

A National Data Summary of State Assistive Technology Programs: Fiscal Year 2012

INTRODUCTION

State and Territory Assistive Technology Programs (hereafter, AT Programs), authorized under Sec. 4 of the Assistive Technology Act of 1998, most recently reauthorized in 2004, focus on improving the provision of AT through comprehensive, statewide programs that are consumer responsive. The goal of these programs is to increase access to and acquisition of AT through state level activities and state leadership activities. The AT Act provides formula grants, administered by the U.S. Department of Education Rehabilitation Services Administration, for an AT program in each state, as well as the District of Columbia, Puerto Rico, American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands. This report provides a national summary of AT program outcomes for Fiscal Year (FY) 2012.

The 2004 reauthorization of the AT Act required a common set of activities to be provided by all AT Programs (with some limited exceptions) to create consistency among grantees. Required state level activities include state financing activities, device reutilization programs, device loan programs, and device demonstration programs. Required state leadership

versions of the law (Association of Assistive Technology Act Programs [ATAP], 2011). The AT Act requires specific data reporting on services provided via the required state level and leadership activities (ATAP, 2011). These data, found in the Annual State Grant for AT Progress Report, are the primary source used in this report.

STATE LEVEL ACTIVITIES

DEVICE DEMONSTRATION PROGRAMS

Device demonstrations compare the features and benefits of a particular AT device or category of devices for an individual or small group of individuals (U.S. Department of Education [DOE], 2011). Device demonstrations allow individuals and groups to make informed choices about an AT device prior to acquiring it. Along with providing demonstrations, AT programs are required to provide comprehensive information about state and local assistive technology vendors, providers, and repair services.

During the most recent reporting period, FY 2012, 54 AT programs conducted device demonstrations as part of their state level activities. Computers and related technologies were the largest demonstration category, comprising 22% of all demonstrations. Most AT areas are well covered by device demonstrations, with six additional areas comprising between 10% and 14% of all demonstrations.

TABLE 1: NUMBER OF DEVICE DEMONSTRATIONS BY DEVICE TYPE

Type of AT Device	Number of Demos	%
Computers and related	9,768	22
Daily living	6,182	14
Hearing	6,051	14
Speech communication	5,863	13
Learning, cognition	5,209	12
Mobility, seating	4,744	11
Vision	4,482	10
Environmental adaptations	1,218	3
Recreation, sports, and leisure	609	1
Vehicle modification and transportation	313	1
TOTAL	44,439	100%

What is Assistive Technology (AT) ?

AT is any item, piece of equipment, or system, whether acquired commercially, modified, or customized, that is commonly used to increase, maintain, or improve functional capabilities of individuals with disabilities. (Source: AT Act of 1998 as amended, 29 USC §3002)

activities include training and technical assistance, public awareness and information and assistance activities, and coordination and collaboration. All the state level activities and the major state leadership activities will be described in greater detail later in this report.

AT Programs are required to serve people with all types of disabilities, of all ages, in all environments. Programs must also serve family members, service providers, educators, therapists, employers, health and rehabilitation professionals, AT vendors, procurement officials, and other interested parties throughout all

Looking at Table 2, we see that individuals with disabilities (49%) comprised almost half of those participating in device demonstrations in FY 2012, followed by family members, guardians, and authorized representatives (25%) and representatives of education (9%).

TABLE 2: NUMBER OF INDIVIDUALS WHO PARTICIPATED IN DEVICE DEMONSTRATIONS

Type of Individual	Number of Participants	%
Individuals with disabilities	29,111	49
Family members, guardians, and authorized representatives	14,869	25
Representatives of education	5,621	9
Representatives of health, allied health, and rehabilitation	4,411	7
Representatives of community living	3,588	6
Representatives of employment	1,487	2
Representatives of technology	848	1
TOTAL	59,935	100%

Individuals who participated in device demonstrations were surveyed by AT programs about the main purpose of the AT device for which they attended the demonstration. In FY 2012, community living was listed as the most common purpose (57%), followed by education (28%). Other purposes cited by participants were employment (9%) and IT/telecommunications (5%).

For AT program purposes, education is defined as participating in any type of educational program. Community living includes carrying out daily activities, participating in community activities, using community services, or living independently. Employment means finding or keeping a job, getting a better job, or participating in an employment training program, vocational rehabilitation program, or other program related to employment. Lastly, information technology/telecommunications is defined as using computers, software, websites, telephones, office equipment, and media.

DEVICE LOAN PROGRAMS

Device loan programs allow AT consumers and professionals who provide services to individuals with disabilities to borrow AT devices for use at home, school, and work, and in the community. These loans are short-

Device Demo— New York

A family with a young child, Anne, in an early intervention program visited one of the New York State AT Program regional centers in upstate New York to borrow a gait trainer for a trial period. The first device the family borrowed was not appropriate, as Anne quickly figured out how to wiggle out of it.



When Anne's family returned that device, AT Program staff did a device demonstration (pictured here) of a different trainer. Anne's father thought it was a good fit, and the child clearly liked using it. The family signed it out to try at home with her therapist.

Device Demo— Wyoming

Jack is two years old and has optic nerve hypoplasia, an underdevelopment of the optic nerves in his eyes, which classifies him as blind. Staff from the Wyoming Assistive Technology Program provided demonstrations of a cane and the iPad that were then incorporated into his early intervention program. The iPad was especially helpful for development of eye tracking and color association skills. Jack's early intervention services and AT device demonstrations aided in creating an environment to help him learn and grow.



term. Although the loan length varies by individual program policy, the average based on FY 2012 data was 32 calendar days. The purpose of a device loan may be to assist in decision making; to fill a gap while the consumer is waiting for device repair or funding; to provide an accommodation on a short-term basis; to provide self-education by a consumer or professional; and to provide training (DOE, 2011).

During the most recent reporting period, 52 AT programs reported providing short-term loans of AT devices to individuals or entities. Individuals with disabilities were the largest group to whom devices were loaned (39%), followed by representatives of education (20%). Please refer to Table 3 for a more detailed breakdown. Seventy-two percent or 25,554 device loans were made to individuals for the primary purpose of decision-making. Other reasons consumers cited for wanting a short-term device loan included accommodation (17%), training/personnel development (6%), and need for a loaner during repair/waiting for funding (5%).

TABLE 3: NUMBER OF DEVICES BORROWED BY TYPE OF INDIVIDUAL

Type of Individual	Number of Device Borrowers	%
Individuals with disabilities	13,971	39
Representatives of education	6,970	20
Family members, guardians, and authorized representatives	5,891	17
Representatives of health, allied health, and rehabilitation	5,344	15
Representatives of community living	1,562	4
Representatives of technology	953	3
Representatives of employment	768	2
TOTAL	35,459	100%

Devices for speech communication (21%) were the most common AT devices loaned in FY 2012, followed by those for learning and cognition (17%), computers and related devices (14%), and daily living devices (13%). Five additional device categories accounted for 5% to 11% each of the device loans made. Almost half of surveyed consumers (46%) who received a device loan cited community living as the primary purpose for which they needed an AT device. Education was the second most common purpose (40%), followed by employment (10%) and IT/telecommunications (4%).

Device Loan— Washington

After buying countless products, Abe and his parents had a closet full of expensive devices that still didn't give him the freedom to access his Dynavox communication device. Buying these devices was not only costly for the family, but also led to a very frustrated little boy who would yell every time his parents set up his computer.



The Washington AT Program loaned Abe a Head Mouse Extreme to try at home with his communication device. By the end of the three-week loan, Abe was able to share his needs and thoughts, as well as joke with his friends and family.

At the end of the loan period, Abe's parents called the AT Program to say that the Head Mouse Extreme they ordered would not be delivered for several more weeks. Program staff extended the loan through the holidays until the permanent device arrived, and for the first time Abe had a voice for Christmas.

Device Loan—Illinois

Austin's aunt borrowed an FM System from the Illinois AT Program for him to use in school. His teacher would test the system every morning by whispering, "Austin, I love you."

The system helped Austin hear what the teacher was saying, and his grades improved. Based on the success of the device loan, the school purchased a system for Austin. Austin described the positive outcome of that loan.



TABLE 4: DEVICES LOANED BY TYPE

Type of AT Device	Number Loaned	%
Speech communication	9,886	21
Learning, cognition	8,214	17
Computers and related	6,728	14
Daily living	5,989	13
Mobility, seating	5,262	11
Vision	3,493	7
Hearing	2,582	5
Environmental adaptations	2,500	5
Recreation, sports, and leisure	2,376	5
Vehicle modification and transportation	43	<1
Total # of Devices Loaned	47,073	100%

DEVICE REUTILIZATION PROGRAMS

Assistive technology reutilization involves transferring a used device from someone who no longer needs it to someone who does. Device reutilization falls into three activity categories. The first one, device exchange, usually occurs through an online forum where sellers and buyers can connect. Recycling, refurbishment, and repair (RRR) is the second category. In this type of program, devices are typically obtained from individuals who no longer need them, are refurbished, and then provided to new owners. Lastly, open-ended loan programs take previously used devices and loan them to individuals who can use them as long as they are needed.

In FY 2012, 41,230 consumers received a total of 50,323 reutilized devices from all 56 AT programs with an overall savings of almost \$20 million. Mobility, seating and daily living AT were the vast majority of AT devices provided through reuse programs (86% of all devices).

TABLE 5: DEVICE REUTILIZATION SUMMARY BY DEVICE TYPE

Type of AT	Number of Devices	% of Devices	Total Savings	% of Savings
Vision	621	1%	\$450,525	2%
Hearing	514	1%	\$120,364	1%
Speech communication	723	1%	\$657,036	3%
Learning/cognition	789	2%	\$106,771	1%
Mobility, seating	26,957	54%	\$12,237,520	62%
Daily living	16,279	32%	\$3,149,109	16%
Environmental adaptations	847	2%	\$431,679	2%
Vehicle modification and transportation	211	<1%	\$1,903,833	10%
Computers and related	2533	5%	\$652,955	3%
Recreation, sports, and leisure	849	2%	\$143,737	1%
Total	50,323	100%	\$19,853,529	100%

Device Reutilization— Colorado

The Colorado AT Program provided an open-ended loan for a Dreama mattress to a five-year-old girl. She was sleeping less than three hours each night, waking frequently during those hours and requiring tremendous nighttime support from her parents.



Program staff loaned the mattress to the family, and immediately the girl was sleeping through the night for up to 10 hours. The family has kept the adapted mattress as part of an open-ended loan while funding is approved and the device is purchased for them.

Device Reutilization—Oklahoma

Kyle has developmental delays due to severe malnutrition where he was raised in West Africa. His adoptive family was referred to the Oklahoma AT Program's Durable Medical Equipment Reuse Program to help them locate an assistive mobility device.



Through the program, the family was able to obtain a wheelchair. This device has added greater mobility and joy to Kyle's daily life. His wheelchair has allowed him to become more involved in daily activities, and has increased his interaction with his brothers and sisters.

The most common device reutilization activity was recycling/refurbishment/repair (RRR). Fifty-nine percent of recipients received devices through a RRR program, saving consumers over \$11 million. Overall, RRR activities provided the greatest savings to consumers out of the services provided through reutilization programs.

TABLE 6: NUMBER OF RECIPIENTS, DEVICES, AND SAVINGS BY TYPE OF REUTILIZATION ACTIVITY

Activity	Number (%) of Device Recipients	Number (%) of Devices	Total Savings To Recipients	% of Savings to Recipients
Recycle/ refurbish/ repair (RRR)	24,231 (59%)	28,740 (57%)	\$11,339,569	57
Open-ended loans	14,998 (36%)	19,483 (39%)	\$5,198,708	26
Device exchange	2,001 (5%)	2,100 (4%)	\$3,315,252	17
TOTAL	41,230 (100%)	50,323 (100%)	\$19,853,529	100%

Customers participating in the device reutilization program were surveyed about the primary purpose for which AT was needed. Out of the 40,386 respondents, 89% gave community living as the primary purpose, followed by education (7%) and employment (4%).

TABLE 7: TYPES AND DOLLAR AMOUNTS OF ASSISTIVE TECHNOLOGY FINANCED

Type of AT	Number of Devices Financed	Device %	Dollar Value of Loans	Dollar %	Average Loan Amount
Hearing	327	41	1,251,636	19	3,828
Vehicle modification and transportation	236	30	4,514,058	70	19,127
Computers and related	86	11	52,254	1	608
Mobility, seating	51	6	249,411	4	4,890
Environmental adaptations	37	5	296,174	5	8,005
Vision	28	4	33,744	<1	1,205
Recreation, sports, and leisure	14	2	48,205	<1	3,443
Daily living	13	2	26,530	<1	2,041
Speech communication	5	<1	6,429	<1	1,286
Learning, cognition	2	<1	1,025	<1	513
Total	799	100%	6,479,466	100%	8,109

STATE FINANCING

State financing activities assist individuals with disabilities to obtain AT devices and services. Funds authorized under the AT Act of 1998, as amended, cannot be used to purchase AT devices or services directly for consumers (DOE, 2011). There are three types of state financing activities that assist individuals who need AT: 1) financial loan programs that provide cash loans that consumers can then use to acquire AT, 2) other activities that result in AT acquisition, and 3) other activities that allow consumers to obtain assistive technology at a reduced cost.

Twenty-eight AT programs reported data on financial loan programs. The programs issued 768 loans totaling \$6,479,466. The average annual income of loan recipients was \$40,362. Out of 768 loans issued, over half (60%) were given to applicants with annual incomes between \$15,001 and \$35,000. Twenty-four percent of loans were made to individuals with annual incomes of \$15,000 or less, while 16% were made to individuals with annual incomes of \$35,001 or more.

The overwhelming majority of total loan dollars issued (70%) was for 236 vehicle modification and transportation technologies, averaging \$19,127 a loan. Hearing AT ranked first in number of devices financed (327), averaging \$3,828 a loan. For a more detailed breakdown of loans by device type, refer to Table 7.

Twelve states reported data on other financing activities that resulted in the acquisition of AT devices and services. These programs typically provide AT directly through external funding provided to the AT Program by another agency. With this external funding, these programs are typically limited in focus, only providing AT in one area such as adaptive telecommunications devices, or only providing AT for those individuals eligible for specific funding such as IDEA.

In FY 2012, these programs served 2,301 individuals and provided 2,957 AT devices. Over a third (38%) of the total technologies funded were hearing devices. Environmental adaptations (also known as home modifications) made up only 13% of total devices funded, but constituted 45% (\$1,250,446) of the total value of AT provided (\$2,805,762).

Six states reported data on other state financing activities that allowed consumers to obtain assistive technology at a reduced cost. These programs included cooperative buying programs, rental/layaway programs, and device design and development. In FY 2012, these financing activities served 970 individuals and 1,140 devices were acquired at a reduced cost. Out of all the AT categories, vision AT resulted in the highest savings to consumers (\$2,389 per device). Computer and daily living devices combined made up over half of acquired devices (377 and 205 respectively). This resulted in moderate savings of \$63.03 (computers) and \$44.88 (daily living) per device.

Individuals with disabilities who received services from state financing activities were contacted about the primary purpose for which AT was needed. Eighty-three percent of respondents cited community living as the primary purpose, followed by education (10%) and employment (7%).

State Financing— Puerto Rico

Alberto is a 25-year-old man with a severe physical condition that significantly restricts his movements and makes his bones extremely fragile. Due to his fragile bone structure, transferring required at least four people, and turning him in bed required at least two. This represented a critical problem, since Alberto's mother was usually the only person in the house during the daytime.

The Puerto Rico AT Program evaluated Alberto, and the Low Cost Device Design and Development (LD3) program also got involved. AT program staff explored options for developing an accessible transfer and bed-turning device that Alberto's family could afford.

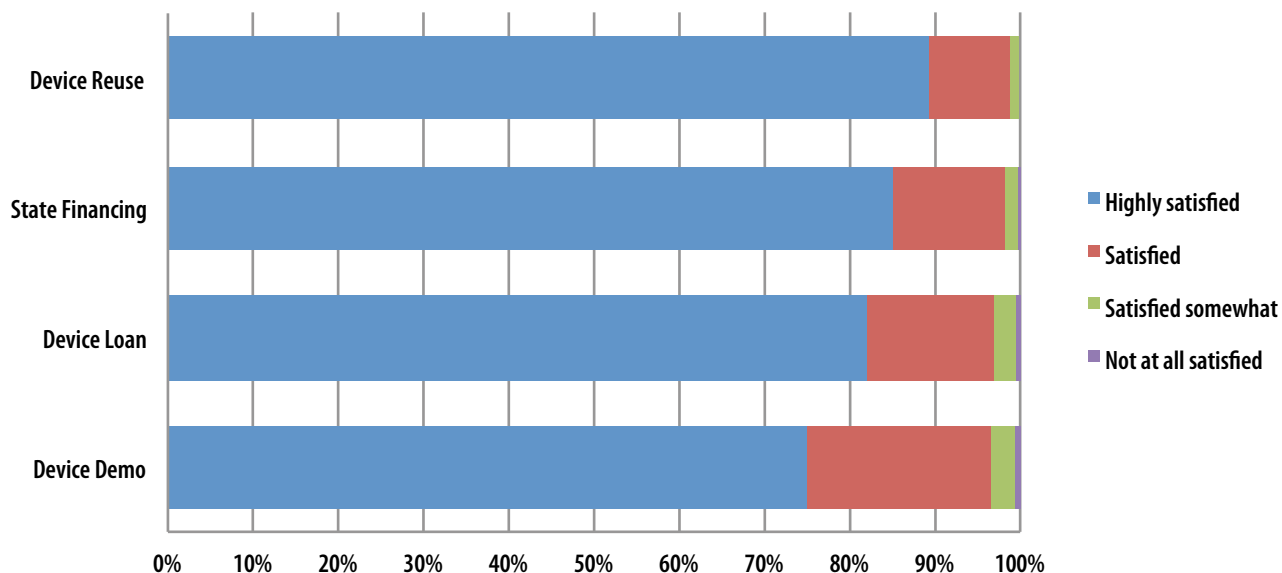
Staff from the LD3 program worked with mechanical engineering students and faculty at the University of Puerto Rico to develop a ceiling track lift with a custom stretcher sling and patient-turning features, with a final cost of \$400. Alberto is now able to use a remote control to transfer, and he is able to adopt a semi-seated position in his wheelchair and go into the community. He is exploring options for going back to school.



CONSUMER SATISFACTION RATINGS OF STATE LEVEL ACTIVITIES

Consumers of AT program services were asked to report their satisfaction with the services they received. Figure 1 shows the responses to consumer satisfaction questions for each of the state activities. As we can see by looking at Figure 1, the vast majority (>97%) of respondents were highly satisfied or satisfied with the services they received in each state activity. Device reutilization programs had the highest consumer satisfaction out of all state activities, with 99% of consumers highly satisfied or satisfied, followed by state financing programs (98%), device loan programs and device demonstration programs (97% each).

FIGURE 1: CUSTOMER RATING OF SERVICES



State Financing— Guam

A mother of a young son who has a learning disability and attention deficit hyperactivity disorder was eager to get her son academic support and increase his motivation for learning. His mother wanted a computer and tablet for use at home to continue her son's learning.

Through a low-interest loan from the Guam AT Program, his mother purchased a MacBook laptop and an iPad 2. The Guam AT Program provided a list of apps she could download. The school installed a text-to-speech software program into her laptop purchased with the loan. The mother reports that the technology has increased her son's attention, motivation for learning, and reading skills.

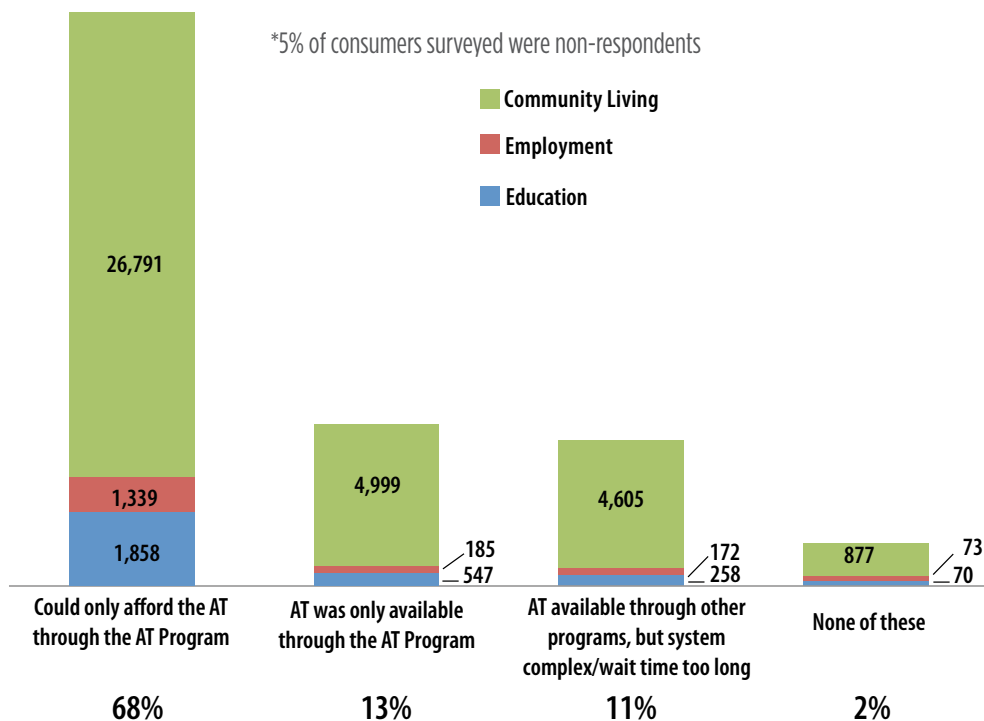


STATE ACTIVITIES PERFORMANCE MEASURES

ACQUISITION PERFORMANCE

Consumers were surveyed about the primary purpose of device acquisition and why they chose to participate in any of the following four programs: state financing services, device exchange, device recycling, and open-ended loans. As many as 68% of consumers stated that they could only afford AT through these programs. Thirteen percent said that the AT needed was only available to them through these programs, and 11% responded that the AT was available to them through other programs, but the system was too complex or the wait time too long. Community living was by far the most common purpose for AT use (89%).

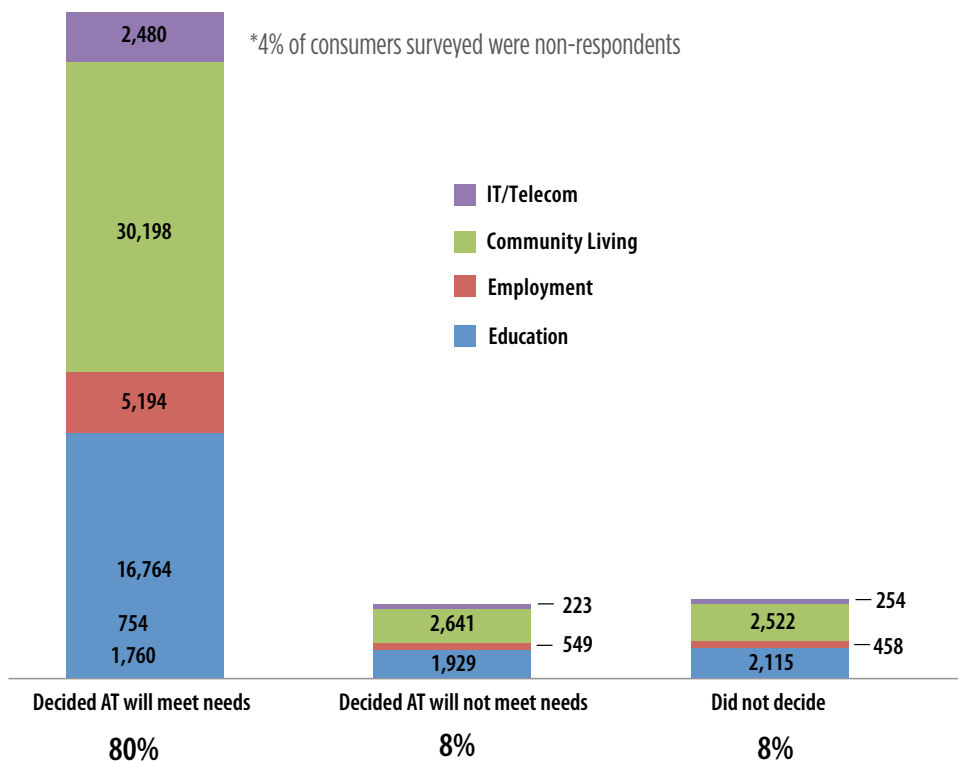
FIGURE 2: WHY CONSUMERS OBTAINED A DEVICE FROM THE STATE AT PROGRAM



ACCESS PERFORMANCE

Consumers were surveyed about the kind of decisions they were able to make as the result of a device demonstration or device loan as well as the primary purpose for which these devices will be needed. As the chart below illustrates, these services have overwhelmingly contributed to individuals with disabilities or their representatives making an informed decision about AT. Eighty percent of respondents stated that an AT device would meet their needs, or those of someone they represent. Only 8% of consumers stated that an AT device would not meet their needs and 8% did not make a decision. Community living (54%) and education (32%) were the most commonly reported purposes for AT use.

FIGURE 3: KINDS OF CONSUMER DECISIONS THE STATE AT PROGRAM ENABLED



STATE LEADERSHIP ACTIVITIES

TRAINING

Training activities are instructional events, usually planned in advance for a specific purpose or audience. Examples of training include classes, workshops, and presentations that have a goal of increasing skills, knowledge, and competency, as opposed to training intended only to increase general awareness of AT (DOE, 2011).

In FY 2012, AT programs trained a total of 116,211 participants, an 8% increase from FY2011. Education representatives (28.4%) were almost tied with individuals with disabilities (28.1%) for the most types of individuals who received training.

Forty-nine percent of participants attended trainings about AT products and services, which focused on increasing skills and competencies in using AT, and integrating AT into different settings. Twenty-seven percent of participants attended trainings that were on a combination of any or all of the following topics: AT products/services, AT funding/policy/practice, and information technology/telecommunication access. Trainings on transition were attended by 13% of participants. AT funding/policy/practice and information technology/telecommunication access trainings were attended by 7% of training participants each.

PUBLIC AWARENESS AND INFORMATION AND ASSISTANCE

Public awareness activities are designed to reach large numbers of people. These activities include public service announcements, Internet outreach and social networking, radio talk shows and news

reports, newspaper stories and columns, newsletters, brochures, and public forums. The exact number of people who receive information through these public awareness activities is often difficult to determine, and estimates must be reported (DOE, 2011).

In FY 2012, AT programs reached an estimated 24,143,323 people through their awareness activities, a 12% increase from FY2011. Out of the estimated total reached, 64% of individuals were contacted through public service announcements on radio or television, 19% through the Internet, and the remaining outreach activities were distributed among other print materials (7%), listservs (5%), newsletters (3%), public forums (1%), and other means (1%).

Information and assistance (I&A) activities are those in which AT programs respond to requests for information and/or put individuals in contact with other entities. These other entities can provide individuals with needed information and intensive assistance on AT or AT funding.

In FY 2012, 333,029 individuals were recipients of I&A. Out of the two I&A content areas, information about specific AT products/devices/services was the most common, with 80% of recipients receiving this type of information.

Twenty percent received information on obtaining funding for AT. The largest recipient group of I&A was individuals with disabilities (37%), followed by family members/guardians/authorized representatives (22%), representatives of community living (14%), and representatives of education (11%). The remaining recipient types were representatives of health, allied health, and rehabilitation (7%), representatives of employment (4%), representatives of technology (3%), and others (1%).

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SUMMARY

State and Territory AT programs have improved the ability of individuals with disabilities to participate fully and productively in education, community living, employment, and other facets of life. State level and state leadership activities provide a continuum of services that reach a wide variety of individuals and provide access to a broad range of technologies.

The quality system of delivery that AT Programs provide enables individuals with disabilities, their representatives, and other stakeholders to make informed decisions about accessing and acquiring technologies. The streamlined process allows consumers to receive information about a device and become familiar with it through loan and demonstration programs prior to making a costly purchase. When consumers are ready to acquire a device, the reutilization and financing programs provide an affordable way to do that.

REFERENCES

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AT ACT DATA BRIEF SERIES ISSUE NO. 5, 2013

This publication is the fifth in a series of AT Act Data Briefs and has been supported by the Center for Assistive Technology Act Data Assistance (CATADA), U.S. Department of Education Cooperative Agreement No. H224B110002. CATADA is a collaborative project of the Institute for Community Inclusion at the University of Massachusetts Boston and the Association of Assistive Technology Act Programs. Any opinions expressed herein do not necessarily reflect the position of the U.S. Department of Education and no official endorsement by the department should be inferred.

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The authors would like to thank the Assistive Technology Programs in Colorado, Guam, Illinois, New York, Oklahoma, Puerto Rico, Washington, and Wyoming for contributing stories for this report. **For more information, contact:**

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This publication will be made available in alternate formats upon request.

To protect the privacy of the young people involved in these AT programs, we have changed some names in the stories.