Average Number of Individuals Served by State*	1222 (1038.99)	1298 (1250.89)	1371 (1235.41)	1375 (1265.13)	1320 (1342.63)	1193 (1130.59)
Minimum	262	255	257	227	243	172
Maximum	4715	6613	5902	5874	7268	6228
Age						
55-64	12.9%	12.6%	14.1%	15.6%	15.4%	15.9%
65-74	15.6%	15.5%	16.0%	16.7%	16.9%	17.7%
75-84	33.4%	31.5%	30.3%	29.6%	29.2%	28.5%
85-94	33.7%	35.5%	34.8%	33.4%	33.3%	33.2%
95+	4.2%	4.9%	4.5%	4.7%	4.8%	4.7%
Gender						
Male	29.2%	29.0%	29.4%	30.4%	29.7%	30.8%
Female	70.2%	71.0%	70.6%	69.6%	70.4%	69.2%
Level of Visual Impairment						
Totally Blind	8.0%	6.6%	6.9%	8.1%	6.1%	5.4%
Legally Blind	54.2%	58.5%	56.5%	52.1%	52.8%	53.2%
Severe Visual	37.7%	35.0%	36.6%	39.9%	41.1%	41.4%

Impairment						
Types of Eye						
Conditions						
ARMD	55.6%	58.8%	56.4%	54.5%	54.6%	53.6%
Glaucoma	10.3%	10.7%	11.8%	11.8%	11.2%	12.9%
Diabetic						
Retinopathy	10.1%	9.4%	9.6%	10.0%	9.3%	9.4%
Cataracts	3.0%	2.6%	3.4%	3.6%	3.2%	3.3%
Other Eye						
Conditions	18.9%	18.5%	18.6%	20.1%	20.4%	20.8%

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\* $F(5,44) = 2.33, p = .058$

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Table 2

*Average Funding Received, Spent, and Cost per Person for Each Year in Adjusted 2008 Dollars*

Variable	2008 (n=49)	2009 (n=50)	2010 (n=50)	2011 (n=50)	2012 (n=50)	2013 (n=50)
Title VII, Chapter 2 Funds <sup>a</sup>	632,385 (603,678)	662,272 (644,268)	651,592 (633,940)	630,361 (611,646)	612,325 (599,173)	575,909 (554,471)
Minimum	225,000	225,803	222,159	215,361	210,995	207,949
Maximum	3,168,533	3,394,022	3,343,639	3,234,580	3,185,593	2,969,319
State Funds <sup>b</sup>	219,108 (495,016)	217,146 (404,774)	207,214 (386,338)	195,972 (391,278)	272,122 (603,446)	287,525 (595,501)
Minimum	0	0	0	0	0	0
Maximum	3,144,023	2,017,940	2,021,328	2,222,748	3,162,127	3,135,972
Funds Expended <sup>c</sup>	1,015,801 (1,257,104)	1,445,846 (1,695,174)	1,330,486 (1,621,860)	1,375,482 (1,621,860)	1,109,331 (1,387,158)	1,079,708 (1,416,166)
Minimum	188,074	252,479	175,733	136,336	67,395	184,261

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Maximum	7,077,887	6,977,858	7,520,932	7,168,426	7,074,002	6,919,689
Cost per Person <sup>d</sup>	882.13	1141.35	1003.47	1023.38	862.08	975.61
	(623.12)	(773.21)	(604.93)	(666.85)	(503.75)	(674.24)
Minimum	177.18	149.63	236.29	177.83	94.39	219.95
Maximum	3071.93	3768.06	3461.53	3471.14	2851.11	2741.06

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Note: Standard deviations are represented in parentheses.

<sup>a</sup> $F(5,44) = 8.527, p = .000$

<sup>b</sup> $F(5,44) = 1.174, p = .337$

<sup>c</sup> $F(5,44) = 4.200, p = .003$

<sup>d</sup> $F(5,44) = 2.704, p = .032$

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Table 3

*Percentage of Selected Services Received Each Year, Averaged Across All States*

Service Provided	2008 (n=49)	2009 (n=50)	2010 (n=50)	2011 (n=50)	2012 (n=50)	2013 (n=50)
Low Vision Exam	35.3	36.4	37.7	42.7	52.7	50.4
Assistive Technology Devices/Aids	64.8	59.2	56.5	53.9	51.8	55.3
Assistive Technology Services	42.3	40.5	45.3	43.9	39.2	47.9
Orientation & Mobility	24.5	20.5	19.4	25.0	22.6	21.0
Communication	39.0	41.3	46.3	42.5	46.3	45.2
Daily Living	52.5	49.2	54.8	53.9	52.1	54.4
Advocacy Training	21.0	16.8	18.5	15.1	16.1	16.3
Counseling	50.6	45.3	43.6	37.9	39.0	38.4