Technology

The Internet and access to technology has changed our lives and our communities significantly over the past decade. Ready and fast access to information has transformed the way that students learn, people communicate, and businesses operate. More than ever, access to information allows the opportunity for people with various backgrounds and levels of education to compete academically, economically, and socially. The information revolution, spurred by the spreading use of high-speed Internet, will benefit more people and more communities than ever imagined. With the proliferation of Internet-based services, governments and businesses are able to reach more people and operate more efficiently and effectively.

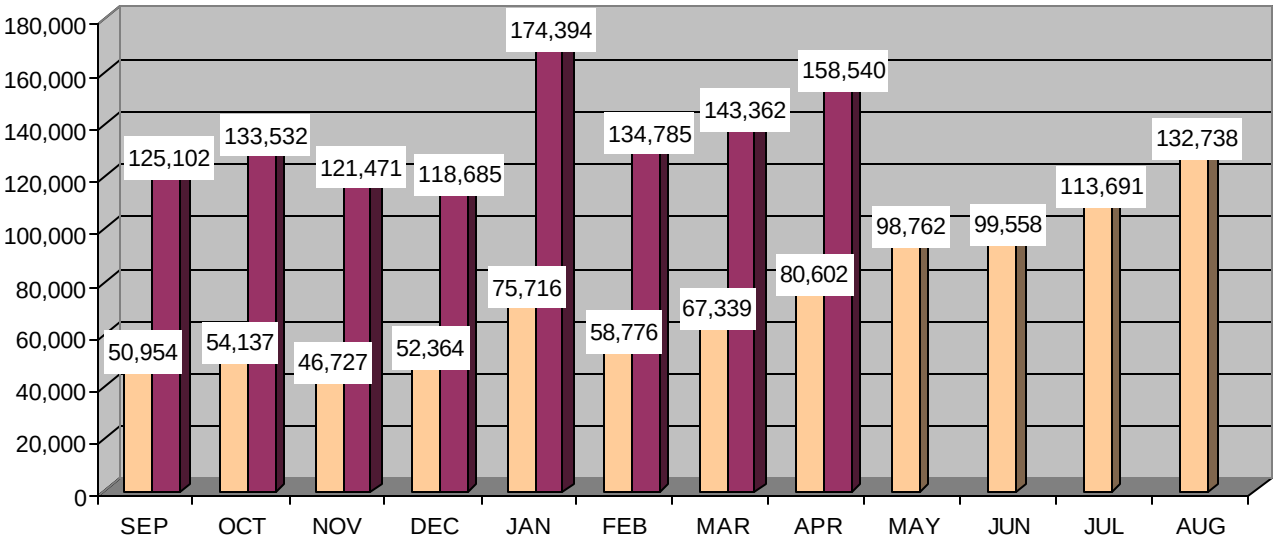
E-government

Local, State, and Federal government entities recognize that through the use of technology they can offer broader and more efficient government technologies. In August 2000, the State of Texas launched its official e-government site for state and local government business. The site, TexasOnline[1], reaches across state agencies, links municipalities, counties, courts, and universities, and has generated over $20 million in fees associated with government transactions. For Texans, TexasOnline provides a single port into communicating with State agencies and State officials. Moreover, Texans can complete many necessary tasks online that otherwise would cost them time and money in traveling to a government agency; for example, Texans with Internet access to TexasOnline can renew a driver's license, pay business sales taxes, and obtain oil and gas drilling permits.

TexasOnline is increasingly becoming the primary portal for information regarding State agencies and the initial point of communication for transactions with the State. The graph on the next page, *TexasOnline Transactions*, juxtaposes the number of visits for the months of 2003 and the first months of 2004. As the graph shows, transactions are almost doubling per year.

[1] http://www.state.tx.us

TexasOnline Transactions



Source: Department of Information Resources, TexasOnline Division. *Monthly Financial Report*, June, 2004.

Texans that do not have access to TexasOnline must work harder and less efficiently to do business with the State. This inefficiency costs both the State and the citizen time, energy, and money. As e-government services become even more prolific and the traditional means of providing government services are phased out, those without ready access to and training in Internet applications will find that communicating with State government will become increasingly more difficult.

The Digital Divide on the Border

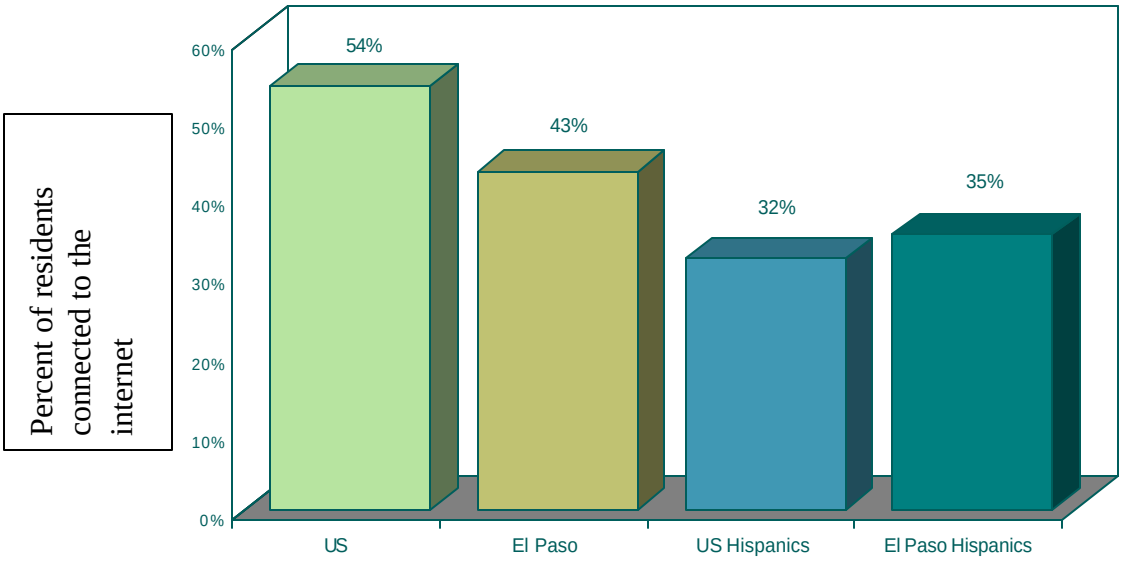
The term "Digital Divide" has become common shorthand to describe perceived and real gaps among geographic regions and population groups in access to, and utilization of, advanced technologies and the Internet. Such gaps are often most pronounced in rural and low income communities, as compared with urban and suburban locales. The Border Region experiences these gaps in availability and usage and suffers because of the digital divide. There are many areas within the Region where advanced infrastructure, such as broadband Internet access, have been slow to develop. Also, the costs of developing a high-speed network are prohibitively expensive for many Border communities; and, areas along the Border have not benefited extensively from national funding sources that have disproportionately been directed to other regions of the country. Even if communities could develop or lure the commercial market to develop the infrastructure, many low-income people living in the area and many small businesses could not afford the monthly fees associated with high-speed Internet access.[1]

Disparities in Access

In providing access to technology, Texas is behind the curve. The State lacks a unified, comprehensive approach to providing advanced, high-speed networking across the entire state. Other states, Canadian provinces, and entire countries have designed, funded and are increasingly deploying networks that work to develop a system that supports education, health care, research, and public information access.

The first step to bridging the digital divide involves providing access to the Internet. Without connectivity, residents have no chance to develop familiarity with technology and are unable to apply their skills in future work opportunities. Communities on the Border do not have the access available to other communities around the state and the country. For example, in El Paso, one of the larger, more urban areas on the Border, connectivity to the Internet lags behind other parts of the country. The graph, *Internet Connectivity*, below, shows that El Paso's connectivity falls below the national level of Internet access. Moreover, the disparity between the national average, and the average for the Hispanic population reiterates the concern that the digital divide greatly affects minorities and the primary Border population.

Internet Connectivity



Source: University of Texas El Paso Institute for Policy and Economic Development, *Technology report*, 2003

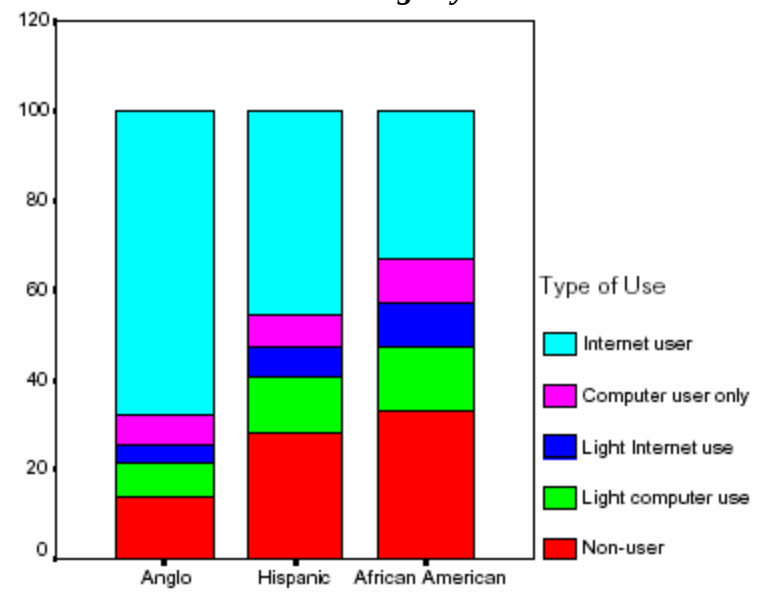
This failure in providing connectivity plagues communities throughout the Border Region. Commercial providers are not expanding services to this area at the rate that they provide services elsewhere. Moreover, the State is not investing the necessary funds to expand needed infrastructure to provide services to the Border. As the rest of Texas becomes increasingly more connected to the Internet with advanced services, Border communities struggle to get access to affordable dial-up services or much less advanced high-speed connections.

Disparities in Usage

Commercial providers cite a marked lack of usage for the failure to expand advanced services to the Border Region. While there is less Internet usage in Border communities than elsewhere, this argument fails to consider the accessibility factors that limit usage. In other words, the problem is not that people on the Border are not using the Internet as much as people in Austin and Dallas, but that people on the Border do not have the same accessibility as the people of Austin and Dallas. Usage cannot lead accessibility; there must be access to have usage.

A large majority of Texans, 67 percent, currently use a computer and 60 percent use the Internet.[2] However, there is great disparity in who is actually using the Internet. The differences in the ethnic composition of computer and Internet users in Texas are shown in the below chart. According to the Public Utilities Commission (PUC), nearly 68 percent of the Anglo community regularly uses the Internet, compared to 45.2 percent of Hispanics and 32.8 percent of African Americans. The pattern reverses for those who use neither a computer nor the Internet: 32.8 percent of the African Americans, 28 percent of the Hispanics, and 14.2 percent of the Anglos.[3] The graph below, *Internet Usage by Race*, illustrates the percentages of Texans using the Internet.

Internet Usage by Race

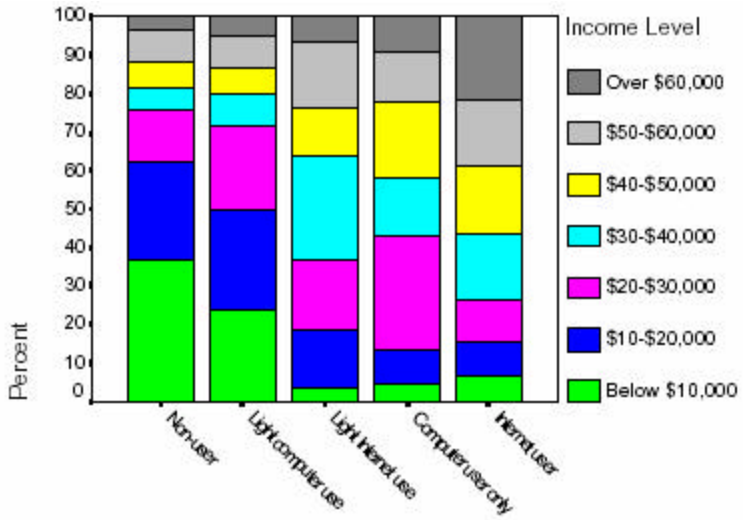


Source: Public Utilities Commission of Texas, *Report to the 77th Legislature on Advanced Services in Rural and High Cost Areas.*

As income and education increase, so do computer and Internet usage. The chart on the next page, *Internet Usage by Income Level*, indicates that people making less than $10,000 represents the largest cluster of people who use neither computers nor the Internet. At incomes over $30-$40,000, Internet usage is very common; the results for high and lower levels of education follow a similar pattern, with more highly educated people using the Internet more

commonly than those that are less well educated. Moreover, most Internet users have had some education beyond high school, while the nonusers are disproportionately composed of people who did not complete high school.[4]

Internet Usage by Income Level



Source: Public Utilities Commission of Texas, *Report to the 77th Legislature on Advanced Services in Rural and High Cost Areas.*

As companies and investors are sure to consider access to advanced technology, having access and usage levels that compete with other parts of Texas and with other states around the country is very important for the Border Region. Economic development in today's economy is necessarily founded in technology. The traditional way that state and local governments had recruited new businesses was through various incentives, including reduced taxes, wage subsidies, reduced rent, and other such monetary incentives. However, these traditional means of recruiting businesses must also incorporate a new approach. A common element of most successful economic development efforts is "strong local leadership committed to mobilizing the community's resources and obtaining the facilities it needs."[5] A critical community resource in today's economy is access to advanced services; advanced services being broadband and high-speed Internet services such as DSL and cable. Access to advanced services would offer measurable economic development results for rural and Border communities. Other states recognize the need to promote advanced services to promote the economy and Texas needs to embrace this philosophy as well.

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[1] Economic Research Associates. *Best Practices for Bridging the Digital Divide and Increasing Access to Capital*. (July 6, 2001).
[2] Public Utilities Commission of Texas, *Report to the 77th Texas Legislature, Availability of Advanced Services in Rural and High Cost Areas.* Page 23. January 2001.
[3] Ibid at 25.
[4] Ibid.
[5] Parker, Edwin P. and Heather E. Hudson, *Electronic Byways: State Policies for Rural Development Through Telecommunications.* (1995).