While expanded broadband access is important, without corresponding broadband adoption among Tennessee consumers and businesses, further investment and build-out could be deterred. Therefore, it is in the interest of all leaders in Tennessee to collaborate and bridge the remaining broadband adoption gaps to ensure that all Tennesseans are able to participate and compete in the twenty-first century interconnected global economy.

Trends in Broadband Adoption Among Tennessee Homes and Businesses

Connected Tennessee's innovative research on broadband access, adoption, and use is unprecedented. Connected Tennessee conducts annual statewide residential and business surveys. These surveys provide information about the people, businesses, and communities that are taking advantage – and more importantly, not yet taking advantage – of the opportunities provided through broadband adoption.

Tennessee Residential Broadband Trends

Connected Tennessee's 2014 Residential Technology Assessment revealed that 30% of Tennesseans have not adopted broadband at home, down from 42% in 2010. While 70% of adults in the state subscribe to home broadband service, this leaves more than 1.4 million adults statewide who still do not subscribe to home broadband service.

Home Broadband Adoption in Tennessee

|				
58%	64%	68%	72%	70%
2010	2011	2012	2013	2014
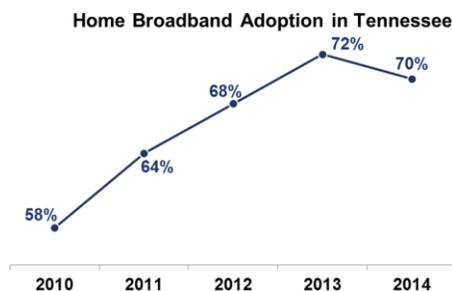
The barriers to home broadband adoption are consistently delineated into three main categories: (1) affordability of service and/or devices; (2) a lack of perceived relevance of online resources; and (3) a lack of digital skills to fully benefit from the devices and broadband connectivity. Since 2012, the belief that home broadband service is not relevant or worthwhile has been the top barrier to home broadband adoption, cited by more than one-third (34%) of non-adopters in the state. Cost is another significant barrier to home broadband adoption reported by more than one-quarter of non-adopters (28%). The lack of digital literacy skills has also declined as a barrier to home broadband adoption since 2011 from 14% to 9% of non-adopters; this represents more than 101,000 fewer adults who said that their lack of digital literacy skills prevented them from subscribing to broadband.

Tennessee Business Broadband Trends

Because of the impact that broadband has on businesses and the workforce, Connected Tennessee surveyed businesses in the state about their broadband adoption and usage.

Broadband is the catalyst that helps Tennessee businesses increase their revenues and productivity. According to Connected Tennessee's Business Technology Assessments, Tennessee businesses earned an estimated $37.1 billion in revenue from online sales in 2013, an increase of approximately $4.2 billion since 2010.

Connected Tennessee's 2014 Business Technology Assessment, released in summer 2014, revealed that over four out of five businesses in the state (81%) use broadband, up from 65% of businesses in 2010.

Broadband Adoption Among Tennessee
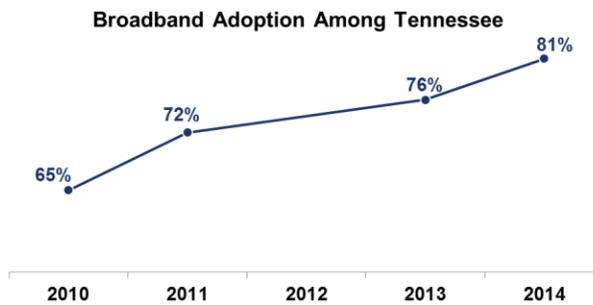
Despite this increase, approximately 25,000 Tennessee businesses still do not use broadband. Additionally, over one in five Tennessee businesses (21%) have difficulty finding employees with the necessary technology skills, suggesting that technology training can help empower Tennessee's workforce.

Topical Reports

In addition to statewide research surveys, Connected Tennessee published several reports that explored broadband issues and their interactions with other industries in the state. Connected Tennessee publications have explored the impact of broadband on Tennessee's economy, e-learning opportunities through high-speed Internet, and broadband adoption among women-owned businesses. These reports uncover and highlight broadband successes and opportunities within the state and show how Tennessee residents and businesses benefit from broadband adoption.

Among these studies:

Broadband: Transforming Tennessee's Healthcare Sector (2012) showed that according to Connected Tennessee's 2011 Business Technology Assessment, 76% of the businesses in Tennessee's healthcare sector use broadband for their business functions, and 65% of Internet-connected businesses in Tennessee's healthcare sector report communicating with their current customers and patients via the Internet. In addition, well over one-half of

Tennessee's Internet users (57%, or approximately 2.2 million adults) utilize e-health services, according to Connected Tennessee's 2011 Residential Technology Assessment.

Smartphone Use Among Tennessee's Minorities: Digital Bridge or New Divide (2012) reported that 44% of Tennessee's minority population used smartphones to access the Internet, compared to 39% of Caucasians In 2011. One-third of minorities who access the Internet on their smartphones (33%) reported being very satisfied with the mobile broadband service on their smartphones.

Teleworking and the Broadband Superhighway (2012) revealed that across the state of Tennessee, nearly one in five employees (18%, representing approximately 489,000 adults) work from home instead of commuting. Connected Tennessee's research indicates that approximately 37,000 Tennessee firms allow their employees to telework. By working from home full-time instead of commuting, a Nashville employee saves approximately $2,300 per year in auto and travel costs (gas, maintenance, and tires) and produces approximately 9,480 fewer pounds of CO_2 emissions per year.

Digital Workforce Skills and Tennessee Businesses (2013) reported that more than three out of four unemployed Tennessee Internet users (78%) go online to find jobs, while more than three out of ten Tennessee businesses (31%) use the Internet to advertise job openings or accept job applications. Two out of five Tennessee businesses (40%) say it is "difficult" or "very difficult" to find employees with the necessary technical skills.

Broadband Provides Educational Opportunities to Many Tennesseans (2013) noted that approximately 1.4 million adults, or more than one-third (36%) of adult Tennesseans with Internet access, take online classes or conduct research for schoolwork online, while

approximately 272,000 adults, or 13% of those who use a cell phone to access the Internet, conduct online education through these devices. More than one-half of parents (55%) report that their children use their home Internet service for schoolwork, and 60% say that their children use the Internet at their schools. Almost two out of five rural Internet users in Tennessee (39%) take online classes or conduct research for schoolwork.

Broadband: Empowering Women-Owned Businesses (2013) showed that more than three-fourths of Tennessee's women-owned businesses (76%) subscribe to broadband service, compared to the statewide average of 72% of businesses. On average, women-owned businesses earn about one-third (31%) of their revenues from online transactions. Based on their self-reported annual revenues, this equates to a median annual value of $240,000 in online sales. Statewide, this translates into approximately $967 million in annual online revenues for Tennessee's women-owned businesses.