

# Business Case for Diversity Technology

## Section 1

### OVERVIEW

Minnesota's software and computer services industry includes a variety of businesses offering computer programming services, pre-packaged software, computer integrated systems design, data preparation and processing, computer consulting, computer networking, and computer support. The state is a leader in technology manufacturing, particularly in the field of electromedical equipment. Some major companies in Minnesota's technology industry include IBM, Lawson Software, and 3M.

Minnesota Technology Employment - 2010	
Industry	Employees
Computer & electronic product manufacturing	45,299
Wholesale electronic markets, agents & brokers	21,841
Telecommunications	12,987
Data processing, hosting & related services	5,865

Source: U.S. Census Bureau

## Section 2

### MARKETPLACE

As the information, communication, and technology industries merge, consumers are demanding a wide variety of new products and services that allow "anywhere, anytime" access to information and increasing ability to use information across a spectrum of technology products. Mobile technology such as smart phones, tablet computers, and cloud computing is driving individual and corporate consumers to integrate current computer systems with this new, more mobile technology. For example, a salesperson may expect to have customer data available through their workstation, PDA, phone, and website, which is synchronized with other systems to provide the most current information from shipping dates to accounting numbers. In consumer products, the entertainment industry has also become an emerging market force as more people use technology to create, manipulate, and manage music, videos, games, as well as for its more traditional uses. These trends for greater mobility and information access also drive increasing needs for information security, data protection, and knowledge management.

## Global Marketplace

The global IT market has continued to grow in spite of international economic woes. Spending dipped 2.1% in 2009, but rebounded strongly again in 2010, reaching \$3.4 trillion in worldwide spending, with growth driven by innovations in tablet devices and cloud computing (iDate, Gartner).

Emerging markets are also primary drivers of the continued rise in IT spending. China, India, Russia and Brazil account for a third of all IT spending in emerging markets, but growth is forecast to be most rapid in Latin America and Africa, with growth rates of up to 77% in Africa in 2011 (Gartner).

Ongoing issues in the global marketplace include consensus on taxation and legal enforcement of intellectual property rights, development of infrastructure, and the growth of developing countries as information economies.

## Digital Divide

The “Digital Divide” is another ongoing issue in the technology field. The Digital Divide refers to inequalities in access to technology and skill with technology use across race, gender, income, and education. These different patterns of technology use shape the size and segmentation of the technology marketplace, and also have a demonstrated educational and economic impact.

<b>Individuals using the internet in the U.S. - 2009</b>	
<b>By Race</b>	
White, non-Hispanic	74%
Black	59%
Asian	72%
Hispanic	49%
<b>By Region</b>	
Northeast, Midwest and West	70%
South	65%
<b>By Education</b>	
Less than high school graduate	25%
High school graduate	57%
Bachelor’s degree or higher	90%

Source: U.S. Census Bureau

Smart phones are helping to bridge—or at least change the shape of—the gap. Fifty-one percent of Hispanics and 46% of African Americans use their phones to access the Internet, compared with 33% of whites, according to a

2010 Pew poll. Now that owning a computer is no longer a prerequisite for home internet access, the gap between those who have access and those who don't is shrinking, but the divide still has an effect. A smart phone may be sufficient for reading news or updating Facebook accounts, but not for printing out a job application or typing a term paper. Computer access and skills still play an important role in educational and economic success, and the divide persists. Many technology companies recognize the importance of addressing the digital divide, both in terms of expanding markets for their products and of creating a competitive future workforce.

### Section 3

#### WORKPLACE

#### Current Demographics

The stereotype of tech geeks as young white or Asian males has some basis in fact. Women, blacks and Hispanics are significantly underrepresented in the IT workforce, while Asians comprise a large percentage of IT workers compared to their percentage of the workforce as a whole.

**IT Workforce Demographics: Percent of workforce in 2010**

	Women	Black	Asian	Hispanic
Total workforce	47.0%	10.8%	4.8%	14.3%
Electronics manufacturing	31.3%	7.0%	16.9%	8.4%
Internet publishing, broadcasting & search	37.7%	6.5%	10.2%	5.7%
Computer systems design & service	26.4%	5.3%	17.3%	5.1%
Electronics repair	16.7%	4.6%	6.6%	14.3%

US Bureau of Labor Statistics

#### Worker Diversity Drives Innovation

So what? Do the demographics of the IT workforce matter? Experts agree that they do. Aside from preventing future labor shortages, diversifying the workforce promotes innovation, a vital element in the success of technology companies. In his book "Rise of the Creative Class," economist Richard Florida examines the success of technology hot spots such as Silicon Valley in California and Austin, Texas. Florida suggests that industries such as technology which demand creativity and innovation thrive in areas where there is greater diversity, personal freedom, and artistic influence. He theorizes that employee innovation flourishes in organizations and communities that encourage creativity, diversity, and other "outside the box" thinking and behaviors. His theories have led to workplace campaigns which allow greater freedom in hours, personal dress, and expression, as well as community efforts like Austin's recent campaign to "Keep Austin Weird." ([www.keepaustinweird.com](http://www.keepaustinweird.com))

## Section 4

### THREATS & OPPORTUNITIES

The technology industry is driven by change and innovation. As information, communication, and entertainment industries become more closely intertwined, customers are demanding new products and software which can be smoothly integrated into existing technology systems, yet seamlessly provide access. This change provides both threat and opportunity:

- Merging of information and communication industries will bring greater competition. For example, computer manufacturers find themselves competing for customers with cell phone providers.
- Emerging markets provide large opportunities for hardware sales and infrastructure development.
- The digital divide presents a challenge to developing a skilled labor pool representative of the population as well as opportunities to recruit new customers.
- Innovation remains key—attracting the a diverse workforce with a variety of perspectives to develop new products, software and services is critical for companies to remain competitive in global markets.