

## EXECUTIVE SUMMARY

Section 4 of the *Assistive Technology Act of 1998*, as amended (*AT Act*) authorizes grants to support programs that increase knowledge about, access to and acquisition of assistive technology (AT) devices and services for individuals with disabilities and older Americans. These programs include 56 statewide AT programs that provide device demonstrations, device loans, device reutilization, training, technical assistance, public awareness, and assistance with obtaining funding for AT. Statewide AT programs are required by law to collect data on their activities and provide annual progress reports to ACL. This report is a compilation of data from these programs for FY 2016 and contains information about the activities of the statewide AT programs.

The report describes state-level and state leadership activities for FY 2016:

### How individuals were served by the following activities:

- » **Device Demonstration Programs**  
Over 73,000 individuals participated in device demonstrations
- » **Device Loan Programs**  
Over 54,000 AT devices loaned on a short-term basis
- » **Device Reutilization Programs**  
Consumers saved \$31 million on close to 80,000 gently used devices
- » **State Financing**  
Consumers obtained or saved over \$10 million on 7,802 acquired AT devices

### Performance goals for Statewide AT Programs:

- » **Consumer Satisfaction Ratings of State-Level Activities**
- » **State Activities Performance Measures**

### How individuals and organizations benefited from:

- » **Training**  
Over 117,000 participants in AT training
- » **Information and Assistance**  
Family members, guardians or authorized representatives represented the largest group of over 445,000 recipients of information and referral
- » **Technical Assistance**
- » **Public Awareness**

# THE ASSISTIVE TECHNOLOGY ACT OF 1998, AS AMENDED

Section 4 of the AT Act authorizes the formula-based State Grant for AT Program and requires a common set of activities to be provided by all AT programs (with some limited exceptions explained below) to create consistency among grantees. With these grant funds, states develop and maintain statewide AT programs that conduct “state-level” activities and “state leadership” activities. Any funds appropriated above the FY 2004 level, which constitutes the base year amount, are allocated according to a formula that provides a portion of the funds equally to all states and a portion of funds based on the population of a state. The Center for Assistive Technology Act Data Assistance (CATADA) provides a table with FY 2016 funding levels for all fifty-six grantees along with other activity data.

## 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)

## STATE-LEVEL ACTIVITIES

State-level activities include the following:

- **State financing activities**, which can be:
  - » Systems for the purchase, lease or other acquisition of or payment for AT devices and services (though states may not directly pay for AT devices and services for individuals with disabilities); or
  - » Alternative financing systems, such as low-interest loan funds, interest buy-down programs, revolving loan funds, loan guarantees or insurance programs or other mechanisms for the provision of AT devices.<sup>1</sup>
- **Device reutilization programs** that support the exchange, repair, recycling or other reutilization of AT devices;
- **Device loan programs** that provide short-term loans of AT so that individuals can try out devices or fill a temporary need for a device; and
- **Device demonstration programs** in which personnel familiar with AT demonstrate a variety of devices and services and provide information about AT vendors, providers and repair services.

## AT PROGRAM ACHIEVEMENTS RESULTING IN POSITIVE OUTCOMES FOR INDIVIDUALS WITH DISABILITIES



<sup>1</sup> While they possess some similarities, “alternative financing systems,” as included under Section 4 state financing activities, need not be the same as those formerly funded under Title III of the AT Act of 1998, which contains many specific statutory requirements.

## STATE LEADERSHIP ACTIVITIES

State leadership activities include:

- **Training and technical assistance**, which includes developing and disseminating training materials, conducting training, and providing technical assistance to enhance the AT knowledge, skills and competencies of individuals<sup>2</sup>
- **Public awareness activities** designed to provide information on the availability, benefits, appropriateness and costs of AT devices and services, including a statewide information and referral system; and
- **Coordination and collaboration of activities** among public and private entities responsible for policies, procedures or funding for the provision of AT devices and services.

All state level and major state leadership activities are described in greater detail later in this report.

Section 4(e)(1)(B) of the AT Act allows states to opt out of funding a state-level activity if that activity is supported comparably with non-federal funds (“comparability” provision). Sec. 4(e)(6) of the Act provides states with the “flexibility” to carry out only two or three of the state-level activities. States that carry out all four state-level activities may use a maximum of 40 percent of their federal funds for state leadership activities. States that carry out two or three of the state-level activities may use a maximum of 30 percent of their funds for state leadership activities.

The AT Act includes specific data collection requirements for state-level and state leadership activities, state improvement outcomes, leveraged funding, performance measure outcomes and consumer satisfaction. An Annual Performance Report data collection instrument developed to collect the Sec. 4(f) required data elements was approved by the Office of Management and Budget (OMB) through 10/31/2017 and was used by all grantees to report FY 2016 annual progress report data summarized in this report.

This report summarizes data from the fifty-six Section 4 formula funded state AT program grantees, including all 50 states of the United States, the District of Columbia, Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa and the Commonwealth of the Northern Mariana Islands. The term, AT Program, is used to describe all fifty-six Section 4 grantees.

Leveraged funding is frequently secured by State AT Programs and is used to expand and maximize services. In FY16, State AT Programs leveraged \$17.2 million from federal, state, local and private sources. These leveraged dollars were used to supplement \$26.5 million in Section 4 AT Act formula grant funding for FY16 and expand program reach in all AT Act authorized activities. This report highlights close to \$65 million in savings and benefits delivered by State AT Programs in FY 2016 to over 750,000 service recipients.

<sup>2</sup> States are required to spend five percent of their state leadership funds specifically to provide AT-related training and technical assistance to assist students with disabilities who are getting ready to move from school to adult life, including employment, post-secondary education, or independent living and adults who need AT assistance to maintain or transition to community living.

## 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 [ED], 2011). Device demonstrations allow individuals and groups to make informed choices about an AT device prior to acquiring it.

During the FY 2016 reporting period, 55 AT Programs conducted device demonstrations as part of their state-level activities. State AT Programs classify device demonstration into 10 categories. Daily living was the largest demonstration category, comprising 19 percent of all demonstrations. Six additional device categories comprised between 10 percent and 17 percent of all demonstrations (see Table 1). Since FY 2015, there has been a 9.5 percent increase in the number of devices demonstrated.

**TABLE 1: NUMBER OF DEVICE DEMONSTRATIONS BY DEVICE TYPE**

Type of AT Device	Number of Demos	Percent
Daily living	9,044	19%
Mobility, seating	8,194	17%
Speech communication	6,438	13%
Computers and related	5,738	12%
Vision	5,346	11%
Learning, cognition	4,588	10%
Hearing	4,653	10%
Recreation, sports, and leisure	1,730	4%
Environmental adaptations	1,622	3%
Vehicle modification and transportation	570	1%
<b>TOTAL</b>	<b>47,923</b>	<b>100%</b>

As illustrated in Table 2, individuals with disabilities (45 percent) comprised almost half of those participating in device demonstrations in FY 2016, followed by family members, guardians, and authorized representatives (24 percent). There was a 9.4 percent increase in number of individuals who participated in device demonstrations since FY 2015.

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 2016, community living was listed as the most common purpose (70 percent), followed by education (20 percent) and employment (10 percent).

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.

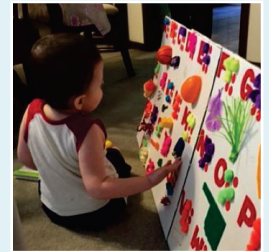
**TABLE 2: NUMBER OF INDIVIDUALS WHO PARTICIPATED IN DEVICE DEMONSTRATIONS**

Type of Individual	Number of Participants	Percent
Individuals with disabilities	32,565	45%
Family members, guardians, and authorized representatives	17,735	24%
Representatives of education	8,946	12%
Representatives of health, allied health, and rehabilitation	7,535	10%
Representatives of community living	3,162	4%
Representatives of employment	1,611	2%
Representatives of technology	1,254	2%
<b>TOTAL</b>	<b>72,808</b>	<b>100%</b>

## Device Demonstration Anecdotes

### PROGRESS THROUGH ASSISTIVE DEVICES

K is a 3-year-old boy with a huge personality! His mother reached out to the Oklahoma AT Program for support as this youngster with physical and vision disabilities prepared to transition to preschool.



One of the Oklahoma AT Program partners created a sensory table and a braille board to demonstrate do-it-yourself assistive devices that could be used in the home and later at school. K made gains in strength and endurance in his ability to stand while playing at the sensory table. He also increased his attention span, and made improvements in pre-literacy skills with the braille board.

### A VISION OF BETTER TECHNOLOGY

Rebecca, who is in her mid-60s, contacted the Arizona Assistive Technology (AT) Program because of problems with her vision. During a device demonstration, she tried several different video magnifiers, including handheld and desktop models. She discussed the activities with which she needed assistance, like reading her mail, reading her favorite magazine, and being able to read food labels at the grocery store.



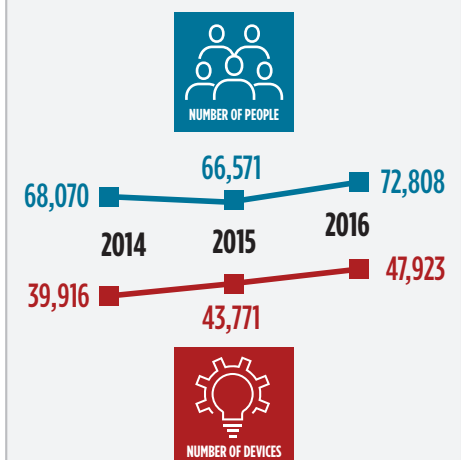
Once Rebecca decided on a model to purchase, the AT specialist referred her to local vendors, and later helped her complete an application for a financial loan from the Arizona cash loan program. With the AT, Rebecca is able to continue to lead an independent life without relying on others for daily tasks and community engagement.

## Return on Investment

72,808 individuals participated in 47,923 device demonstrations conducted by state AT Programs, and were assisted in making informed decisions. Of these demonstrations, 89% resulted in participants determining a device would meet their needs supporting a "good" investment to acquire the device, while another 5% determined a device would NOT meet their needs preventing a "bad" investment.



## DEVICE DEMONSTRATION TRENDS: 2014–2016



## 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, at school, at work, and in the community. 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 a short-term accommodation, to support/facilitate self-education by a consumer or professional or to provide other training (ED, 2011).

During FY 2016, 55 AT Programs reported providing 39,970 short-term loans of AT devices to individuals or entities. Individuals with disabilities were the largest group to whom devices were loaned (37 percent), followed by family members, guardians, and authorized representatives (21 percent). Please refer to Table 3 for a more detailed breakdown. Since FY 2015, there was a 10 percent increase in number of individuals or entities who borrowed an AT device.

**TABLE 3: NUMBER OF DEVICES BORROWED BY TYPE OF BORROWER**

Type of Borrower	Number of Device Borrowers	Percent
Individuals with disabilities	14,763	37%
Family members, guardians, and authorized representatives	8,226	21%
Representatives of education	7,317	18%
Representatives of health, allied health, and rehabilitation	5,683	14%
Representatives of community living	2,206	5%
Representatives of technology	1,066	3%
Representatives of employment	709	2%
<b>TOTAL</b>	<b>39,970</b>	<b>100%</b>

Devices for speech communication (16 percent) were the most common types of AT devices loaned in FY 2016, followed by computers and related devices (16 percent), and devices for daily living (16 percent). Seven additional device categories accounted for the remaining 52 percent of the device loans made (Table 4). There was an 11.6 percent increase in the number of devices loaned since FY 2015.

Sixty-nine percent or 27,521 device loans were made to individuals for the primary purpose of decision-making. Other reasons borrowers cited for wanting a short-term device loan included for accommodation (14 percent), a loaner during repair/waiting for funding (9 percent), and for training/personnel development (8 percent). Over half of surveyed consumers (53 percent) 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 (36 percent), followed by employment (11 percent).

**TABLE 4: DEVICES LOANED BY TYPE**

Type of AT Device	Number Loaned	Percent
Speech communication	8,838	16%
Computers and related	8,554	16%
Daily living	8,442	16%
Learning, cognition	7,812	14%
Mobility, seating	7,452	14%
Vision	4,234	8%
Environmental adaptations	3,840	7%
Hearing	2,614	5%
Recreation, sports, and leisure	2,390	4%
Vehicle modification and transportation	98	<1%
<b>TOTAL # OF DEVICES LOANED</b>	<b>54,274</b>	<b>100%</b>

## Device Loan Anecdotes

### REPAIR AND TEMPORARY REPLACEMENT OF A CRUCIAL DEVICE

Tim came to the Washington AT Program for an evaluation for his telecommunication needs under the National Deaf Blind Equipment Distribution Program. During his evaluation, he mentioned that his hand-held magnification device was malfunctioning, and asked if there was someplace he could take the device for repair.



The AT specialist referred Tim to an organization that sells and repairs magnification devices, and pointed him to the AT Program's lending library for hand-held magnifiers he could borrow while his device was being repaired. Thanks to the full-service orientation of the state program, Tim was able to borrow a hand-held magnifier to help him read his mail and other print items while his own device was being repaired, maintaining his independence.

### THROUGH TELEPRESENCE TO ACADEMIC IMPROVEMENT

McKenna, a high school student, had not been able to attend classes since 6th grade due to a genetic condition. During a public awareness event conducted by the Missouri AT Program, special educators from the school district learned about the Double 2 telepresence robot, and thought instantly of McKenna.

Before the school made a decision to purchase the device, the Missouri AT Program conducted a demonstration for them. Then the school borrowed the device from the program's device loan library to "try before you buy."

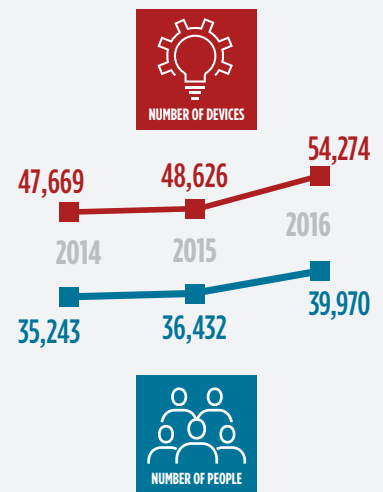
During the loan period, it was clear that with the robot, McKenna was like any other student sitting in class: the teacher sees her, she can ask questions, and the teacher responds, just like her peers. More important, though, is McKenna's academic gain. As her math teacher remarked: "I've seen her blossom mathematically." The school bought the device with the support of federal IDEA funds set aside specifically to support AT purchases.

## Return on Investment



39,970 device loans were made to individuals or agencies with 54,274 devices borrowed from short-term device loan programs. Of these device loans, 84 percent resulted in borrowers determining a device would meet their needs supporting a "good" investment to acquire the device while another 11 percent determined a device would NOT meet their needs preventing a "bad" investment.

## DEVICE LOAN TRENDS: 2014–2016



# STATE-LEVEL ACTIVITIES

## DEVICE REUTILIZATION PROGRAMS

Assistive technology reutilization involves transferring a previously owned device from someone who no longer needs it to someone who does. Device reuse 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, with the expectation the devices would be returned to the program at some point.

In FY 2016, 63,249 consumers received a total of 79,223 reutilized devices from all 56 AT Programs, resulting in an overall savings of \$31.6 million. As Table 5 shows, mobility, seating, and daily living AT were the vast majority of AT devices provided through reuse programs (86 percent of all devices).

**TABLE 5: DEVICE REUTILIZATION SUMMARY BY DEVICE TYPE**

Type of AT Device	# of Devices	Percent of Devices	Total Savings	Percent of Savings
Mobility, seating	40,019	51%	\$21,201,576	67%
Daily living	31,155	39%	\$5,967,221	19%
Computers and related	2,580	3%	\$543,144	2%
Environmental adaptations	1,298	2%	\$420,224	1%
Hearing	1,079	1%	\$273,280	1%
Vision	915	1%	\$512,132	2%
Recreation, sports, and leisure	848	1%	\$116,547	<1%
Speech communication	704	1%	\$1,916,320	6%
Learning/cognition	476	1%	\$125,684	<1%
Vehicle modification & transportation	149	<1%	\$597,457	2%
<b>TOTAL</b>	<b>79,223</b>	<b>100%</b>	<b>\$31,673,585</b>	<b>100%</b>

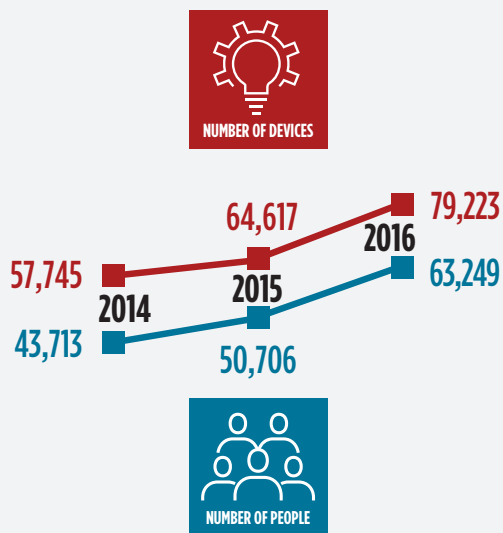
The most common device reutilization activity was recycling/refurbishment/repair (RRR). Eighty percent of recipients received devices through an RRR program, saving over \$25 million. Of the services provided through reutilization programs, RRR activities provided the greatest savings to recipients. From FY 2015 to FY 2016, there was a 25 percent increase in the number of people who received devices and a 23 percent increase in the number of devices that were received. Overall, there was a 13 percent increase in the overall savings to recipients of device reuse programs from FY 2015 totaling well over \$31 million.

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

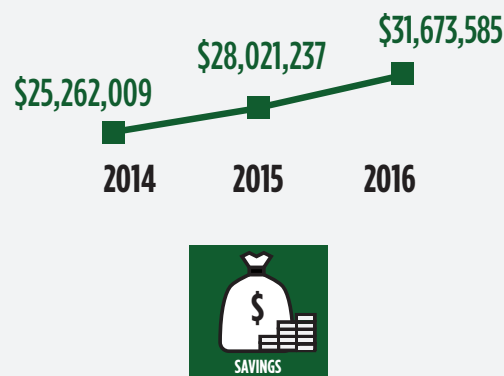
Activity	Number (%) of Device Recipients	Number (%) of Devices	Total Savings To Recipients	Percent of Savings to Recipients
Recycle/refurbish/ repair (RRR)	50,543 (80%)	62,404 (79%)	\$25,633,760	81%
Open-ended loans	10,873 (17%)	13,361 (17%)	\$4,280,828	14%
Device exchange	1,842 (3%)	3,458 (4%)	\$1,758,997	6%
<b>TOTAL</b>	<b>63,249 (100%)</b>	<b>79,223 (100%)</b>	<b>\$31,673,585</b>	<b>100%</b>

Recipients of AT through the device reutilization program were surveyed about the primary purpose for which AT was needed. Out of the 62,936 respondents, 93 percent gave community living as the primary purpose, followed by education (5 percent) and employment (3 percent).

## DEVICE REUSE TRENDS: 2014–2016



## TOTAL SAVINGS TO RECIPIENTS: 2014–2016



## Return on Investment

63,249 recipients acquired 79,223 reutilized devices. Recipients saved a reported \$31,673,585 by obtaining reutilized AT instead of new. The vast majority (91 percent) of recipients indicated that if the state financing activity they used was not available they would not have been able to purchase/obtain the AT due to cost or availability potentially resulting in individuals who are unable to successfully work, learn or live in the community.

## Device Reutilization Anecdotes

### BRIDGING THE GAP BETWEEN DEVICES

MD was referred to the Pennsylvania State AT Program through the Bureau of Blindness and Visual Services, which had approved a new electronic



enlargement device for employment. While he was waiting for the new enlarger, MD needed a device to bridge the gap so he could start working.

Quick access to a reused device allowed MD to start earning and paying taxes immediately, as the request for the new CCTV went through the system. After he receives the new device, he'll continue to use the old one as a back-up. That way, he and his employer know he'll be able to continue his work without concern about a technology breakdown.

### A SIMPLE SOLUTION FOR BATHTUB SAFETY

Sam recently had modifications completed on his home, but was having difficulty transferring into his bathtub/shower safely. Even though he has progressive multiple sclerosis and uses a wheelchair, his health insurance wouldn't cover a transfer bench.

Because he was falling at least once a month in the bathroom, Sam contacted the reuse network supported by the Virginia AT Program. The bath bench Sam received has helped him avoid costly medical bills.

After his positive experience with the statewide reuse program, Sam donated several durable medical equipment items that he no longer needed. He even organized an equipment donation drive with his church to benefit the program.



## STATE FINANCING

State financing activities assist individuals with disabilities to acquire needed AT through three types of programs: 1) financial loan programs that provide cash loans that borrowers can use to purchase AT, 2) other activities that result in direct AT provision, and 3) additional activities that allow consumers to obtain AT for a reduced cost. Funds authorized under the AT Act of 1998, as amended, cannot be used to purchase AT devices or services directly for consumers (ED, 2011).

TABLE 7: TYPES AND DOLLAR AMOUNTS OF AT ACQUIRED WITH FINANCIAL LOANS

Type of AT	# of Devices Financed	Device Percent	Dollar Value of Loans	Dollar Percent	Average Loan Amount
Hearing	359	42%	\$1,371,789	21%	\$3,821
Vehicle modification and transportation	235	27%	\$4,324,942	67%	\$18,404
Computers and related	100	12%	\$62,725	1%	\$627
Mobility, seating and positioning	58	7%	\$238,871	4%	\$4,118
Environmental adaptations	38	4%	\$248,369	4%	\$6,536
Vision	37	4%	\$44,184	1%	\$1,194
Daily living	17	2%	\$61,144	1%	\$3,597
Recreation, sports, and leisure	8	1%	\$55,865	1%	\$6,983
Speech communication	5	1%	\$1,894	<1%	\$379
Learning, cognition	3	<1%	\$16,000	<1%	\$5,333
<b>Total</b>	<b>860</b>	<b>100%</b>	<b>\$6,425,783</b>	<b>100%</b>	<b>\$7,472</b>

### State Financing - Cash Loan Programs

Thirty-two State AT programs reported data on financial loans made. These programs issued 842 loans for AT device(s) totaling \$6,425,783. The average annual income of loan recipients was \$42,252 and the national average interest rate was 3.67 percent. Out of 842 loans issued, 26 percent were made to applicants with annual incomes of less than \$15,000 and another 24 percent were made to applicants with annual incomes between \$15,001 and \$20,000. The overwhelming majority of total loan dollars issued (67 percent) was for vehicle modification and transportation technologies, averaging \$18,404 per loan. Hearing AT ranked first in number of devices financed averaging \$3,821 per loan. For a more detailed breakdown of loans by device type, refer to Table 7.

### Other State Financing Programs that Provide AT

Fifteen states reported data on other financing activities that resulted in the acquisition of AT devices and services. These programs typically purchased AT using external funding provided to the AT Program by another agency and directly provide that AT to eligible recipients. These programs are frequently limited in focus, only providing a particular type of AT (such as telecommunications), or restricted to individuals with a specific kind of disability (autism), or require individuals be eligible for a specific funding source (such as IDEA) to obtain the AT.

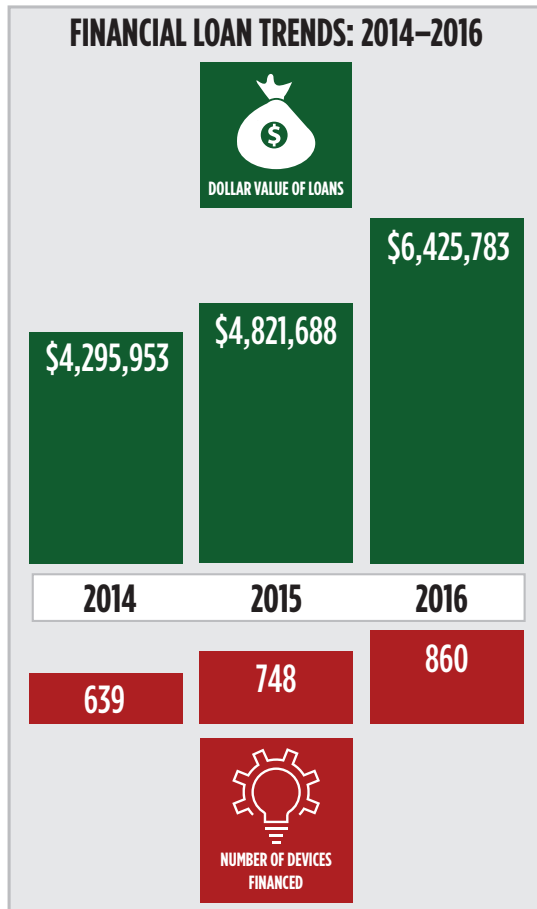
In FY 2016, these programs served 2,633 individuals and provided 3,426 AT devices. Almost half (42 percent) of the total technologies funded were hearing devices. Environmental adaptations constituted 33 percent (\$1,165,996) of the total value of AT provided (\$3,577,957), but made up only 9 percent of total devices funded.

## Other State Financing Programs that Reduce the Cost of AT

Nine 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, a vision equipment lease program, and device design and development.

In FY 2016, these other financing activities served 2,374 individuals, and 3,628 devices were acquired at a total savings of \$2,132,198. Out of all the AT categories, hearing AT resulted in the highest savings to consumers (\$5,889 per device). Devices for learning and cognition (1,293 devices), speech communication (630 devices), and vision (356 devices) combined made up 63 percent of acquired devices. This resulted in moderate savings per device (\$33 for each item for learning and cognition, \$39 for each device for speech communication, and \$1,266 for each vision device).

Individuals with disabilities who received services from state financing activities were contacted about the primary purpose for which AT was needed. Seventy percent of respondents cited community living as the primary purpose, followed closely by education (24 percent) and employment (6 percent).



## Return on Investment

5,849 recipients obtained 7,914 devices through state financing activities with a value or savings of over \$12 million. The vast majority (95 percent) of recipients indicated that if the state financing activity they used was not available they would not have been able to purchase/obtain the AT due to cost or availability potentially resulting in individuals who are unable to successfully work, learn or live in the community.



## State Financing Anecdotes

### USING A LOW-INTEREST LOAN TO GAIN WHEELS

Pedro is a 43-year-old man with cerebral palsy who lives rural New Mexico. Since his father's passing, he is totally dependent on his 78-year-old mother for his daily care. Although Pedro's father was able to lift and transfer him from his wheelchair to the car, this task is impossible for his mom. The only solution for transporting Pedro to doctor's appointments and to community or family events was an accessible van.



Through New Mexico's Access Loans Program and its low interest rate, Pedro and his mom were able to purchase a 2011 Dodge Caravan with a rear ramp. Transportation problem solved!

### AN INGENIOUS, LOW-COST ADAPTATION

Georgie uses a head-tracking system to control his computer, as well as a computer-based environmental control system. Although he had full control of much of his environment, he was not able to control his automatic bed. He had researched bed controllers, but found that most models were not compatible with his bed's model and were quite expensive (over \$1,300).

Though the Puerto Rico AT Program's Low-Cost Device Design and Development (LD3) program, a device was created to control Georgie's bed through the infrared signals sent by his computer-based environmental control system. The adapted device was seamlessly integrated as a plug-n-play system into the bed controller, so that the bed itself was not altered in any way (thus avoiding warranty issues).

This LD3 adaptation was fully compatible with Georgie's bed. It could control all bed functions and be upgraded to control additional devices, and it cost only \$50 to make.

Today, Georgie can independently control his bed, thus reducing the cost of caretakers, minimizing the chance of developing pressure ulcers, and increasing his overall quality of life.



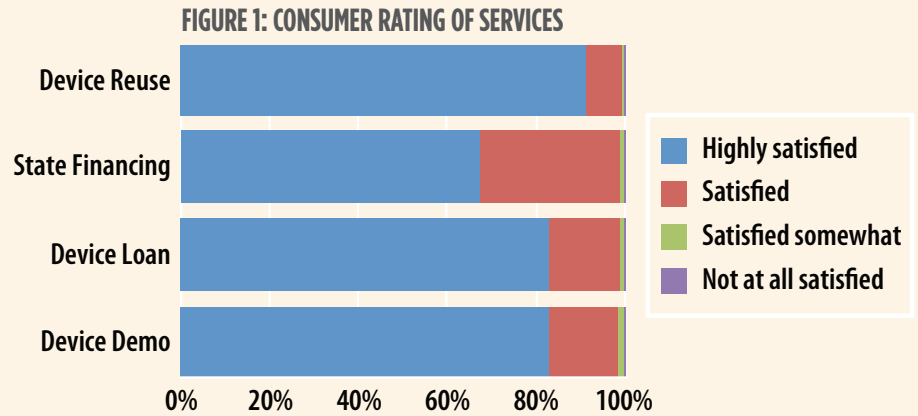
# CONSUMER SATISFACTION RATINGS OF STATE LEVEL ACTIVITIES

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, the vast majority (>98 percent) of respondents were highly satisfied or satisfied with the services they received in each state activity. Device reuse programs had the highest consumer satisfaction out of all state activities, with 99.4 percent of consumers highly satisfied or satisfied, followed by state financing and device loan programs (99 percent). Device demonstration programs have customer satisfaction ratings of 98 percent.

**98%**



**of respondents were highly satisfied or satisfied with the services they received in each state-level activity.**

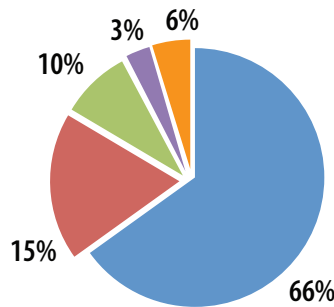


## STATE ACTIVITIES PERFORMANCE MEASURES

### 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 reuse, and open-ended loans. Sixty-six percent of consumers stated that they could only afford AT through these programs. Fifteen percent said that the AT needed was only available to them through these programs, and 10 percent 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 (85 percent). See Figure 2 for more details.

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

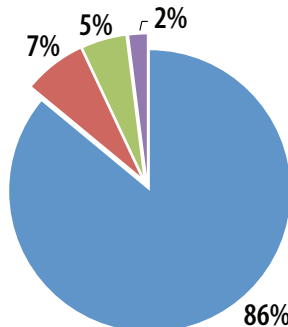


Overall Acquisition Performance Measure	Education	Employment	Community Living
Could only afford the AT through the AT program	4,274	1,859	46,949
AT was only available through the AT program	1,930	403	9,722
AT available through other programs, but system complex/wait time too long	1,181	535	6,067
None of the these	276	179	2,031
Nonrespondent	525	360	4,074
<b>TOTAL</b>	<b>8,670</b>	<b>3,338</b>	<b>68,915</b>

### 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 are needed. As illustrated by Figure 3, these services have overwhelmingly contributed to individuals with disabilities or their representatives making an informed decision about AT.

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



Overall Access Performance Measure	Education	Employment	Community Living
Decided AT will meet needs	17,245	5,908	41,808
Decided AT will not meet needs	1,772	544	3,028
Have not made a decision	991	344	2,060
Nonrespondent	548	113	1,083
<b>TOTAL</b>	<b>20,556</b>	<b>6,909</b>	<b>47,979</b>

Eighty-six percent of respondents stated that an AT device would meet their needs, or those of someone they represent. Another 7 percent of consumers stated that an AT device would not meet their needs (which is still an important decision outcome), and 5 percent did not make a decision. Community living (64 percent) and education (27 percent) were the most commonly reported purposes for AT, as shown in Figure 3.

## TRAINING

Training activities are instructional events, 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 operational competence with the technology, as opposed to training intended only to increase general awareness of AT (ED, 2011). In FY 2016, AT Programs trained a total of 117,220 participants. Education representatives (27 percent) were closely followed by individuals with disabilities (24 percent) as the types of individuals who were most likely to receive training.

Forty-three 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. Thirty-three percent of participants attended trainings 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 9 percent of participants. AT funding/policy/practice and information technology/telecommunication access trainings were attended by 7 percent of training participants combined.

## PUBLIC AWARENESS

Public awareness activities include public service announcements, Internet outreach and social media, 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 large, but is often difficult to quantify precisely, and estimates must be reported (ED, 2011).

In FY 2016, AT Programs reached an estimated 19,093,494 people through their awareness activities. Out of the estimated total reached, 33 percent of individuals were contacted through public service announcements on radio or television, 18 percent through other print materials, 16 percent through the Internet, and the remaining outreach activities were distributed among listservs (14 percent), newsletters (10 percent), other electronic media (6 percent), and public forums (2 percent).

## INFORMATION AND ASSISTANCE

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

In FY 2016, 445,293 individuals were recipients of I&A. Of the two I&A content areas, information about specific AT products/devices/services was the most common, with 82 percent of recipients

requesting this type of information. Eighteen percent received information on obtaining funding for AT. The largest recipient group of I&A was family members/guardians/authorized representatives (25 percent), followed by individuals with disabilities (24 percent), representatives of health, allied health, and rehabilitation (14 percent), representatives of education (13 percent), and representatives of community living (12 percent). The remaining recipient types were representatives of employment (6 percent), representatives of technology (5 percent), and others (<1 percent).

## TECHNICAL ASSISTANCE

Technical assistance (TA) is provided by state AT Programs to help programs and agencies improve their services management, policies, and/or outcomes. As a result of technical assistance and other activities, some AT Programs report state improvement outcomes with policy, practice, or procedure improvements that result in increased access to and acquisition of AT in the state. In FY 2016, the 56 grantees reported providing a majority of technical assistance to educational agencies (31 percent) and community living agencies (27 percent).

**TABLE 8: PERCENTAGE OF AGENCIES THAT RECEIVED TECHNICAL ASSISTANCE**

Program/Agency Type Receiving TA	Percent
Education	31%
Community living	27%
Employment	19%
Technology (IT, Telecom, AT)	12%
Health, allied health, and rehabilitation	11%
<b>TOTAL</b>	<b>100%</b>

## CONCLUSION

State and Territory AT programs have improved the ability of individuals with disabilities of all ages to fully engage in education, employment, and community living, propelling their chances to advance socioeconomically and achieve optimal self-sufficiency. 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.

AT Programs enable individuals with disabilities, their representatives, and others working with them 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 reuse and state financing programs provide an affordable purchasing avenue.

**COMMUNITY LIVING**

Staff of the Vermont AT Program worked with the state’s Department of Motor Vehicles to provide technical assistance on making their online materials, including the state driver’s license manual, fully accessible. As a result, DMV staff updated their website to provide the manual in a format that can be accessed using text-to-speech and screen reader tools, in a digital audio file, and in an interactive version.



**INFORMATION AND COMMUNICATION TECHNOLOGY ACCESSIBILITY**

The Georgia AT Program partnered with a number of other organizations to form a coalition working on the GeorgiaGov Accessibility Initiative. With a focus on improved color contrast and code functionality, the GeorgiaGov Accessibility Initiative was the first enterprise-wide initiative to make their web platform accessible by federal standards and even beyond. The National Association of State Chief Information Officers recognized GeorgiaGov’s Accessibility Initiative with their State IT Recognition Award for Digital Government: Government to Citizen for 2016.



**HEALTH CARE**

The Colorado AT Program worked for a number of years with the Colorado Medicaid Office to negotiate a new Medicaid billing code for complex AT evaluations. This change allowed clinicians to be more fairly reimbursed when evaluating individuals with complex needs, ensuring greater access to devices and services.



**VOTING ACCESSIBILITY**

District of Columbia AT Program staff and a network of disability rights consumers, advocates, and other volunteers provided technical assistance and supported accessibility surveys of 88 polling precincts throughout DC prior to the June 2016 primary election. The goal was to ensure full participation of people with disabilities in the electoral process, including registering to vote, casting a vote, and accessing polling precincts and voting equipment. A report was issued to the DC Board of Elections outlining the accessibility concerns identified at each precinct, along with recommendations for improving access.



**EMPLOYMENT**

The Oklahoma AT Program worked to develop and ensure adoption of the Roadmap of Accessibility Standards to be used by all Oklahoma Workforce System Partners. This certification tool will ensure the accessibility of the physical (built) environment, as well as information and communication technology, for all job seekers with disabilities under the Workforce Innovation and Opportunity Act.



**ABLE ACCOUNTS**

Kansas AT Program employees were invited to speak at the national conference for state treasurers and their staff. The presentation highlighted examples AT use across the life span of individuals with disabilities. This led to a discussion of allowable expenses for Achieving a Better Life Experience (ABLE) account holders, ensuring broad access to supports for AT under this new program.



**EDUCATION & TRANSITION**

The Connecticut Assistive Technology (AT) Program and its lead agency, the Bureau of Rehabilitation Services, sponsored a one-week overnight camp (“AT Camp”) held on a fully accessible campground. The purpose of AT Camp was to offer a summer camp experience and to promote transitional success for students with disabilities, ages 16 to 21, who were still in school, and were preparing for college, employment, or community programs.



Campers participated in learning opportunities and work experiences such as job shadowing, all while incorporating AT into their routines. Each day, campers recorded video blogs of their experiences. They created an AT portfolio highlighting what they learned, the AT they used, and the AT that was most helpful to them. Each camper received a letter of recommendation and a copy of their AT portfolio to share with their school and their vocational rehabilitation counselors.

**AGING**

The Virginia AT Program worked collaboratively with the Arlington Commission on Aging to develop a training toolkit of AT options for “Vintage Virginians” (ages 55+). The commission serves in an advisory capacity to the Arlington County Area Agency on Aging. AT Program staff participated in a workgroup with advocates to develop this training over the course of 2 years. The training provides information on AT to support Virginians and their caregivers to safely age in place. The purpose of the toolkit/suitcase is to demonstrate that low- and mid-cost AT can help Virginians safely age in place longer, without having to transition to a nursing facility.



## REFERENCES

U.S. Department of Education, Office of Special Education and Rehabilitative Services, Rehabilitation Services Administration. Annual report to Congress on the Assistive Technology Act of 1998, as amended, for fiscal years 2007 and 2008. Washington, D.C.: Author.

Association of Assistive Technology Act Programs (2011, May). History of the Assistive Technology Act. Springfield, IL.



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#### RESOURCE INFORMATION

Contact and other information on each State AT Program can be found on the Center for Assistive Technology Act Data Assistance (CATADA) website.

The CATADA website also provides an overall summary data report for Fiscal Year 2016 that provides data on the major AT Act activities by state.

**This publication is available in accessible digital format on the CATADA website at [www.catada.info/publications](http://www.catada.info/publications).**



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