



---

# Telecommunications Access Minnesota

2021 Annual Report to the Public Utilities Commission  
Docket Number P999/PR-22-5

February 24, 2022

---

## Table of Contents

Executive Summary.....	4
Key Points.....	5
TAM Program History .....	6
Historical TAM Program Highlights .....	6
Telecommunications Access Minnesota (TAM).....	10
TAM Administration .....	10
TAM Funding .....	10
TAM Funding Sources .....	10
Current TAM Surcharge .....	10
TAM Surcharge Funded Programs.....	10
Telecommunications Relay Services (TRS) Jurisdictional Separation of Costs.....	11
Population Served .....	11
Role of the Public Utilities Commission (PUC) .....	11
Impact of Technology Changes on Telecommunications Services .....	12
Minnesota Relay Progress Report.....	13
T-Mobile Telecommunications Relay Service (TRS) Service Enhancements.....	13
Temporary Waiver of TRS Requirements .....	14
Anticipated TRS Enhancements in 2022 .....	15
Minnesota Relay Services.....	15
Minnesota Relay Features .....	16
Speech-to-Speech (STS) Features.....	17
Call Volumes .....	18
Accessibility of the Telecommunications Network – Minnesota Relay Services.....	20
Uninterruptible Power System .....	20
Switching System Configuration.....	21
CapTel Switching System .....	21
Alternate Facilities .....	22
Transmission Circuits.....	22
711 Dialing Access .....	23
Handling of Emergency Calls .....	23

Speed of Answer .....	23
Consumer Complaints .....	24
Telephone Equipment Distribution Program.....	25
TED Program Administration .....	25
Authority to Provide Equipment .....	25
Population Served .....	26
Statistical Information .....	26
Annual Comparison of Services Provided.....	27
TED Program Progress Report.....	27
Lessons Learned Serving Clients During COVID-19 .....	27
The Numbers of Each Type of Equipment Purchased, Deployed, Returned and Retired During the Year .....	28
Advanced Wireless Program .....	29
TED Program Database Development .....	30
3G Cellular Network Phaseout .....	30
TED Program's Outreach Metrics .....	30
Outreach .....	33
Minnesota Relay Outreach.....	33
TED Program Outreach.....	34
2021 Minnesota Relay and TED Program Outreach .....	35
Presentations and Booths .....	35
Print and Electronic Advertisements.....	36
Telephone Directories, Bill Inserts and Newsletters.....	40
DHHSD Regional Advisory Committee Meetings .....	41
TAM Fund Budget Summary - FYs 2021 & 2022 .....	42
TAM Fund Expenditures for Fiscal Years 2012 - 2021 .....	43
Appendices.....	44
Report prepared by .....	61

# Minnesota Department of Commerce

## **Mission**

To protect the public interest, advocate for Minnesota consumers, ensure a strong, competitive and fair marketplace, strengthen the state's economic future, and serve as a trusted public resource for consumers and businesses.

## **With You Every Day**

Wherever you are in Minnesota, the Department of Commerce is with you every day. Whether you're filling up on gas, purchasing a home, working to reduce energy consumption, or rebuilding after a disaster—we are with you, no matter what. Commerce oversees more than 20 regulated industries, ensuring that Minnesota businesses are strong and Minnesota consumers are protected. Learn more at [mn.gov/commerce](https://mn.gov/commerce).

## Executive Summary

In accordance with Minn. Stat. § 237.55, the Minnesota Department of Commerce (Commerce) submits the 2021 annual report on the accessibility of telecommunications services to persons who have communication disabilities.

The report reviews the accessibility of telecommunications services to persons who have communication disabilities, describes services provided, accounts for annual revenues and expenditures for each aspect of the fund to date, and predicts future program operation. This report provides a history of both the Telecommunications Access Minnesota (TAM) and Telephone Equipment Distribution (TED) Programs, which were established to provide equal access to the telecommunications network for people who are deaf, hard of hearing, speech disabled or physically disabled. These programs are funded by the TAM fee, currently at \$0.06, which is a surcharge on all wired and post-paid wireless telephone access lines in Minnesota, and by a fee on each Minnesota retail transaction for prepaid wireless telecommunications services.

In addition to Minnesota Relay and the TED Program, TAM funds six additional programs:

- The Department of Human Services (DHS) – Rural Real-Time Captioning program has a maximum annual budget of \$300,000.
- The Department of Employment and Economic Development (DEED) – Accessible News for the Blind program has a maximum annual budget of \$100,000.
- The Minnesota Commission of the Deaf, DeafBlind and Hard of Hearing (MNCDHH) receives \$1,620,000 annually.
- Minnesota IT Services (MN.IT) receives \$290,000 annually for coordinating technology accessibility and usability.
- MN.IT receives \$50,000 annually for a consolidated access fund for other state agencies related to accessibility of their web-based services.
- The Legislative Coordinating Commission (LCC) received \$100,000 in FY 2021, \$410,000 in FY 2022, and will receive \$133,000 annually thereafter, to provide captioning of live legislative activity streaming on the LCC's website.

In 2021, Minnesotans placed 196,381 relay calls for a total of 437,032 conversation minutes of use. Over the years, many relay users have migrated from TTY-based, Speech-to-Speech and CapTel relay services to internet-based services such as Video Relay Service, Internet Protocol Relay and Internet Protocol Captioned Telephone Service – services under the Federal Communications Commission's jurisdiction and paid for through a federal fund. Internet-based relay services are fully accessible to Minnesota consumers, free of charge, through many providers who offer these services nationwide.

The TED Program distributed 568 telecommunication devices and 85 auxiliary devices to new and current clients. TED Program staff also provide outreach for both the TED Program and Minnesota Relay from Deaf and Hard of Hearing Services Division offices located in Duluth, Mankato, Moorhead, St. Cloud and St. Paul.

Due to the pandemic and social distancing requirements, in 2021 TED Program staff were unable to provide in-person visits to clients and were only able to participate in virtual booths and presentations. TED Program staff provided information at 14 virtual booths and presentations with a total of 1,872 attendees.

This report also discusses the loss of service that can be experienced by customers with specialized customer premises equipment when copper retirement occurs. Specialized equipment used by people with disabilities, such as TTYs and analog captioned telephones, may no longer work after the service provider retires the copper network serving the customer. Commerce intends to work with service providers on their process to notify affected customers, as well as the TED and TAM Programs, when a change in technology may result in the loss of service.

## Key Points

---

- In 2021, the \$0.06 TAM fee generated revenue of \$5,722,105.89 to fund eight programs with a variety of services, totaling expenditures of \$4,196,860.39.
- In 2021, Minnesotans placed 196,381 relay calls for a total of 437,032 conversation minutes of use. From 2020-2021, Minnesota Relay calls were down an average of 15 percent. Over the years, many relay users have migrated to internet-based services such as Video Relay Service, Internet Protocol Relay and Internet Protocol Captioned Telephone Service. The Affordable Connectivity Program (ACP), which became effective on December 31, 2021, will help households afford the internet connection they need for internet-based relay services.
- The TAM surcharge was reduced in 2021 from \$0.07 to \$0.06 per access line or retail transaction. By statute, the surcharge may not exceed \$0.20 per access line or retail transaction.
- Most Telecommunications Relay Services (TRS) communications assistants are now working from home. A “work-from home” workforce allows for business continuity during natural or man-made disasters.
- The TED Program served 162 new clients and 564 current clients in 2021.
- The COVID-19 pandemic continues to prohibit TED Program staff from providing in-person home visits or outreach. Telecommunication devices distributed and clients served by the TED Program both decreased from the previous year.

# TAM Program History

In 1987, the Legislature passed legislation creating the Telecommunications Access for Communication Impaired Persons (TACIP) board, which was tasked with ensuring that people who have difficulty hearing or speaking on the telephone have access to telephone service. Two programs were established to accomplish this goal: the Minnesota Relay, which began service on March 1, 1989; and the Telephone Equipment Distribution (TED) Program, which began as a pilot program on October 1, 1988.

Minnesota Relay is a federally mandated Telecommunications Relay Services (TRS) program that allows an individual who is deaf, hard of hearing, deafblind or speech disabled to communicate over the telephone in a manner that is functionally equivalent to the ability of an individual who does not have hearing loss or a speech disability. Minnesota Relay must be in full compliance with the requirements and intent of Title IV of the Americans with Disabilities Act of 1990, United States Code, title 47, section 225, Code of Federal Regulations, title 47, sections 64.601 to 64.606 and Minn. Stat. § 237.50 to 237.56.

There have been significant changes and improvements to Minnesota Relay since it began operations. When Minnesota Relay began providing services in 1989, the State owned and maintained all the relay equipment and contracted with the Deafness, Education and Advocacy Foundation for the operation of the call center. Minnesota Relay services are now provided to the State of Minnesota under contract with T-Mobile<sup>1</sup>.

The TED Program provides specialized telecommunications equipment to enable persons who are deaf, hard of hearing, deafblind, speech disabled or physically disabled to access telecommunications services. Program participants must meet eligibility requirements, including income, disability and residency.

## Historical TAM Program Highlights

---

- In 1995, the Legislature eliminated the TACIP board and transferred the responsibility for administering TACIP to the Department of Public Service.<sup>2</sup> The Department of Human Services, through an interagency agreement with Commerce, has administered the TED Program since it began (Minn. Stat. § 237.51, subd. 1).
- In 1996, the Minnesota Relay facility and its equipment had become severely outdated. The TACIP program decided to provide comprehensive and cost-effective relay services in Minnesota using a qualified TRS vendor to furnish continually upgraded equipment and software, as well as specially trained call center staff.

---

<sup>1</sup> In April 2020, T-Mobile and Sprint merged and operate under the name of T-Mobile. Sprint Communications Company L.P. is now an indirect, wholly owned subsidiary of T-Mobile US, Inc.

<sup>2</sup> The Departments of Public Service and Commerce merged on September 15, 1999.

- On July 1, 1996, the TACIP program contracted with Communication Service for the Deaf (CSD) and Sprint Communications Company, L.P. (Sprint) for TRS. CSD's contract was for the provision of management, human resources and outreach components for Minnesota Relay. Sprint's contract was for the provision of the call center facility, equipment and maintenance, and access to Sprint's fiber optic telecommunications network. Initially, Minnesota Relay traffic was forwarded to relay centers operated jointly by CSD and Sprint. The Minnesota Relay center, located in Moorhead, began processing calls on December 16, 1996.
- Effective August 1, 2002, the name of the Telecommunications Access for Communication Impaired Persons program changed to Telecommunications Access Minnesota (TAM). Commerce sought the name change at the request of consumers, who objected to the word "impaired" in the program name.
- In 2005, the Minnesota Legislature created two new state programs, Accessible News for the Blind and Rural Real-Time Captioning, both of which are funded via the TAM surcharge.
  - The Accessible News for the Blind program provides an electronic information service (access to daily newspapers and magazines) for individuals who cannot read print materials due to vision loss, dyslexia or a physical disability. This program is administered by DEED and has a maximum annual budget of \$100,000.
  - The Rural Real-Time Captioning program provides real-time captioning of certain live local television news programs in rural areas so that they are accessible to people who are deaf, hard of hearing or deafblind. This program is administered by the Commissioner of DHS and has a maximum annual budget of \$300,000.
- On October 17, 2005, TAM issued a request for proposal for the provision of TRS and associated outreach. The TRS contract was awarded to CSD, with Sprint as a subcontractor, and was effective from July 1, 2006, through June 30, 2011, with the option to renew up to an additional 60 months. TAM extended the basic relay and captioned telephone relay services components of the TRS contract with CSD through June 30, 2014. The Minnesota Relay outreach component was not included in the contract extension.
- In 2006, the Legislature appropriated \$200,000 annually from the TAM fund to the Minnesota Commission of the Deaf, DeafBlind and Hard of Hearing (MNCDHH) for operational expenses. The commission advocates for equality of opportunity for Minnesotans who are deaf, deafblind and hard of hearing.



- In 2007, the Legislature appropriated an additional \$100,000 annually from the TAM fund to MNCDHH (an increase of 50 percent) for a total direct appropriation of \$300,000 annually.
- In 2008, the Legislature provided for two direct appropriations from the TAM fund in FY 2009: \$85,000 for a state video franchising study and \$175,000 for a broadband mapping project.
- In 2009, the Legislature provided for three one-time direct appropriations from the TAM fund in FYs 2010 and 2011. MN.IT was appropriated \$100,000 each year for technology accessibility and usability. The Legislative Coordinating Commission (LCC) was appropriated \$100,000 each year for captioning of live streaming of legislative sessions. MNCDHH was appropriated \$100,000 each year for American Sign Language website content.
- In 2010, the Legislature approved transfers of \$246,000 in FY 2010, and \$270,000 in FY 2011, from the TAM fund to the General Fund.
- In 2011, the Legislature provided for one-time direct appropriations from the TAM fund to MN.IT, LCC and MNCDHH in FYs 2012 and 2013. MN.IT received \$230,000 each year for coordinating technology accessibility and usability. LCC received \$150,000 each year to provide captioning of live streaming of legislative activity on the LCC's website and for a consolidated access fund for other state agencies. MNCDHH received \$20,000 each year to provide information in American Sign Language on their website and to provide technical assistance to state agencies.
- In 2011, the Legislature approved a transfer of \$1,100,000 from the TAM fund to the General Fund. The transfer was processed in FY 2012.
- In July 2011, Commerce began contracting with DHS for the provision of Minnesota Relay outreach services. With this transition, outreach is provided from five regional Deaf and Hard of Hearing Services offices (in the past, Minnesota Relay outreach was provided from one office located in St. Paul). The contract saves the TAM fund thousands of dollars annually.
- In 2013, the Legislature modified the direct appropriations from the TAM fund to MN.IT, LCC and MNCDHH. In FY 2014, MN.IT's funding increased to \$290,000 (an increase of 26.1 percent) and became a permanent annual allocation. The LCC's \$150,000 appropriation also became a permanent annual allocation. MNCDHH's appropriation increased to \$500,000 in FY 2014 (an increase of 56.3 percent) and to \$800,000 in FY 2015 (an increase of 60 percent) and became a permanent annual allocation.

- In 2013, new legislation imposed a TAM fee on each retail transaction for prepaid wireless telecommunications services, in the amount of the monthly charge provided for by Minn. Stat. § 237.52, subdivision 2. The prepaid wireless fee became effective on January 1, 2014.
- On March 5, 2014, Commerce issued a request for proposal for the provision of TRS. The TRS contract was awarded to Sprint Communications Company L.P. (now T-Mobile) and is effective from July 1, 2014, through June 30, 2022.
- In 2015, the Legislature modified the direct appropriations from the TAM fund to MN.IT and the LCC. In FY 2016, the \$50,000 funding for a consolidated access fund to provide grants to other state agencies related to accessibility of their web-based services was moved from the LCC to MN.IT.
- In 2017, the Legislature increased the direct appropriation for MNCDHH to \$1,170,000 (an increase of 46.3 percent).
- In 2019, the Legislature increased the direct appropriation for MNCDHH to \$1,620,000 (an increase of 38.5 percent).
- In April 2020, Minnesota's TRS vendor, Sprint Communications Company L.P., merged with T-Mobile. Sprint Communications Company L.P. is now an indirect, wholly owned subsidiary of T-Mobile US, Inc.
- In 2021, the Legislature modified the direct appropriation from the TAM fund to the LCC. The LCC's FY 2022 funding was increased to \$410,000 (from \$100,000) to allow the LCC to purchase additional automated tools to provide closed captioning. The LCC's FY 2023 appropriation is \$133,000.

# Telecommunications Access Minnesota (TAM)

## TAM Administration

---

Commerce administers the TAM fund and manages vendor contracts and interagency agreements. Minnesota Relay services are provided to the State of Minnesota under contract with T-Mobile. The TED Program (including Minnesota Relay outreach services) and the Rural Real-Time Captioning program are provided through interagency agreements with DHS. The Accessible News for the Blind program is provided through an interagency agreement with DEED.

## TAM Funding

---

### TAM Funding Sources

- Monthly surcharge on all wired and post-paid wireless telephone access lines in the state of Minnesota.<sup>3</sup>
- Fee on each Minnesota retail transaction for prepaid wireless telecommunications services.

TAM surcharge revenue is deposited into a dedicated account. The surcharge is capped at \$0.20 per access line per month, or per retail transaction.

### Current TAM Surcharge

In April 2021, the Public Utilities Commission (PUC) approved TAM fund fiscal year 2022 budgets and Commerce's recommendation that the TAM surcharge be reduced from \$0.07 to \$0.06 per wired and post-paid wireless access line and prepaid wireless retail transaction. The surcharge reduction became effective on October 1, 2021.

### TAM Surcharge Funded Programs

- Telecommunications Access Minnesota Program Administrative Expenses
- Minnesota Relay Services
- Minnesota Relay Outreach
- Telephone Equipment Distribution Program

---

<sup>3</sup> The Eighth Circuit Court of Appeals affirmed the Federal District Courts decision that Voice over Internet Protocol (VoIP) telephone service provided by Charter Advanced Services is an information service and that the Federal Communications Commission's "policy of nonregulation" of these services preempted state law. *Charter Advanced Servs. (MN), LLC v. Lange*, 903 F. 3d 715, 718 (2018). Thus, VoIP services, where there is a net protocol conversion as occurs with Charter's VoIP telephone services, are not required to collect and remit the TAM surcharge.

- Accessible News for the Blind
- Rural Real-time Captioning
- The Minnesota Commission of the Deaf, DeafBlind and Hard of Hearing
- MN.IT (for coordinating technology accessibility and usability)
- MN.IT (for a consolidated access fund for other State agencies)
- Legislative Coordinating Commission (for captioning live streaming of legislative activity)

## **Telecommunications Relay Services (TRS) Jurisdictional Separation of Costs**

Minnesota's TRS program observes all jurisdictional separation of costs as required by Code of Federal Regulations, title 47, section 64.604 (c)(5), section 410 of the Communications Act of 1934, Minn. Stat. § 237.10 and Minnesota Rules chapter 7810.6400. All Minnesota Relay intrastate and interstate minutes are reported separately and distinctly to the State and are included in monthly invoices from the TRS vendor.

Minnesota Relay local and intrastate minutes of service (including 49 percent of toll-free and 900 minutes, and 89 percent of two-line CapTel minutes) are reimbursed through the TAM fund. The Interstate TRS Fund reimburses Minnesota Relay interstate and international minutes of service (including 51 percent of toll-free and 900 minutes, and 11 percent of two-line CapTel minutes).<sup>4</sup>

## **Population Served**

---

The Minnesota Relay and TED Program serve Minnesotans who have a hearing, speech, vision or physical disability that makes it difficult or impossible to use standard telecommunications services and equipment. They also serve people who communicate by phone with these individuals. Maps detailing where Minnesota Relay TTY/Speech-to-Speech calls and CapTel calls originated from for the month of May 2021 are included in **Appendix A**.

## **Role of the Public Utilities Commission (PUC)**

---

Commerce must submit an annual budget and surcharge recommendation to the PUC for approval. The PUC reviews the recommendation for reasonableness, may modify the budget to the extent it is determined unreasonable and sets the annual TAM surcharge amount. (Minn. Stat. § 237.52, subdivision 2).

---

<sup>4</sup> Interstate TRS is funded by contributions from every carrier providing interstate telecommunications services (including VoIP service providers) based on interstate end-user revenues. The fund administrator is currently Rolka Loube.

## Impact of Technology Changes on Telecommunications Services

---

Landline copper line retirement can adversely impact consumers who utilize TRS and/or specialized telecommunications equipment. When the telephone line is converted from copper to fiber and no longer uses an analog signal, captioned telephones, TTYs, Hearing Carry Over and Voice Carry Over phones and amplified telephones may not work. This causes users of these types of devices to no longer have reliable, accessible telecommunications. To avoid a disruption in service, consumers need to know when changes are being made that will impact their service in order to have the opportunity to purchase internet service or alternative equipment.

On June 8, 2018, the FCC released the *Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment Second Report and Order*<sup>5</sup>. Paragraph 25 of the Order states in part:

Furthermore, our discontinuance obligations and accessibility and 911 rules also protect customers by requiring their carriers to provide timely and necessary information regarding replacement voice services when those carriers seek to cease offering legacy TDM voice service.

Paragraph 28 states in part:

At the same time, we reiterate that we expect and encourage carriers to continue to collaborate with and educate their customers and state entities to ensure that customers are given sufficient time to accommodate the transition to new technologies, such that key functionalities are not lost during this period of change.

Paragraph 51 states:

Finally, our rules separately require that incumbent LECs and other service providers and equipment manufacturers ensure the accessibility and usability of their services and equipment by people with disabilities, which of necessity requires collaboration between these two groups, as well as with individuals with disabilities and disability-related organizations. In this regard, we expect that incumbent LECs and other service providers will communicate with state centers that distribute specialized customer premises equipment (SCPE) or peripheral devices commonly used by people with disabilities (such as TTYs and analog captioned telephones), as well as with state telecommunications relay service programs, to alert these entities when there is an expectation that legacy devices routinely used by people with disabilities may no longer work after network changes are in place. When accessibility and usability are not achievable or readily achievable, as applicable, incumbent LEC service providers have an

---

<sup>5</sup> *In the Matter of, Accelerating Wireline Broadband Deployment by Removing Barriers to Infrastructure Investment, Second Report and Order*, WC Docket No. 17-84.

independent obligation to ensure their services are compatible with assistive technologies, so any network change that would impact service accessibility would necessarily need to also ensure CPE compatibility.

Commerce is unaware of how carriers are educating “their customers and state entities to ensure that customers are given sufficient time to accommodate the transition to new technologies, such that key functionalities are not lost during this period of change.”

In addition, Commerce is not aware of any carriers and/or equipment manufacturers collaborating or communicating “with state centers that distribute specialized customer premises equipment (SCPE) or peripheral devices commonly used by people with disabilities (such as TTYs and analog captioned telephones), as well as with state telecommunications relay service programs, to alert these entities when there is an expectation that legacy devices routinely used by people with disabilities may no longer work after network changes are in place.”

Commerce intends to work with service providers on their process to notify affected customers, as well as the TED and TAM Programs, when a change in technology may result in the loss of service.

## Minnesota Relay Progress Report

---

### **T-Mobile Telecommunications Relay Service (TRS) Service Enhancements**

In 2021, T-Mobile made the following enhancements, improving services for Minnesota Relay users:

- Implemented work-from-home capabilities for most communications assistants. Call center administrative staff are either working from home full time or on a hybrid basis. A trained “work from home” workforce allows for business continuity during natural or man-made disasters.
- Implemented the National Suicide Prevention Hotline short code 988 for state TRS and Internet Protocol Relay callers.
- Rebranded (from Sprint to T-Mobile) and enhanced the T-Mobile Speech-to-Speech (STS) website. The website includes educational STS webinars, STS video, informative flyers, customized “STS Call Me” cards and additional resources for people with speech disabilities.
- Implemented a Remote Call Takeover enhancement that allows CapTel communications assistants in T-Mobile and other CapTel centers to remotely transfer a CapTel call to another communications assistant within the same center or at another center, continuing the call.

- Provided refresher training to communications assistants on:
  - Greeting and announcements
  - Spelling and grammar
  - Conversation flow and voice tone inflection
  - 711 CapTel and STS transfer requests
  - Specific person, department, extension requests
  - Recording procedures
  - Misdials – caller did not intend to reach relay
  - Call focus, prompt dialing, relay mode and operator mode call closure
- Provided staff with monthly diversity awareness articles.
- Conducted monthly focus on TTY American Sign Language translation.
- T-Mobile assembled an Accessibility Consultant Experts (ACE) program to state TRS administrators. ACE will provide information on emerging technologies, wireless communication, IP Relay, education and training, digital marketing expertise and Federal Communications Commission compliance.
- Added an STS call center in Lubbock, Texas.
- Relocated the Minnesota call center to an annex facility within the City of Moorhead.

### **Temporary Waiver of TRS Requirements**

On March 16, 2020, the Federal Communications Commission (FCC) released an Order granting temporary waivers of certain TRS rules in order to ensure the uninterrupted availability of TRS during the public health emergency caused by COVID-19. The Order included the following:

Waivers applicable to non-VRS forms of TRS. Due to the recent sharp increase in TRS traffic and the continuing challenge of maintaining CA staffing during this national emergency, it may be temporarily infeasible for TRS providers to comply fully with the daily speed-of-answer standard applicable to all forms of TRS other than VRS. Based on these circumstances, the Bureau finds good cause to waive, from March 1, 2020, through May 15, 2020, the requirement that non-VRS TRS providers answer 85% of calls within 10 seconds, measured on a daily basis, conditional on the TRS provider ensuring that 85% of calls are answered within 120 seconds, measured on a monthly basis. We grant a conforming waiver of the rule requiring adequate TRS facility staffing to provide callers with efficient access under projected calling volumes, to the extent necessary to conform to the specific speed-of-answer waiver granted above.

The FCC extended the waivers several times. Currently, the waivers are set to expire March 31, 2022.

On December 18, 2020, the FCC released an Order granting Hamilton Relay, Inc. (Hamilton) and Sprint (now T-Mobile) partial waivers of the FCC’s rule prohibiting early termination of TRS calls and refusing sequential calls. The Order included the following:

[W]e find good cause to partially waive section 64.604(a)(3)(i), with respect to the prohibition on “limiting the length of calls,” for Hamilton and Sprint’s offerings of IP CTS, one-line and two-line CTS, traditional (TTY-based) TRS and Sprint’s IP Relay service, through February 28, 2021, to the extent necessary to address the foregoing technical issues faced by Hamilton and Sprint, which arise as a result of social-distancing requirements necessitated by the COVID-19 pandemic. For the same reason, we partially waive the rule’s prohibition on “refusing . . . sequential calls.”

The waivers were granted retroactively to March 16, 2020, and the FCC extended the waivers several times. T-Mobile reported to the FCC that they no longer need the waiver and, as such, the waiver granted to T-Mobile expired on December 31, 2021.

## Anticipated TRS Enhancements in 2022

---

In 2022, T-Mobile intends to make the following enhancements:

- Upgrade every communications assistant’s desktop to Windows 10.
- Ongoing security measures.
- Gather customer feedback to enhance relay features.

## Minnesota Relay Services

---

Minnesota Relay is a free service that provides telephone accessibility to persons who are deaf, deafblind, hard of hearing or speech disabled. A specially trained communications assistant (CA) facilitates the telephone conversation between a person who has hearing loss or a speech disability and other individuals. Calls can be made to anywhere in the world, 24 hours a day, 365 days a year, with no restrictions on the number, length or type of calls. All calls are strictly confidential, and records of conversations are not kept.

TAM aims to be proactive in monitoring trends and advances in telecommunications technology. The program strives to provide services and equipment that allow people with disabilities to independently access telecommunications services to stay connected with family, friends, businesses and services.



## Minnesota Relay Features

- *800/877/888 Numbers:* Minnesota Relay users can reach regionally-directed and regionally-restricted 800, 877 and 888 toll-free numbers and business offices of local telephone companies that have special prefixes, all of which would normally be accessible to consumers in their calling area.
- *Answering Machine Retrieval:* Text telephone (TTY) users can request the relay CA to retrieve messages from the user's voice answering machine or voicemail.
- *ASCII Split Screen:* Allows high-speed ASCII computer users and CAs to type and communicate more clearly and quickly. Similar to voice-to-voice conversation, ASCII Split Screen provides the relay user and the voice party the ability to interrupt when appropriate.
- *CA Gender Request:* The relay user can request the CA gender that they would prefer to handle their call (either on a call-by-call basis or permanently through their Customer Profile). Every effort is made by the relay service to fulfill this request.
- *Caller ID:* Calls placed through Minnesota Relay provide the originating calling party number, or Caller ID information, through the local exchange carrier for all local and most long-distance calls. The relay provides the calling parties 10-digit telephone number to the called party (if not blocked by the calling party).
- *Customer Profile Database:* Offers relay users numerous automatic ways to expedite the initiation of custom calls. These pre-selected customer calling features include, but are not limited to, communication modes (TTY, voice and ASCII), frequently dialed numbers, emergency numbers and customer notes for call processing.
- *Directory Assistance:* A CA will relay directory assistance calls between a relay user and the Local Exchange Carrier directory assistance operator. Once the caller makes a request for directory assistance, the CA will contact a Local Exchange Carrier directory assistance operator. After obtaining the requested phone number, the caller may choose to place the call through the relay or dial it directly (i.e., TTY to TTY).
- *DeafBlind Transmission Speed:* This is a modification of the default transmission speed for Telebraille users. Relay users who are deafblind can set their transmission speeds anywhere from 15 through 60 words-per-minute.
- *Emergency Assistance:* Although relay users are discouraged from placing 911 calls through the relay, calls to 911 are placed at the caller's request. Through T-Mobile's E911 database, the CA uses a "hot button" to automatically place a call to the most appropriate Public Safety Answering Point.
- *Enhanced Turbo Code (E-Turbo™):* Allows a TTY user to automatically submit dialing and call set-up instructions when they call into Minnesota Relay. This significantly reduces the amount of time necessary for the CA to set up and process the outbound call, allowing the TTY user is connected to their desired party at a speed that is more functionally equivalent to that of a non-relay call.
- *Error Correction:* This feature automatically corrects many typographical errors and spells out non-TTY abbreviations that may be used by the CA in voice-to-text transliteration.

- *Intelligent Call Router:* This technology automatically and seamlessly routes relay calls to the first available CA in the network.
- *Last Number Redial:* Allows the relay user to call the last person that he or she dialed through the relay, without having to provide the phone number to the CA.
- *Recording Machine Capabilities:* Allows the CA to record and play back audio-text interaction messages to reduce numerous callbacks to convey entire messages to calling parties.
- *Three-Way Calling Feature:* Allows more than two parties to be on the telephone line at the same time with the CA.
- *Transfer Capabilities:* Allows the CA to transfer a caller to another form of relay service (i.e., CapTel, Hearing Carry-Over, Speech-to-Speech, etc.), to customer service, or to a relay center manager.
- *TTY to TTY Call Release:* Allows the CA to be "released" from the telephone line after the CA has set up a telephone call between an originating TTY caller and a called TTY party, such as when a TTY user must go through the relay to contact another TTY user because the other TTY party can only be reached through a voice-only interface, such as a switchboard.
- *Turbo Code Capability:* Allows users to send information at the same speed it is typed, resulting in a more natural conversational flow and the ability to interrupt one another.
- *Variable Time Stamp Macro:* This macro enables the relay caller to know when their called party has disconnected from the call.
- *Voice Carry-Over (VCO) Gated Calling:* Dedicated VCO and two-line VCO toll-free phone numbers, which provide significant improvements in service by directing VCO users to specifically trained VCO and two-line VCO CAs.
- *VCO-With-Privacy:* Allows a VCO caller to use the standard VCO feature without needing to say, "Go ahead" or "GA". Additionally, the CA does not listen to the VCO user's spoken words. Ordinarily, VCO users need to say "GA" so that the CA knows that it is the other party's turn to speak. The responsibility for taking turns when speaking rests entirely upon the calling and called parties because the CA does not hear what the VCO user says.
- *Voice Call Progression:* Allows voice or Hearing Carry-Over callers to listen during call set-up (i.e., ringing or busy).

## **Speech-to-Speech (STS) Features**

- *Called Numbers:* STS users can store up to 100 frequently called telephone numbers in their Customer Profile. When the STS user calls into the relay center, he or she can provide the CA the name of the person he or she wishes to call.
- *Contact Information:* Communicating telephone numbers may be difficult for some STS users. This feature allows STS users to let friends, family and others know to dial 711 to reach them. Once connected, the person can provide the STS user's name to the STS CA. The STS CA will use the STS user's profile information provided for this purpose to connect to the STS user based on the registered STS user's hours and days of availability.

- *Customer Service:* A dedicated customer support for STS users. Staff is available to assist STS users or organizations serving STS users with basic information about STS, filling out Customer Profiles, and other features designed to support STS customers and their callers. The T-Mobile STS Accessible Care number is 1-877-787-1989 (available 24 hours a day, 7 days a week).
- *Email Set-Up:* STS users can email call instructions or information to the relay center two to 24 hours prior to the call. The email can include information such as the number to dial, the name of the person being called, the subject of the call, any special instructions or anything that makes it easier for the STS user to complete the call.
- *Privacy Option:* STS users have the ability to communicate without the CA hearing the voice party. If this option is selected, the CA simply listens to the voice of the STS user and repeats messages according to the STS user's preference.
- *Saved Messages:* If the STS user dictates a message to the CA to use for a call, and the STS user is not able to complete the call due to a busy signal, or the called party is not available, the STS user can request that the STS CA copy the message onto the STS user's Customer Profile. When the STS user wants to place the call again, he or she simply redials STS and asks the CA to retrieve the saved message. After 24-hours, the message copied into the profile is automatically deleted from the system.
- *Wireless \*STS (\*787):* While the 711 dialing shortcut is available nationwide, it is often difficult or time consuming for consumers to reach STS when not at home. T-Mobile wireless customers can dial \*STS (i.e., \*787) to reach an STS CA quickly and easily from anywhere in the nation (this includes voice callers needing to place a call to an STS user).

## Call Volumes

In 2021, Minnesota Relay received 196,381 total calls<sup>6</sup>.

Service	Total Calls
Text Telephone (TTY) Based TRS <sup>7</sup>	92,930
Speech-to-Speech	5,408
CapTel	98,043

---

<sup>6</sup> Total calls include the sum of outbound calls (completed and Busy-Ring-No-Answer) and general assistance calls (an inbound call that does not result in an outbound call).

<sup>7</sup> Includes TTY, Voice Carry-Over, and Hearing Carry-Over relay services.

Overall, Minnesota Relay experienced the following changes from 2020 to 2021:

		2020	2021	Change	Percent of Change
<b>CapTel</b>	Total Calls	139,393	98,043	(41,350)	-30%
	Conversation Minutes	519,059	343,504	(175,555)	-34%
<b>TTY-Based</b>	Total Calls	84,870	92,930	8,060	9%
	Conversation Minutes	103,146	91,425	(11,721)	-11%
<b>Speech-to-Speech</b>	Total Calls	6,024	5,408	(616)	-10%
	Conversation Minutes	4,039	2,102	(1,937)	-48%

Minnesota Relay experienced a significant increase in spam/silent calls. T-Mobile identified one telephone number in particular that was placing a high volume of silent inbound calls to the Minnesota Relay toll-free numbers. The calls did not appear to be legitimate as the caller never requested to place an outbound call. As such, Commerce worked with T-Mobile to place a permanent block on the number.

In subsequent months, the caller(s) began using different telephone numbers to place silent calls. T-Mobile is working to mitigate the illegitimate relay calls. Because Minnesota pays for relay calls based on outbound conversation minutes, the spam/silent calls do not financially impact the TAM fund. However, the illegitimate calls tie up the communications assistants and can cause delays in processing legitimate relay calls.

TRS is currently split into two categories:

1. Those administered and funded on a state level, which include local and intrastate minutes of service for TTY-based, Speech-to-Speech and CapTel relay services.
2. Those under the FCC's jurisdiction and paid for by the Interstate TRS Fund, including all minutes for internet-based relay services, which are composed of Video Relay Service, Internet Protocol Relay and Internet Protocol Captioned Telephone Relay Service. This category also includes interstate and international minutes of service for TTY-based, Speech-to-Speech and CapTel relay services.

The FCC authorized the recovery of the cost of both interstate and intrastate minute of use for internet-based relay services from the federal Interstate TRS Fund but stated that the funding arrangement is temporary.

Over the years, many relay users have migrated away from TTY-based, Speech-to-Speech and CapTel relay services to internet-based services. Internet-based relay services are fully accessible to Minnesota consumers, free of charge, through many providers who offer these services nationwide.

Although there is a notable shift to internet-based relay services, until all consumers have access to high-speed internet (and at an affordable price) there will still be many Minnesotans who rely on non-internet-based relay services.

The following Minnesota Relay call charts can be found in **Appendix B**:

- 2021 Minnesota Relay Conversation Minutes by Type
- 2012 – 2021 Minnesota Relay Call Volume
- TTY-Based<sup>8</sup> Call Volume
- Speech-to-Speech Call Volume
- CapTel Call Volume

## Accessibility of the Telecommunications Network – Minnesota Relay Services

---

### Uninterruptible Power System

T-Mobile utilizes both an Uninterrupted Power Supply (UPS) and backup power generator to ensure that all Data Centers and T-Mobile relay centers have uninterrupted power, even in the event of a power outage. UPS is used only long enough for the backup power generator to come online – a matter of minutes. Backup power generators are supplied with sufficient fuel to maintain operations for at least 24 hours. Generators can stay in service for longer periods, as fuel availability permits.

In the event of a power outage, the UPS and backup power generator ensure seamless power transition until normal power is restored. While this transition is in progress, power to all basic equipment and facilities essential to the center’s operation is maintained. This includes:

- Switch system and peripherals
- Switch room environmental factors
- Communication assistant positions (consoles/terminals and emergency lights)
- Emergency lights (self-contained batteries)
- System alarms
- Call Detail Record recording

As a safety precaution (in the event of a fire during a power failure), the fire suppression system is not electric powered. Once the back-up generator is online, stable power is established and maintained to all TRS system equipment and facility environmental control units until commercial power is restored.

---

<sup>8</sup> Includes TTY, Voice Carry-Over, and Hearing Carry-Over relay services.

## **Switching System Configuration**

All T-Mobile relay call centers use a digital switching system that is an integral part of the relay platform. The system offers availability in excess of 99.99%, redundancy of all major system components (including the Central Processing Unit) and catastrophic fault recovery that provides for call continuity in the event of a switch failure. T-Mobile's Intelligent Call Manager ensures that required levels of service are maintained in the event of a processor failure. If a center shuts down for any reason, all calls are automatically re-routed around the affected center to the remaining operating centers in the T-Mobile network.

T-Mobile's switch is fully redundant to provide a non-stop environment for the relay call center. The switch is designed to allow maintenance without interrupting service and incorporates a back-up processor, memory and disk subsystems. All T-Mobile relay call centers also include fully redundant power systems incorporating a combination of battery and generator Uninterrupted Power Supply systems to condition and maintain electrical power in case of a power outage from the local electrical provider.

If a failure of the switch or supporting systems occurs, the T-Mobile TRS dynamic call routing will, within seconds of detecting the outage, route all new Minnesota Relay calls to another call center until the failing system is repaired and the call center is returned to service. T-Mobile's call center and relay system design permits the maximum availability with minimal loss of service to users.

All the system preventive maintenance functions can be performed online, with no effect on call processing. In addition, online and off-line diagnostic routines will identify system faults or failures at the individual board level. Diagnostic procedures are continually processed by the switching system software to detect defective components before they are used.

Manual online diagnostics can be launched at any time from the maintenance and administrative terminal located within the unit, without affecting call processing, calls in progress or calls waiting in queue. The maintenance and administrative terminal include a keyboard, screen and printer capabilities.

Each T-Mobile relay call center and data center maintains a complete system's spare inventory to meet any malfunction or emergency. In addition to spares for switch components, spare units include communications assistant position units, computer desktop spares and Local Area Network and modem equipment.

## **CapTel Switching System**

Minnesota Relay's CapTel switching system, provided by CapTel, Inc., includes a redundant Central Processing Unit on "hot standby." This ensures that no calls are dropped due to processor failure.

CapTel, Inc. also provides a full maintenance and administrative terminal with keyboard, screen and printer capabilities, on-line monitoring, real-time programming capabilities that do not take the system offline, the ability to perform preventative maintenance without taking the system off-line and an inventory of spare critical components which are maintained on-site to ensure that the required levels of service are met.

## **Alternate Facilities**

T-Mobile's network of TRS call centers use centralized Automatic Call Distributors. If the TRS platform experiences an outage situation with one of the Automatic Call Distributors, the Peripheral Gateways connected to the Automatic Call Distributor experiencing the issue would go offline notifying Intelligent Call Management to stop routing traffic to that Automatic Call Distributor. The traffic that was once being routed to that Automatic Call Distributor would be alternately routed to all other functioning Automatic Call Distributors.

Simultaneously, the Resource Planning Group contacts all other T-Mobile TRS centers notifying them of technical issues affecting other centers and requests additional staffing at all other functioning centers. Any center employees who are conducting ongoing training or other meetings will be requested to return to the call center floor to assist in handling calls.

The Resource Planning Group will also notify the Program Management team so that all states impacted receive appropriate updates. The Call Center Service Assurance group manages the coordination of technical resolutions. The Call Center Service Assurance group will be notified via the Call Center Services alarming platform, which monitors the Automatic Call Distributors and the Intelligent Call Manager platform.

T-Mobile TRS services are supported by geographically dispersed centers. The TRS centers are managed by a 24/7 control center that dynamically monitors and manages the centers for all operational issues. If an event occurs which impacts a center's ability to handle TRS calls, the Control Center re-routes incoming traffic to other TRS centers. All re-routing is transparent to relay users.

In addition, T-Mobile provides a redundant CapTel solution with CapTel-dedicated call centers and co-located CapTel centers with Business Continuity programs to ensure that any issues are resolved quickly with minimal customer impact.

## **Transmission Circuits**

T-Mobile transmission circuits meet or exceed Federal Communications Commission and TAM intraexchange performance standards and ANSI T1.506-1990 Network Performance – Transmission Specifications for Switched Exchange Access Network standards for circuit loss and noise.

## 711 Dialing Access

On August 9, 2000, the FCC released a *Second Report and Order*<sup>9</sup> concerning nationwide 711 dialing access to Telecommunications Relay Services. The Order required all common carriers, wireless providers, payphone vendors and Private Branch Exchange (PBX) vendors to provide 711 dialing access to relay services on or before October 1, 2001. Relay users are also able to access Minnesota Relay by dialing the 10-digit toll-free access numbers.

## Handling of Emergency Calls

Minnesota Relay encourages users to dial 911 or other existing emergency numbers directly in an emergency as using relay may result in a delay in getting their call through. However, some consumers are more comfortable using relay to access emergency services.

Minnesota Relay automatically and immediately transfers emergency relay calls to the appropriate Public Safety Answering Point (PSAP) that the caller would have reached by dialing 911 directly, or to a PSAP that is capable of dispatching emergency services in an expeditious manner. An emergency call is considered to be one in which the relay user indicates the need for police, fire department, paramedics or ambulance. Minnesota Relay utilizes a standard E911 database that serves all of the United States.

## Speed of Answer

Minnesota Relay meets the FCC's mandatory minimum standard for TRS speed of answer (47 C.F.R. § 64.604) which states "TRS facilities shall, except during network failure, answer 85% of all calls within 10 seconds by any method which results in the caller's call immediately being placed, not put in a queue or on hold."

On March 16, 2020, the FCC released an Order granting temporary waivers of certain TRS rules due to the COVID-19 pandemic. Due to increased relay call volumes and the challenge of maintaining CA staffing levels during the pandemic, the FCC waived the TRS speed of answer requirement conditional on TRS providers ensuring that 85% of calls are answered within 120 seconds, measured on a monthly basis. T-Mobile met the requirement for all months in 2021.

Minnesota Relay is equipped with sufficient facilities to provide a Grade of Service (GOS) of P.1 or better for calls entering the relay call center(s) switch equipment.

---

<sup>9</sup> *In the Matter of the Use of N11 Codes and Other Abbreviated Dialing Arrangements*, Second Report and Order, CC Docket No. 92-105, released August 9, 2000.



## Consumer Complaints

---

Minnesota Relay received two (2) complaints in 2021.

Minnesota Relay users have many options for filing a complaint or commendation. The relay communications assistant has the capability to transfer the caller directly to the T-Mobile or CapTel 24-hour Customer Service departments, or the relay user may request to speak to a relay supervisor during or immediately after a call. Relay users may also file a complaint with the TAM administrator or the FCC.

All complaints and commendations are recorded electronically by T-Mobile on a Customer Contact form. T-Mobile provides copies of each Customer Contact form to the TAM administrator monthly. If TAM and the relay provider fail to resolve a Minnesota Relay complaint within 180 days after the complaint was filed, the FCC exercises jurisdiction over the complaint. Failure to meet the deadline for complaint resolution may adversely affect the continued certification of Minnesota Relay (47 C.F.R. § 64.606).

TAM submits an annual Complaint Log Summary to the FCC in accordance with Code of Federal Regulations, title 47, section 64.604 (c)(1).

# Telephone Equipment Distribution Program

## TED Program Administration

---

The TED Program is responsible for:

- Distributing specialized telecommunications devices and interconnectivity products to eligible Minnesotans.
- Informing the public of services available through the program.
- Providing training for the use of distributed equipment.
- Assisting a person who is applying for telecommunication devices and products in applying for discounted telecommunications or internet services (when applicable).
- Informing TED Program clients about other assisted technology available in the industry.

The TED Program is administered through an interagency agreement between DHS and Commerce. The DHS' Deaf and Hard of Hearing Services Division (DHHSD) has seven regional offices around the state staffed with professionals experienced in working with people who are deaf, hard of hearing, deafblind, speech disabled or physically disabled. TED Program services are provided through five of the DHHSD regional offices: Duluth, Mankato, Moorhead, St. Cloud and St. Paul.

## Authority to Provide Equipment

---

Minn. Stat. § 237.51, subdivision 5(a)(3) provides DHS with the authority to establish specifications for telecommunications devices and interconnectivity products to be provided under Minn. Stat. § 237.53, subdivision 3.

The types of equipment distributed include:

- Amplified telephones (both hearing and voice output)
- Bluetooth cordless amplified phones
- Captioned telephones (used with captioned telephone relay services)
- Remote control speaker phones
- Text Telephones (TTYs)
- Braille phones
- Hearing Carry Over phones
- Voice Carry Over phones
- Amplified cell phones with hearing aid compatibility
- Basic smartphone with hearing aid compatibility
- Tablets and smartphones
- Smart displays
- Smart speakers
- Bluetooth streamers to be used with hearing aids

- Electrolarynx used with a landline or cell phone
- Wireless accessories (Bluetooth neckloop, cell phone amplifier and visual signaler)
- Ring signaling devices (auditory, visual and tactile)
- Special needs devices (for multiple disabilities)

## Population Served

The TED Program serves a wide range of individuals with a variety of communication needs. The age range is diverse with the oldest TED Program participant at 103 years old, and the youngest at 23 years old. The average program participant's profile is a female who is 79 years old and is hard of hearing. In 2021, 70 percent (70%) of TED Program participants were female, and 73 percent (73%) lived outside of the seven-county metropolitan area. Eighty-three percent (83%) of clients were white, and three percent (3%) were persons of color. The remaining races served were not self-disclosed. Below is a chart that summarizes new TED Program participants.

New Clients - Age Range	Number of Clients	Percentage of New Clients
80+ Years Old	107	66%
50-79 Years Old	53	33%
26-49 Years Old	2	1%
0-25 Years Old	0	0%

New Clients - Disabilities Served	Number of Clients	Percentage of New Clients
Hard of Hearing	101	62%
Hard of Hearing with Vision Loss	34	21%
Other Disability (e.g., Deafblind or Speech Disability)	15	9%
Physical Disability	10	6%
Deaf	2	1%

Many clients with multiple disabilities utilize the TED Program. In 2021, 12 percent (12%) of TED Program participants had two or more disabilities, such as a speech and physical disability or hearing loss and physical disability.

## Statistical Information

A report of TED Program's services and activities is submitted quarterly to the TAM administrator. The report documents outreach activities, the number of individuals served, and the types of equipment distributed. The charts provided in [Appendix C](#) demonstrate TED Program activities throughout 2021.

Due to the COVID-19 pandemic, TED Program staff continued to telework in 2021 and were prohibited from serving program participants in-person (with limited exceptions). Therefore, the number of clients served in 2021 decreased from the previous year.

The TED Program served 162 new clients and 564 current clients and provided information and referrals to 66 consumers. Current clients often contact the TED Program to receive additional training, for repair/replacement of equipment, or to exchange equipment because their communication needs have changed (e.g., a person's hearing deteriorates and the equipment they initially received no longer meets their needs).

The TED Program distributed 568 telecommunication devices and 85 auxiliary devices to new and current clients.

### **Annual Comparison of Services Provided**

	2020	2021	Increase/ Decrease	Percent
New Program Clients	248	162	(86)	-35%
Repeat Program Clients	747	564	(183)	-24%
Information and Referrals	242	66	(176)	-73%
Telecommunications Devices Distributed	844	568	(276)	-33%
Auxiliary Devices Distributed	82	85	3	4%

## **TED Program Progress Report**

---

### **Lessons Learned Serving Clients During COVID-19**

The COVID-19 pandemic continues to prohibit TED Program staff from providing in-person home visits or outreach. Since staff were not able to provide home visits and trainings in-person, they relied on family members and friends to assist with equipment installation and trainings to clients. The TED Program also developed technical reference guides, referred clients to videos and, whenever possible, met face-to-face via a video platform. Due to the circumstances, the program continues to modify service delivery methods to effectively serve clients.

In 2021, TED Program staff contacted clients who were served more than two years ago to determine if the client still has access to the telephone. This allowed the program to provide increased customer service and to have accurate records in the TED Program's Agile Apps database.

## The Numbers of Each Type of Equipment Purchased, Deployed, Returned and Retired During the Year

The TED Program annually purchases new equipment and distributes both new and refurbished equipment. When equipment is returned by a client, it is either exchanged under warranty for a new device or it is refurbished to redistribute to a current client.

At the end of the equipment's life cycle the equipment is retired (either recycled or disposed). Below are charts that summarize the number of purchased, distributed, returned and retired devices per equipment type.

### *New Equipment Purchased*

Equipment Type	Pieces of Equipment
Amplified Telephones	222
Captioned Telephones	80
Simple Mobile Telephones	57
Auxiliary Devices	18
Smart Phones	14
Tablets	7
Speech Disability Telephones	3
Physical Disability Telephones	2
TTYs	2
Other (VCO, Braille)	0
<b>TOTAL</b>	<b>405</b>

### *Total Equipment Distributed (New and Refurbished)*

Equipment Type	Pieces of Equipment
Amplified Telephones	351
Captioned Telephones	109
Auxiliary Devices	85
Simple Mobile Telephones	58
Physical Disability Telephones	18
Smart Phones	13
Tablets	8
Speech Disability Telephones	7
TTYs	4
Other (VCO, Braille)	0
<b>TOTAL</b>	<b>653</b>

### *Returned Equipment*

<b>Equipment Type</b>	<b>Pieces of Equipment</b>
Amplified Telephones	218
Captioned Telephones	78
Auxiliary Devices	58
Simple Mobile Telephones	30
Smart Phones	20
Physical Disability Telephones	13
Tablets	8
TTYs	1
Speech Disability Telephones	0
Other (VCO, Braille)	0
<b>TOTAL</b>	<b>426</b>

### *Disposed/Recycled Equipment*

<b>Equipment Type</b>	<b>Pieces of Equipment</b>
Amplified Telephones	294
Auxiliary Devices	114
Captioned Telephones	92
Simple Mobile Telephones	44
Smart Phones	20
TTYs	17
Tablets	17
Speech Disability Telephones	14
Physical Disability Telephones	14
Other (VCO, Q90 Printer, LVD)	3
<b>TOTAL</b>	<b>629</b>

## **Advanced Wireless Program**

In July 2021, The TED Program implemented a permanent advanced wireless program. The applicant assessment was modified from the two pilot programs and is used to determine if the applicant needs an advanced wireless device or if another device better meets their needs.

The TED Program has issued a request for proposal to expand the types of wireless device models and service delivery options. Advanced wireless devices will include both Apple iOS and Android products.

## TED Program Database Development

In 2021, the TED Program began Phase Two development of the TED Program AgileApps database. The enhancements are needed to improve the database's efficiency. The outreach component of the database was enhanced and launched. Further development has been on hold due to the MN.IT developer's competing priority projects for state agencies.

## 3G Cellular Network Phaseout

Mobile carriers are shutting down their 3G networks, which rely on older technology, to make room for more advanced network services, including 5G. As a result, many older cell phones will be unable to make or receive calls and texts, including calls to 911, or use data services.<sup>10</sup>

In 2021, TED Program staff proactively contacted current TED Program clients with 3G wireless phones to inform them of the network changes and to offer the client a 4G wireless device replacement. This will provide program participants continued telephone access without disruption of their service.

## TED Program's Outreach Metrics

In 2021, the TED Program streamlined outreach performance measures while developing an outreach platform in the AgileApps database. Outreach activities and outcomes tracking transitioned from spreadsheets to input into the AgileApps database. When an outreach effort was created in the database, it generates a specific code used to track the effectiveness of the outreach. In addition, when a caller requests a TED Program application, staff record the referral in the database. Accurately tracking referrals is an ongoing challenge because staff depend on the caller's recollection of how they heard about the TED Program.

### *Booths*

TED Program staff participate at sponsored booths to network with other service providers and interact with potential clients. In 2021, due to the COVID-19 pandemic, TED Program staff did not participate in any in-person booth events but instead dropped off materials for distribution.

Number of Booths	Number of Tracked Referrals	Number of Participants	Number of Applications Distributed
6	2	1,650	185

---

<sup>10</sup> Federal Communications Commission. (Date Last Updated/Reviewed: Thursday, October 28, 2021). *Plan Ahead for Phase Out of 3G Cellular Networks and Service*. <https://www.fcc.gov/consumers/guides/plan-ahead-phase-out-3g-cellular-networks-and-service>.

The total cost for booths in 2021 was \$1,377.50. There were four booths with fees and two were free.

The advantages of booths were less travel and staff time to work the booth and prepare materials ahead of time. If the event wasn't virtual, staff dropped off materials. The downside of virtual booths is the inability of staff to network with or engage other service providers. In addition, staff are not able to control the message shared with participants because materials are dropped off.

#### *Presentations*

TED Program staff were unable to host in-person presentations to inform service providers and potential clients about TED Program services due to the pandemic. In lieu of in-person presentations, TED Program staff offered virtual presentations but not all agencies were receptive to this.

<b>Number of (Virtual) Presentations</b>	<b>Number of Tracked Referrals</b>	<b>Number of Participants</b>	<b>Number of Applications Distributed</b>
8	1	222	37

Virtual presentations are effective for providing TED Program information because it involves less staff preparation time, no staff travel and no costs. Materials are distributed electronically prior to the presentations so there are no copying charges. Virtual presentations still provide the autonomy over the content of the message and building rapport with agency representatives (e.g., state, county and non-profit).

Referral codes were not included on most electronic applications prior to the presentations based on not many applications returned at the outcome of the presentations.

In 2022, the TED Program will continue to pursue virtual presentations to receptive agency representatives. In-person presentations will be put on hold due to safety concerns. Electronic applications will be coded prior to the presentation to ensure accurate tracking of the promotional effort.

#### *Mass Mailings/Email Blasts*

Mass mailings refers to letters and program brochures being mailed out to multiple service providers. The performance measures are the number of participants receiving services, applications distributed and applications received.



<b>Number of Mass Mailings/Email Blasts</b>	<b>Number of Tracked Referrals</b>	<b>Number of Participants</b>	<b>Number of Applications Distributed</b>
21	8	485	490

Email blasts are more effective than mass mailings because they utilize less staff time and there are no costs for materials or travel. However, tracking referrals for email blasts is difficult. The prospective plan is for TED Program staff to continue to send emails blasts but to ensure the coding of the electronic application, and to provide follow-up when additional applications are requested. There will be a moratorium on mass mailings until further notice.

#### *Drop-Ins/Cold Calls/Cold Emails*

Drop-ins refer to TED Program staff stopping into a service agency and informing staff about TED Program services. A cold call or cold email is when a service agency is contacted through a phone call or email with no pre-scheduled meeting. There were very few drop-ins this year due to the pandemic. Therefore, staff primarily focused on cold calls and cold emails.

<b>Number of Drop-Ins/Cold Calls/Cold Emails</b>	<b>Number of Tracked Referrals</b>	<b>Number of Participants</b>	<b>Number of Applications Distributed</b>
43	0	43	200

The effectiveness of cold calls and cold emails includes positive collaboration and networking opportunities with service providers. The message presented was within the control of the TED Program specialist. This type of outreach is very low cost (just some staff time) as materials are sent electronically and there are no travel costs.

The downside of cold calls and cold emails is the difficulty tracking returned applications. Often the referral information noted on the application is that of the service agency and not the effort of the cold call or email. The prospective plan is to provide more cold calls and cold emails and to track the effort closer.

#### *In-Home Training (Telecommunications Relay Services Equipment)*

In-home trainings occur when non-TED Program clients request a demonstration or a training of equipment that is used in conjunction with relay services. These trainings are not requested often. The current performance measure tracked are the number of participants who received trainings. In 2021, there were no in-home trainings.

### *Print Advertisements*

Advertisements are placed in various publications throughout Minnesota. A cost analysis was conducted to demonstrate the value and outcomes of advertisements.

Number of Print Advertisements	Number of Approved Applications Received	Ad Circulation	Total Cost of Ads
42	121	1,878,323	\$10,322.91

Advertisements are effective when the content of the ad is clear, to the point and directed to the target audience. It is more cost effective to place reoccurring advertisements in a publication because of increased visibility. Staff time is utilized to design and place new ads, and to negotiate prices for reoccurring ads. Staff travel time was not utilized to meet with the advertisers; all communication was conducted remotely.

The downside of advertisement is the difficulty tracking the effectiveness of specific advertisements as the TED Program relies on the caller/applicant to provide accurate information on where they heard about the program. However, the TED Program can track more referrals from advertisements than from any other outreach effort.

The prospective plan is to increase the placement of electronic ads to effectively advertise the TED program. This will increase the TED Program's ability and reliability to track the referrals. We plan to have some printed advertisement for the consumers who may not have access to the internet.

## **Outreach**

Reports containing outreach efforts are compiled monthly by the TED Program and sent to the TAM administrator.

### **Minnesota Relay Outreach**

---

Minnesota Relay outreach is provided under an interagency agreement with DHS – TED Program. Outreach staff is responsible for providing a comprehensive statewide outreach program to educate people about Minnesota Relay services. Outreach personnel distribute informational pamphlets, train consumers and businesses, make presentations, staff exhibitions and perform other similar forms of consumer contacts.

Outreach staff and the TAM administrator serve as points of contact for Minnesota consumers who have questions, concerns, complaints or commendations. Outreach efforts are tailored to target appropriate demographics, including consumers who are deaf, deafblind, hard of hearing, late deafened or speech disabled, as well as hearing consumers and businesses.

Outreach activities primarily include:

- Staffing a booth at exhibitions, seminars and fairs.
- In-person visits to provide training on Telecommunications Relay Services.
- Presenting at senior centers, health care facilities and social service agencies.
- Providing brochures, instruction sheets and informational videos.

## TED Program Outreach

---

The DHS DHHSD is responsible for the promotion and education of TED Program services. Activities and metrics for success were described in the previous section. While websites, emails and telephone calls can be an efficient, effective and convenient way of providing information, TED Program specialists find that many clients are more receptive if services are provided in person. As such, TED Program specialists often travel to client homes to conduct equipment needs assessments, set up equipment and provide training on the complexity of the device. In-home visits help eliminate apprehension and result in a more personal, relaxed and productive experience for the client. Unfortunately, in 2021, staff were unable to provide in-person services.

---

### *Outreach includes:*

- ✓ *In-Home Visits*
  - ✓ *Booths*
  - ✓ *Presentations*
  - ✓ *Mass Mailings*
  - ✓ *Drop-In Visits*
  - ✓ *Cold Calls*
  - ✓ *Advertisements*
- 

2021 outreach efforts included:

- Redesign of the TED Program application and the creation of an informational brochure.
- Virtual booths at the Minnesota Gerontological Society conference, Our Life Expo (Apple Valley), Minnesota Supervisors' Conference, Our Life Expo (Bloomington), Kanabec County Operation Community Connect and Chisago Age Well Expo.
- Virtual presentations at Arrowhead Economic Opportunity Agency, Bigfork Valley Assisted Living, Fairview Health Services, Consortium of Lake Area Senior Services, Department of Human Services Resettlement Program, Whitney Senior Services Center, Department of Education – Access Center and Department of Employment and Economic Development Vocational Rehabilitation Services.
- Mass mailings to senior coordinators, relevant local businesses, senior housing, Atos Medical and care managers at senior housing.
- Cold calls/emails to assisted living facilities, social service agencies, public health, veteran services, disability services, audiology clinics and county family services.
- Advertisements in the *Senior Perspective*, *Senior Reporter*, *MetroDoctors*, *Minnesota HealthCare News*, *Latino American Today*, *Twin Cities Medical Society*, *Minnesota Department of Veteran Affairs- Friday Digest*, *Minnesota Academy of Audiology*, *Department of Human Services Gov Delivery List Serve*, *St. Cloud Times*, *Senior Housing Guide*, *electronic Facebook and Google advertisements and the Care Options Network*.

## 2021 Minnesota Relay and TED Program Outreach

See [Appendix D](#) for a map of outreach activity by county and examples of print advertisements.

### Presentations and Booths

Date of Outreach	Type of Outreach	Agency or Event Name	City	Attendees
1/13/2021	Presentation	Arrowhead Economic Opportunity Agency	Virginia	15
2/24/2021	Presentation	Big Fork Valley Assisted Living	Big Fork	6
4/27-30 2021	Booth	Aging in MN: Forging a New Narrative	Arden Hills	500
4/28/2021	Presentation	Fairview Health Services	Edina	34
5/12/2021	Presentation	Consortium of Lake Area Senior Services	White Bear Lake	23
5/25/2021	Presentation	DHS Resettlement Programs Office	St. Paul	84
7/15/2021	Presentation	Whitney Senior Center	St. Cloud	14
9/9/2021	Booth	Our Life Expo	Apple Valley	400
9/14/2021	Booth	Annual Minnesota Supervisors' Conference	Breezy Point	200
10/14/2021	Booth	Our Life Expo	Bloomington	500
10/21/2021	Booth	Kanabec County Operation Community Connect	Mora	25
10/22/2021	Booth	Chisago Age Well Expo	Lindstrom	25
11/16/2021	Presentation	MN Department of Education	Roseville	33
11/30/2021	Presentation	DEED Vocational Rehabilitation Services	St. Paul	13

## Print and Electronic Advertisements

Date of Ad	Publication	County	Estimated Audience Count	Cost of Ad
1/1/2021	MetroDoctors Magazine	7 County Metro	3,800	\$442.00
1/1/2021	MN Academy of Audiology Magazine	Statewide	500	\$167.00
1/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
1/1/2021	Senior Reporter	Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, St. Louis	121,850	\$550.00
1/1/2021	Senior Reporter Guide	Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, St. Louis	10,000	\$0.00
2/1/2021	MN Academy of Audiology Magazine	Statewide	500	\$167.00
3/1/2021	MetroDoctors Magazine	Statewide	3,800	\$442.00
3/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
3/2/2021	Facebook	Statewide	181,409	\$693.54
3/2/2021	Google	Statewide	2,683	\$190.17
4/1/2021	Care Options Network Directory	Hennepin, Scott, Anoka, Ramsey, Dakota, Washington, Carver	35,000	\$1,100.00
4/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
5/1/2021	MetroDoctors Magazine	Statewide	3,800	\$442.00
5/27/2021	GovDelivery	Statewide	8,013	\$0.00
6/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
7/1/2021	MetroDoctors E-Newsletter	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington	4,000	\$199.00

Date of Ad	Publication	County	Estimated Audience Count	Cost of Ad
7/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
7/6/2021	GovDelivery	Statewide	8,013	\$0.00
7/9/2021	Department of Veterans Administration Friday Digest	Statewide	9,442	\$0.00
7/16/2021	Department of Veterans Administration Friday Digest	Statewide	9,442	\$0.00
7/23/2021	Department of Veterans Administration Friday Digest	Statewide	9,442	\$0.00
8/1/2021	MetroDoctors E-Newsletter	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington	4,000	\$199.00
8/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00
8/5/2021	GovDelivery	Statewide	8,712	\$0.00
9/1/2021	Aitkin County Senior & Caregiver Guide	Aitkin	4,000	\$0.00
9/1/2021	Carlton County Senior & Caregiver Guide	Carlton	4,000	\$503.00
9/1/2021	Duluth Senior & Caregiver Guide	St. Louis, Cook, Lake	6,000	\$656.00
9/1/2021	Itasca & Koochiching County Aging Resource Guide	Itasca, Koochiching	7,000	\$437.00
9/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00

Date of Ad	Publication	County	Estimated Audience Count	Cost of Ad
9/1/2021	North St. Louis County Senior & Caregiver Guide	St. Louis	6,000	\$503.00
9/1/2021	Senior Perspective	Aitkin, Becker, Benton, Big Stone, Blue Earth, Brown, Carver, Cass, Chippewa, Clay, Crow Wing, Douglas, Grant, Hennepin, Hubbard, Kanabec, Kandiyohi, Lac qui Parle, Le Sueur, Lincoln, Lyon, McLeod, Mahnomen, Meeker, Mille Lacs, Morrison, Nicollet, Norman, Otter Tail, Pope, Redwood, Renville, Scott, Sherburne, Sibley, Stearns, Stevens, Swift, Todd, Traverse, Wadena, Waseca, Watonwan, Wilkin, Wright, Yellow Medicine	174,500	\$616.30
9/20/2021	MetroDoctors E-Newsletter	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington	4,000	\$199.00
10/1/2021	MetroDoctors E-Newsletter	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington	4,000	\$199.00
10/1/2021	MetroDoctors Magazine	Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, Washington	9,600	\$442.00
10/1/2021	MN Academy of Audiology Digital Ad	Statewide	86,400	\$16.00

Date of Ad	Publication	County	Estimated Audience Count	Cost of Ad
10/1/2021	Senior Perspective	Aitkin, Becker, Benton, Big Stone, Blue Earth, Brown, Carver, Cass, Chippewa, Clay, Crow Wing, Douglas, Grant, Hennepin, Hubbard, Kanabec, Kandiyohi, Lac qui Parle, Le Sueur, Lincoln, Lyon, McLeod, Mahnommen, Meeker, Mille Lacs, Morrison, Nicollet, Norman, Otter Tail, Pope, Redwood, Renville, Scott, Sherburne, Sibley, Stearns, Stevens, Swift, Todd, Traverse, Wadena, Waseca, Watonwan, Wilkin, Wright, Yellow Medicine	174,500	\$616.30
11/1/2021	MetroDoctors E-Newsletter	Ramsey, Anoka, Carver, Dakota, Hennepin, Scott, Washington	4,000	\$199.00
11/1/2021	Senior Perspective	Douglas, Grant, Traverse, Pope, Stearns, Stevens, Todd, Clay, Wilkin, Otter Tail, Wadena, Hubbard, Norman, Mahnommen, Meeker, Kandiyohi, Renville, Brown, Watonwan, Blue Earth, Nicollet, Le Sueur, Scott, Carver, Sibley, McLeod, Hennepin, Wright, Waseca, Aitkin, Benton, Cass, Crow Wing, Kanabec, Mille Lacs, Morrison, Sherburne, Swift, Big Stone, Lac qui Parle, Chippewa, Yellow Medicine, Lincoln, Lyon, Redwood, Becker	174,500	\$616.30
11/18/2021	DHSD Website	Statewide	405	\$0.00
11/19/2021	Disability Hub 101 Website	Statewide	7,000	\$0.00



Date of Ad	Publication	County	Estimated Audience Count	Cost of Ad
12/1/2021	Senior Perspective	Aitkin, Becker, Benton, Big Stone, Blue Earth, Brown, Carver, Cass, Chippewa, Clay, Crow Wing, Douglas, Grant, Hennepin, Hubbard, Kanabec, Kandiyohi, Lac qui Parle, Le Sueur, Lincoln, Lyon, McLeod, Mahnomen, Meeker, Mille Lacs, Morrison, Nicollet, Norman, Otter Tail, Pope, Redwood, Renville, Scott, Sherburne, Sibley, Stearns, Stevens, Swift, Todd, Traverse, Wadena, Waseca, Watonwan, Wilkin, Wright, Yellow Medicine	174,500	\$616.30
12/22/2021	GovDelivery	Statewide	8,712	\$0.00

## Telephone Directories, Bill Inserts and Newsletters

Annually, the TAM administrator sends a letter to all telephone companies serving Minnesota consumers to remind them of their responsibility to ensure that customers are aware of the availability and use of all forms of Telecommunications Relay Services (TRS) as required by Code of Federal Regulations, title 47, section 64.604(c)(3). In addition to the federal requirement regarding public access to TRS information, Minnesota Rule 7812.1000 requires local service providers to provide their customers with an *Annual Notice of Customer Rights*, which must include information on programs for people who have hearing loss.

TAM provides carriers with a sample *Annual Notice to Customers* for carriers to use in their telephone directory, bill insert and/or newsletter. TAM also makes a document available with information that carriers should include in their annual notices if they elect not to use the sample annual notice. TRS annual notice information is available on Commerce's website ([mn.gov/commerce/industries/telecom/mnrelay/](https://mn.gov/commerce/industries/telecom/mnrelay/)) so that carriers have access to up-to-date information on Minnesota Relay and TED Program services.

TAM requests that carriers complete and return a *Compliance Form for Annual Notices to Customers* to demonstrate compliance. By requesting that carriers complete and return a compliance form and copies of TRS material(s) distributed to their consumers, TAM attains a higher rate of compliance and is able to identify which carriers may not be distributing TRS materials or may be distributing incorrect and/or incomplete information to consumers. When TAM receives a copy of a carrier's directory page, newsletter or bill insert and the item does not

comply with annual notice requirements and/or includes incorrect information, TAM submits a letter to the carrier notifying them of their deficiency.

## **DHSD Regional Advisory Committee Meetings**

---

DHSD has established six (6) advisory committees throughout Minnesota. Each advisory committee meets three times per year and serves as a venue to provide information to, and gather information from, the community. Advisory committee meeting minutes are provided to the TAM and TED Program administrators so that issues, questions and concerns regarding Minnesota Relay and the TED Program may be addressed.

The TAM administrator attended most of the advisory committee meetings in 2021 and provided a presentation to advisory committee members at the fall meetings. TED Program staff attend a minimum of one advisory committee meeting per region, per year.

Due to the COVID-19 pandemic, advisory committee meetings were held virtually.

## TAM Fund Budget Summary - FYs 2021 & 2022

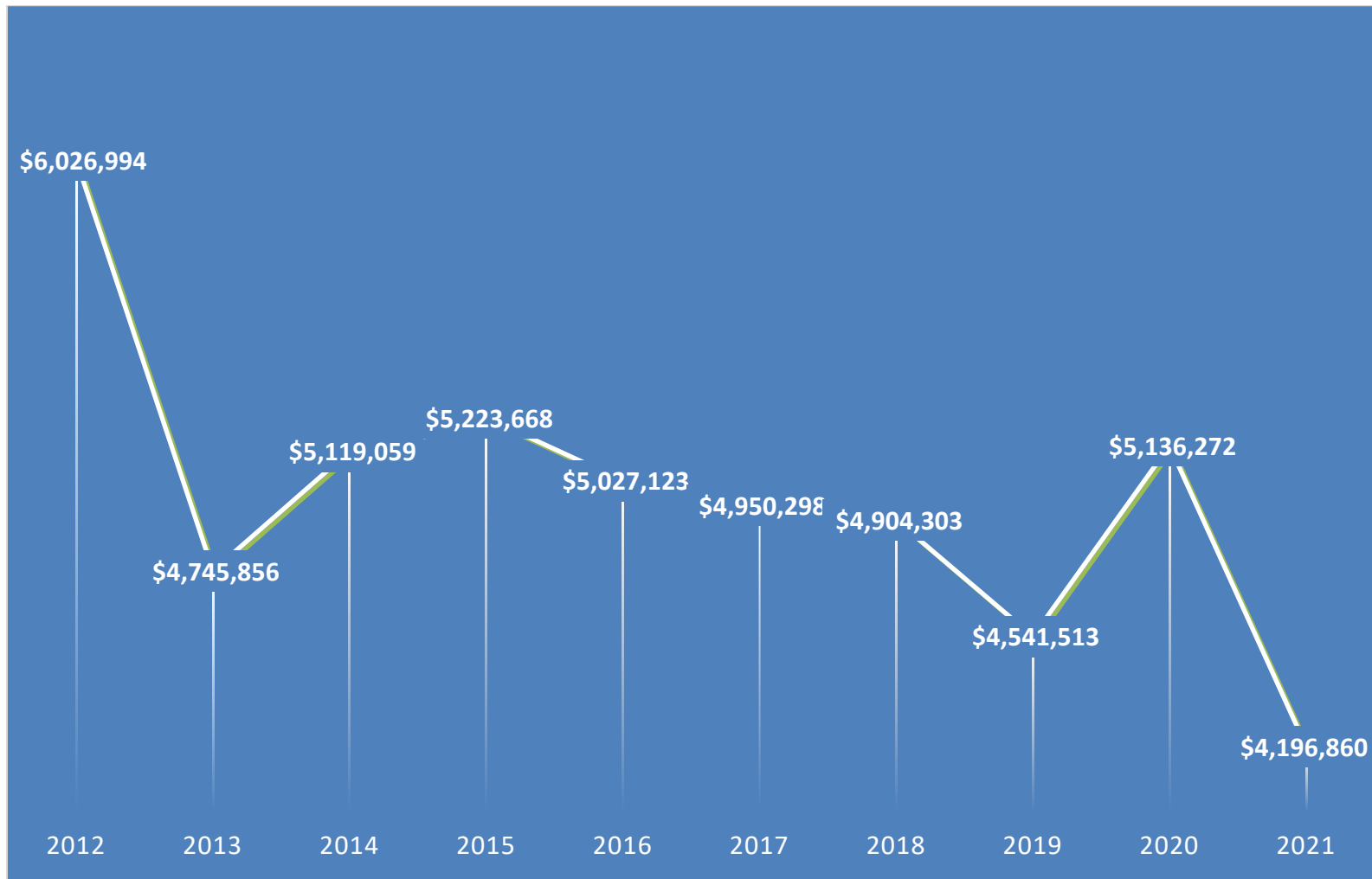
REVENUE	FY 2021 Actual	FY 2022 Budgeted
Per Wired/Post-Paid Wireless Customer Access Line (FY 2021=\$0.07; FY 2022 \$0.07 for 3 months and \$0.06 for 9 months)	\$ 5,160,124.21	\$ 4,366,842.67
Prepaid Wireless Retail Transactions	\$ 555,139.71	\$ 486,665.76
TAM Fund Interest	\$ 6,841.97	\$ 7,453.52
Total TAM Fund Revenue	\$ 5,772,105.89	\$ 4,860,961.95

EXPENDITURES	FY 2021 Actual	FY 2022 Budgeted
TAM Program Administration	\$ (118,543.22)	\$ (137,575.00)
Telecommunications Relay Services	\$ (1,089,224.11)	\$ (1,238,876.48)
DHS-TED Program	\$ (1,253,183.71)	\$ (1,564,975.00)
DHS-Rural Real-Time Captioning	\$ (291,056.37)	\$ (180,000.00)
DEED-Accessible News for the Blind	\$ (67,718.94)	\$ (100,000.00)
MN Commission of the Deaf, DeafBlind and Hard of Hearing	\$ (949,290.29)	\$ (1,620,000.00)
MN.IT Services (1)	\$ (287,633.20)	\$ (290,000.00)
MN.IT Services (2)	\$ (40,210.55)	\$ (50,000.00)
Legislative Coordinating Commission	\$ (100,000.00)	\$ (410,000.00)
Total TAM Fund Expenditures	\$ (4,196,860.39)	\$ (5,591,426.48)

REVENUE VS. EXPENDITURES	\$ 1,525,245.50	\$ (730,464.53)
--------------------------	-----------------	-----------------

STATEMENT OF TAM FUND BALANCE	FY 2021 Actual	FY 2022 Budgeted
TAM Fund Balance at Beginning of Fiscal Year	\$ 1,685,280.32	\$ 2,339,809.92
TAM Fund Revenue & Interest	\$ 5,722,105.89	\$ 4,860,961.95
TAM Fund Expenditures	\$ (4,196,860.39)	\$ (5,591,426.48)
TAM Fund Balance at Close of Fiscal Year	\$ 3,210,525.85	\$ 1,609,345.39

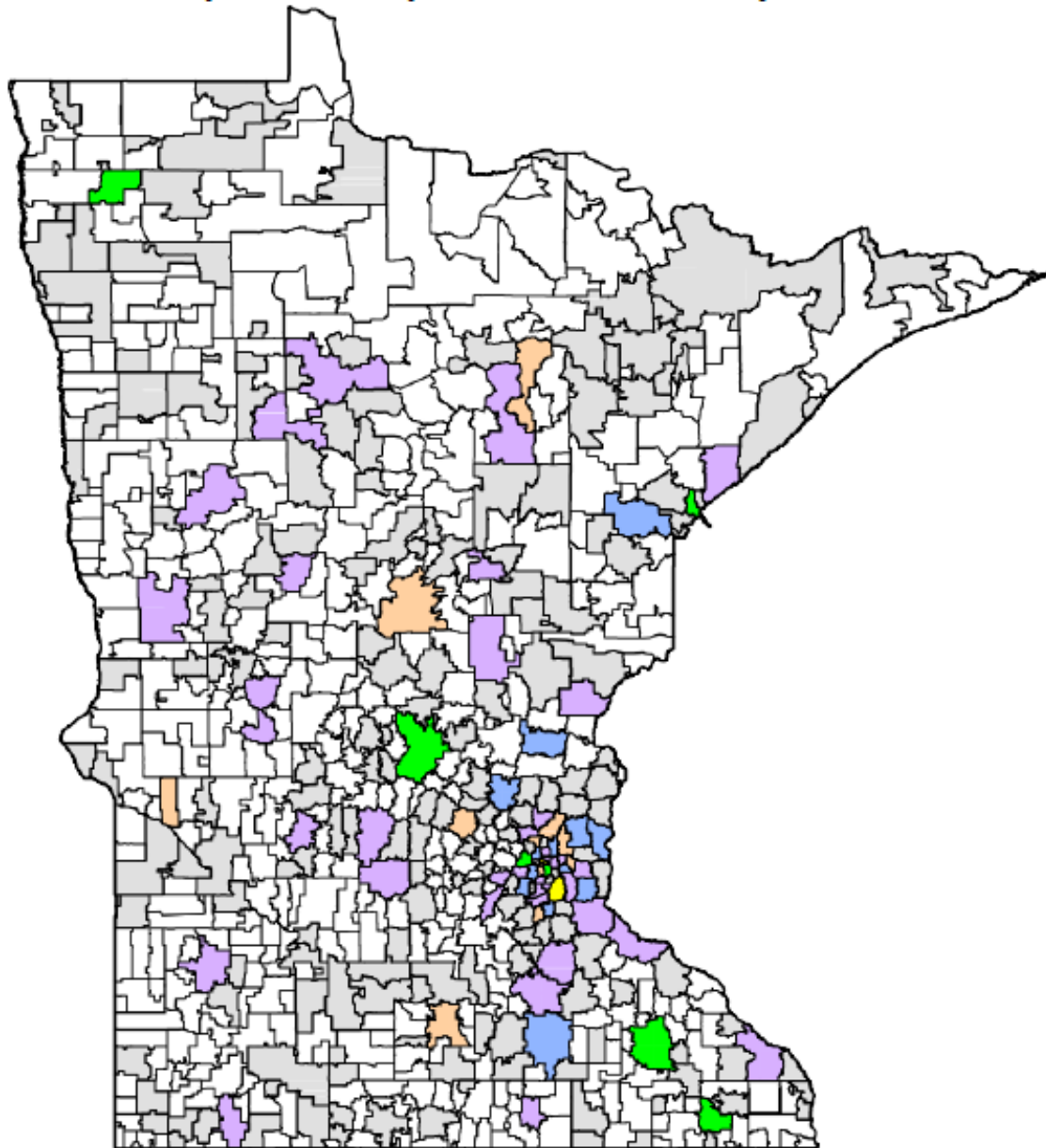
## TAM Fund Expenditures for Fiscal Years 2012 - 2021



## **Appendices**

## Appendix A – Minnesota Relay Call Origination Maps

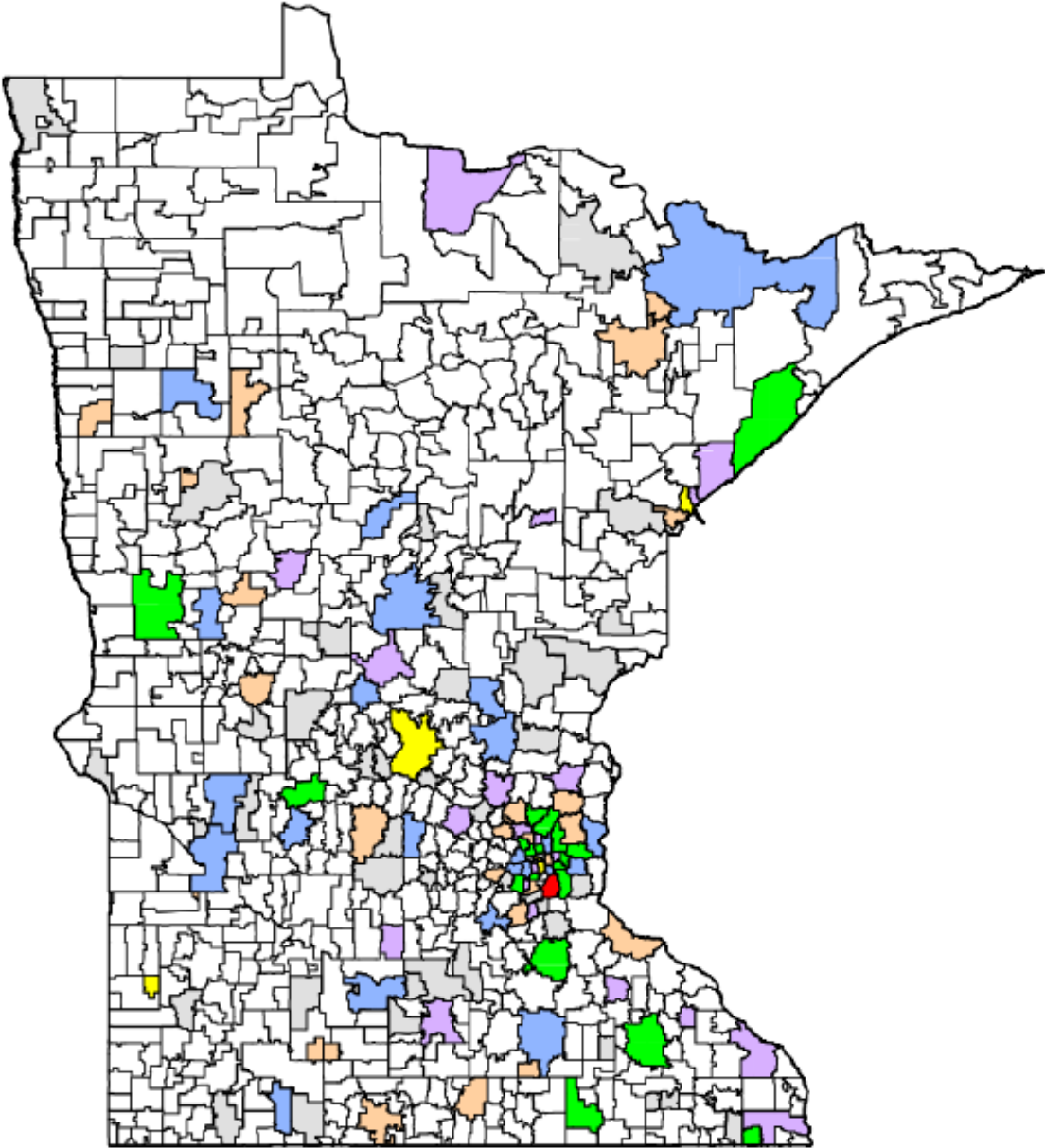
### Snapshot of Minnesota Relay TTY and Speech-to-Speech Calls for May 2021



Legend

1 - 10	11 - 25	26 - 50	51 - 100	101 - 250	251 - 500
--------	---------	---------	----------	-----------	-----------

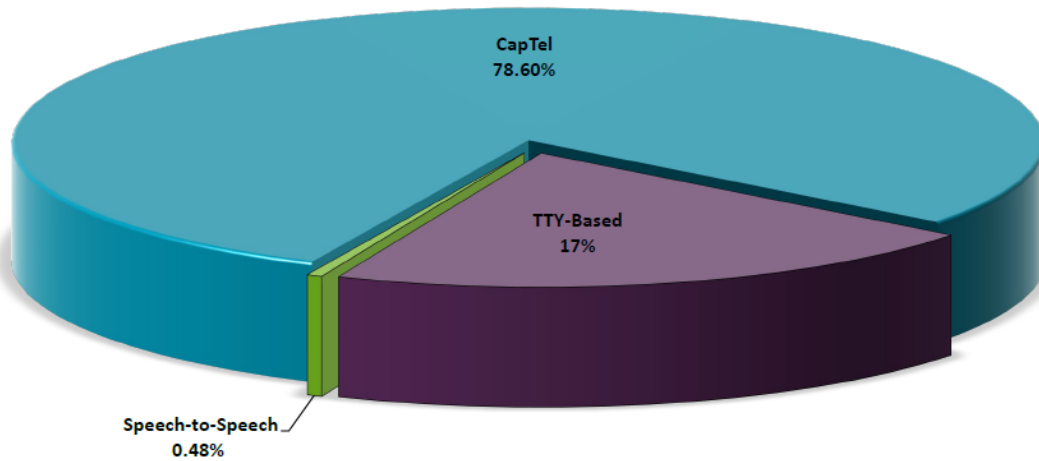
Snapshot of Minnesota Relay CapTel Calls for May 2021



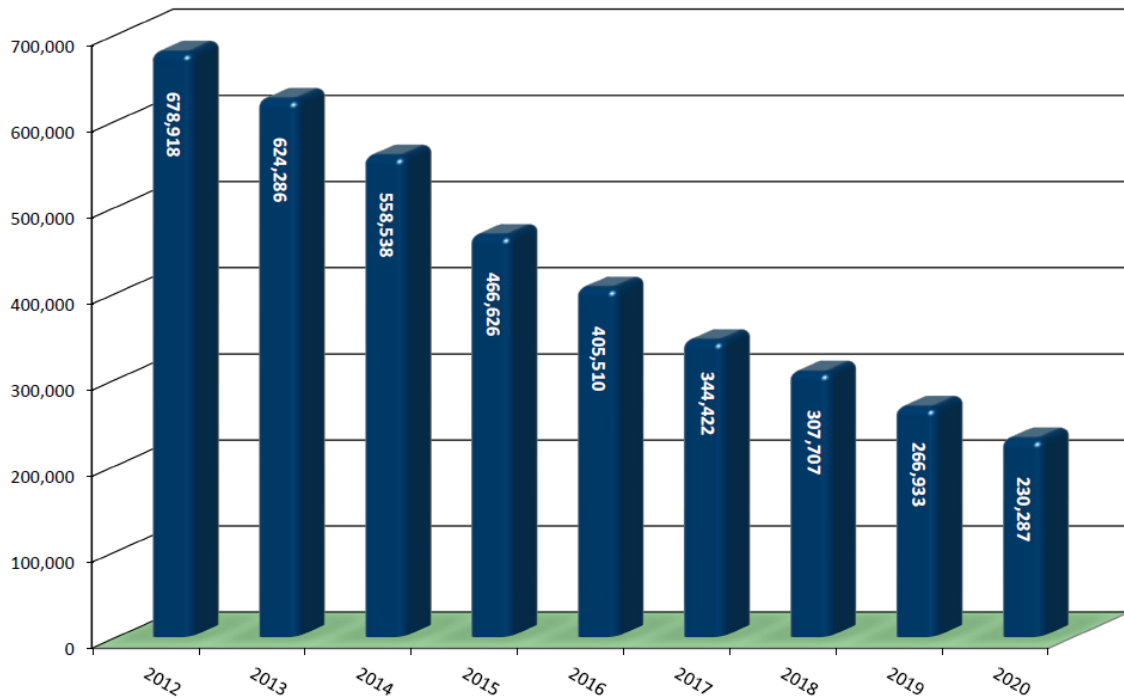
1 - 10	11 - 25	26 - 50	51 - 100	101 - 250	251 - 500	501 - 1090
--------	---------	---------	----------	-----------	-----------	------------

## Appendix B – Minnesota Relay Call Charts

### 2021 Minnesota Relay Conversation Minutes by Type

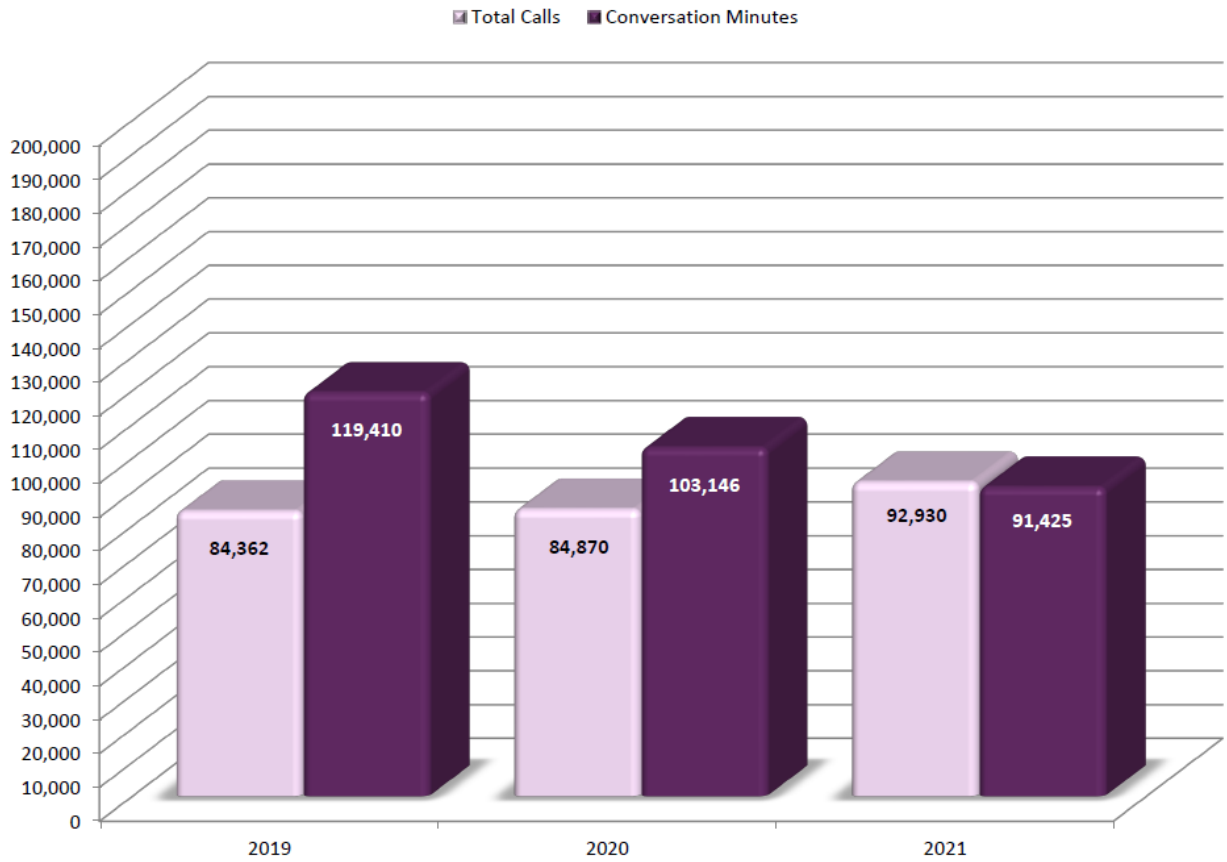


### 2012 - 2021 Minnesota Relay Call Volume (total number of TTY-Based, STS, and CapTel calls)

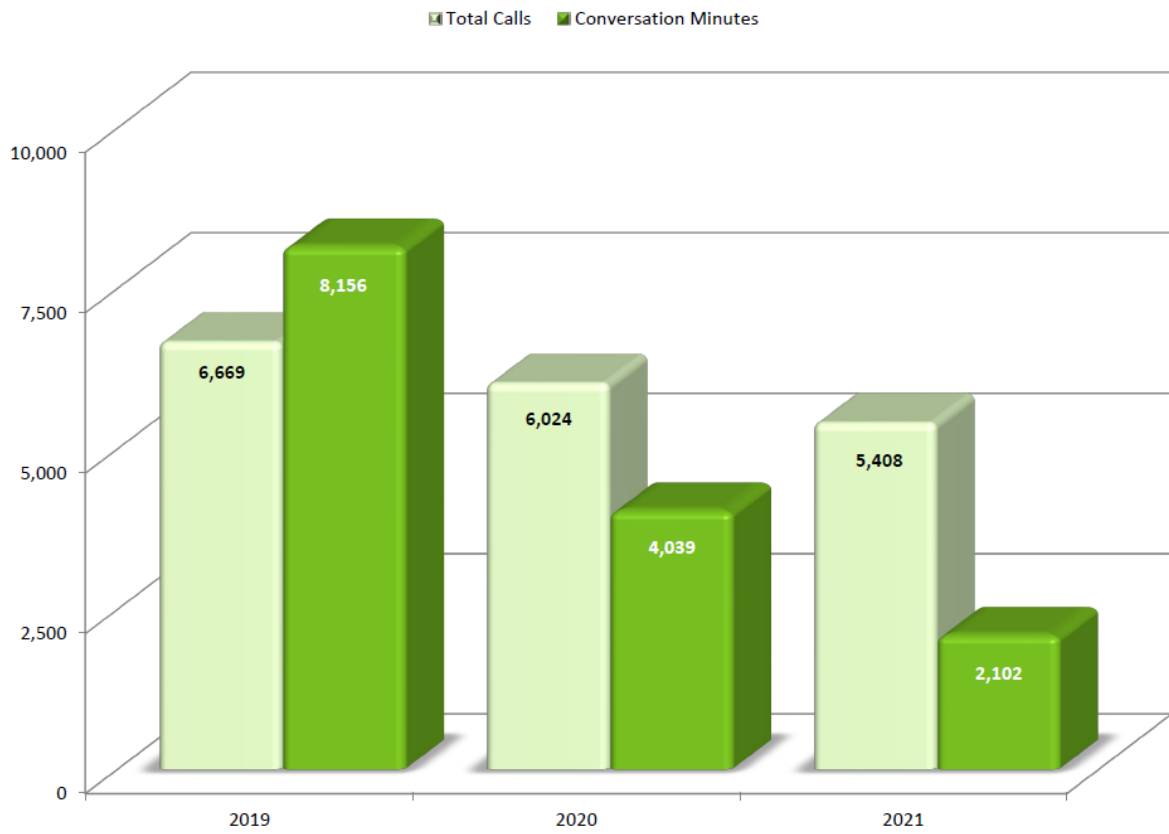




## TTY-Based TRS Call Volume

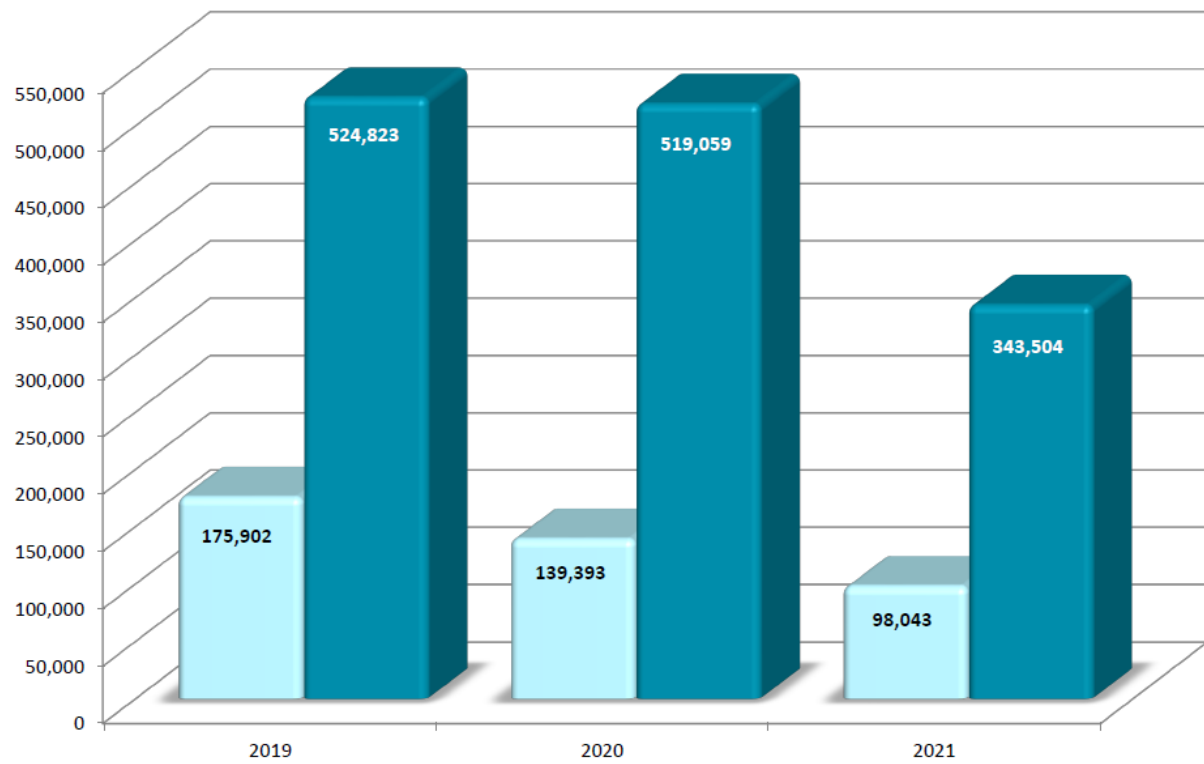


## Speech-to-Speech Call Volume



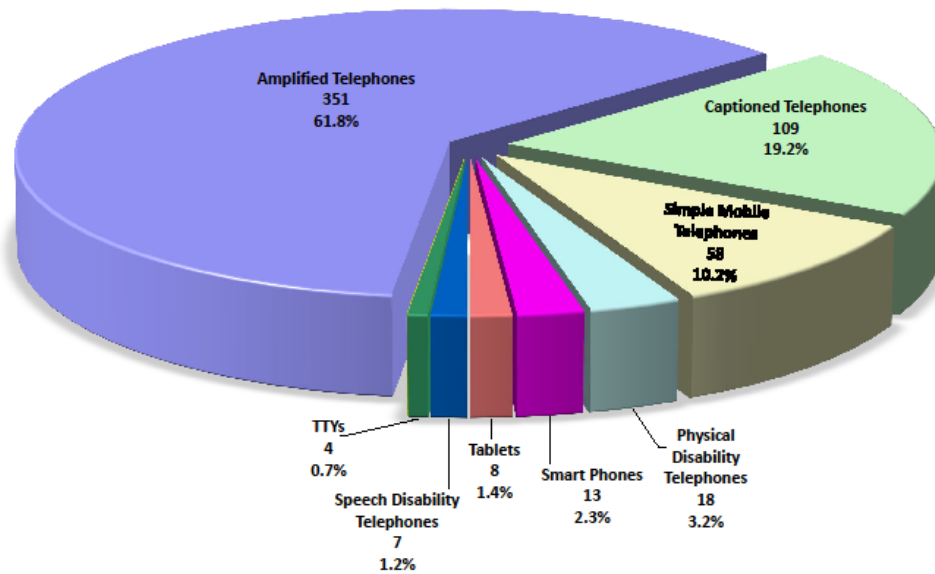
## CapTel Call Volume

■ Total Calls ■ Conversation Minutes

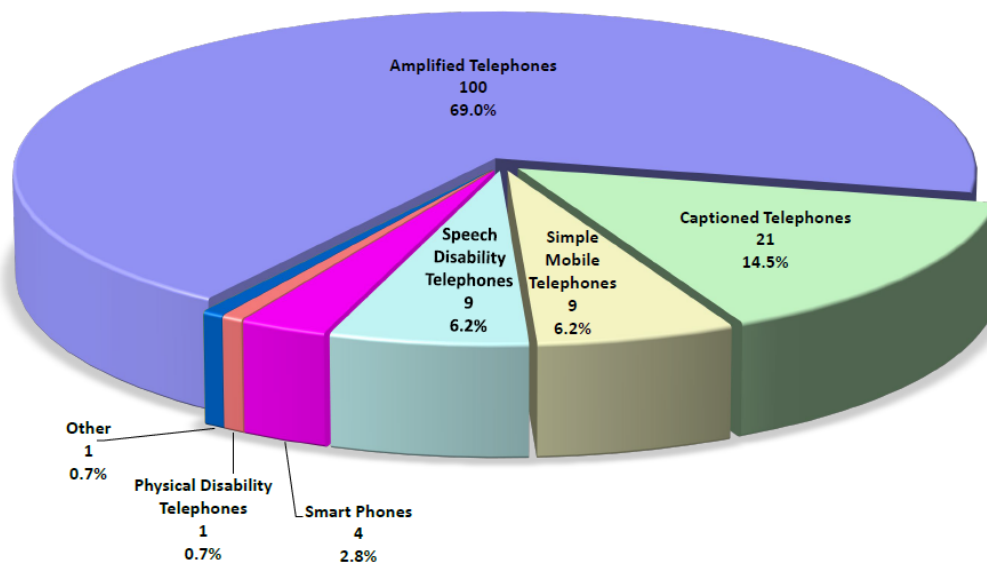


## Appendix C – TED Program Activities

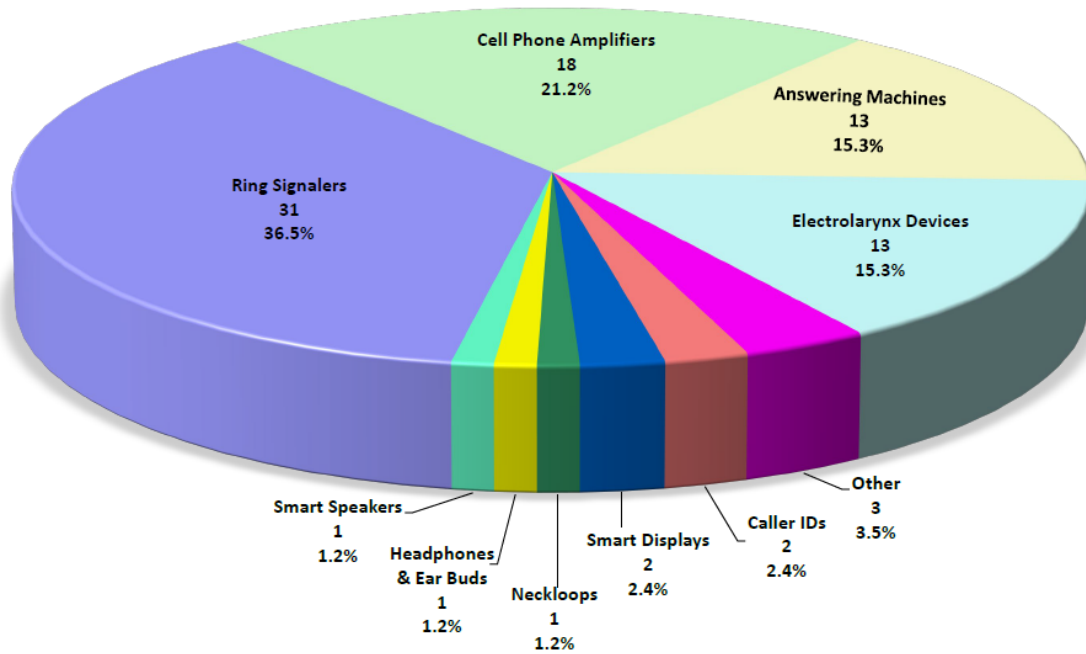
**TED Program**  
**Types of Telecommunications Equipment Distributed to**  
**New and Current Clients in 2021**



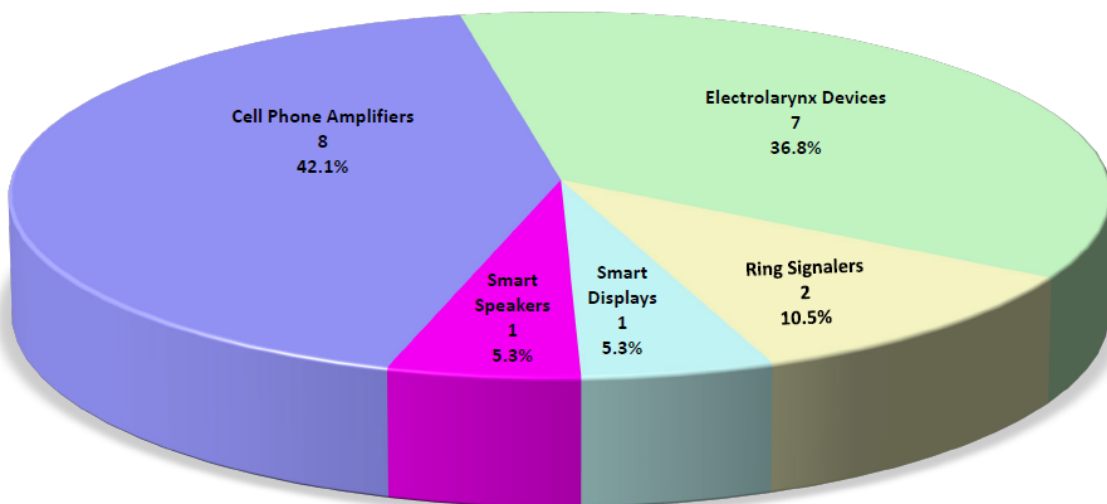
**TED Program**  
**Types of Telecommunications Equipment Distributed to**  
**New Clients in 2021**



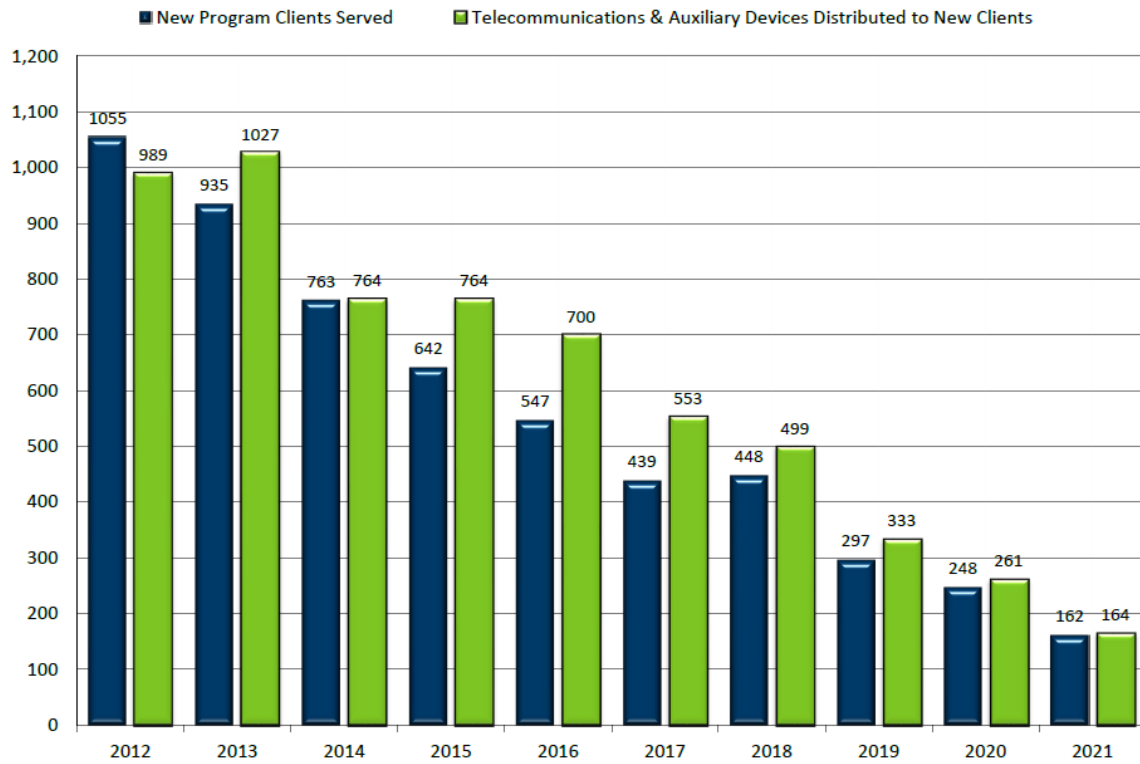
**TED Program**  
**Types of Auxilliary Equipment Distributed to**  
**New and Current Clients in 2021**



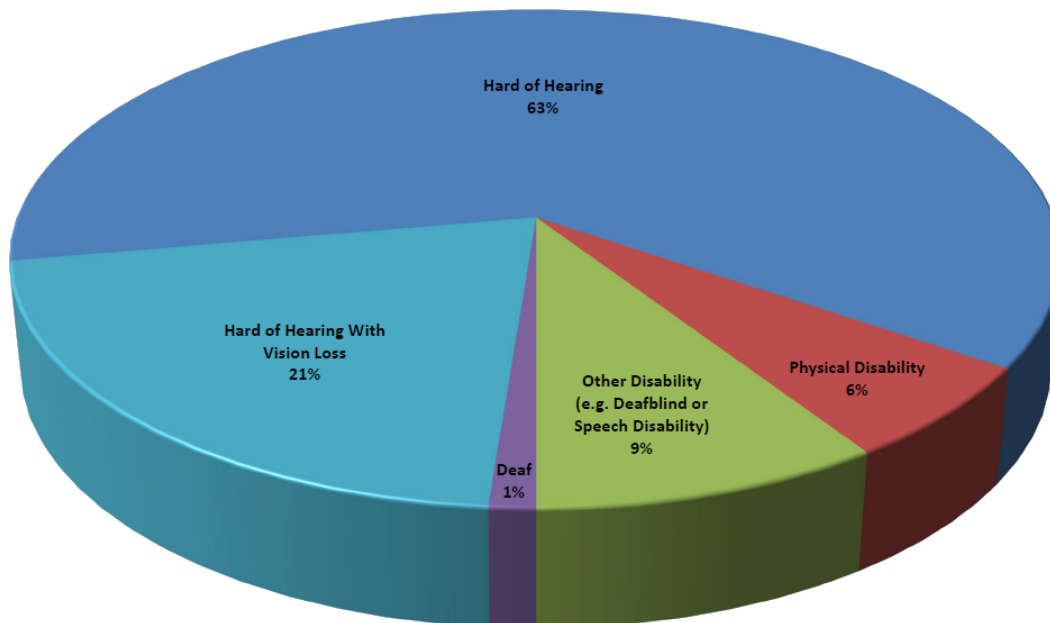
**TED Program**  
**Types of Auxilliary Equipment Distributed to**  
**New Clients in 2021**



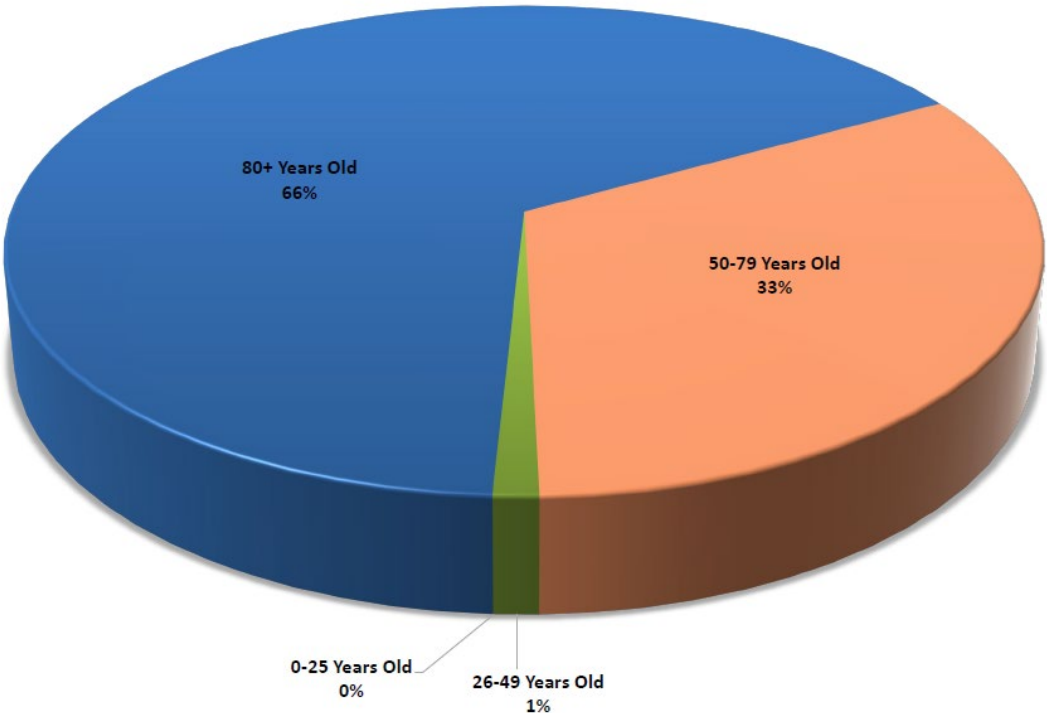
## 2012 -2021 New TED Program Participants



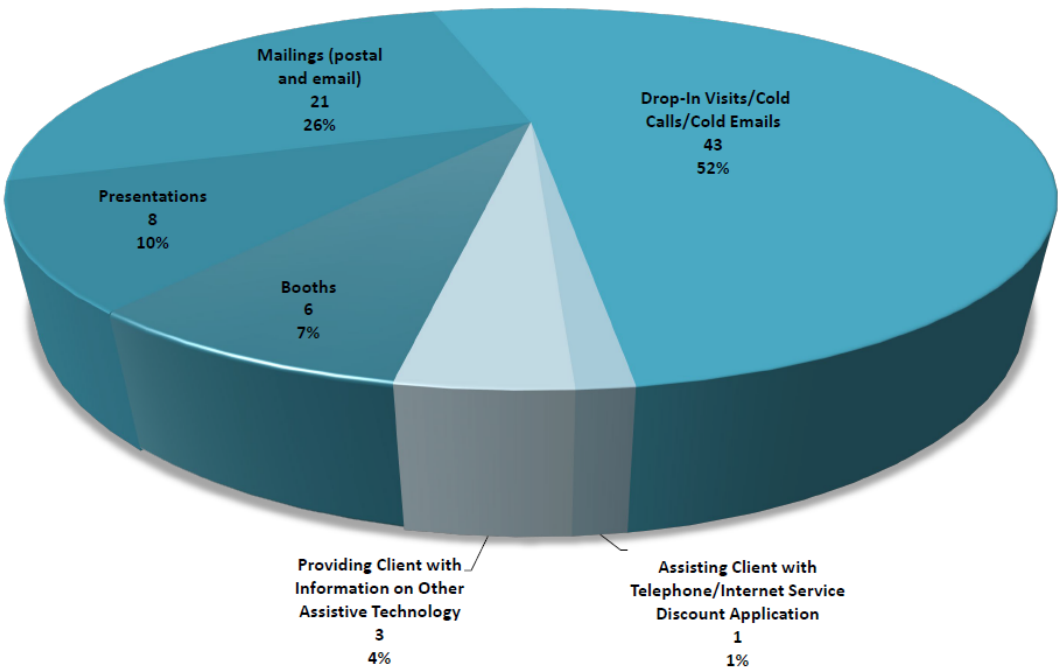
## 2021 New TED Program Clients By Type of Disability



2021 New TED Program Clients by Age

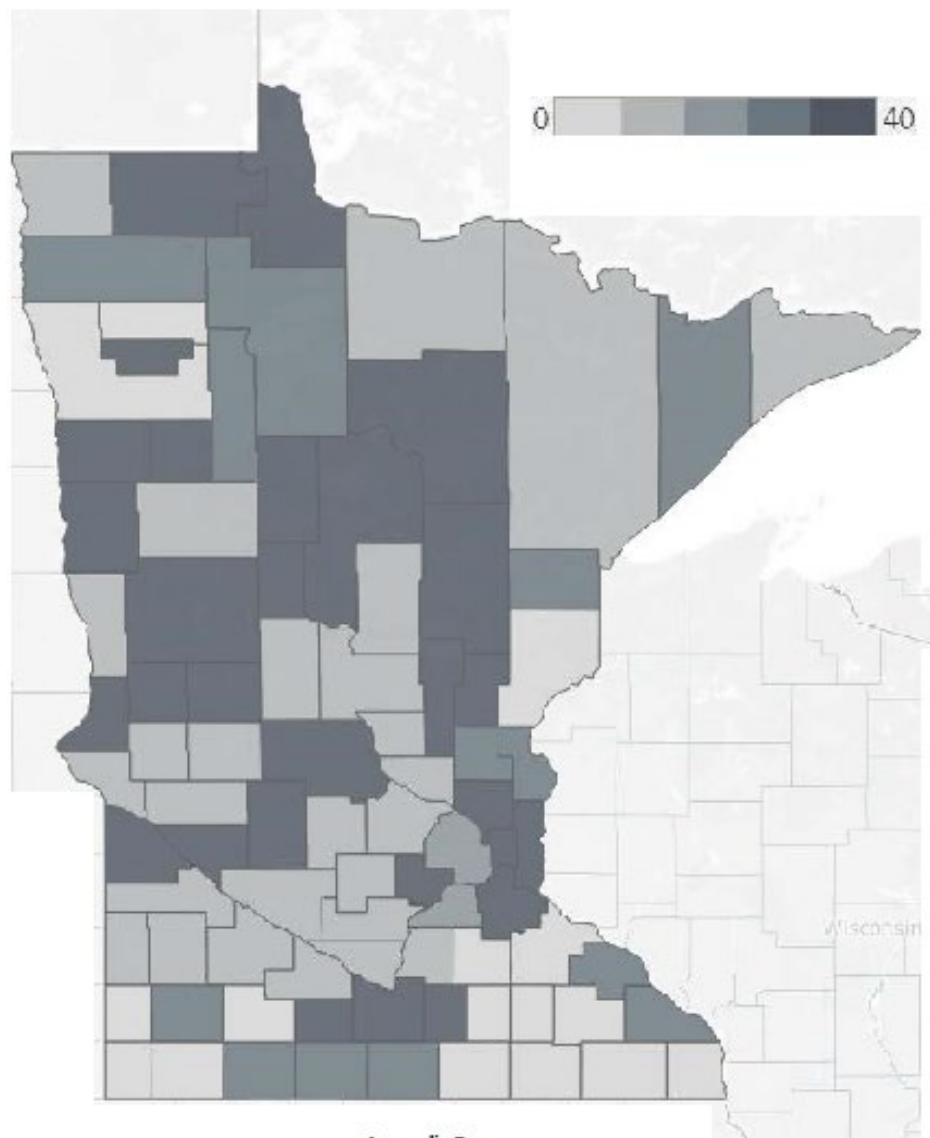


2021 TED Program Outreach Activities



## Appendix D – Map of Outreach by County and Examples of Print Advertisements

### Number of Outreach Activities By County



## Appendix D



**Do you have trouble using your phone due to a hearing loss, speech or physical disability?**



**Contact the Telephone Equipment Distribution Program for easier ways to use the phone.**

**Phone: 800-657-3663**

**Email: [dhs.dhhsd@state.mn.us](mailto:dhs.dhhsd@state.mn.us)**

**Website:**

**[mn.gov/deaf-hard-of-hearing](http://mn.gov/deaf-hard-of-hearing)**



The Telephone Equipment Distribution Program is funded through the Department of Commerce – Telecommunications Access Minnesota (TAM) and administered by the Minnesota Department of Human Services.

**mn** **DEPARTMENT OF  
HUMAN SERVICES**  
DEAF AND HARD OF HEARING  
SERVICES DIVISION

## LAKE COUNTY

Advocacy .....	35
Caregiver Support .....	35
Chore, Home Maint. Services ..	36
Disabilities, Adaptive Services ..	36
Educational Opportunities .....	36
Emergency Response .....	36
Employment .....	36
Energy Assist/Weatherization ..	36
Financial Information .....	36
Fitness .....	36
Friendly Visitation .....	37
Funeral Providers .....	37
Health .....	37
Chemical Dependency .....	37
Eye Care .....	37
Clinics .....	38
Foot Care .....	38
Hospitals .....	38
Home Care .....	38
Mental .....	38
Organizations .....	39
Dental .....	39
Housing .....	
Adult Foster Homes .....	39
Assisted Living .....	40
HRA .....	40
Nursing Homes .....	40
Senior Independent Living ..	40
Legal Service & Information ..	40
Nutrition .....	
Delivery Service .....	41
Food Shelves .....	41
Senior Dining/Meals on Wheels ..	41
Pharmacies .....	41
Senior Centers .....	42
Social Services .....	42
Support Groups .....	42
Transportation .....	42
Volunteer Drivers .....	42
Volunteer Opportunities .....	42

### Advocacy

**North Shore Horizons**  
127 7th Street  
Two Harbors, MN 55616  
(218) 834-5924  
800-834-5923 (available 24-7)  
[northshorehorizons.org](http://northshorehorizons.org)

**Lake County Veteran's Services**  
616 3rd Avenue  
Two Harbors, MN 55616  
(218) 834-8326  
or Silver Bay (Wednesday's only):  
(218) 226-4443  
LinkVet: (24 Hour Crisis  
Connection) (218) 725-5285  
[co.lake.mn.us/departments/veterans\\_services/index.php](http://co.lake.mn.us/departments/veterans_services/index.php)

### Caregiver Support

**Community Partners**  
417 South Avenue  
Two Harbors, MN 55616  
(218) 834-8024  
Monday to Friday  
9:00 am-3:00 pm  
[communitypartnersTH.org](http://communitypartnersTH.org)

**North Shore Area Partners**  
36 Shopping Center  
Silver Bay, MN 55614  
(218) 226-3635  
[nsapartners.org](http://nsapartners.org)  
8:30 am – 4 pm Mon – Thurs  
Monthly Caregiver Support  
Group: Call Amy Renne at  
(218) 353-1561 for more  
information.  
• Individual meetings and  
support  
• Care assessment and planning  
• Caregiver education  
• Grief support

**Do you have  
trouble using  
your phone due  
to a hearing loss,  
speech or physical  
disability?**



**Contact the  
Telephone Equipment  
Distribution Program  
for easier ways to use  
the phone!**

**Call: 800-657-3663**

**Email:**  
[dhs.dhhsd@state.mn.us](mailto:dhs.dhhsd@state.mn.us)

**Visit our website:**  
[mn.gov/deaf-hard-of-hearing](http://mn.gov/deaf-hard-of-hearing)



The Telephone Equipment Distribution Program is funded through the Dept. of Commerce – Telecommunications Access Minnesota (TAM) and administered by the Minnesota Dept. of Human Services.



Is it hard to hear  
on the phone?

**We can help!**

**m** DEPARTMENT OF  
HUMAN SERVICES  
DEAF AND HARD OF HEARING  
SERVICES DIVISION



Do your parents  
have a hard time  
hearing on the  
phone?

**We can help!**

**1-800-657-3663**

**m** DEPARTMENT OF  
HUMAN SERVICES  
DEAF AND HARD OF HEARING  
SERVICES DIVISION

**Do your patients have trouble using the phone due to a hearing loss, speech or physical disability?**

**The Telephone Equipment Distribution Program offers easier ways to use the phone.**

**Phone: 800-657-3663**

**Email: [dhs.dhhsd@state.mn.us](mailto:dhs.dhhsd@state.mn.us)**

**Web: [mn.gov/deaf-hard-of-hearing](http://mn.gov/deaf-hard-of-hearing)**



The Telephone Equipment Distribution Program is funded through the Department of Commerce – Telecommunications Access Minnesota (TAM) and administered by the Minnesota Department of Human Services.





Deaf and Hard of Hearing Services Division's Telephone Equipment Distribution Program is here to help!

The Telephone Equipment Distribution (TED) Program now offers newer iPads and iPhones for phone access to eligible Minnesotans who find it hard to use the phone due to a speech or physical disability or hearing loss.

These devices include pre-installed applications that make it easier to use the phone. Here is what some early testers said about their improved phone access:

- "I appreciate the video calling to family and friends, especially the grandkids!"
- "Communication challenges are varied/complex for TED participants, a smart phone or tablet is the kind of tool NECESSARY to ACCESS the combination of app supports UNIQUE to each person's needs!"
- "This is helpful to me to have communication access improved and to be with my family again through relay VRS and more. I am very grateful!"

To learn how to qualify and apply for this free program, please visit our [website](#)!

A limited number of wireless devices are available. We assess each applicant to determine their specific needs and match them with the best tools. We also provide applicants with education and training on how to use the devices. And if the device stops working, we take care of the repairs.

To learn more or to get help with the application process, please contact the TED Program at:

Voice or preferred relay service: 800-657-3663

Videophone: 651-964-1514

Email: [dhs.dhhsd@state.mn.us](mailto:dhs.dhhsd@state.mn.us)

Web: [mn.gov/deaf-hard-of-hearing](http://mn.gov/deaf-hard-of-hearing)

## **Report prepared by**

---

Minnesota Department of Commerce  
85 7<sup>th</sup> Place East, Suite 280  
Saint Paul, Minnesota 55101  
[mn.gov/commerce](http://mn.gov/commerce)