



# Telecommunications Access Minnesota 2014 Annual Report to the Public Utilities Commission

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Docket No. P999/PR-15-5

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## EXECUTIVE SUMMARY

In order to provide equal access to the telecommunications network for people who are deaf, hard of hearing, speech disabled, or physically disabled, the Minnesota Legislature created what is now known as the Telecommunications Access Minnesota (TAM) program. Minnesota Relay and the Telephone Equipment Distribution (TED) Program were established to achieve this objective. The programs are funded by a surcharge on all wired and wireless telephone access lines in the state of Minnesota, and by a fee on each Minnesota retail transaction for prepaid wireless telecommunications services.

The current TAM surcharge is \$0.08 per access line; by statute, the surcharge may not exceed \$0.20 per access line.

The state procedures and requirements regulating Minnesota Relay, the Telephone Equipment Distribution Program, and the Telecommunications Access Minnesota fund fall under Minnesota Statute § 237.50 – 237.56 and Minnesota Rules, Chapter 8775.

The state contracts with Sprint Communications Company, L.P. for the provision of Telecommunications Relay Services (TRS) in Minnesota. The contract is effective from July 1, 2014, through June 30, 2019. In 2014, Minnesota consumers placed 558,538 relay calls for a total of 1.47 million conversation minutes of use.

The migration to Internet-based relay services, which are under the Federal Communications Commission's jurisdiction and paid for through a federal fund, continues to grow as more and more consumers gain access to high-speed Internet services. Internet-based relay services tend to be easier to use, have more features, and allow relay users to make calls on the go, as many relay providers have free applications that can be downloaded to make relay calls on wireless devices such as smartphones, tablets, iPads, and the iPod Touch.

*However, until all consumers have access to high-speed Internet services, and at an affordable price, there will still be many Minnesotans who rely on traditional relay services.*

The TED Program is administered through an interagency agreement between the Department of Human Services – Deaf and Hard of Hearing Services Division and the Department of Commerce – TAM program. In 2014, the TED Program served 763 new participants, 1,900 repeat participants, and distributed 4,380 telecommunications and auxiliary devices.

TED Program staff provide outreach for both the TED Program and Minnesota Relay from Deaf and Hard of Hearing Services Division offices located in St. Paul, Mankato, St. Cloud, Duluth, and Moorhead. In 2014, TED Program staff performed 145 outreach activities reaching 3,523 Minnesotans.

In addition to Minnesota Relay and the TED Program, five additional programs are funded by TAM:

- The Department of Employment and Economic Development – Accessible News for the Blind program has a maximum annual budget of \$100,000.
- The Department of Human Services – Rural Real-time Captioning program has a maximum annual budget of \$300,000.
- The Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans (MNCDHH) receives \$800,000 annually (\$500,000 in FY 2014).
- MN.IT Services (formerly the Office of Enterprise Technology) receives \$290,000 annually (\$230,000 in FY 2014) for coordinating technology accessibility and usability.
- The Legislative Coordinating Commission (LCC) receives \$150,000 annually to provide captioning of live streaming of legislative activity on the LCC’s website and for a consolidated access fund for other state agencies.

## TAM Fund Activity in Fiscal Year 2014

### Revenues:

- Wired and Wireless Surcharge Revenue: \$4,352,054
- Prepaid Wireless Surcharge Revenue (6 months): \$144,315
- TracFone Wireless Settlement: \$174,353
- Account Interest: \$4,390

### Expenditures:

- TAM Administration: \$123,406
- Minnesota Relay Services: \$2,290,748
- Minnesota Relay Outreach: \$0
- TED Program: \$1,423,908
- Rural Real-time Captioning: \$245,004
- Accessible News for the Blind: \$95,993.43
- MNCDHH: \$500,000
- MN.IT: \$290,000
- LCC: \$150,000

## PROGRAM HISTORY

In 1987, the Minnesota Legislature passed legislation creating the Telecommunications Access for Communication Impaired Persons (TACIP) Board for the purpose of enabling people who have difficulty hearing or speaking on the telephone to talk to standard voice telephone users. Two programs were established to accomplish this goal: Minnesota Relay, which began service on March 1, 1989; and 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, 47 U.S.C. § 225, Federal Communications Commission regulations at 47 C.F.R. §§ 64.601 through 64.606, and Minnesota Statute §§ 237.50 through 237.56.

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.

There have been significant changes and improvements to Minnesota Relay since its early years of operation. In 1995, the Minnesota Legislature eliminated the TACIP Board and transferred the responsibility for Minnesota Relay to the Department of Public Service (DPS)<sup>1</sup>. The Department of Human Services (DHS), through an interagency agreement with the Department of Commerce, operates the TED Program (Minnesota Statute § 237.51, Subd. 1).

In 1996, after careful consideration of the needs of Minnesota Relay users, TACIP determined that it was in the best interest of relay users, telephone ratepayers, and the legislature to relieve the state of the burden of owning and maintaining TRS equipment. It was apparent that the Minnesota Relay facility and its equipment had become severely outdated and beyond the point of overhaul. TACIP was faced with two options: spend millions of dollars for the purchase of new equipment, or contract with a TRS vendor that would furnish continually upgraded equipment and software as well as specially trained call center staff. It was decided that the best way to provide comprehensive and cost effective relay services in Minnesota was to contract with a highly qualified TRS vendor.

On July 1, 1996, TACIP 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

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<sup>1</sup>The Departments of Public Service and Commerce merged on September 15, 1999.

was forwarded to relay centers operated jointly by CSD/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 (TACIP) program changed to Telecommunications Access Minnesota (TAM). The Department of Commerce (Commerce) sought the name change at the request of consumers, who objected to the inclusion of the word “impaired” in the program name.

In 2005, the Minnesota Legislature passed legislation that created two new state programs, Accessible News for the Blind and Rural Real-time Captioning, that are funded via the TAM surcharge.

The Accessible News for the Blind program provides accessible electronic information (news and other timely information) for people who are blind and disabled. This program is administered by the commissioner of the Department of Employment and Economic Development (DEED), and has a maximum annual budget of \$100,000.

The Rural Real-time Captioning program provides real-time, closed-captioning of certain local television news programs for people who are deaf, hard of hearing, or deaf-blind. This program is administered by the commissioner of the Department of Human Services (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 Communication Service for the Deaf (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 Minnesota Legislature passed legislation that appropriated \$200,000 annually from the TAM fund to the Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans<sup>2</sup> (MNCDHH) for operational expenses. MNCDHH is a governor appointed commission that advocates for equality of opportunity for Minnesotans who are deaf, deafblind, and hard of hearing. In 2007, the Minnesota Legislature passed legislation that appropriates an additional \$100,000 annually from the TAM fund to MNCDHH, for a total direct appropriation of \$300,000 annually.

In 2008, the Minnesota Legislature passed legislation allowing 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.

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<sup>2</sup> Effective August 1, 2008, the Minnesota Legislature passed legislation to change the name of the Minnesota Commission Serving Deaf and Hard-of-Hearing People to the Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans. The commission uses the initialism MNCDHH.

In 2009, the Minnesota Legislature passed legislation allowing for three one-time direct appropriations from the TAM fund in FYs 2010 and 2011. MN.IT Services (formerly the Office of Enterprise Technology) 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 Minnesota 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 again passed legislation allowing for one-time direct appropriations from the TAM fund to MN.IT, LLC, 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 in 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 in to provide information in American Sign Language on their website and to provide technical assistance to state agencies.

In 2011, the Minnesota 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 – TAM began contracting with DHS – TED Program for the provision of Minnesota Relay Outreach services. With this transition, outreach is provided from five regional Deaf and Hard of Hearing Services office (in the past, Minnesota Relay outreach was provided from one office located in St. Paul), and TAM has greater oversight of staff and program objectives. In addition, the contract saves the TAM fund over \$250,000 annually.

In 2013, the legislature passed legislation modifying the direct appropriations from the TAM fund to MN.IT, LCC, and MNCDHH. In FY 2014, MN.IT's funding increased to \$290,000 and became a permanent annual allocation, and the LCC's \$150,000 appropriation became a permanent annual allocation. MNCDHH's appropriation increased to \$500,000 in FY 2014 and \$800,000 in FY 2015; the FY 2015 funding level became a permanent annual allocation.

Also in 2013, the legislature passed legislation that imposes a TAM fee on each retail transaction for prepaid wireless telecommunications services, in the amount of the monthly charge provided for in Minnesota Statute § 237.52, Subd. 2. The prepaid wireless fee became effective on January 1, 2014.

On March 5, 2014, TAM issued a Request for Proposal for the provision of TRS. The TRS contract was awarded to Sprint Communications Company L.P. and is effective from July 1, 2014, through June 30, 2019.

## TELECOMMUNICATIONS ACCESS MINNESOTA (TAM)

### TAM Administration

The Department of Commerce – Telecommunications Access Minnesota (Commerce – TAM) administers the TAM fund and manages vendor contracts and interagency agreements. Minnesota Relay services are provided to the state under contract with Sprint Communications Company L.P. The Telephone Equipment Distribution (TED) Program, Minnesota Relay Outreach services, and the Rural Real-time Captioning program are provided by interagency agreements with the Department of Human Services. The Accessible News for the Blind program is provided by an interagency agreement with the Department of Employment and Economic Development.

### TAM Funding

#### TAM Funding Sources

- Monthly surcharge on all wired and wireless telephone access lines in the state of Minnesota.
- Fee on each Minnesota retail transaction for prepaid wireless telecommunications services.

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

#### Current Surcharge

In June 2014, the PUC approved TAM's fiscal year 2015 Budget and Surcharge Recommendations. The PUC accepted TAM's recommendation to increase the surcharge from \$0.06 to \$0.08, which will support all TAM fund programs and will maintain an adequate reserve for operating expenses.

#### TRS Jurisdictional Separation of Costs

Minnesota's Telecommunications Relay Services (TRS) program observes all jurisdictional separation of costs as required by 47 C.F.R. § 64.604(c)(5), Section 410 of the Communications Act of 1934, Minnesota Statute § 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 our 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. 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) are reimbursed by the Interstate TRS Fund.<sup>3</sup>

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## Programs Funded

- TAM Administrative Expenses
- Minnesota Relay Services
- Minnesota Relay Outreach
- TED Program
- Accessible News for the Blind
- Rural Real-time Captioning
- Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans
- MN.IT (for coordinating technology accessibility and usability)
- Legislative Coordinating Commission (for captioning of live streaming of legislative activity and for a consolidated access fund for other state agencies)

## Population Served

The Minnesota Relay and TED Program serve Minnesotans who have a hearing, speech, or physical disability that make it difficult or impossible to use standard telecommunications services and equipment, and also serves persons who wish to communicate with these individuals.

## Role of the Public Utilities Commission

In accordance with Minnesota Statute § 237.55, “The commissioner of commerce must prepare a report for presentation to the Public Utilities Commission by January 31 of each year. Each report must review the accessibility of telecommunications services to persons who have communication disabilities, describe services provided, account for annual revenues and expenditures for each aspect of the fund to date, and include predicted program future operation.”

Commerce must also submit an annual budget and surcharge recommendation to the Public Utilities Commission (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 (Minnesota Statute §237.52, Subd. 2).

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<sup>3</sup> Interstate TRS is funded by contributions from every carrier providing interstate telecommunications services (including interconnected and non-interconnected VoIP service providers) based on interstate end-user revenues. The fund administrator is currently Rolka Loubé Saltzer Associates, LLC.

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## TAM Program Audit

On June 4, 2013, in Docket No. P-999/M-13-138, the PUC issued an order that, among other things, asked TAM to develop a plan and budget for concluding an audit of the programs funded through the TAM fund no later than December 31, 2014. On December 1, 2014, TAM released a Request for Proposal for an audit of TAM programs. Proposals were due January 12, 2014, and are currently being evaluated. Once a vendor is selected, TAM will submit an audit budget to the PUC for approval prior to awarding the contract.

## Minnesota Relay Progress

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### Relay Center

Relay communications assistants (CAs) received ongoing skill training including:

- A desktop refresher on Phoenix platform updates and Speech-to-Speech features.
- Refresher training on typing and voicing verbatim, following customer instructions, American Sign Language to English translation, transferring CapTel calls, retrieving answering machine messages, and more.
- Review of Federal Communications Commission TRS mandatory minimum standards.

Sprint held “Train the Trainer” workshops at which call center quality managers and trainers reviewed and updated the Sprint TRS Training Manual.

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### Anticipated TRS Enhancements in 2015

CapTel will release a new phone that will work with either analog or digital phone service. This means that if the consumer has analog phone service and transitions to digital phone service, their CapTel phone will still work. It also means that if the user has digital phone service at home and analog service at their cabin, they can use their CapTel phone at either location.

Braille CapTel service will be released in 2015 (it is currently in beta testing). Individuals with hearing and vision loss who read Braille will be able to receive word-for-word captions of what the other party on the call is saying. The captions are provided on a dynamic Braille display, and the user can adjust the speed of the captions.

## Minnesota Relay Services Provided

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 (long-distance charges apply), 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 no records of any conversations are maintained.

TAM and the TED Program recognize the importance of looking to the future and monitoring the trends and rapid advances in telecommunications technology. We strive to provide services and equipment that have the same level of quality and provide similar features as the telecommunications services and equipment available to consumers without hearing, speech, or physical disabilities.

We are also committed to providing Minnesotans with education, training, and support regarding TRS and specialized telecommunications equipment.

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### Minnesota Relay Features

- **7-1-1:** A nationwide abbreviated dialing code for accessing all types of relay services.
- **800/877/888 Numbers:** Minnesota Relay users are able to reach 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.
- **900 Service:** allows Minnesota Relay users to access 900 number pay-per-call services.
- **Answering Machine Retrieval:** TTY users can request a Communications Assistant (CA) to retrieve messages from the user's voice answering machine or voice mail.
- **American Standard Code for Information Interchange (ASCII) Split Screen:** allows high-speed ASCII computer users and CAs to type and communicate more clearly and quickly. ASCII Split Screen provides interrupt capability, when appropriate, for the ASCII user and the other party.
- **Call Release:** allows the CA to sign-off or be "released" from the telephone line after the CA has set up a telephone call between the originating TTY caller and a called TTY party, such as when a TTY user must go through a TRS facility to contact another TTY user because the called TTY party must be reached through a voice-only interface, such as a switchboard.
- **Caller ID:** Calls placed through Minnesota Relay will provide the originating calling party number (ANI), or caller ID information, through the local exchange carrier for all local and most long distance calls.
- **Captioned Telephone Relay Service (CapTel™):** allows individuals with hearing loss to receive word-for-word captions of what the other person on the call is saying, while also allowing them to use their residual hearing to listen to their phone conversations. The captions, which are generated through a captioning service using the latest in voice recognition technology, appear on the text display of the relay user's specialized captioned telephone.

- **Two-Line CapTel:** With two-line CapTel, the conversation is carried on one telephone line and the captions are provided on a second line. This gives two-line CapTel relay users the ability to caption any phone call – incoming or outgoing – at any point in the conversation. Two-line CapTel also supports enhancements that the user has purchased from their telephone service, including call waiting.
- **Carrier of Choice (COC):** allows a relay user to choose their preferred carrier for intrastate, interstate, and international calls. This requires the user’s long distance phone carrier to enter into a billing and collection agreement with Sprint.
- **Customer Preference Database:** Minnesota Relay users are able to submit their calling preferences, such as communication mode (TTY, Voice, ASCII, STS, CapTel, etc.), long distance carrier of choice, preferred billing method, frequently dialed numbers, and customer notes for call processing. The call preferences are stored in the relay provider’s database. When the relay user's call arrives at a communication assistant's (CA) position an Automatic Number Identification (ANI) check occurs. If there is a match of a Customer Preference (Profile) to an inbound ANI, the CA screen is activated automatically for the CA to reference the information for that particular relay user.

Completing and submitting the Minnesota Relay Customer Preference (Profile) form allows relay calls to be set up quickly and ensures that the relay user’s preferred carrier is used for long distance calls. Relay users have the flexibility of updating their preferences as needed. User preference information is confidential and secure.

- **Directory Assistance:** A CA will relay directory assistance (DA) calls between a relay user and the Local Exchange Carrier (LEC) DA operator. Once the caller makes a request for directory assistance, the CA will contact a LEC DA 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). Note: DA is often subject to charges by the caller’s local telephone service provider.
- **Deaf-Blind Transmission Speed:** A modification of the default transmission speed for Telebraille users. Instead of the default setting at 45 words-per-minute, the transmission speed has been reduced to 15 words-per-minute, with system capability to increase or decrease transmission speed by five words-per-minute increments.
- **Emergency Assistance:** Although relay users are discouraged from placing 9-1-1 calls through the relay, calls are placed at the caller’s request. Through the provider’s E911 database, CAs use a “hot button” to automatically place a call to the most appropriate Public Safety Answering Point.
- **Enhanced Turbo Code (E-Turbo™):** allow a TTY user to automatically submit dialing and call set-up instructions when they dial into Minnesota Relay. This significantly reduces the amount of time necessary for the CA to set-up and process the outbound call. The result is that 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.
- **Flexible Billing:** allows Minnesota Relay users to complete long distance calls directly or by using pre-paid calling cards, carrier calling cards, third party billing ,or by placing collect calls.
- **Gender ID:** This feature automatically matches the relay user’s gender with the gender of a CA. For example, the user has the option of allowing Minnesota Relay to use the caller’s Customer Preference information to automatically match the CA’s gender to their own.
- **Hearing Carry Over (HCO):** allows a hearing person who has very limited or no speech capability to make a phone call. The HCO user types his or her conversation for the CA to read to the other person, and listens directly to the other person’s response.
  - **Two-line HCO:** allows a hearing person with speech difficulties to make and receive telephone calls with real-time interaction (i.e. not having to wait for the “Go Ahead” or “GA” to respond). The HCO user uses one telephone line to listen to the other person’s conversation, and uses the second line to type his or her conversation for the CA to read to the other person. With two-line HCO, the relay user does not have to constantly move the telephone receiver from their ear to the TTY in order to hear the conversation and type their response. This makes for a smoother and more natural flow to the telephone conversation.
- **Intelligent Call Router:** Technology that automatically and seamlessly routes relay calls to the first available CA in the network.
- **International Calls:** allows the relay user to place and receive calls to and from anywhere in the world (using English or Spanish languages only).
- **Last Number Redial:** allows the relay user to call the last person dialed through the relay without having to provide the telephone number dialed 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.
- **Spanish Relay:** the CA relays calls between a Spanish-speaking person with a hearing or speech disability and another Spanish-speaking person.
- **Speech-to-Speech (STS):** allows a person who has difficulty speaking or being understood on the phone to communicate using his or her own voice or a voice synthesizer. The CA revoices the words of the person with a speech disability so the other person on the call can understand them.

- **Telecommunications Service Priority (TSP):** On October 31, 2005, Sprint activated their call centers under the TSP program. If a national or regional emergency causes service to be disrupted and the Moorhead relay center cannot receive or place calls, Sprint's participation in the TSP program means that Local Exchange Carriers will be required to restore service as rapidly as possible consistent with the priority status assigned to the Moorhead relay center.
- **Three-Way Calling Feature:** allows more than two parties to be on the telephone line at the same time with the CA.
- **Transfer Gate Capabilities:** allows the CA to transfer a caller to another form of relay service (i.e. Spanish, CapTel, Speech-to-Speech), to customer service, or to a relay center manager.
- **Text Telephone (TTY) Operator Service:** is available to complete a TTY to TTY call, obtain directory assistance information, or receive credit for erroneous billing.
- **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):** allows a person who has difficulty hearing on the phone to voice their conversations directly to the other person on the call. The CA then types the other person's response to the VCO user.
  - **Two-Line VCO:** allows a VCO user to use one phone line for speaking directly to the other person, while the second line is used to receive the CA's typed response from the other person. This enhanced feature provides for a more natural flow of conversation without the pauses of single-line VCO calls.
  - **VCO Gated Calling:** Minnesota Relay has 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-and-No-GA:** allows VCO users 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.
- **Voice Call Progression:** allows voice or HCO callers to listen during call set-up (i.e. ringing or busy).

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## Call Volumes

In 2014, Minnesota Relay averaged 46,545 calls per month: 13,875 traditional<sup>4</sup> relay calls, 919 Speech-to-Speech calls, and 31,751 CapTel calls. The following Minnesota Relay call charts can be found in [Appendix A](#):

- 2014 Minnesota Relay Conversation Minutes by Type
- 2005 – 2014 Minnesota Relay Call Volume
- Traditional TRS Call Volumes
- Speech-to-Speech Call Volumes
- CapTel Call Volumes

Telecommunications Relay Services are currently split into two categories:

- Non-internet based relay services, which include TTY, CapTel, and Speech-to-Speech, are administered and funded on a state level.
- Internet based relay services, which include Video Relay Service (VRS), Internet Protocol (IP) Relay, and Internet Protocol Captioned Telephone Relay Service (IP CTS), are currently under the Federal Communications Commission’s jurisdiction and are paid for by an Interstate TRS Fund.

The migration to Internet-based relay services continues to grow as more and more consumers gain access to high-speed Internet services. Internet-based relay services tend to be easier to use, have more features, and allow relay users to make calls on the go, as many relay providers have free applications that can be downloaded to make relay calls on wireless devices such as smartphones, tablets, iPads, and the iPod Touch.

However, until all consumers have access to high-speed Internet services, and at an affordable price, there will still be many Minnesotans who rely on traditional relay services.

## Accessibility of Telecommunications Network – Minnesota Relay Services

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### Switching System Configuration

All Sprint 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. Sprint’s Intelligent Call Manager ensures that required levels of service are maintained in the event of a processor failure. If a center is shut down for any reason, all calls are automatically re-routed around the affected center to the remaining operating centers in the Sprint Network.

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<sup>4</sup> Traditional TRS includes TTY, VCO, HCO, and Spanish forms of relay services. Traditional TRS does not include STS relay.

Sprint'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 Sprint 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 occur, the Sprint 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 TRS call center is returned to service. Sprint's call center and Relay system design permits the maximum availability with minimal loss of service to our users.

All of the system preventive maintenance functions can be performed on-line, with no effect on call processing. In addition, on-line 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 on-line 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 includes a keyboard, screen and printer capabilities.

Each Data Center and Sprint Relay call center maintains a complete system's spare inventory to meet any malfunction or emergency situation. In addition to spares for switch components, spare units include Communications Assistant position units, computer desktop spares, and Local Area Network and modem equipment.

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### Uninterruptible Power System

Sprint utilizes both an Uninterrupted Power Supply (UPS) and backup power generator to ensure that all Data Centers and Sprint 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 on line – a matter of minutes. Backup power generators are supplied with sufficient fuel to maintain operations for at least twenty-four hours. Generators can stay in service for longer periods of time, as fuel availability permits.

In the event of a power outage, the UPS and backup power generator ensures 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 environmentals
- 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 on line, stable power is established and maintained to all TRS system equipment and facility environmental control units until commercial power is restored.

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### Transmission Circuits

Sprint is a certified interexchange carrier in all 50 states. Using Sprint's nationwide all digital fiber-optic network, transmission circuits meet, if not 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.

Sprint's Synchronous Optical Network (SONET), using four-fiber bi-directional line switched ring capability, allows automatic switching to alternate paths to provide for traffic rerouting in the event of a route failure. The SONET fiber optic backbone topology is currently designed with more than 100 overlapping rings to ensure sufficient alternate paths for total network survivability. As such, Minnesota Relay is linked to a coast-to-coast telecommunications route, which ensures voice, data, and video services without interrupting the call. This guarantees that Minnesota Relay calls are safeguarded by automatically rerouting service around disruptions in approximately 60 milliseconds.

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### Alternate Facilities

Sprint's network of TRS call centers use three centralized Avaya Automatic Call Distributors (ACD). If the TRS platform experiences an outage with one of the Avaya Automatic Call Distributors, the Peripheral Gateways connected to the Avaya experiencing the issue would go offline, notifying Intelligent Call Management to stop routing traffic to that Avaya Automatic Call Distributors. The traffic that was being routed to that Avaya Automatic Call Distributor would be routed to all other functioning Avaya Automatic Call Distributors.

Simultaneously, the Traffic Management Control Center contacts all other TRS centers notifying them of technical issues 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. CAs may also be offered overtime.

Sprint TRS services are supported by six geographically-dispersed centers including the Moorhead center. The TRS centers are managed by a 24 x 7 control center that dynamically monitors and manages the centers for all operational issues. If an event occurs that affects 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 customers.

Likewise, Sprint offers a redundant CapTel solution with three CapTel-dedicated call centers and two co-located CapTel centers with Business Continuity programs to ensure that any issues are resolved quickly with minimal customer impact.

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## 7-1-1 Dialing Access

On August 9, 2000, the FCC released a *Second Report and Order* concerning nationwide 7-1-1 dialing access to TRS<sup>5</sup>. The Order required all common carriers, wireless providers, payphone vendors, and Private Branch Exchange (PBX) vendors to provide 7-1-1 dialing access to relay services on or before October 1, 2001.

In 2014, an average of 44 percent of Minnesota Relay calls were placed using this dialing shortcut. Relay users are still able to access Minnesota Relay by dialing the 10 digit toll-free access numbers.

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## Handling of Emergency Calls

Minnesota Relay encourages users to dial 9-1-1 or other existing emergency numbers directly in emergency situations 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 Service Answering Point (PSAP) that the caller would have reached by dialing 9-1-1 directly, or to a PSAP that is capable of dispatching emergency services in an expeditious manner. We considers an emergency call 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 (provided by dash Carrier Services) that serves all of the United States.

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## Speed of Answer

Minnesota Relay meets the FCC mandatory minimum standard for TRS speed of answer (FCC 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.” Minnesota Relay’s average speed of answer and service levels are:

	Service Level	Speed of Answer
Traditional TRS	95%	1.5
Speech-to-Speech	87%	6.6
CapTel	99.6%	0.5

Minnesota Relay is equipped with sufficient facilities to provide a Grade of Service (GOS) of P.01 or better for calls entering the relay call center(s) switch equipment.

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<sup>5</sup> In the Matter of the Use of N11 Codes and Other Abbreviated Dialing Arrangements, (Second Report and Order), CC Docket No. 92-105, FCC 00-257, 15 FCC Rcd 15188, released August 9, 2000.

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## Equal Access to Interexchange Carriers

47 C.F.R. § 64.604 (b)(3) requires that “TRS users shall have access to their chosen interexchange carrier through the TRS, and to all other operator services, to the same extent that such access is provided to voice users.”

Minnesota Relay users are able to have their intrastate, interstate and international calls carried by any interexchange carrier who has completed the steps necessary to be available as a Minnesota TRS Carrier of Choice (COC). When a caller indicates their COC preference, the CA will verify that the requested carrier is available as a COC in Minnesota; if they are, the call will be routed accordingly. Callers are able to use any billing method made available by the requested carrier including collect, third party, prepaid, and calling cards.

If a Minnesota Relay caller does not indicate a COC preference to the CA, either at the time of the relay call or via their Customer Preferences, or if the user’s preferred carrier is not available as a COC in Minnesota, the long distance relay call will be carried and billed by Sprint.

When a relay user requests a long distance carrier that is not a COC participant in Minnesota, Sprint notifies the TAM administrator. The TAM administrator sends the non-participating long distance carrier a letter notifying the company of its obligation to provide access to TRS users, as well as instructions on how to become a COC in Minnesota.

Please see [Appendix B](#) for carriers currently available as a COC for Minnesota Relay.

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## Rates

Minnesota Relay users are charged no more for services than those charges paid by standard “voice” telephone users; relay users placing long distance calls are only billed for conversation time.

Relay users who select a preferred COC are rated and invoiced by their selected interstate carrier. Minnesota Relay users who do not select a preferred COC will have their long distance relay calls rated and invoiced by Sprint.

Sprint offers the following long distance discounts to Minnesota Relay users:

- 75% discount off of MTS standard intrastate toll rates
- 50% discount off of MTS standard interstate toll rates

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## Consumer Complaints

In 2014, Minnesota Relay received complaints on 0.003 percent of relay calls; 558,538 calls were relayed and 14 complaints were filed.

Minnesota Relay users have many options for filing a complaint or commendation. The CA has the capability to transfer the caller directly to Sprint’s or CapTel’s 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, Minnesota Relay outreach staff, or the Federal Communications Commission.

All complaints and commendations are recorded electronically by Sprint on a Customer Contact form. Each form includes the date the complaint was filed, an explanation of the complaint, the date the complaint was resolved, an explanation of the resolution, and any other pertinent information. Sprint provides copies of each Customer Contact form to the TAM administrator monthly. In the event that 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 deadlines for complaint resolution may adversely affect the continued certification of Minnesota Relay (C.F.R. § 64.606).

TAM submits an annual Complaint Log Summary to the FCC in accordance with 47 C.F.R. § 64.604 (c)(1).

## Outreach

### Minnesota Relay Outreach

Minnesota Relay outreach is provided under an interagency agreement with the Department of Human Services – 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 program staff and the TAM administrator serve as the point of contact for Minnesota consumers who have questions, concerns, complaints, commendations, etc. Outreach efforts are tailored to effectively target appropriate demographics, including consumers who are deaf, deafblind, hard of hearing, late deafened, speech disabled, hearing consumers, and businesses.

Outreach activities primarily include the following:

- Staffing a booth at exhibitions, seminars, and fairs.
- Conducting one-on-one training sessions for individuals who are having trouble using specialized telephone equipment, such as a TTY, CapTel, or VCO telephone.
- Contacting organizations to schedule presentations and/or to provide them with printed materials on Minnesota Relay services.
- Contacting hospitals, nursing homes, rehabilitation facilities, and other medical facilities to schedule presentations and/or to provide printed materials.

In 2014, staff performed 91 Minnesota Relay outreach activities reaching 2,062 Minnesotans. Reports containing Minnesota Relay outreach efforts are compiled monthly and sent to the TAM administrator. An summary of 2014 outreach activities is provided in [Appendix C](#).

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## DHHS Regional Advisory Committee Meetings

The Department of Human Services – Deaf and Hard of Hearing Services Division has established six advisory committees throughout Minnesota. Each advisory committee meets quarterly and serves as a venue to provide information to, and gather information from, the community. Advisory committee meeting minutes are provided to the TAM administrator and TED Program administrator so that issues, questions and concerns regarding Minnesota Relay and the TED Program may be addressed.

The TAM administrator attends the Metro advisory committee meetings, and a Minnesota Relay Outreach/TED Program staff person attends one meeting per region, per year.

## Telephone Equipment Distribution Program

The Telephone Equipment Distribution Program (TED Program) is responsible for distributing specialized telecommunications devices to income eligible Minnesotans, informing the public of services available through the program, and providing training for the use of distributed equipment.

The TED Program is administered through an interagency agreement between DHS – DHHS and Commerce – TAM. DHHS has six 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 DHHS regional offices: Moorhead, Duluth, St. Cloud, St. Paul, and Mankato.

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## Authority to Provide Equipment

Minnesota Statute § 237.51, Subd. 5(a)(3) provides DHS with the authority to establish specifications for special communication devices to be purchased under section 237.53, Subd. 3.

The types of equipment distributed include:

- Amplified Telephones (both hearing and voice)
- Captioned Telephones
- Remote Control Speaker Phones
- Amplified Cell Phones
- Basic Smartphone
- Wireless accessories (Bluetooth neckloops, Bluetooth headsets, and visual signaler)
- Ring Signaling Devices (auditory, visual, and tactile)
- Text Telephones (TTYs)
- Braille Phones
- Hearing Carry Over Phones
- Voice Carry Over Phones
- Special Needs Devices (multiple disability)

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## Program Outreach

DHSD is responsible for the promotion of TED Program services. TED Program specialists conducted much of their outreach by traveling to client homes and providing information and training “face-to-face.” While websites, e-mails and telephone calls can be an efficient, effective, and convenient way of providing information, TED Program specialists find that many consumers are more receptive if material is provided to them in person. Traveling to consumers to provide information, equipment, and training of the complexity of the device helps eliminate apprehension and mistrust, and results in a more personal, relaxed, and productive experience for the consumer.

A large portion of Minnesotans with hearing loss – 33 percent – are 65 years of age or older. It is expected that by age 65, one out of three people will have a hearing loss, and the number is expected to rise as the Baby Boomer generation matures.

2014 outreach efforts included:

- 67 presentations statewide to groups of professionals and potential consumers.
- 47 booths at health fairs and senior expos to professionals and potential consumers.
- 33 cold calls to service providers.
- Attended Minnesota Social Service Association conference to network with service providers.
- Panel ads in Rochester, MN skyway system.
- Radio ads on KLBB radio station broadcasted throughout the state.
- Newspaper ads in 11 Northern Minnesota community newspapers.
- Mass mailing (statewide) to 143 organizations who serve potential TED Program clients.
- Advertisements in Palmer Creations (40 county community newspapers), Seasons and Generations magazine, Sun Newspapers, MN Physician Publishing, and Times Media.
- Created promotional materials of badge holders, post-it notes, and plastic bags.

The chart below lists the number of *new* program participants served by the TED Program, as well as the number of devices distributed to *new* program participants for calendar years 1998-2014.

Year	Number of New Program Participants Served	Number of Devices Distributed to New Program Participants
1998	2,069	2,120
1999	2,141	2,340
2000	2,105	2,695
2001	1,882	2,431
2002	1,913	2,584
2003	1,906	2,337
2004	1,988	2,485
2005	1,872	2,405
2006	1,976	2,081
2007	1,771	2,073
2008	1,566	1,820
2009	1,638	2,728
2010	1,381	2,319
2011	1,317	2,529
2012	1,055	989
2013	935	1,027
2014	763	764

The TED Program provides *repeat* service to equipment recipients who need further assistance after equipment is initially provided to them. Program participants often contact the TED Program to receive additional training, 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).

This past year the TED Program served 763 new participants and 1,900 repeat participants. TED Program specialists also provided information and referrals to 289 consumers and agencies, for a total of 2,952 Minnesotans receiving service in 2014.

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### Statistical Information

A report of TED Program activities is submitted quarterly to the TAM administrator. The report documents outreach activity, the number of individuals served, and the types of equipment distributed. The charts provided in [Appendix D](#) demonstrate TED Program activities in 2014.

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## Population Served

The TED Program serves a wide range of individuals with a variety of communication needs. *Currently, the oldest TED Program participant is 104 years of age, and the youngest is age 24.* The average consumer served is female, 81 years old, and hard of hearing. In 2014, 68 percent of TED Program participants were female and 64 percent lived outside of the seven-county metropolitan area. Ninety-two percent of TED Program participants are hard of hearing, one percent are deaf, five percent are physically disabled, and two percent has other disabilities.

In recent years the TED Program has been utilized by more clients with multiple disabilities. In 2014, 28 percent of TED Program participants had two or more disabilities, such as a speech and physical disability or a loss of hearing and vision.

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## Future TED Program Operations

### *Service Delivery Changes*

In 2014, the TED Program explored other service delivery options that are more cost effective. Based on a cost analysis, the program decided to utilize an equipment vendor to provide program services that are more cost effective than the current process. The equipment vendor will manage equipment inventory, drop-ship equipment to TED Program clients, and repair and refurbish TED Program equipment.

### *Special Needs Clients*

The TED Program also continues to research creative equipment solutions for people who have multiple disabilities. There has been an increase need to serve people with multiple disabilities. The program has built collaborations with other organizations to learn about emerging technology and finding new ways to meet the needs of consumers. Examples of equipment distributed include cordless voice-activated speakerphones, specialized headsets, and special switches.

### *Wireless Cellular Telephone Distribution*

In 2014, the TED Program increased their wireless phone and accessory options by adding a basic smartphone, a light/vibrating signaler, and a Bluetooth headset. The basic smartphone includes voice, text messaging, and Internet access.

The program has observed a current trend that many individuals who are deaf, speech disabled, or physically disabled benefit from and utilize Smartphones and iPads because of the availability of accessibility apps. In 2015, the TED Program will conduct a pilot program to evaluate iPads and Smartphones.

## TAM FUND BUDGET SUMMARY

REVENUE	FY 2014 Actual	FY 2015 Budgeted
Wireless and Wireline Surcharge Revenue Per Subscriber Line (\$0.06 in FY 2014; \$0.08 in FY 2015)	\$ 4,352,054.12	\$ 5,910,499.00
Prepaid Wireless Surcharge Revenue Per Subscriber Line (\$0.06 in FY 2014; \$0.08 in FY 2015)	\$ 144,317.75	\$ 324,000.00
TracFone Wireless Settlement	\$ 174,352.77	\$ 0.00
TAM Fund Interest	\$ 4,390.28	\$ 3,900.00
<b>Total TAM Fund Revenue</b>	<b>\$ 4,675,114.92</b>	<b>\$ 6,238,399.00</b>

EXPENDITURES		
TAM Program Administration	\$ (123,405.87)	\$ (155,700.00)
Sprint (TRS)	\$ (2,290,747.91)	\$ (2,497,000.00)
Minnesota Relay Outreach	\$ (0.00)	\$ (1,000.00)
DHS-TED Program	\$ (1,423,907.61)	\$ (1,654,981.00)
DHS-Rural Real-time Captioning	\$ (245,004.05)	\$ (300,000.00)
DEED-Accessible News for the Blind	\$ (95,993.43)	\$ (100,000.00)
Commission of Deaf, DeafBlind and Hard of Hearing Minnesotans	\$ (500,000.00)	\$ (800,000.00)
MN.IT Services	\$ (290,000.00)	\$ (290,000.00)
Legislative Coordinating Commission	\$ (150,000.00)	\$ (150,000.00)
<b>Total TAM Fund Expenditures</b>	<b>\$ (5,119,058.87)</b>	<b>\$ (5,948,681.00)</b>

<b>REVENUE VS. EXPENDITURES</b>	<b>\$ (443,943.95)</b>	<b>\$ 289,718.00</b>
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STATEMENT OF TAM FUND BALANCE		
TAM Fund Balance at Beginning of Fiscal Year	\$ 2,329,770.63	\$ 1,759,741.63
TAM Fund Revenue & Interest	\$ 4,675,114.92	\$ 6,238,399.00
DHS-TED Program Cash Advance	\$ (200,000.00)	\$ (200,000.00)
DHS-Minnesota Relay Outreach Cash Advance	\$ (500.00)	\$ (500.00)
Return of DHS-TED Program Cash Advance	\$ 200,000.00	\$ 200,000.00
Return of DHS-Minnesota Relay Outreach Cash Advance	\$ 5,500.00	\$ 500.00
TAM Fund Expenditures	\$ (5,119,058.87)	\$ (5,948,681.00)
<b>TAM Fund Balance at Close of Fiscal Year</b>	<b>\$ 1,890,826.68</b>	<b>\$ 2,049,459.63</b>

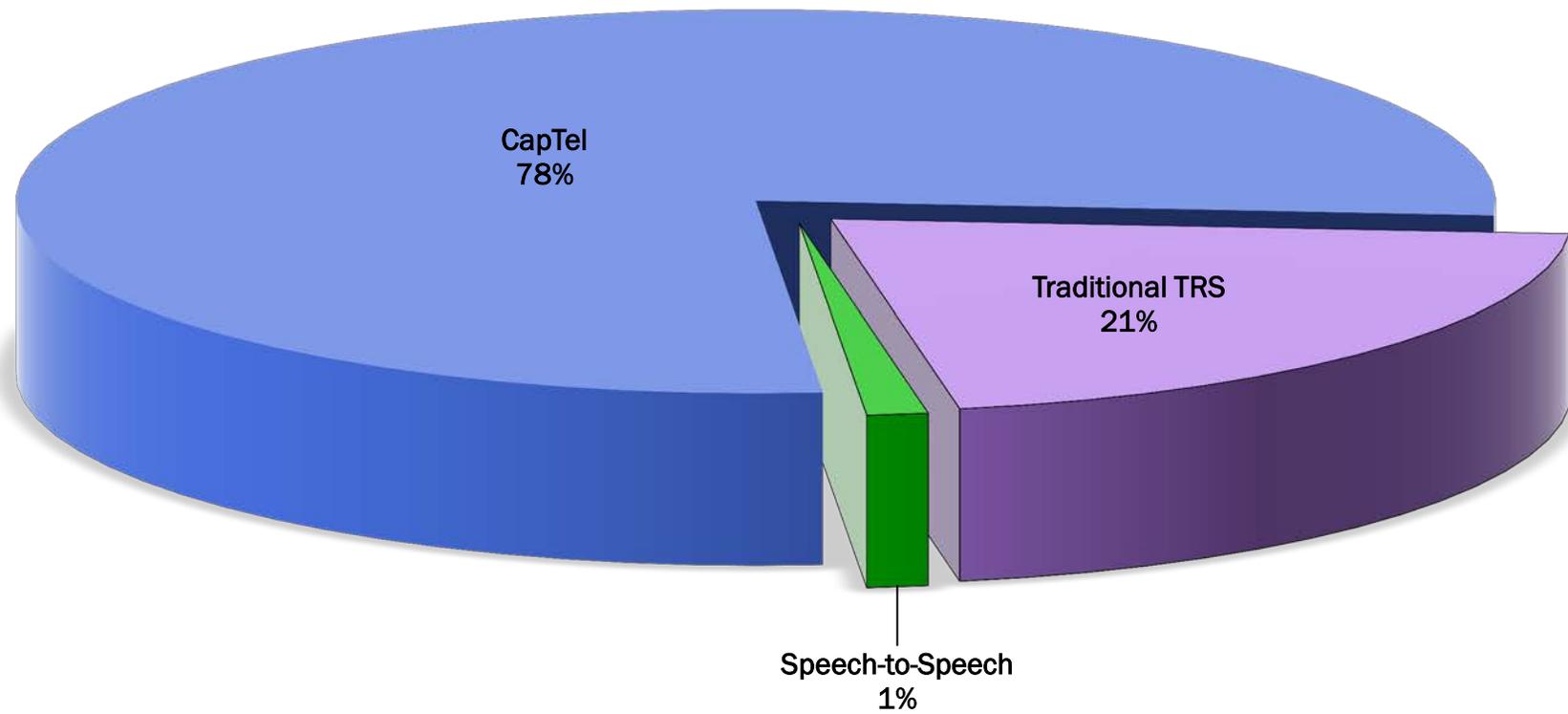
## APPENDICES

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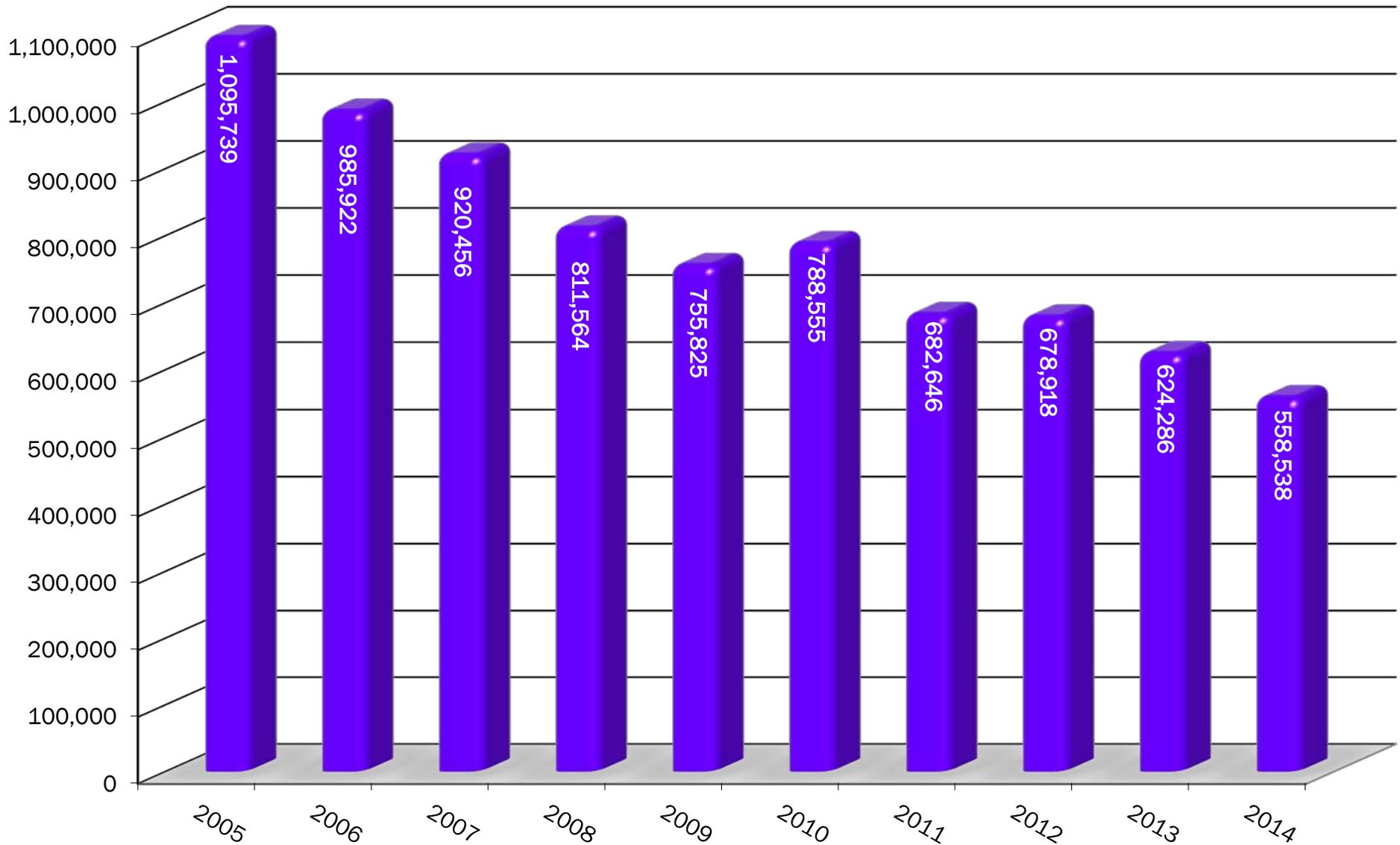
# Appendix A

## Minnesota Relay Call Charts

# 2014 Minnesota Relay Conversation Minutes by Type

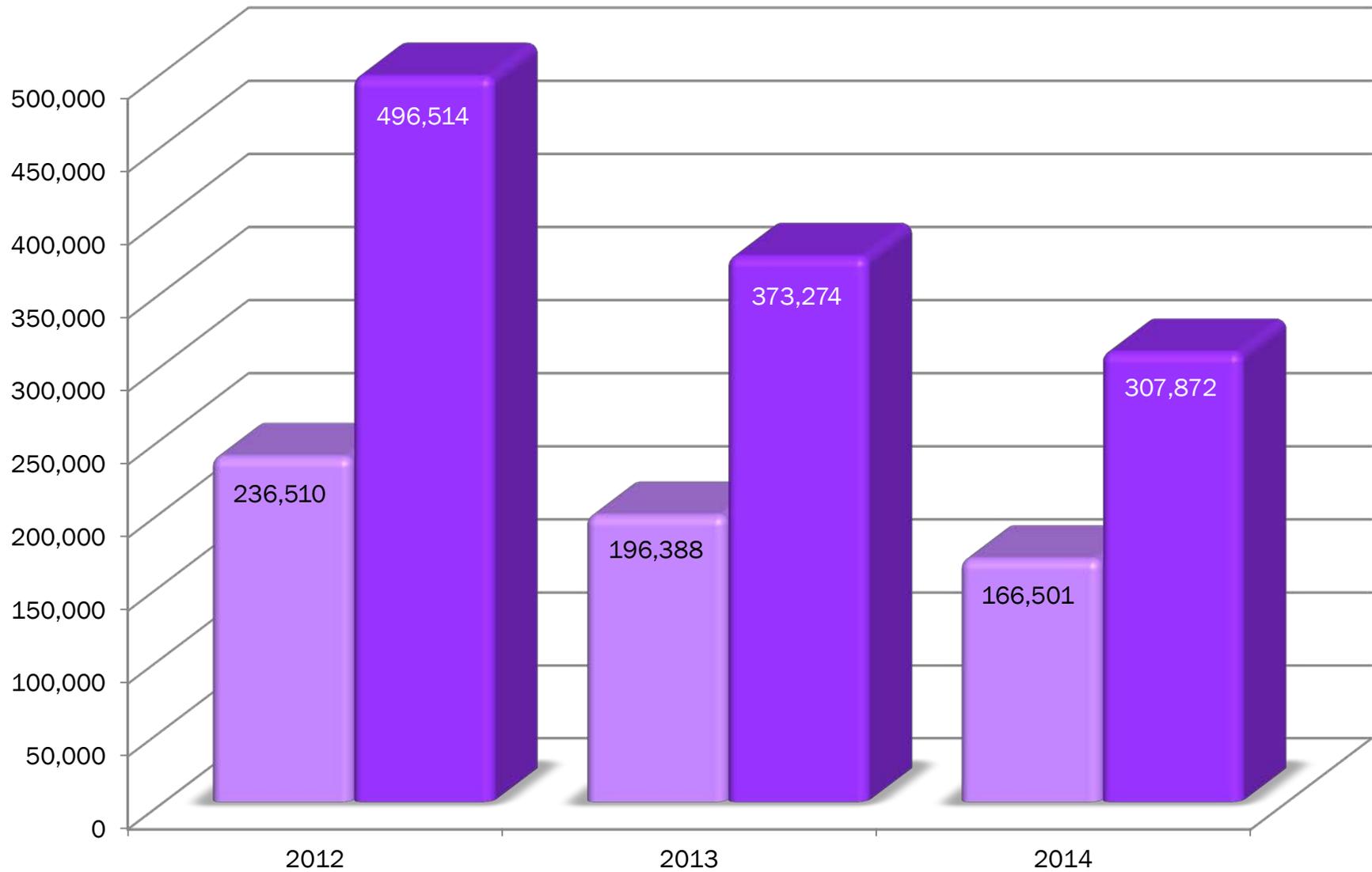


## 2005 - 2014 Minnesota Relay Call Volume (total number of traditional TRS, STS, and CapTel calls)



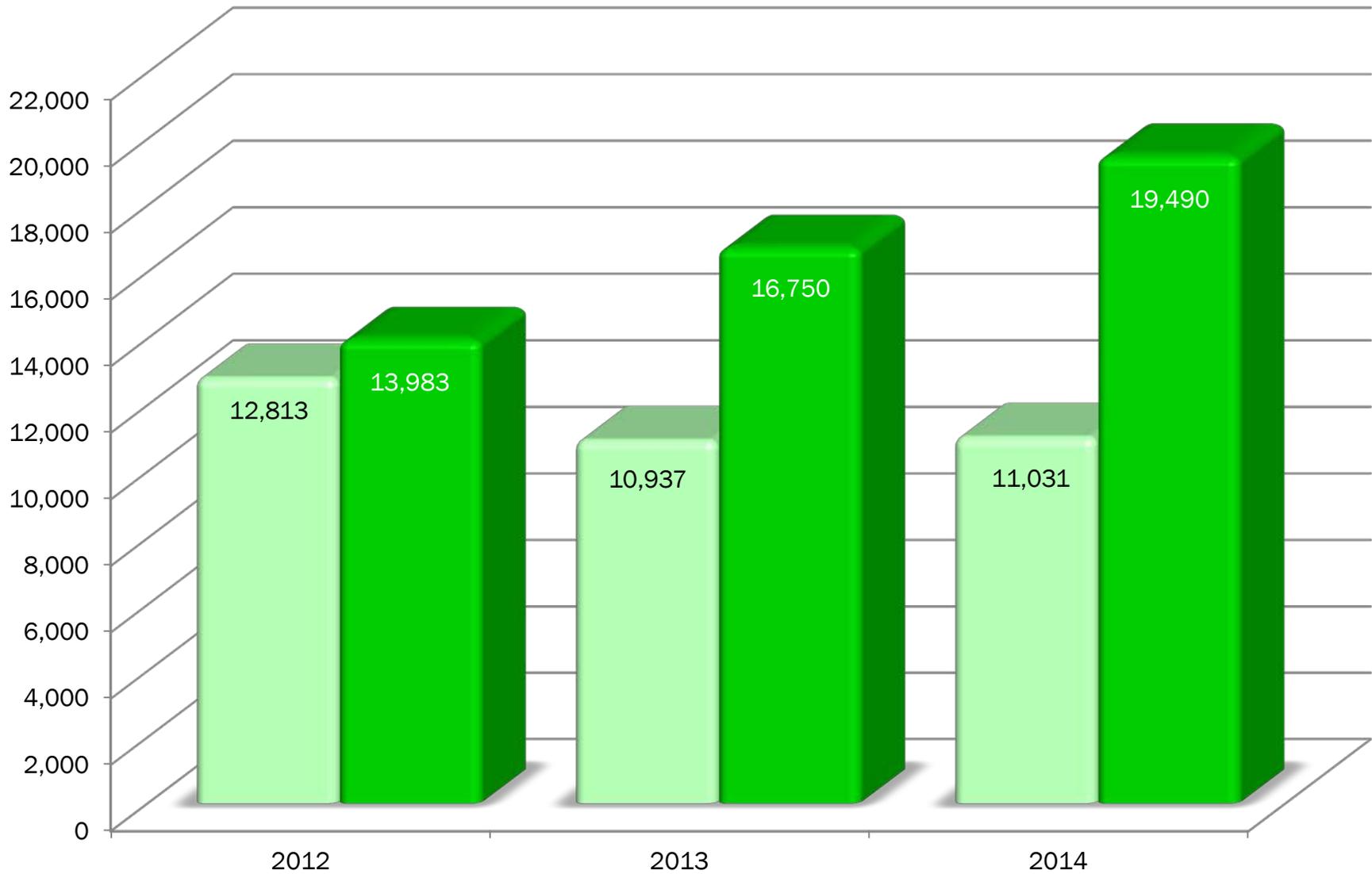
# Traditional TRS Call Volumes

■ Total Calls ■ Conversation Minutes



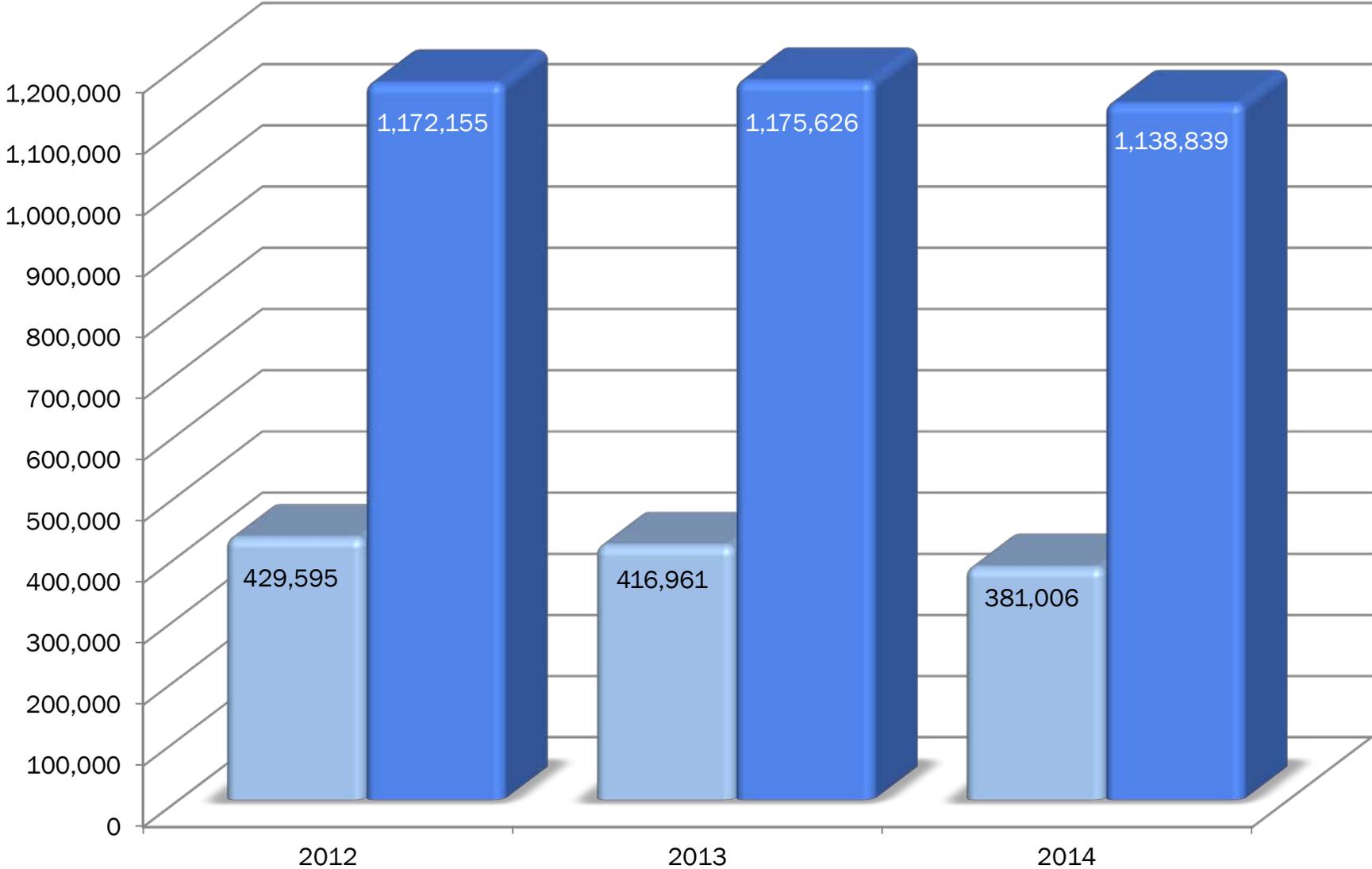
# Speech-to-Speech Call Volumes

■ Total Calls ■ Conversation Minutes



# CapTel Call Volumes

■ Total Calls ■ Conversation Minutes



# Appendix B

## Long Distance Carriers of Choice

## Long Distance Carriers for Minnesota Relay

- 011 Communications
- 10-10-220 Telecom USA
- 10-10-321 Telecom USA
- 10-10-502 WorldxChange
- 10-10-636 Clear Choice
- 10-10-752 EXCEL
- 10-10-811 Vartec
- 10-10-834 WorldxChange
- 10-10-987
- 702 Communications
- ACN Communications, Inc.
- ACS Connections Long Distance
- ACS Long Distance
- ANI Networks
- AT&T
- Ace Long Distance
- Advantage Communications
- Affinity Network, Inc.
- Albany Telephone Long Distance
- All Others
- Arrowhead Long Distance
- Barnesville Long Distance
- Benton Telephone Long Distance
- Birch Telecom/Ionex Comm.
- Blackduck Long Distance
- Blueridge Telecom Systems
- Broadwing Communications
- Broadwing Telecom
- CI Long Distance
- CP Telecom
- CTC Long Distance
- CTI Long Distance
- Cannon Valley Long Distance
- CenturyLink
- CenturyTel LLC
- Charter Communications
- Christensen Communication Company
- CierraCom Systems
- Citizens Communications
- Comcast
- Comcast Business Communications
- Connections Long Distance
- Cooperative Light & Power
- Crosslake Long Distance
- Delavan Long Distance
- Dunnell Long Distance
- Eagle Valley Long Distance
- EliteView, LLC
- Embarq Communications
- Emily Long Distance
- En-Tel Communications
- Eschelon Telecom, Inc.
- Eventis Long Distance
- Exit Mobile
- Farmers Long Distance
- Federated Long Distance
- Felton Long Distance
- Frontier Communications
- GTC Telecom
- Garden Valley Long Distance
- Gardonville Long Distance
- Global Crossing
- Granada Long Distance
- GroveLine
- HBC Long Distance
- Halstad Long Distance
- Hancock Long Distance
- Harmony Telephone Company
- HickoryTech
- Home Telephone Long Distance
- Hometown Solutions Long Distance
- Horizon Telecom, Inc.
- HorizonOne Communications
- Hutchinson Telecommunications
- ITC Long Distance
- Integra Telecom
- Inter-Tel NetSolutions, Inc.
- International Plus
- Internet Business Association
- iVantage Network Solutions
- KMTC Long Distance
- LDDS
- Lakedale Communications
- Lightyear Network Solutions
- Lismore Long Distance
- Lonsdale One Plus
- Loretel Long Distance
- Lowry Long Distance
- MCIWorldCom
- MIDCO

- Mabel Cooperative Telephone Co.
- Madelia Long Distance
- Mainstreet Communications Long Distance
- Mainstreet Long Distance
- McLeod USA
- Melrose Long Distance
- Metromedia
- Midcontinent Communications
- Midwest Long Distance
- Milaca Local Link Long Distance
- Minnesota Valley Communications, Inc.
- NOS Communications, Inc.
- NOSVA Limited
- New Ulm Long Distance
- Norlight Telecommunications Inc.
- North Dakota Long Distance
- Northstar Access Long Distance
- OPEX Long Distance
- Onvoy
- Optic Communications
- Orbit Com, Inc.
- Osakis Long Distance
- OtterCom, Inc.
- Ottertail Telecom Long Distance
- PAETEC Communications, Inc.
- POPP.Com
- Park Region Long Distance
- Peoples Long Distance
- Pine Island Long Distance
- Pioneer Telephone
- PrairieWave Communications
- QuantumLink Communications
- Qwest
- Red River Long Distance
- Reduced Rate Long Distance, LLC
- Redwood Long Distance Company
- Reliance Telephone Inc.
- Rochester Telecom System, Inc.
- Rothsay Long Distance
- Royale Comtronics, Inc.
- Runestone Long Distance
- SBC Long Distance
- Sleepy Eye Long Distance
- Speedway Long Distance
- Spring Grove Communications
- Sprint
- St. James Long Distance
- Sytek Comm Long Distance
- TCG Minnesota Inc.
- TCO Network
- TDS Telecom
- TTI National
- Telecom One, Inc.
- Telegroup
- Telephone Associates, Inc.
- Touch America
- TouchTone Communications
- Trans National Communications International, Inc.
- TransWorld Network Corp
- U.S. Telecom Long Distance, Inc.
- USL
- Unitel Long Distance
- Velocity Telephone, Inc.
- Venture LLP
- Verizon Long Distance
- Verizon Select Services(VSSI)
- VoIP Communications
- WCTA Long Distance
- WH Comm
- WTC Long Distance
- Wiltel
- Windom Long Distance
- Woodstock Long Distance
- Working Assets
- WorldCom
- XO Communications

# Appendix C

## Minnesota Relay Outreach

## 2014 Minnesota Relay Outreach

Date	Type of Outreach	Location Name	City	Participants	Business	CapTel	STS	General TRS
Jan 13	Presentation	Senior Center - Karlstad	Karlstad	25				X
Jan 30	Presentation	Mill Pond View Apartments	Pelican Rapids	14				X
Feb 03	Presentation	Hawley Senior Center	Hawley	13				X
Feb 07	Presentation	Tri-Valley Opportunity Council, Inc.	Crookston	45				X
Feb 10	Drop-In	The Low Vision Store	St. Cloud	2				X
Feb 11	Presentation	Otter Tail County Human Services	Fergus Falls	32				X
Feb 14	Booth	Osborne Apartments	Spring Lake Park	12				X
Feb 19	Presentation	Parkview West, Inc	Northfield	26				X
Feb 20	Presentation	Senior Activity Center	Bemidji	6				X
Feb 26	Presentation	North Park Plaza Apartments	New Hope	17				X
Feb 26	Presentation	Stearns County Human Services	St. Cloud	1				X
Mar 01	Booth	Wellness Expo	Sartell	60				X
Mar 03	Presentation	State Services for the Blind	Marshall	21				X
Mar 05	Presentation	Four Seasons Senior Center	Roseau	4				X
Mar 06	Booth	Project Homeless Connect	Waite Park	60				X
Mar 11	Presentation	Cass County Public Health Services	Walker	25				X
Mar 19	Presentation	Columbia Heights Public Library	Columbia Heights	1				X
Mar 20	Drop-In	Otter Tail County Human Services	Fergus Falls	1				X
Mar 20	Drop-In	Otter Tail Telecom	Fergus Falls	1				X
Mar 20	Drop-In	Land of the Dancing Sky Area Agency on Aging	Warren	1				X
Mar 25	Booth	Living at Home Block Nursing Program	Atwater	17				X
Mar 25	Booth	Project Community Connect	Mankato	45				X
Apr 02	Booth	Whitney Senior Center	St. Cloud	32				X
Apr 05	Booth	Anoka County Senior Expo	Ramsey	75				X
Apr 08	Booth	MS Achievement Center	St Paul	32				X
Apr 10	Booth	Maplewood Community Center	Maplewood	85				X
Apr 16	Booth	SEMCAC Senior Dining/Senior Center	Northfield	55				X
Apr 17	Presentation	Crow River Senior Center	St. Michael	9				X
Apr 18	Booth	St. Cloud State University - Rehab Counseling	St. Cloud	17				X
Apr 22	Booth	Camden Neighborhood Center	Minneapolis	25				X
Apr 23	Booth	Brooklyn Park Senior Spring Forum	Brooklyn Park	45				X
Apr 23	Presentation	Ombudsman For Long Term Care	Ortonville	7				X
Apr 24	Booth	Minnesota Assistance Council For Veterans	Fergus Falls	26				X
Apr 29	Presentation	Olmsted County Government Center	Rochester	5	X			

## 2014 Minnesota Relay Outreach

Date	Type of Outreach	Location Name	City	Participants	Business	CapTel	STS	General TRS
May 07	Booth	Ortonville Area Health Services	Ortonville	22				X
May 07	Booth	Minneapolis American Indian Center	Minneapolis	35				X
May 08	Presentation	Highland Commons	Arlington	15				X
May 13	Booth	Senior Expo	Mankato	78				X
May 14	Presentation	Good Samaritan Heritage Grove	East Grand Forks	20				X
May 28	Booth	Lino Lakes YMCA	Lino Lakes	22				X
Jun 05	Presentation	Minnesota Area Agencies on Aging	Willmar	14				X
Jun 10	Presentation	Northview Senior Apartments	Bemidji	13				X
Jun 13	Booth	Veterans Forum	Little Falls	13				X
Jun 13	Booth	Veterans Forum	Brainerd	22				X
Jun 17	Presentation	Blaine Courts	Blaine	9				X
Jun 23	Booth	Good Shepherd Lutheran Church	Moorhead	5				X
Jul 09	Presentation	Cloverleaf Courts	Blaine	12				X
Jul 09	Presentation	SEMCAC Senior Dining/Senior Center	Faribault	10				X
Jul 14	Presentation	Hearing Loss Support Group	Moorhead	8				X
Jul 15	Presentation	Oak Crest Senior Housing	Roseau	4				X
Jul 17	Presentation	Heritage Place - Good Samaritan Society	Roseville	12				X
Jul 17	Booth	Land of the Dancing Sky Area Agency on Aging	Warren	20				X
Jul 29	Presentation	Senior Nutrition Program	Red Lake Falls	40				X
Jul 31	Presentation	Douglas County Senior Office	Alexandria	9				X
Aug 07	Presentation	Widow's Club	Brooklyn Center	8				X
Aug 13	Presentation	Edgewood Vista	Alexandria	9				X
Aug 14	Presentation	Helping Hands Outreach	Holdingsford	25				X
Aug 16	Booth	Whitney Senior Center	St. Cloud	55				X
Aug 27	Presentation	Foster Grandparent Program	Princeton	41				X
Aug 27	Presentation	First Lutheran Church	Alexandria	10				X

## 2014 Minnesota Relay Outreach

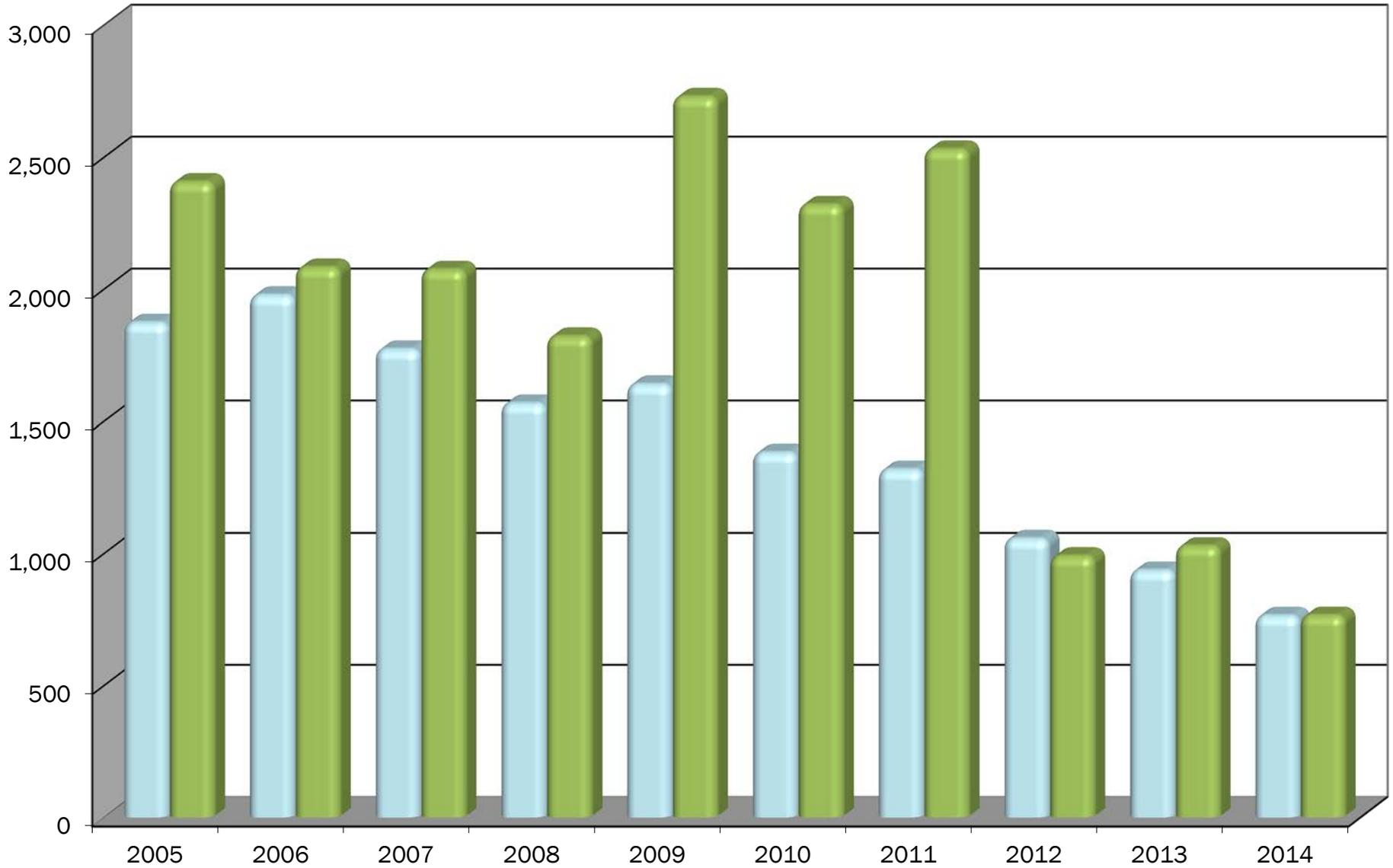
Date	Type of Outreach	Location Name	City	Participants	Business	CapTel	STS	General TRS
Sep 03	Presentation	Ramsey County Screening & Case Management	St. Paul	15				X
Sep 13	Booth	White Bear Lake YMCA Senior Expo	White Bear Lake	85				X
Sep 15	Presentation	Low Vision Suport Group	Brainerd	14				X
Sep 17	Presentation	Alexandria Senior Community Center	Alexandria	20				X
Sep 17	Presentation	Ecumen Bethany Community	Alexandria	17				X
Sep 17	Presentation	Mayo Clinic Audiology	Rochester	21				X
Sep 18	Presentation	Ebenezer Tower Apartments	Minneapolis	12				X
Sep 23	Presentation	Sugar Loaf Senior Community	Winona	9				X
Sep 23	Presentation	Senior Friendship Center	Winona	6				X
Sep 23	Presentation	Winona Volunteer Services	Winona	6				X
Sep 23	Presentation	Catholic Charities	Winona	6				X
Sep 23	Presentation	Winona County Human Services	Winona	6				X
Sep 24	Booth	Hearling Arts Chiropractic at Hjemkomst Center	Moorhead	19				X
Sep 25	Presentation	Star Program	St. Cloud	4				X
Sep 30	Booth	Discover Church - Senior Health Fair	Sauk Rapids	8				X
Oct 03	Presentation	St. Cloud State University - Student Disability Services	St. Cloud	50				X
Oct 08	Presentation	MN Statewide Activity Professionals Convention	St. Cloud	40				X
Oct 13	Presentation	Clarkfield Housing & Redevelopment Authority	Clarkfield	15				X
Oct 15	Presentation	Gold Pine Home, Inc.	Bemidji	19				X
Oct 17	Booth	Alternative Senior Care	Sauk Centre	30				X
Oct 17	Booth	Shepherd's Center	Cannon Falls	18				X
Oct 23	Booth	Project Homeless Connect	Waite Park	15				X
Oct 28	Booth	Veterans Administration	Minneapolis	40				X
Oct 31	Booth	Stand Down	St. Cloud	75				X
Nov 07	Presentation	Villa St. Vincent & Summit Assisted Living	Crookston	15				X
Nov 12	Booth	MN Assistance Council for Vets - Stand Down	Mankato	60				X
Nov 18	Booth	Minneapolis American Indian Center	Minneapolis	5				X
Dec 08	Presentation	Windmill Ponds	Alexandria	6				X
Dec 09	In-home Training	Client's home	St. Cloud	1		X		
Dec 16	Presentation	Golden Rule Building Skyway Lobby	St. Paul	46				X
Dec 23	Presentation	Housing & Redevelopment Authority	Clarkfield	6				X

# Appendix D

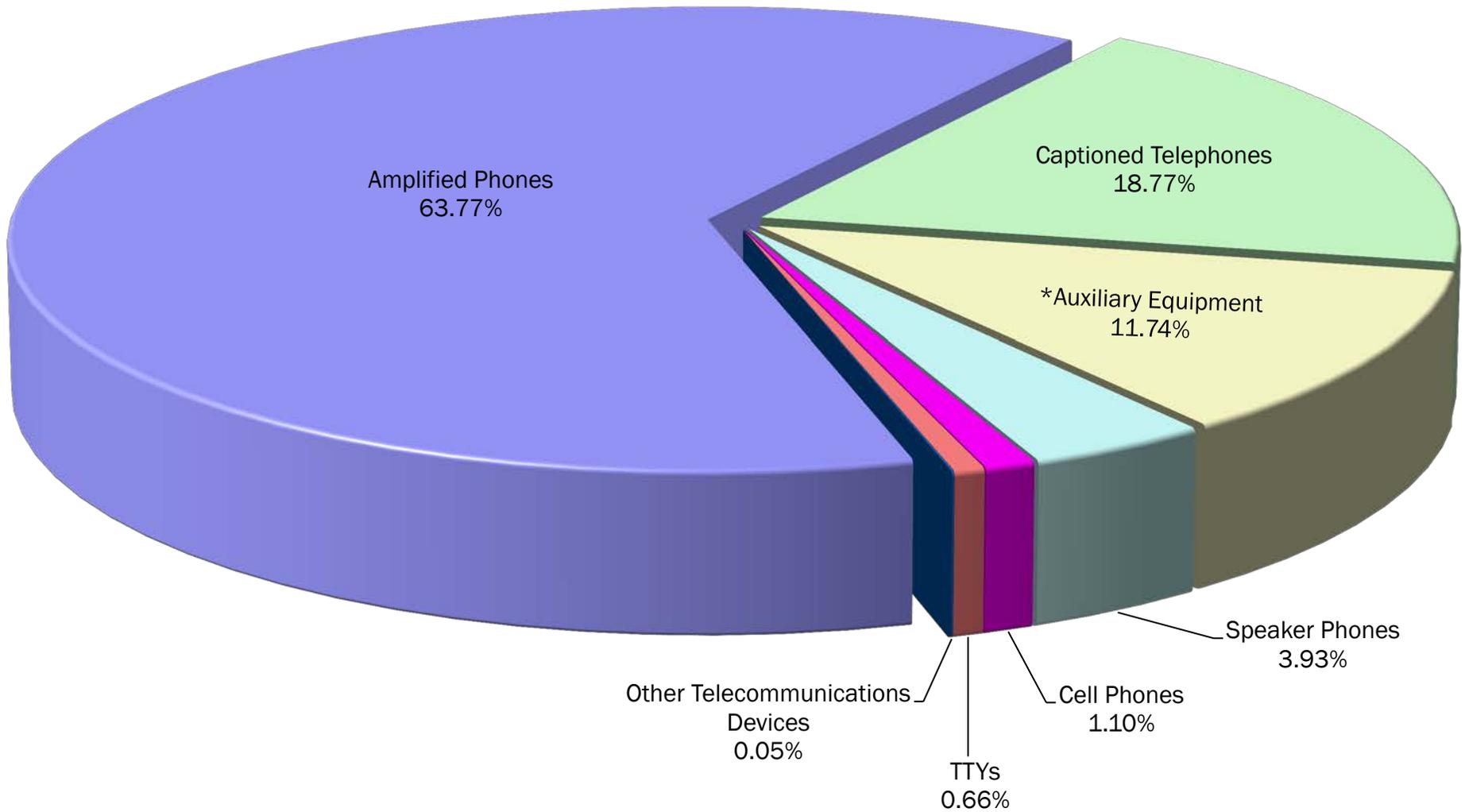
## TED Program Activities

# 2005 - 2014 New TED Program Participants

■ New Program Participants Served ■ Devices Distributed to New Program Participants



# TED Program Types of Equipment Distributed in 2014



\*Auxillary equipment includes ring signalers, neck loops, headsets, pendants, switches, etc.

# Minnesotans Being Served by the TED Program in 2014

