

# STATE OF THE WORKFORCE

AUSTIN-ROUND ROCK MSA

2010



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# INTRODUCTION

In simple terms, a labor market is where workers find work and employers find workers, and where wage rates are determined. Labor markets can be local, regional, national, or even international. The labor market is a function of supply and demand.

The supply side of the labor market is often referred to as “human capital”. In a global economy based on information, knowledge and innovation, human capital is a vital strategic resource for every community. Having an adequate supply of educated, skilled workers is critical for maintaining a competitive advantage in the global marketplace. Today, business expansion and/or relocation decisions are more about the skills and capacity of the workforce than about location and financial incentives.

Workforce development is about helping individuals build the skills needed by the workplace. It’s more than just training and a matching process between job seekers and employers. It involves an array of activities and services from career exploration and planning, counseling and coaching, mentoring, job seeking/keeping skills, and placement. Training is much broader than just the development of occupational skills. It involves such things as leadership development, work readiness skills, basic education skills, computer literacy, self-management, etc.

Workforce development is about people and jobs. It is the development of skills and knowledge and the connection between people and the workplace. Workforce development is also about the relationship between human capital and market need.

This report is called a State of the Workforce Report, though it could just as easily be called a State of the Labor Market Report, because it addresses both supply and demand. It provides a “snapshot” of the local labor market. The report is intended to bring attention to certain trends and disparities that have both economic and social implications. Most importantly, this report is designed to serve as a community engagement tool to encourage regional dialogue on addressing issues and positioning the region with a competitive workforce. The workforce issues facing the region are too complex for any one entity to solve. They require collaboration and cooperation across multiple parties.

The following data sources were used in this report:

- Economic Modeling Specialists Inc. (EMSI)
- IHS Global Insight
- Texas State Data Center
- Texas Workforce Commission
- U.S. Census Bureau
- U.S. Department of Education

# EXECUTIVE SUMMARY

The Austin-Round Rock MSA consists of Bastrop, Caldwell, Hays, Travis, and Williamson counties. Pick up almost any publication (e.g. *Forbes*, *Kiplinger*, *Brookings*, *U.S. News and World Report*, and many others) and you're likely to find the region as a leader in a "best of" list of some kind

The Austin-Round Rock MSA is a rapidly changing landscape. It's a growing region with an economy that is performing well overall compared to other U.S. regions. The region's population is gaining an average of 49,000 residents per year and growing nearly twice as fast as the Texas population and nearly four times as fast as the U.S. population (from the Texas State Data Center). The region is a magnet for attracting people and talent.

Unlike many other areas of the country which are facing labor and skill shortages as their population ages, the result of the impending retirement of the *baby boomers*, the Austin-Round Rock MSA has a comparatively youthful population and workforce.

While Austin/Travis County remains the hub of the metropolitan area, growth is shifting to the surrounding counties. Williamson, Bastrop and Hays counties are among the fastest growing counties in the state. Growth outside the urban core has brought the issue of suburban sprawl to our door.

Not only is the population growing, it is becoming more diverse and younger. Yet for many, particularly minority youth, they are becoming less educated and poorer. For those who live on the "margins" in the region, disparities in education, skills, income, and employment are widening. Equity and access represent significant challenges.

Despite the recession that has gripped the nation the past two years, the Austin-Round Rock MSA economy has performed well. Like Texas, the region was one of the last affected by the national recession and many see it as one of the first to rebound. The region's available supply of talent, its creative and innovative spirit, and overall quality of life make the Austin-Round Rock MSA one of the most competitive in the U.S.

The region's unemployment rate has remained lower than state and national averages throughout the recession.

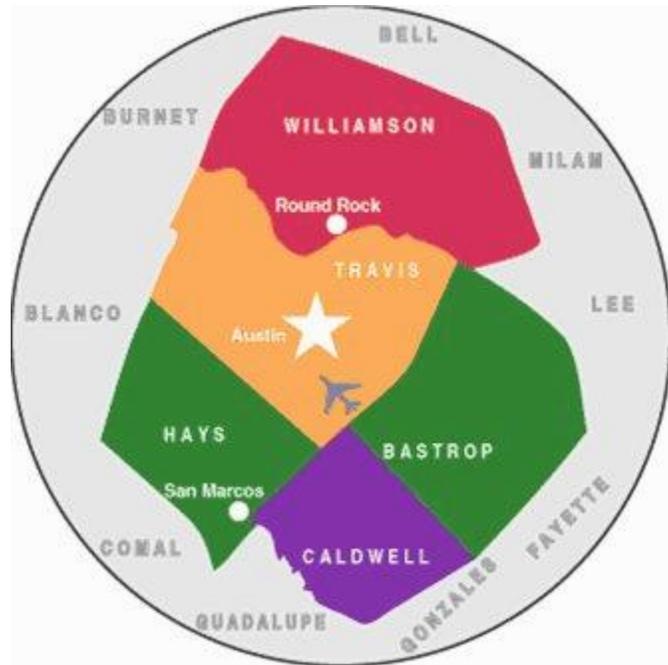
Based on the strength of its information and technology sector and the existence of convergent technologies, the region appears to be well positioned to take advantage of expected growth in emerging sectors such as renewable energy and clean technology, biotechnology, and digital/creative media.

Overall, employers in the region are not currently feeling any "pain" when it comes to finding skilled workers. The region will most likely maintain an available supply of skilled labor for the next several years, but a potential skills gap is looming.

Despite its good fortunes, the Austin-Round Rock MSA faces a number of underlying challenges. Complacency is a risk. Equity and sustainability are significant issues.

# THE REGION

This report focuses on the Austin-Round Rock Metropolitan Statistical Area (MSA). The area is centered around the City of Austin and Travis County in the State of Texas. The MSA includes Bastrop, Caldwell, Hays, Travis, and Williamson Counties.



The metro-area's estimated population is 1,705,075 (2009 U.S. Census estimate), ranking it the 35<sup>th</sup> largest metropolitan area in the U.S. In terms of population, the region is comparable to Charlotte, North Carolina; Indianapolis, Indiana; and Columbus, Ohio. The two largest cities in the metro-area are Austin and Round Rock. Other large cities (with populations of over 25,000) include Cedar Park, San Marcos, Pflugerville, Georgetown, and Leander. Smaller communities in the metro-area include Dripping Springs, Elgin, Hutto, Kyle, Lakeway, Lockhart, Luling, and Taylor.

The Austin-Round Rock MSA covers 4,279 square miles or roughly the size of the State of Connecticut, with a population density of 398.5 per square mile.

# THE LOCAL WORKFORCE DEVELOPMENT SYSTEM

The “Capital or Central” Texas area is served by two (2) local workforce development boards – Workforce Solutions Capital Area (Austin/Travis County) and Workforce Solutions Rural Capital Area (Bastrop, Blanco, Burnett, Caldwell, Fayette, Hays, Lee, Llano, and Williamson Counties). They are part of the Texas Workforce Network, which comprised of 28 local workforce development boards across the state and the Texas Workforce Commission.

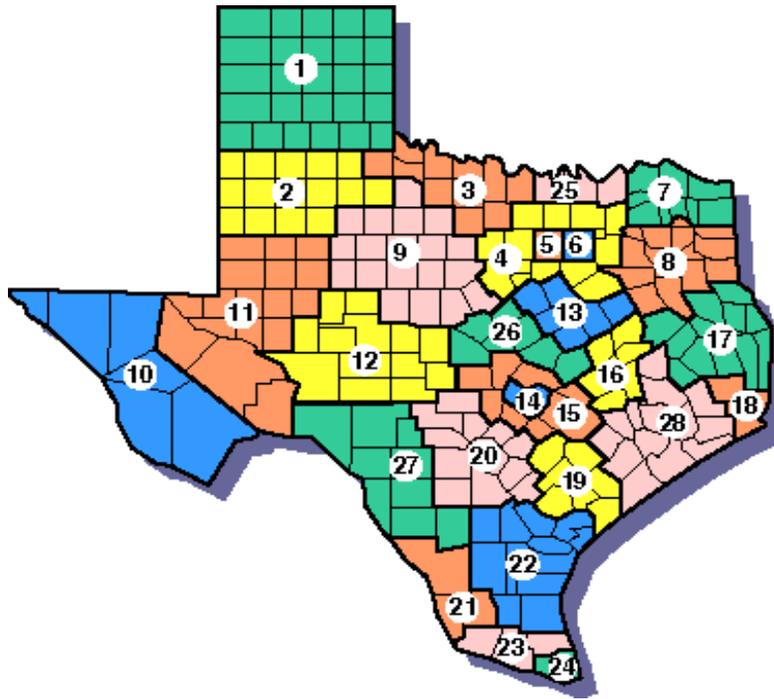
The local workforce development boards provide strategic planning, oversight and evaluation for workforce development activities in their respective areas. They represent a public/private partnership with membership that includes business, education, labor, economic development, community-based organizations, and public entities.

The workforce development system consists of multiple components, including the K-12 education system, colleges and universities, community-based organizations, public agencies, etc. Local workforce development boards serve to connect and align the efforts of the workforce system and to leverage and invest community resources in the development of human capital. Their greatest strength lies in their ability to bring together the right people – decision makers - around workforce issues or needs, and to lead them in the development of common strategies.

The Capital and Rural Capital workforce development boards work in close partnership with one another, both work on regional issues, those that cut across the entire area; and local workforce issues, those that are distinct to individual counties/communities. Together, they are committed to addressing workforce issues and needs with minimal duplication of effort and maximization of sources.



# TEXAS WORKFORCE NETWORK



- 1 – Workforce Solutions Panhandle
- 2 – Workforce Solutions South Plains
- 3 – Workforce Solutions North Texas
- 4 – Workforce Solutions North Central Texas
- 5 – Workforce Solutions Tarrant County
- 6 – Workforce Solutions Greater Dallas
- 7 – Workforce Solutions Northeast Texas
- 8 – Workforce Solutions East Texas
- 9 – Workforce Solutions West Central Texas
- 10 – Workforce Solutions Upper Rio Grande
- 11 – Workforce Solutions Permian Basin
- 12 – Workforce Solutions Concho Valley
- 13 – Workforce Solutions Heart of Texas
- 14 – Workforce Solutions Capital Area**
- 15 – Workforce Solutions Rural Capital Area**
- 16 – Workforce Solutions Brazos Valley
- 17 – Workforce Solutions Deep East Texas
- 18 – Workforce Solutions Southeast Texas
- 19 – Workforce Solutions Golden Crescent
- 20 – Workforce Solutions Alamo
- 21 – Workforce Solutions South Texas
- 22 – Workforce Solutions Coastal Bend
- 23 – Workforce Solutions Lower Rio Grande Valley
- 24 – Workforce Solutions Cameron
- 25 – Workforce Solutions Texoma
- 26 – Workforce Solutions Central Texas
- 27 – Workforce Solutions Middle Rio Grande
- 28 – Workforce Solutions Gulf Coast

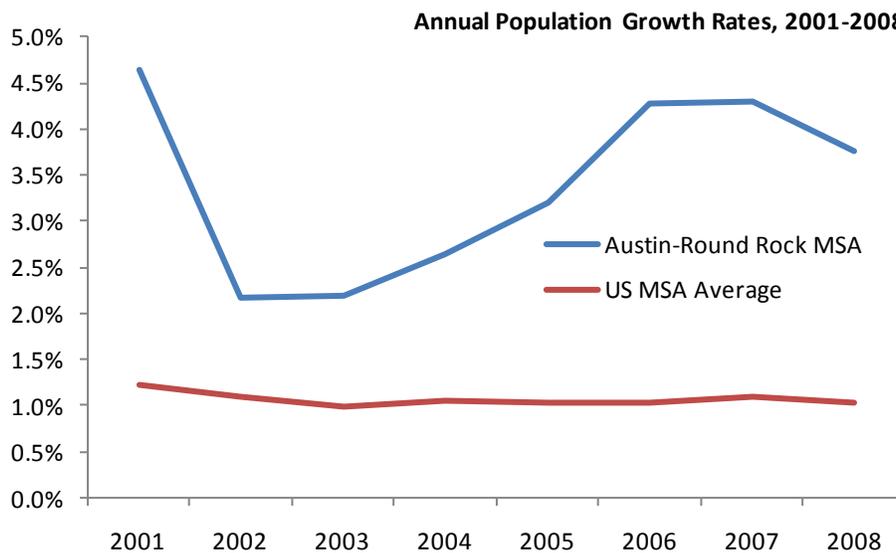
# SUPPLY

A key to understanding the region's workforce is knowing something about its size and characteristics. The population or our "human capital" is the raw material from which the workforce is created. The potential of the workforce depends on the size of the population, their ages, educational level, and other qualities. Understanding the population can give us insight into how many people are available and willing to work, what skills they bring to the workplace, and what liabilities they have.

## Population Basics

The Austin-Round Rock MSA is one of the fastest growing metro areas in the United States. The latest population estimate from the U.S. Census Bureau puts the region's population in 2009 at 1,705,075, ranking it the 35<sup>th</sup> largest metropolitan area in the U.S. in terms of population.

The region has witnessed rapid growth. Between 2000 and 2008, the Austin-Round Rock MSA added 388,385 residents, roughly equivalent to adding the population of Georgetown every year. The region's 3.8 percent average annual growth rate was more than three times faster than the average for all metropolitan areas in the U.S. during 2000-2008, ranking it 13<sup>th</sup> among all metro areas by population growth. The Austin-Round Rock MSA grew by nearly as many people as the Miami-Fort Lauderdale-Pompano Beach MSA, which has 5.4 million residents. The region is expected to grow by another 498,000 residents between 2010 and 2020.



Source: U.S. Census Bureau

**Projected Population Growth, 2010-2020**

	<b>2010</b>	<b>2020</b>	<b>Change</b>	<b>Growth</b>
<b>Bastrop County</b>	76,920	96,684	19,764	26%
<b>Caldwell County</b>	37,662	42,655	4,993	13%
<b>Hays County</b>	165,659	232,971	67,312	41%
<b>Travis County</b>	1,054,610	1,237,427	182,818	17%
<b>Williamson County</b>	441,200	664,298	223,098	51%
<b>Austin-Round Rock MSA</b>	1,776,051	2,274,036	497,984	28%

*Source: IHS Global Insight*

The region's population is shifting away from the urban core (Austin/Travis County). Between 2000 and 2008, the populations of Bastrop, Hays, and Williamson Counties grew at a faster percentage than Travis County. While Austin/Travis County will remain the region's population hub, rapid growth is occurring in neighboring counties to the North and South.

**Population Growth in Austin-Round Rock MSA, 2000-2008**

	<b>2000</b>	<b>2008</b>	<b>Change</b>	<b>Percent</b>
<b>Bastrop County</b>	58,293	73,436	15,143	26.0%
<b>Caldwell County</b>	32,463	37,533	5,070	15.6%
<b>Hays County</b>	99,070	149,424	50,354	50.8%
<b>Travis County</b>	820,927	998,561	177,634	21.6%
<b>Williamson County</b>	254,962	395,146	140,184	55.0%
<b>Austin-Round Rock MSA</b>	1,265,715	1,654,100	388,385	30.7%

*Source: U.S. Census Bureau*

Many areas in the nation are facing the problem of an aging workforce brought on by the impending retirement of the baby boomers. This could lead to a critical shortage of workers. While worker shortage is a national problem, it is not one faced here in the Austin-Round Rock MSA. The region has a comparatively young population, with a median age of 32.6 years. Forty-four percent of the region's population is in peak working years (ages 18-44), compared to 37 percent nationally.

**Population by Age in Austin-Round Rock MSA, 2008**

	<b>Number</b>	<b>Percent</b>	<b>U.S.</b>
<b>Under 5 years</b>	133,350	8.1%	6.9%
<b>5 to 9 years</b>	120,292	7.3%	6.5%
<b>10 to 14 years</b>	112,674	6.8%	6.7%
<b>15 to 19 years</b>	115,522	7.0%	7.2%

<b>20 to 24 years</b>	137,610	8.3%	6.9%
<b>25 to 34 years</b>	272,914	16.5%	13.3%
<b>35 to 44 years</b>	260,304	15.8%	14.1%
<b>45 to 54 years</b>	223,369	13.5%	14.6%
<b>55 to 59 years</b>	83,118	5.0%	6.1%
<b>60 to 64 years</b>	64,988	3.9%	5.0%
<b>65 to 74 years</b>	70,198	4.3%	6.6%
<b>75 to 84 years</b>	38,189	2.3%	4.4%
<b>85 years and over</b>	18,359	1.1%	1.8%

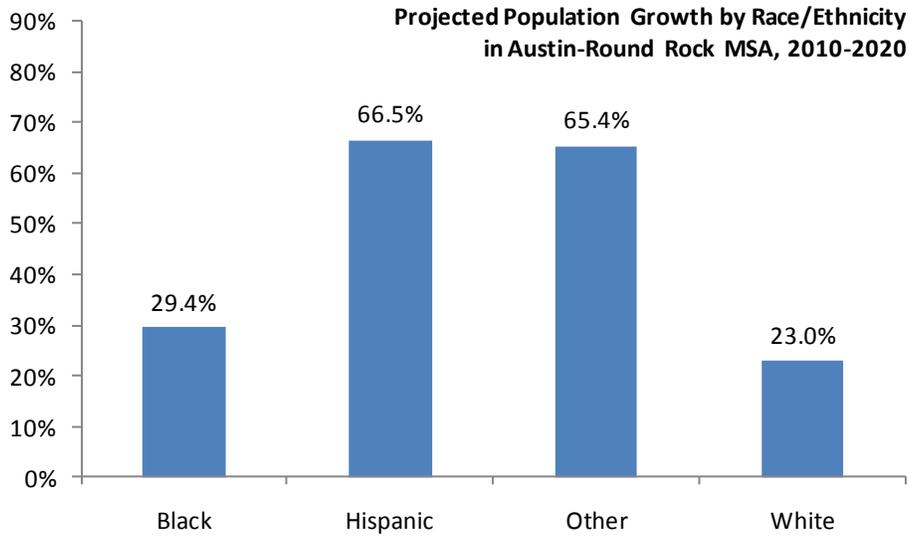
Source: U.S. Census Bureau

While the region's population is rapidly growing, it is also becoming more diverse. Between 2000 and 2008, minority populations experienced significant growth. All minority groups grew at a faster percentage rate than the White population. This trend is projected to continue over the course of the next ten years and beyond.

**Population Growth by Race/Ethnicity in Austin-Round Rock MSA  
2001-2008**

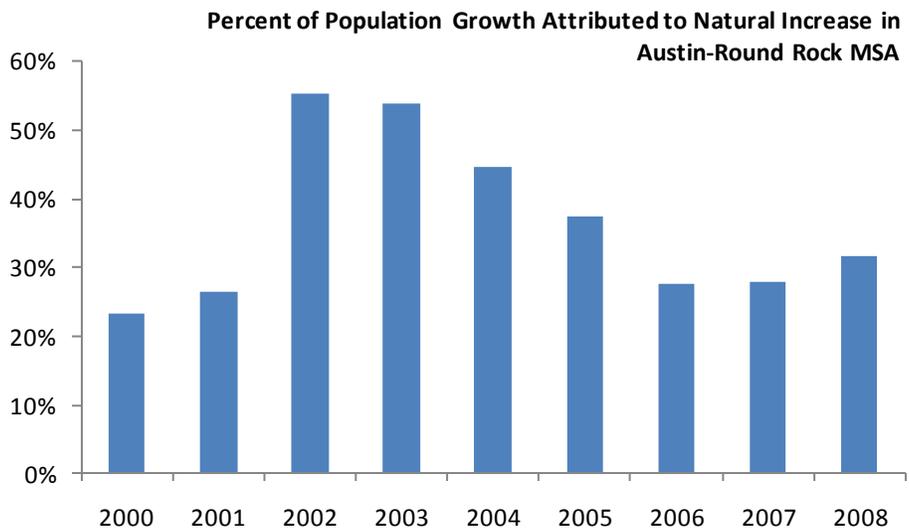
	<b>2001</b>	<b>2008</b>	<b>Change</b>	<b>Percent</b>
<b>Hispanic</b>	351,179	515,252	164,073	46.7%
<b>White</b>	794,893	915,982	121,089	15.2%
<b>Black</b>	104,178	127,857	23,679	22.7%
<b>Other</b>	55,304	78,845	23,541	42.6%

Source: Texas State Data Center



Source: IHS Global Insight

Population growth is attributable to two reasons: 1) natural growth (the difference between births and deaths); and 2) migration. The Austin-Round Rock MSA has become a destination for migrating talent. In 2008, the percentage of population growth attributable to Natural Increase was approximately 30 percent, with 70 percent the result of net Migration.



Source: EMSI

**Net Migration to Austin-Round Rock MSA, 2002-2008**

	2002	2003	2004	2005	2006	2007	2008
<b>People moving in</b>	56,720	54,414	57,249	62,452	74,023	78,073	77,339
<b>People moving out</b>	55,919	50,535	48,584	48,030	48,825	50,195	52,660
<b>Net migration</b>	801	3,879	8,665	14,422	25,198	27,878	24,679

*Source: EMSI, Internal Revenue Service*

Contrary to public perception, not everyone moving to the region is from California. People are relocating to the Austin-Round Rock MSA from other areas within Texas, other states and from other countries.

**Geographic Mobility by Race/Ethnicity in Austin-Round Rock MSA  
People Moving to MSA in 2007**

	From Different County in Texas	From Different State	From Outside United States
<b>Asian</b>	4,516	4,334	2,069
<b>Black</b>	8,178	2,225	840
<b>Hispanic</b>	30,275	6,372	6,260
<b>White</b>	63,055	34,580	3,852

*Source: U.S. Census Bureau*

Individuals with disabilities are often an over-looked and left-behind segment of the population. According to U.S. Census Bureau (2008 American Community Survey 1-Year Estimates), the percentage of individuals with a disability who were unemployed was 51.2 percent, nearly five times higher than for individuals without a disability, for the Austin-Round Rock MSA.

This group represents a relatively untapped source of labor. While a growing number of employers are finding the benefit of hiring the disabled, many more disabled individuals could become productive members of the workforce with greater employer awareness and reasonable accommodation.

**Population by Disability Status, 2008**

	Austin-Round Rock MSA	United States
<b>Number of civilian non-institutionalized people with a disability</b>	146,674	36,071,802
<b>Percent of total civilian non-institutionalized population</b>	9.0%	12.1%

*Source: U.S. Census Bureau*

### Age Distribution of Disabled Population in Austin-Round Rock MSA, 2008

	Disabled	% Disabled Population Under 18 Years	% Disabled Population 18-64 Years	% Disabled Population 65 Years and Over
<b>Bastrop County</b>	8,805	13.1%	45.2%	41.7%
<b>Caldwell County</b>	N/A	N/A	N/A	N/A
<b>Hays County</b>	15,321	6.3%	56.0%	37.7%
<b>Travis County</b>	83,038	10.5%	61.2%	28.3%
<b>Williamson County</b>	34,904	10.2%	59.4%	30.4%

Source: U.S. Census Bureau

Veterans also represent a significant source of potential talent for the workforce. According to a March 12, 2010 economic news release from the Bureau of Labor Statistics, the unemployment rate for veterans who served in the military since September 2001 (referred to as Gulf War era II veterans) was 10.2 percent in 2009. The jobless rate for veterans of all eras combined was 8.1 percent. Young male veterans (ages 18 to 24) who served during Gulf War era II experienced an unemployment rate of 21.6 percent in 2009. Regional employment data on veterans was not available.

According to the U.S. Census Bureau figures for 2008, Veterans represented nearly 9 percent of the region's population. A growing number of veterans are returning to civilian life from the conflicts in Iraq and Afghanistan. Veterans bring skills and discipline acquired through military service that employers often find invaluable.

### Population by Veteran Status, 2008

	Austin-Round Rock MSA	United States
<b>Number of civilian veterans</b>	108,147	22,424,712
<b>Percent of total civilian population age 18+</b>	8.9%	9.8%

Source: U.S. Census Bureau

### Population by Veteran Status by County in Austin-Round Rock MSA, 2008

	Civilian Veterans	Percent of Total Civilian Population Age 18+ in County	Percent of Total Veterans in Austin-Round Rock MSA
<b>Bastrop County</b>	8,122	15.2%	7.5%
<b>Caldwell County</b>	3,042	11.3%	2.8%
<b>Hays County</b>	9,679	8.6%	8.9%
<b>Travis County</b>	55,788	7.5%	51.6%
<b>Williamson County</b>	31,789	11.3%	29.4%

Source: U.S. Census Bureau

## Commuting Patterns

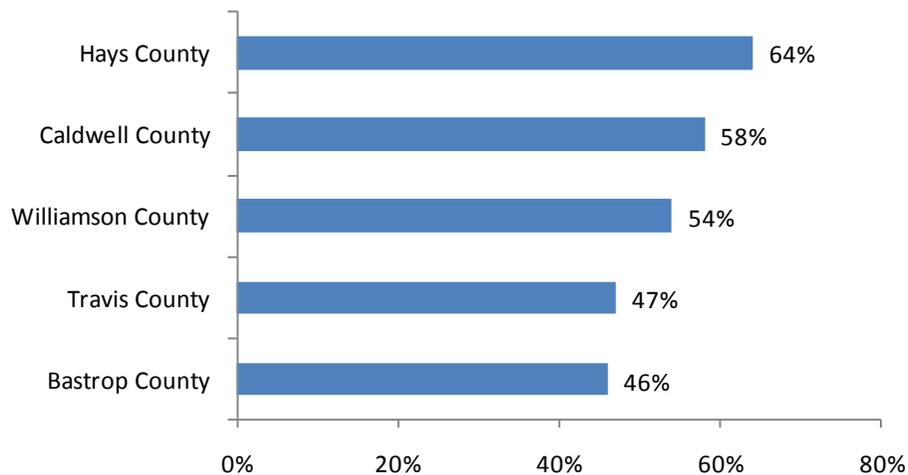
While population growth is shifting to the counties surrounding the urban core (Austin/Travis County), the majority of workers in Bastrop, Caldwell, Hays, and Williamson Counties work in a county outside of where they live. As employment opportunities grow throughout the region, we can expect to see an increase in the number of individuals who live and work in the same county.

**Work Locations for Employed Residents by County in Austin-Round Rock MSA, 2008**

	Works in Home County	Works in MSA	Works in CAPCOG Region
<b>Bastrop County</b>	21%	68%	70%
<b>Caldwell County</b>	14%	63%	64%
<b>Hays County</b>	30%	71%	72%
<b>Travis County</b>	73%	80%	80%
<b>Williamson County</b>	25%	77%	78%
<b>Austin-Round Rock MSA</b>	N/A	78%	78%

Source: U.S. Census Bureau.

**Percentage of Workers in County Who Live Outside County, 2008**

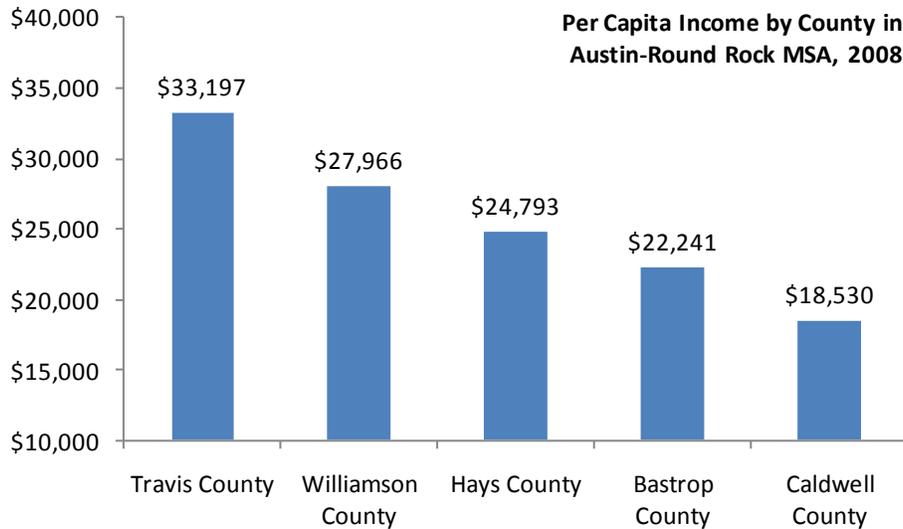


Source: U.S. Census Bureau

How people commute to work has a number of implications for transportation and municipal service planning. According to 2008 estimates from the U.S. Census Bureau, 76.5 percent of workers in the Austin-Round Rock MSA drove to work alone, 13.7 percent car pooled, and only 2.6 percent used public transportation.

## Income

One function of the labor market and the workforce is to provide households and individuals with incomes. The most recent figures from Texas Workforce Commission (TWC) reported the average weekly wage for the Austin-Round Rock MSA was \$978 for the fourth quarter of 2009. The Texas statewide average weekly wage for the same period was \$944. The average weekly wage in the region has increased by 19.4 percent since 2003. Per Capita and Household Income in the Austin-Round Rock MSA varies significantly by county.

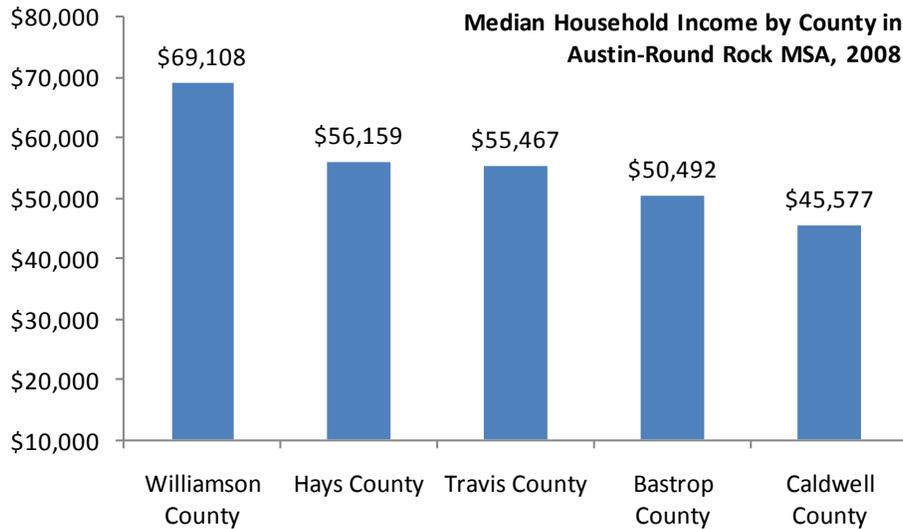


Source: U.S. Census Bureau

### Household Income Distribution, 2008

	Households	% Total Households Austin-Round Rock MSA	% Total Households United States
Less than \$10,000	38,473	6.4%	7.2%
\$10,000 to \$14,999	23,992	4.0%	5.4%
\$15,000 to \$24,999	51,721	8.6%	10.7%
\$25,000 to \$34,999	57,357	9.5%	10.4%
\$35,000 to \$49,999	84,916	14.1%	14.2%
\$50,000 to \$74,999	113,172	18.7%	18.8%
\$75,000 to \$99,999	79,597	13.2%	12.4%
\$100,000 to \$149,999	88,715	14.7%	12.3%
\$150,000 to \$199,999	32,812	5.4%	4.4%
\$200,000 or more	32,925	5.5%	4.3%

Source: U.S. Census Bureau



Source: U.S. Census Bureau

Median earnings in the Austin-Metropolitan MSA vary significantly by gender, race/ethnicity and county of residence. Williamson County had the highest Median Household Income (51.6 percent higher than Caldwell County with the lowest Median Household Income). Males earned 36 percent more than females. Earnings of Asian males outpaced all groups.

**Median Earnings by Sex by Race/Ethnicity for Age 16+ Population  
in Austin-Round Rock MSA, 2008**

	All Groups	White Alone	Black Alone	Asian Alone	Hispanic
<b>Male</b>	\$35,322	\$44,218	\$28,326	\$45,458	\$24,366
<b>Female</b>	\$25,891	\$30,585	\$24,739	\$27,229	\$20,261
<b>Total</b>	\$30,681	\$36,989	\$26,460	\$37,977	\$22,462

Source: U.S. Census Bureau

Earnings data show that the old axiom of the more you learn the more you earn to be true. Individuals with at least some college or an Associate’s degree earn 28.8 percent more than a high school graduate and 77.2 percent more than someone who has not completed high school. There are also noticeable differences in Median Earnings between males and females with the same educational level.

**Median Earnings by Sex by Educational Attainment for Age 25+ Population  
in Austin-Round Rock MSA, 2008**

	<b>Total</b>	<b>Male</b>	<b>Female</b>
<b>Less than high school graduate</b>	\$19,824	\$21,818	\$14,650
<b>High school graduate (includes equivalency)</b>	\$27,274	\$30,852	\$24,067
<b>Some college or associate's degree</b>	\$35,143	\$40,365	\$30,723
<b>Bachelor's degree</b>	\$47,353	\$60,222	\$40,421
<b>Graduate or professional degree</b>	\$61,774	\$80,881	\$49,134
<b>Total all education levels</b>	\$36,827	\$41,654	\$31,469

*Source: U.S. Census Bureau*

While the overall standard of living is high in the Austin-Round Rock MSA, a growing number of individuals and families find themselves with incomes that are below the Poverty Level.

**Population by County in the Austin-Round Rock MSA**

**Whose Income in the Past 12 Months is below the Poverty Level, 2008**

	<b>All People</b>	<b>All Families</b>
<b>Bastrop County</b>	13.3%	8.4%
<b>Caldwell County</b>	18.2%	14.5%
<b>Hays County</b>	16.0%	18.3%
<b>Travis County</b>	14.8%	10.1%
<b>Williamson County</b>	6.4%	4.6%

*Source: U.S. Census Bureau*

Poverty is especially acute among families with a female head of household with children under the age of five (34.3% in 2008 according to the American Community Survey).

While the region has seen an overall increase in average earnings and per capita income since 2000 it is surprising that we have ranked near the bottom of all U.S. metro areas. In fact, the region's per capita income fell from 103 percent of the U.S. Average in 2001 to 93 percent of the U.S. average in 2008. This drop is mainly attributable to increased job growth in low wage occupations.

## Educational Attainment

The Austin-Round Rock MSA bills itself as “The Human Capital”, and it’s true that the region compares favorably to other U.S. metros and better than the U.S. as a whole in terms of the percentage of population 25 years of age or older with a bachelor’s degree or higher. However, the region doesn’t fare as well when looking at the number of individuals who are high school graduates.

**Educational Attainment for Population Age 25+, 2008**

	Austin-Round Rock MSA	United States
Less than 9th grade	7.2%	6.4%
9th to 12th grade, no diploma	6.3%	8.7%
High school graduate (includes equivalency)	19.7%	28.5%
Some college, no degree	21.7%	21.3%
Associate's degree	6.8%	7.5%
Bachelor's degree	24.5%	17.5%
Graduate or professional degree	13.7%	10.2%

Source: U.S. Census Bureau

A further examination of educational attainment shows glaring disparities between racial/ethnic groups. Seventy-one percent of Asians age 25+ in the Austin-Round Rock MSA have earned a postsecondary degree, compared to 54 percent of Whites, 31 percent of African Americans, and 21 percent of Hispanics. A disproportionate percentage of Blacks and Hispanics have a H.S. Diploma or less.

**Educational Attainment by Race/Ethnicity for Population Age 25+ in Austin-Round Rock MSA, 2008**

	Asian	Black	Hispanic	White
No H.S. Diploma/GED	8%	13%	36%	5%
H.S. Diploma/GED	12%	28%	25%	17%
Some College, no degree	9%	28%	18%	24%
Associate’s degree	5%	8%	5%	8%
Bachelor’s degree	32%	16%	12%	30%
Graduate degree	34%	7%	5%	17%
Postsecondary degree	71%	31%	21%	54%

Source: U.S. Census Bureau

This report does not go into detailed reporting or analysis of secondary school outcomes. A significant amount of research has been conducted and reported on the challenges faced by the Central Texas education system. Readers of this report are encouraged to visit the Alliance's website at [www.e3alliance.org](http://www.e3alliance.org) for detailed information.

Overall, in the Austin-Round Rock MSA, too few students are graduating from high school, enrolling in postsecondary education, and earning a postsecondary degree or certificate. Based on analysis of Texas Education Agency (TEA) AEIS report data, the E3 Alliance reports:

- In the fall of 2008, only 43% of high school seniors were considered "college ready" (as defined by the Greater Austin Chamber of Commerce)
- 1 in 5 9<sup>th</sup> graders (2003-2004 incoming 9<sup>th</sup> graders) did not earn a high school diploma on time – 11% dropped out, 1% earned a GED, 9% were continuers
- 62% of high school graduates enroll directly into higher education
- 43% of college students earn any degree within 6 years
- English Language Learner student population is growing about 3 times the rate of the overall student population
- Majority of students in the region are non-white
- Nearly half of the student population is low income
- Over 40% of students are "at-risk" based on Texas Education Agency (TEA) defined social, academic and behavioral factors
- Student enrollments are lagging in the critical areas of science, technology, engineering and math (STEM)

Disparities in dropout rates, test scores, ACT/SAT test scores, students who are college ready, number of students entering postsecondary education, etc. exist between schools and school districts, racial/ethnic groups, and income levels. These are significant issues facing the Austin-Round Rock MSA that must be addressed if the region is to remain competitive in a global economy.

The lack of a high school diploma or equivalency is often a strong indicator of low basic education skills (reading, writing and math). Limited English proficiency among minorities is another challenge. According to the U.S. Census Bureau, among people 5 years of age and older living in the Austin-Rock Rock MSA in 2008, 28 percent spoke a language other than English at home. Of those speaking a language other than English at home, 79% spoke Spanish and 21 percent spoke some other language; 40 percent reported that they did not speak English "very well."

The Austin-Round Rock MSA is experiencing significant growth in industry sectors such as healthcare and life sciences, information and computer technology, business and financial services, digital media, and renewable energy. These industries are producing more high-skill, high demand occupations which require some level of education and/or training beyond high school.

The number of certificates and degrees awarded by the region's high education institutions and the areas of study they are connected to are not well aligned with the needs of the labor market. While the region's higher education institutions have done a good job in addressing the needs of healthcare, particularly in addressing the shortage of nurses, the needs of other growing and emerging industries are not being met.

**Associate's Degrees Awarded by Program Area in Austin-Round Rock MSA, 2008**

\*top ten ranked by degrees awarded

	<b>Associate</b>	<b>% Total</b>
<b>Culinary Arts/Chef Training</b>	463	25.16%
<b>Nursing/Registered Nurse (RN, ASN, BSN, MSN)</b>	184	10.00%
<b>Business/Commerce, General</b>	105	5.71%
<b>Electrical/Electronic/Communications Engr Technology/Technician</b>	96	5.22%
<b>Computer Systems Networking and Telecommunications</b>	87	4.73%
<b>CAD/CADD Drafting and/or Design Technology/Technician</b>	71	3.86%
<b>Diagnostic Medical Sonography/Sonographer &amp; Ultrasound Technician</b>	53	2.88%
<b>Drafting and Design Technology/Technician, General</b>	47	2.55%
<b>Legal Assistant/Paralegal</b>	46	2.50%
<b>Commercial and Advertising Art</b>	42	2.28%

*Source: U.S. Department of Education, EMSI. Table includes only the institutions reporting data to DOE and made available in the National Center for Education Statistics publicly accessible database (IPEDS).*

**Bachelor's Degrees Awarded by Program Area  
in Austin-Round Rock MSA, 2008**

	<b>Bachelor</b>	<b>% Total</b>
<b>Biology/Biological Sciences, General</b>	770	5.55%
<b>Psychology, General</b>	753	5.43%
<b>Political Science and Government, General</b>	736	5.31%
<b>Finance, General</b>	603	4.35%
<b>Business Administration and Management, General</b>	525	3.79%
<b>Marketing/Marketing Management, General</b>	486	3.50%
<b>English Language and Literature, General</b>	481	3.47%
<b>History, General</b>	417	3.01%
<b>Health and Physical Education, General</b>	408	2.94%
<b>Accounting</b>	406	2.93%

*Source: U.S. Department of Education, EMSI.*

**Certificates/Licenses Awarded by Program Area in Austin-Round Rock MSA, 2008**

	<b>Certificates/ Licenses</b>	<b>% Total</b>
<b>Medical/Clinical Assistant</b>	470	18.16%
<b>Cosmetology/Cosmetologist, General</b>	226	8.73%
<b>Dental Assisting/Assistant</b>	200	7.73%
<b>Pharmacy Technician/Assistant</b>	154	5.95%
<b>Baking and Pastry Arts/Baker/Pastry Chef</b>	152	5.87%
<b>Health and Medical Administrative Services, Other</b>	125	4.83%
<b>Heating/AC/Ventilation/Refrig Maint Technology/Technician</b>	122	4.71%
<b>Automobile/Automotive Mechanics Technology/Technician</b>	108	4.17%
<b>Heating/AC/Refrigeration Technology/Technician</b>	72	2.78%
<b>Allied Health and Medical Assisting Services, Other</b>	71	2.74%

*Source: U.S. Department of Education, EMSI.*

**Graduates of Higher Education Institutions in Austin-Round Rock MSA, 2008**

	<b>Associate</b>	<b>Bachelor</b>	<b>Master</b>	<b>Doctor</b>	<b>Certificates/ Licenses</b>	<b>Other</b>	<b>Total</b>
<b>Academy at Austin</b>					74		74
<b>Academy of Cosmetology</b>					39		39
<b>Academy of Health Care Professions</b>					173		173
<b>Allied Health Careers</b>					127		127
<b>Austin Community College District</b>	1,042				465		1,507
<b>Austin Graduate School of Theology</b>		7	6				13
<b>Austin Presbyt. Theological Seminary</b>			8	6		44	58
<b>Baldwin Beauty School</b>					216		216
<b>Capitol City Careers</b>					29		29
<b>Capitol City Trade &amp; Technical School</b>					156		156
<b>Concordia University Texas</b>		122	35				157
<b>Culinary Academy of Austin</b>					32		32
<b>Episcopal Theological Seminary</b>			13		5	23	41
<b>Everest Institute-Austin</b>					763		763
<b>Huston-Tillotson University</b>		65			17		82
<b>ITT Technical Institute-Austin</b>	210						210
<b>Kussad Institute of Court Reporting</b>					5		5
<b>National American University-Austin</b>							0
<b>Regency Beauty Institute-Austin</b>							0

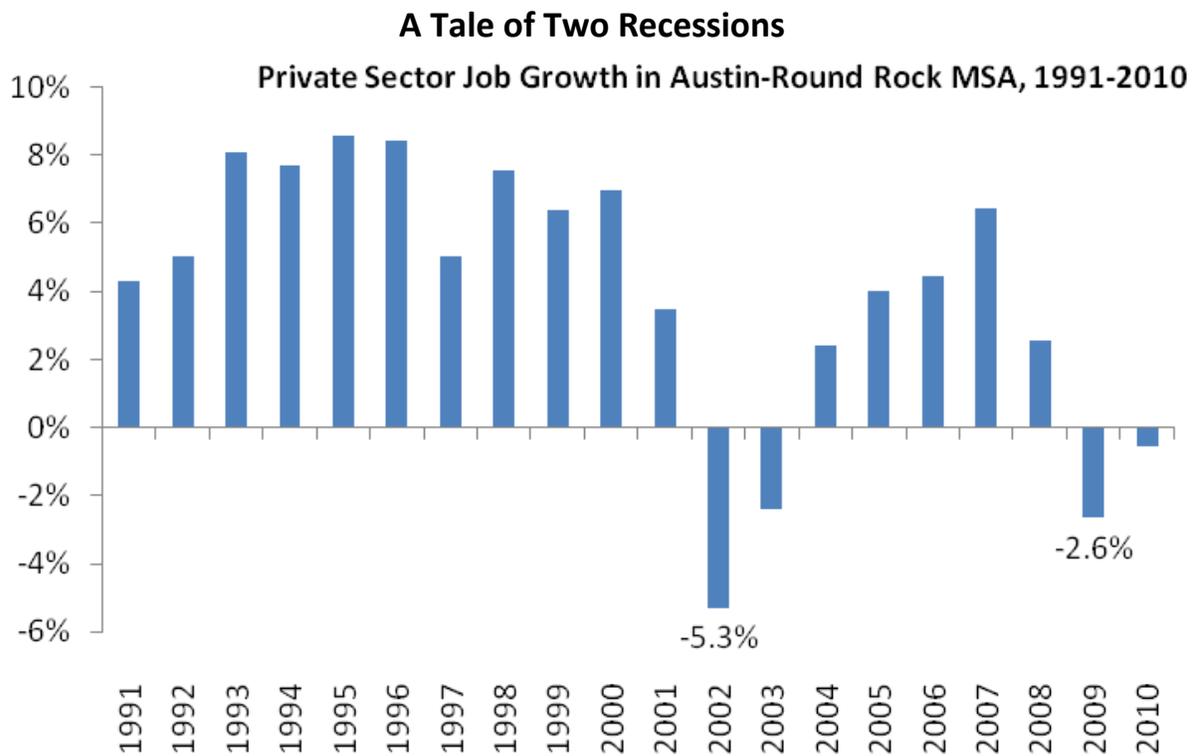
<b>Saint Edward's University</b>	776	256		53	1,085		
<b>Southern Careers Institute Inc</b>				148	148		
<b>Southwest Institute of Technology</b>	21			2	23		
<b>Southwestern University</b>	352				352		
<b>Texas Culinary Academy</b>	454			139	593		
<b>Texas State University-San Marcos</b>	4,337	1,120	7	37	5,501		
<b>The Art Institute of Austin</b>					0		
<b>The University of Texas at Austin</b>	8,182	2,899	1,423		12,504		
<b>University of Phoenix-Austin Campus</b>	28	30			58		
<b>Virginia College-Austin</b>	113			108	221		
<b>Total</b>	1,840	13,869	4,367	1,436	2,588	67	24,167

Source: U.S. Department of Education, EMSI.

## Employment, Unemployment and Labor Force Participation

At first glance, the ten year period from 2000 to 2010, the employment picture for the Austin-Round Rock MSA looks very good. According to the Texas Workforce Commission, the Civilian Labor Force grew by 25%, from 729,990 in April 2000 to 914,696 in April 2010. The region enjoyed a positive annual growth rate, adding nearly 100,000 jobs. The unemployment rate in April 2000 was only 2.8 percent. With the exception of manufacturing, nearly every industry sector grew. This was all before the latest recession hit the region in 2008.

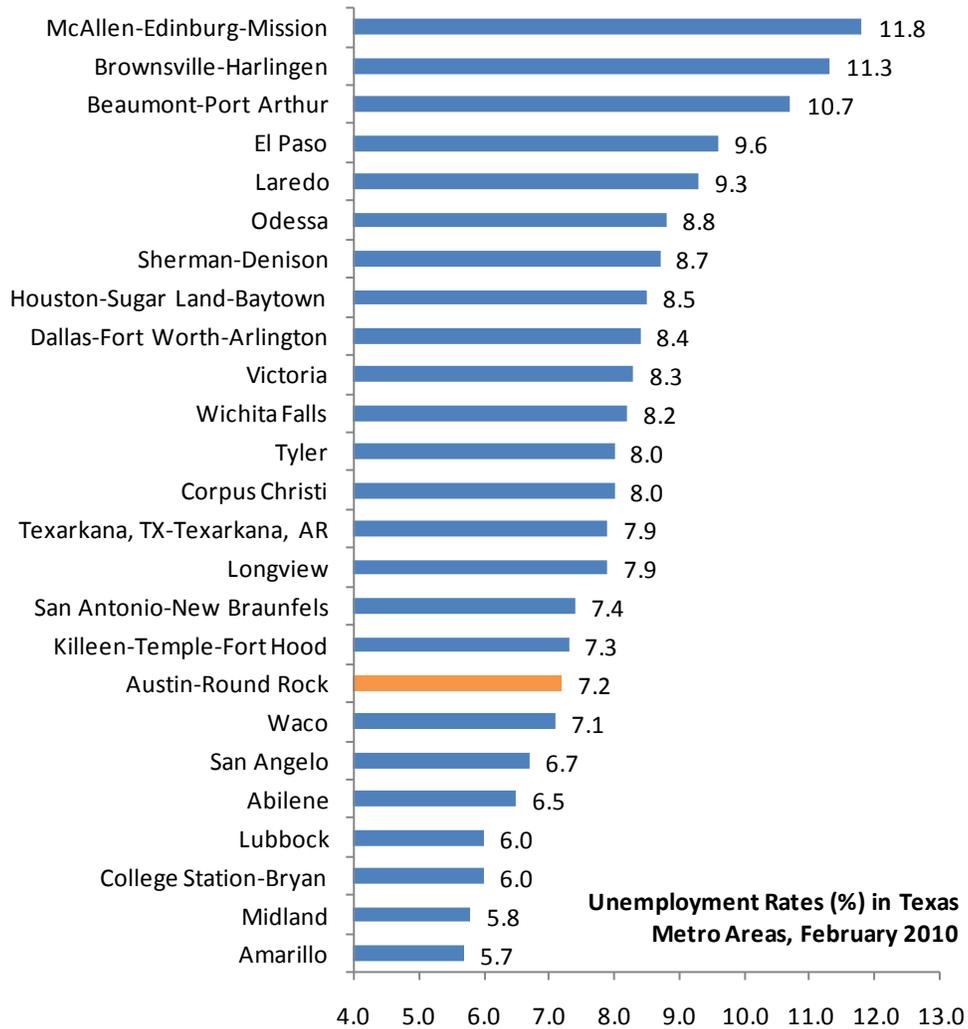
In 2008 through 2009, the region experienced a negative annual job growth rate, losing nearly 20,000 jobs. Unemployment rose to 7 percent in April 2010. Many believe that the region has gone through one of its most difficult recessionary periods. Yet, this recession has not hit the labor market as hard as the one in 2002- 2003.



*Source: Texas Workforce Commission*

In 2002-2003, job growth dropped to -5.3 percent and the region lost approximately 40,000 jobs. In 2002-2003, the Austin-Round Rock MSA was hit hard by the “dot.com” bust, due in part to an over dependence on information technology. In the intervening years, the regional economy has become more diverse. The region, like the State of Texas, was one of the last areas hit by the latest national recession and many predict it will be one of the first to recover.

While unemployment in the Austin-Round Rock MSA has climbed to its highest level in nearly two decades, it is the lowest among the state's metro areas.



Source: Texas Workforce Commission

Unemployment estimates for April 2010 released by the Texas Workforce Commission show the unemployment rate in the Austin-Round Rock MSA at 7 percent, while the Texas rate was 8.1 percent and the U.S. rate was 9.5 percent.

The unemployed represent an available source of labor. So who are the unemployed and how are they likely to fare when the economy rebounds? Texas Workforce Commission (TWC) data on Unemployment Insurance claimants in the Austin-Round Rock MSA has been analyzed in terms of age, race/ethnicity, educational attainment, previous industry, and previous occupation, and is displayed on the following charts.

**UI Claimants by Age Range in Austin-Round Rock MSA, 2009**

	UI Claimants	% Total UI Claimants	% Total Labor Force
<b>15 to 24 years</b>	6,145	11.2%	15.9%
<b>25 to 34 years</b>	15,874	29.1%	26.0%
<b>35 to 44 years</b>	14,309	26.2%	24.4%
<b>45 to 54 years</b>	11,874	21.7%	20.4%
<b>55 to 59 years</b>	3,690	6.8%	6.7%
<b>60 to 64 years</b>	1,944	3.6%	4.1%
<b>65 to 74 years</b>	745	1.4%	2.2%
<b>75+</b>	57	0.1%	0.4%

**Unemployment Insurance Claimants by Race/Ethnicity  
in Austin-Round Rock MSA, 2009**

	UI Claimants	% Total UI Claimants	% Total Population
<b>White</b>	29,805	55.4%	56.3%
<b>Hispanic</b>	14,237	26.5%	30.2%
<b>Black</b>	7,048	13.1%	7.2%
<b>Asian</b>	2,159	4.0%	4.4%
<b>Native American</b>	412	0.8%	< 1%
<b>Pacific Islander</b>	154	0.3%	< 1%

**Unemployment Insurance Claimants Age 25+ by Educational Attainment  
in Austin-Round Rock MSA, 2009**

	UI Claimants	% Total UI Claimants	% Total Population
<b>Less than 9th grade</b>	2,632	5.4%	7.2%
<b>9th to 12th grade, no diploma</b>	3,452	7.1%	6.3%
<b>High school graduate (includes equivalency)</b>	12,830	26.5%	19.7%
<b>Some college, no degree</b>	21,671	44.7%	21.7%
<b>Associate's degree</b>	3,259	6.7%	6.8%
<b>Bachelor's degree</b>	1,180	2.4%	24.5%
<b>Graduate or professional degree</b>	3,469	7.2%	13.7%

Workers ages 25 to 44 and Blacks have experienced higher rates of unemployment than other groups and disproportionate compared to their percentage of the total population. Individuals with higher levels of education have fared better than those with lower education levels in terms of unemployment.

#### Unemployment Insurance Claimants by Industry in Austin-Round Rock MSA, 2009

	UI Claimants	% Total UI Claimants	% Total Employment
Temp Help Services/Professional Employer Organizations	4,429	8.64%	1.26%
Computer and Software Merchant Wholesalers	1,937	3.78%	1.84%
Semiconductor and Related Device Manufacturing	1,834	3.58%	1.05%
Engineering Services	1,280	2.50%	1.03%
Full-Service Restaurants	936	1.83%	3.19%
Custom Computer Programming Services	889	1.74%	1.03%
Limited-Service Restaurants	866	1.69%	2.33%
Computer Systems Design Services	608	1.19%	0.86%
Wholesale Trade Agents and Brokers	561	1.09%	0.45%
Elementary and Secondary Schools	534	1.04%	0.48%
Offices of Physicians	531	1.04%	1.40%
Commercial and Institutional Building Construction	524	1.02%	0.38%
Hotels and Motels	510	1.00%	0.75%
Supermarkets and Other Grocery Stores	507	0.99%	1.36%

Nearly every sector of the economy has been affected by the recession. However temporary help services/professional employer organization, computer and software merchant wholesalers, semiconductor and related device manufacturing, and engineering services have experienced greater job losses compared to other sectors based on their percentage of total employment.

#### Unemployment Insurance Claimants by Occupation in Austin-Round Rock MSA, 2009

	UI Claimants	% Total UI Claimants	% Total Employment
410 Sales and Related	6,813	12.47%	13.85%
430 Office and Administrative Support	6,777	12.40%	14.93%
510 Production	4,947	9.05%	3.65%
110 Management	4,679	8.56%	7.74%
150 Computer and Mathematical	3,907	7.15%	4.37%
470 Construction and Extraction	3,673	6.72%	4.89%
130 Business and Financial Operations	3,583	6.56%	6.67%

<b>490</b>	<b>Installation, Maintenance, and Repair</b>	2,866	5.25%	3.08%
<b>530</b>	<b>Transportation and Material Moving</b>	2,535	4.64%	3.92%
<b>350</b>	<b>Food Preparation and Serving Related</b>	2,394	4.38%	7.14%
<b>170</b>	<b>Architecture and Engineering</b>	1,971	3.61%	2.66%
<b>310</b>	<b>Healthcare Support</b>	1,648	3.02%	1.69%
<b>250</b>	<b>Education, Training, and Library</b>	1,208	2.21%	5.87%
<b>270</b>	<b>Arts, Design, Entertainment, Sports, Media</b>	1,065	1.95%	3.76%
<b>370</b>	<b>Building and Grounds Maintenance</b>	996	1.82%	3.45%
<b>390</b>	<b>Personal Care and Service</b>	818	1.50%	2.89%
<b>290</b>	<b>Healthcare Practitioners and Technical</b>	732	1.34%	3.45%
<b>230</b>	<b>Legal</b>	524	0.96%	1.01%
<b>330</b>	<b>Protective Service</b>	407	0.74%	1.85%
<b>210</b>	<b>Community and Social Services</b>	396	0.72%	1.16%
<b>190</b>	<b>Life, Physical, and Social Science</b>	179	0.33%	1.52%
<b>550</b>	<b>Military Specific</b>	60	0.11%	0.39%
<b>450</b>	<b>Farming, Fishing, and Forestry</b>	54	0.10%	0.04%
<b>999</b>	<b>Unknown SOC Code</b>	2,406	4.40%	N/A

The data shows that occupations which require higher levels of education had lower rates of unemployment. Based on the industries that the unemployed have come from and the occupations they previously held, it indicates a strong need for retraining or skill upgrading by many workers in order to position them to be able to take advantage of projected growth in high-skill, high-demand occupations.

# DEMAND

## The Changing Workplace

The other half of the labor market is the demand side – i.e. jobs. The types and structures of industries and occupations and the skills required shape the workforce. The workplace of today and consequently the workforce are quite different than they were even five years ago. Globalization, advances in technology and changes in demographics are continuously reshaping the workplace. Job obsolescence is increasing. New types of jobs are being created. And the skills required to perform jobs (old and new) are changing. Continuous, life-long learning has become a necessity for survival.

According to the U.S. Department of Commerce’s *21<sup>st</sup> Century Skills for 21<sup>st</sup> Century Jobs*, 20 percent of jobs were considered “professional” in 1950. That percentage remains unchanged today. What has changed is the percentage of jobs classified as “unskilled” and “skilled”. In 1950, 60 percent of jobs were considered “unskilled” while only 20% were “skilled”. By 2000, those percentages had reversed.

Experts claim that today about 85 percent of all new jobs being created will require some level of education and/or training beyond high school. About 20 percent will require a Bachelor’s degree or higher. However, 65 percent of jobs will be at the “technician” level requiring a one-year industry certificate or an Associate’s degree. It’s not just about education and the attainment of a degree. The focus has shifted to skills and certifications – the application of knowledge.

In today’s information, knowledge-based economy, companies have changed how they are organized and the ways in which they do business. Workers at all levels are more empowered in the organizational processes and production. Employers need skilled, creative and innovative people throughout the organization, not just at the top.

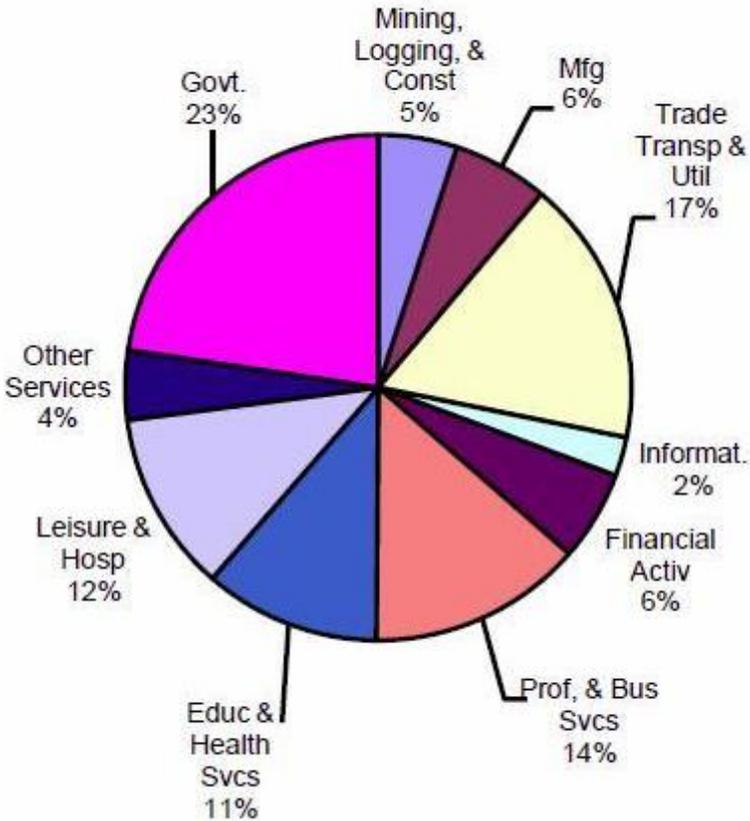
The percentage of workers directly connected to a company is changing. As companies change their structures, more workers are finding themselves as part of the contingent workforce – i.e. temporary workers, independent contractors or consults.

## Employment by Industry

Government; trade, transportation and utilities; and business and professional services represent the greatest employment numbers in the Austin-Round Rock MSA.

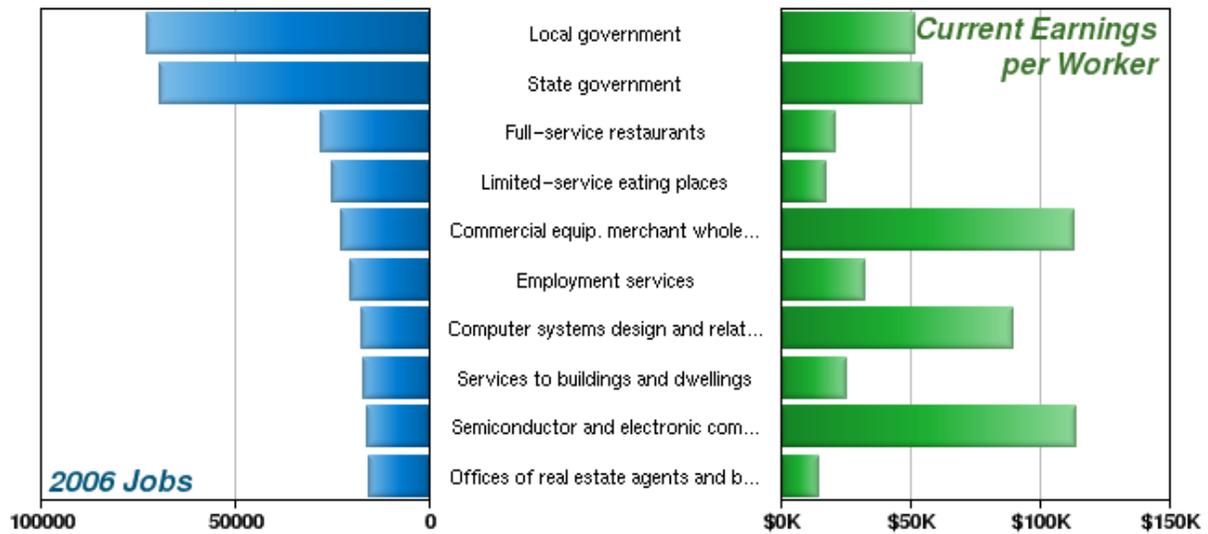
	April 2010
Total Nonagricultural Employment	760,400
Mining, Logging & Construction	38,500
Manufacturing	46,500
Trade, Transportation & Utilities	130,000
Information	19,100
Financial Activities	43,800

Professional & Business Services	104,700
Education & Health Services	85,900
Leisure & Hospitality	88,200
Other Services	33,800
Government	172,700



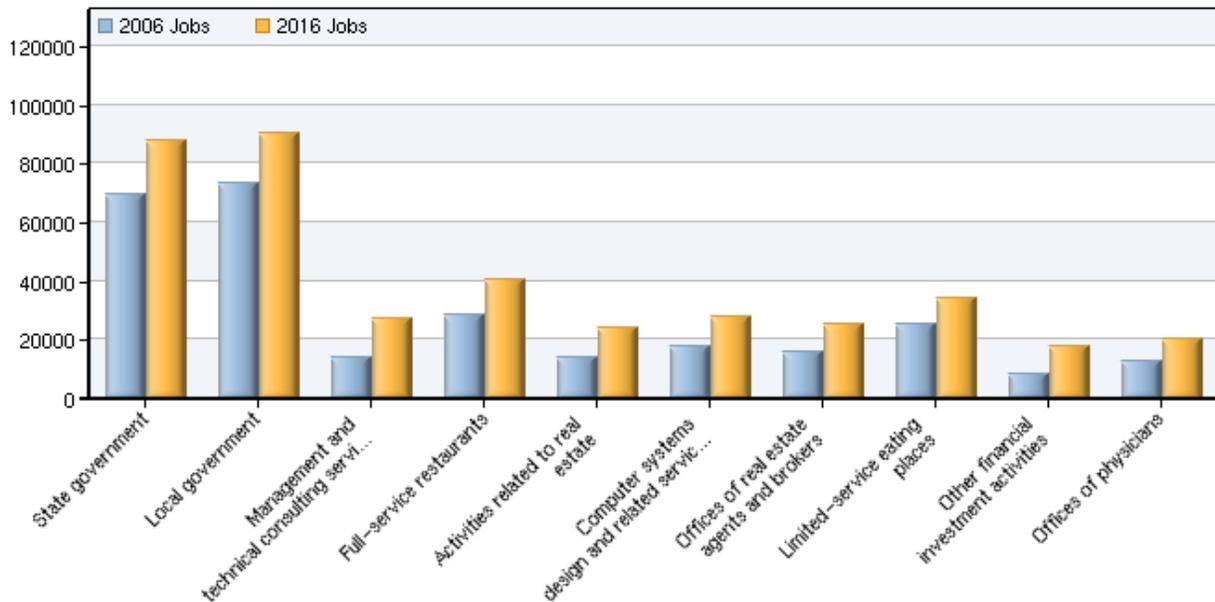
Source: Texas Workforce Commission (Economic Profile April 2010)

### Region's Largest Industries



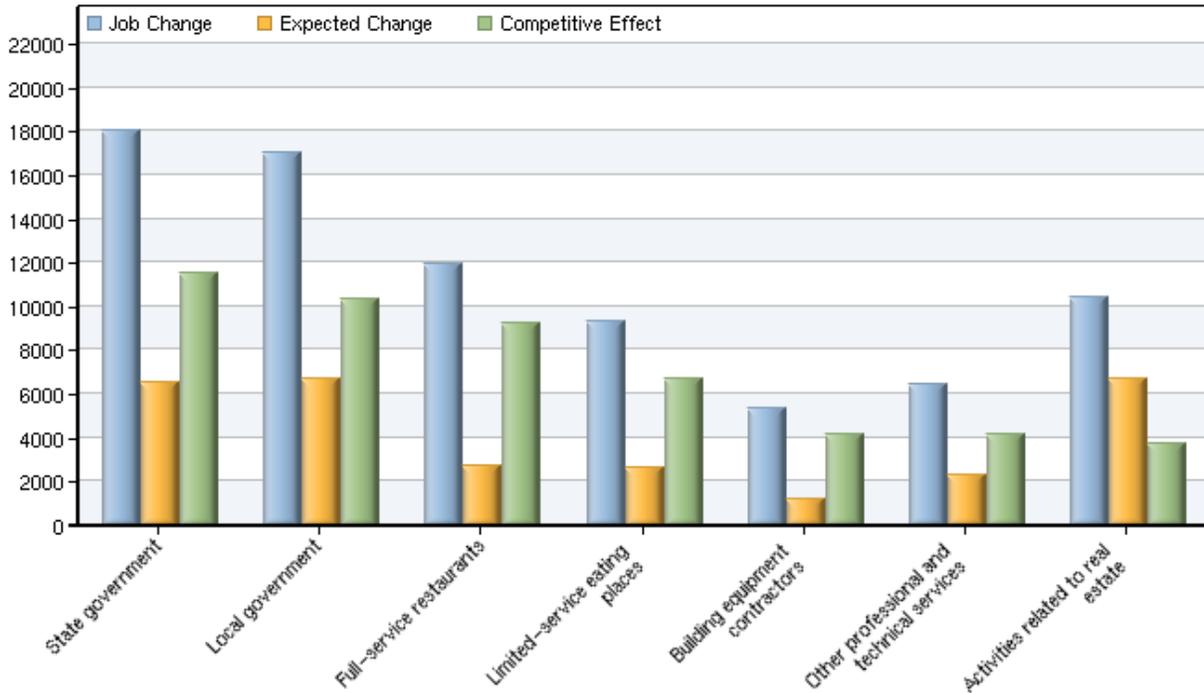
Source: Economic Modeling Specialists, Inc., Complete Employment – 1<sup>st</sup> Quarter 2010

### Region's Fastest Growing Industries



Source: Economic Modeling Specialists, Inc., Complete Employment – 1<sup>st</sup> Quarter 2010

## Region's Most Competitive Industries



Source: Economic Modeling Specialists, Inc., Complete Employment – 1<sup>st</sup> Quarter 2010

This report refers to targeted and demand industries and occupations. It is important to distinguish the difference between the two. The Texas Workforce Commission's Labor Market and Career Information Department defines a "demand" industry or occupation as one in which large numbers of job openings are likely to occur and where there are above average projected annual job openings. "Demand" occupations are those with large numbers of jobs, regardless of job characteristics. "Targeted" occupations are subsets of demand occupations, but possess distinctive attributes.

The terms "high skill" and "high demand" are also used in this report. A "high skill" occupation as defined by the U.S. Department of Labor, is one that requires significant postsecondary education or training, i.e., apprenticeship, an industry certificate, an Associate's degree or higher. A "high demand" industry or occupation is one which must meet one or more of the following criteria:

- Have above average projected job openings statewide or regionally, thus demonstrating a high expectation of employment opportunity;
- Have a significant impact on, or be a key driver, of the local economy;
- Be customized or transformed by technology and innovation, requiring upgraded skills sets for workers to remain productive in high demand sectors; or
- Be new and emerging in a vocational field that is projected to remain in sustained high demand.

Effectively targeting industries and occupations projected to grow in the region, and that are consistent with economic development activities that may catalyze a variance from historical trends and future

projections, is an important step in identifying targets for the investment of workforce development resources. Using a variety of tools and resources, we have identified targeted industries and occupations which are growing and/or emerging and provide the greatest potential for high-skill, high demand jobs. These tools and resources include:

- Texas Workforce Commission SOCRATES system INDEVAL and Shift-Share Analysis tools
- Texas Workforce Commission 2006-2016 Industry and Occupational growth projections
- Texas Workforce Commission Interaction Location Quotient Tools (Texas Industry Profiles)
- Economic Modeling Specialist Inc. economic analyst tools
- Bureau of Labor Statistics
- “Local wisdom” – input from employers, chambers of commerce and economic development organizations
- Governor’s Industry Cluster Initiative
- Greater Austin Chamber of Commerce – Opportunity Austin

Based on a regional analysis using the afore-mentioned tools and resources, the following industries have been identified as targets for potential in providing high-skill, high-demand occupational opportunities in the Austin-Round Rock MSA:

<b>NAICS</b>	<b>Industry</b>
2211	Power Generation and Supply
2382	Building Equipment Contractors
3254	Pharmaceutical & Medicine Manufacturing
3344	Semiconductor and Electronic Manufacturing
3391	Medical Equipment and Supplies Manufacturing
5112	Software Publishing
5182	Data Processing and Related Services
5413	Architectural and Engineering Services
5415	Computer Systems Design and Related Services
5416	Management & Technical Consulting Services
5417	Scientific Research and Development Services
6111	Elementary and Secondary Schools
6211	Offices of Physicians
6215	Medical and Diagnostic Laboratories
6221	General Medical and Surgical Hospitals

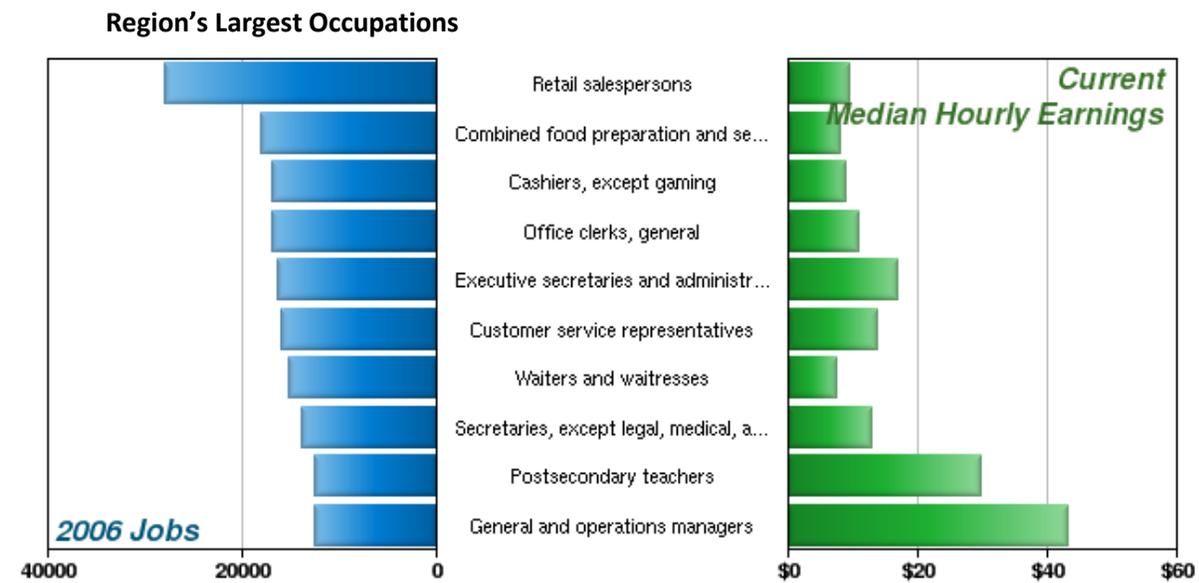
*Source: Local Workforce Plans for Workforce Solutions Capital Area and Workforce Solutions Rural Capital Area*

This list is consistent with industries targeted for economic development under the Greater Austin Chamber of Commerce’s *Opportunity Austin*, the prominent industry clusters in the region, and the Governor’s targeted industry clusters: healthcare, bio-technology/life sciences, information technology and computers, energy (renewable & efficiency), and digital/creative media. Together with the targeted occupations list, this information is used to guide the investment of workforce development funds.

## Occupational Opportunities

Projecting occupational growth is not an exact science. Projections are based largely on historical trends. The workplace is rapidly changing. Jobs are becoming obsolete and new jobs are being created at a more rapid pace. Most often, these changes are not reflected in occupational projections until several years after the fact.

The fastest growing and largest occupations in the Austin-Round Rock MSA are dominated by lower-skill, lower-wage jobs.



Source: EMSI

SOC CODE	Description	2006 Jobs	2016 Jobs	% Change
41-2031	Retail Salespersons	28,065	35,958	7,893
35-3021	Combined Food Preparation and Serving Workers, including fast food	18,074	25,471	7,397
41-2011	Cashiers, except gaming	17,031	21,133	4,102
43-9061	Office Clerks, general	16,916	21,277	4,361
43-6011	Executive Secretaries and Administrative Assistants	16,470	21,066	4,596
43-4051	Customer Service Representatives	16,089	21,767	5,678
35-3031	Waiters and Waitresses	15,326	20,655	5,329
43-6014	Secretaries, except legal, medical, & exec.	13,978	16,788	2,810
25-1099	Postsecondary Teachers	12,639	16,403	3,764
11-1021	General and Operations Managers	12,486	14,649	2,163

Source: EMSI

Occupational projections show that there will be plenty of jobs available for job seekers at all levels of education and training. However, the fastest growing, largest numbers of jobs will be low-skill, low wage jobs that require the least education and provide little if any opportunity for advancement.

When we begin to sort and filter occupations taking into account such factors as employment levels, employment change, average annual job openings, wage, and education requirements, a much different occupational list emerges. The following table shows the occupations targeted by the Capital and Rural Capital Area workforce boards, which are experiencing growth, emerging and providing opportunities for high-skill, high-demand jobs. It also shows the corresponding required education/training required for each occupation. The majority of the occupations displayed required some level of postsecondary education and/or training. Even those jobs that show an education/training requirement of short-term, moderate-term and long-term training actually require a combination of on-the-job training and formal classroom training.

<b>SOC Code</b>	<b>Description</b>	<b>Education/Training Requirement</b>
13-2011	Accountants and auditors	Bachelor's degree
49-3021	Automotive body and related repairers	Moderate-term training
49-3023	Automotive service technicians and mechanics	Postsecondary vocational award
43-3011	Bill and account collectors	Short-term training
43-3021	Billing and posting clerks and machine operators	Moderate-term training
19-4021	Biological technicians	Associate's degree
43-3031	Bookkeeping, accounting and auditing clerks	Moderate-term training
49-3031	Bus and truck mechanics and diesel engine specialists	Postsecondary vocational award
17-3022	Civil engineering technicians	Associate's degree
17-2051	Civil engineers	Bachelor's degree
15-1021	Computer programmers	Bachelor's degree
15-1031	Computer software engineer, applications	Bachelor's degree
15-1021	Computer software engineer, systems software	Bachelor's degree
15-1041	Computer support specialists (includes computer security)	Associate's degree
15-1051	Computer systems analysts	Bachelor's degree
51-4011	Computer-controlled machine tool operators, metal & plastic	Moderate-term training
47-4011	Construction & Building Inspectors (includes energy auditors)	
11-9021	Construction managers	Bachelor's degree
47-4011	Customer Service Representatives	Moderate-term training
17-3023	Electrical and electronic engineering technicians	Associate's degree
17-2071	Electrical engineers	Bachelor's degree
49-9051	Electrical power-line installers & repairers	Long-term training
47-2111	Electricians	Long-term training
25-2021	Elementary school teachers, except special education	Bachelor's degree
51-8013	Energy grid and control technicians	Postsecondary vocational award
43-6011	Executive secretaries and administrative assistants	Moderate-term training
27-1024	Graphic designers	Bachelor's degree

49-9021	HVAC mechanics & installers	Long-term training
17-3026	Industrial engineering technicians	Associate's degree
17-2112	Industrial engineers	Bachelor's degree
49-9041	Industrial machinery mechanics	Long-term training
51-9061	Inspectors, testers, sorters, samplers, & weighers	Moderate-term training
29-2061	Licensed vocational nurses	Postsecondary vocational award
51-4041	Machinists	Long-term training
17-3026	Manufacturing technicians	Moderate-term training
17-2141	Mechanical engineers	Bachelor's degree
31-9092	Medical Assistants	Moderate-term training
29-2012	Medical and clinical laboratory technicians	Associate's degree
29-2011	Medical and clinical laboratory technologists	Bachelor's degree
43-6013	Medical secretaries	Moderate-term training
25-2022	Middle school teachers, except special & vocational education	Bachelor's degree
27-1014	Multi-media artists & animators	Bachelor's degree
15-1071	Network and computer systems administrators	Bachelor's degree
15-1081	Network systems and data communications analysts	Bachelor's degree
31-1012	Nursing Aides	Postsecondary vocational award
31-2012	Occupational therapists aides	Associate's degree
29-2052	Pharmacy technicians	Associate's degree
31-2021	Physical therapist assistants	Associate's degree
29-1123	Physical therapists	Bachelor's degree
47-2152	Plumbers, pipefitters & steamfitters	Long-term training
49-2094	PV Solar Installers	Moderate-term training
29-2034	Radiologic technologists/technicians	Associate's degree
29-1111	Registered Nurses	Associate's degree
29-1126	Respiratory Therapists	Associate's degree
41-4012	Sales representatives, wholesale & manufacturing	Moderate-term training
25-2031	Secondary school teachers, except special & vocational education	Bachelor's degree
43-6014	Secretaries, except legal, medical & exec.	Moderate-term training
47-2211	Sheet metal workers	Long-term training
51-2041	Structural metal fabricators & fitters	Moderate-term training
29-2055	Surgical technicians	Postsecondary vocational award
17-3031	Surveying & mapping technicians	Moderate-term training
49-2022	Telecommunications equipment installers & repairers	Long-term training
53-3032	Truck drivers, heavy	Postsecondary vocational award
47-2131	Weatherization technicians	Short-term training
51-4121	Welders, cutters, solderers & brazers	Moderate-term training

Source: Local workforce plans for Workforce Solutions Capital Area and Workforce Solutions Rural Capital Area

Typically when most people think of health care they think in terms of hospitals. While hospitals are a major employer within the health care/biotech cluster (representing 25.8% of total employment), the majority of jobs are found outside of the institutional setting. Biotechnology is a rapidly emerging sector within the life sciences, with growth in pharmaceutical and medicine manufacturing, diagnostic laboratories, and medical equipment and supplies manufacturing.

#### Health Care/Biotech Cluster Employment by Industry in Austin-Round Rock MSA

	Jobs 2009	Expected Job Growth 2009-2019	Establishments 2008
General medical and surgical hospitals	16,608	25%	40
Offices of physicians	15,085	47%	1,090
Offices of other health practitioners	8,203	43%	654
Scientific research and development services	5,398	44%	184
Offices of dentists	4,669	34%	583
Nursing care facilities	4,034	27%	62
Residential mental health facilities	2,911	26%	107
Community care facilities for the elderly	2,659	18%	58
Pharmaceutical and medicine manufacturing	1,793	10%	16
Medical and diagnostic laboratories	1,657	42%	66
Medical equipment and supplies manufacturing	1,295	23%	56
<b>Total</b>	<b>64,312</b>	<b>35%</b>	<b>2,916</b>

Approximately 58 percent of occupations in the health care/biotechnology cluster require some a postsecondary vocational award or higher and offer higher average hourly wages than those with lesser educational requirements.

#### Health Care/Biotech Cluster Employment by Education/Training Requirement in Austin-Round Rock MSA, 2009

	Jobs	% Total Jobs in Cluster	Average Hourly Wage
Short-term on-the-job training	11,823	18.54%	\$11.04
Moderate-term on-the-job training	11,728	18.39%	\$14.04
Associate's degree	9,343	14.65%	\$22.17
Postsecondary vocational award	7,553	11.84%	\$15.74
Bachelor's degree	6,546	10.26%	\$25.15
First professional degree	5,481	8.59%	\$42.37
Master's degree	4,196	6.58%	\$21.70

<b>Work experience in a related field</b>	2,466	3.87%	\$21.73
<b>Degree plus work experience</b>	2,308	3.62%	\$42.37
<b>Doctoral degree</b>	1,815	2.85%	\$26.48
<b>Long-term on-the-job training</b>	520	0.82%	\$18.13

**Fastest Growing Occupations in Health Care/Biotech Cluster in Austin-Round Rock MSA**

	<b>Jobs 2009</b>	<b>Expected Job Growth 2009-2019</b>	<b>Median Hourly Earnings</b>	<b>Education/Training Requirement</b>
<b>Registered nurses</b>	4,974	1,968	\$27.52	Associate's degree
<b>Medical assistants</b>	2,523	1,333	\$13.69	Moderate-term training
<b>Physicians and surgeons</b>	3,647	1,191	\$100.33	First professional degree
<b>Nursing aides, orderlies, and attendants</b>	3,393	873	\$10.79	Postsecondary vocational award
<b>Secretaries, except legal, medical, executive</b>	1,528	795	\$12.88	Moderate-term training
<b>Home health aides</b>	1,461	719	\$9.20	Short-term training
<b>Office clerks, general</b>	1,586	679	\$10.74	Short-term training
<b>Dental assistants</b>	1,512	658	\$16.58	Moderate-term training
<b>First-line supervisors of office workers</b>	1,578	631	\$22.11	Work experience in related field
<b>Medical secretaries</b>	1,362	595	\$13.97	Postsecondary vocational award
<b>Receptionists and information clerks</b>	2,009	567	\$12.08	Short-term training
<b>Licensed practical and vocational nurses</b>	1,564	499	\$18.74	Postsecondary vocational award
<b>Executive secretaries</b>	1,308	452	\$16.90	Moderate-term training
<b>Physical therapists</b>	818	358	\$30.07	Master's degree
<b>Dental hygienists</b>	788	341	\$36.45	Associate's degree
<b>Billing, posting clerks and machine operators</b>	868	306	\$15.57	Moderate-term training
<b>Clinical, counseling, and school psychologists</b>	845	272	\$21.06	Doctoral degree
<b>Customer service representatives</b>	550	259	\$13.60	Moderate-term training
<b>Bookkeeping, accounting, and auditing clerks</b>	705	258	\$14.75	Moderate-term training
<b>Psychologists, all other</b>	696	236	\$20.41	Master's degree

Source: EMSI

Renewable Energy/Energy Efficiency is an emerging industry cluster where growth in “green jobs” has been highly anticipated. The renewable energy/energy efficiency sector is not so much a new sector as it is a combination of existing sectors such as construction, architecture and engineering, power generation, etc. as show in the table below. This is also a sector where projecting job growth is extremely difficult as it is still evolving.

Many of the “green jobs” are not new jobs. Rather, many are old jobs that require new “green” skills. For example, there’s the electrician, a job that has been around for a long time. Now, however, the electrician needs to learn solar technology to work in connecting solar panels to the home electrical system. Not a new job, but a new set of skills.

#### Renewable Energy Cluster Employment by Industry in Austin-Round Rock MSA

	Jobs 2009	Expected Job Growth 2009-2019	Establishments 2008
Management and technical consulting services	19,313	10,614	1,491
Architectural and engineering services	15,814	5,441	1,108
Building equipment contractors	14,424	7,621	895
Building foundation and exterior contractors	7,791	1,569	467
Residential building construction	7,238	2,159	820
Nonresidential building construction	4,762	1,823	340
Utility system construction	3,291	463	137
Power generation and supply	1,242	148	41
<b>Total</b>	<b>73,874</b>	<b>29,837</b>	<b>5,298</b>

#### Renewable Energy Cluster Employment by Education/Training Requirement

in Austin-Round Rock MSA, 2009

	Jobs	% Total Jobs in Cluster	Average Hourly Wage
Moderate-term on-the-job training	16,876	23.03%	\$16.01
Bachelor's degree	15,679	21.40%	\$24.54
Long-term on-the-job training	13,069	17.84%	\$18.64
Degree plus work experience	11,095	15.14%	\$39.11
Work experience in a related field	6,475	8.84%	\$23.32
Short-term on-the-job training	4,889	6.67%	\$12.21
Postsecondary vocational award	2,119	2.89%	\$17.55
Associate's degree	1,921	2.62%	\$20.75
Master's degree	943	1.29%	\$26.81
Doctoral degree	140	0.19%	\$26.74
First professional degree	61	0.08%	\$68.57

**Fastest Growing Occupations in Renewable Energy Cluster in Austin-Round Rock MSA**

	<b>Jobs 2009</b>	<b>Expected Job Growth 2009-2019</b>	<b>Median Hourly Earnings</b>	<b>Education/Training Requirement</b>
<b>Management analysts</b>	8,001	3,463	\$22.20	Degree plus work experience
<b>Construction laborers</b>	4,790	1,757	\$12.87	Moderate-term training
<b>Heating, a/c, refrigeration mechanics</b>	1,580	1,107	\$18.30	Long-term training
<b>First-line supervisors of construction workers</b>	2,956	1,045	\$23.93	Work experience in related field
<b>Electricians</b>	2,421	1,011	\$18.52	Long-term training
<b>Construction managers</b>	2,821	957	\$24.80	Bachelor's degree
<b>Plumbers, pipefitters, and steamfitters</b>	1,984	925	\$21.45	Long-term training
<b>Civil engineers</b>	1,831	822	\$31.95	Bachelor's degree
<b>Executive secretaries</b>	1,491	798	\$16.90	Moderate-term training
<b>Carpenters</b>	3,414	737	\$19.15	Long-term training
<b>Helpers, electricians</b>	856	524	\$12.43	Short-term training
<b>Office clerks, general</b>	1,066	510	\$10.74	Short-term training
<b>Bookkeeping, accounting, and auditing clerks</b>	945	437	\$14.75	Moderate-term training
<b>Secretaries, except legal, medical, executive</b>	1,181	417	\$12.88	Moderate-term training
<b>General and operations managers</b>	1,121	409	\$43.25	Degree plus work experience
<b>Accountants and auditors</b>	754	408	\$22.88	Bachelor's degree
<b>Architects, except landscape and naval</b>	1,241	392	\$25.41	Bachelor's degree
<b>Cost estimators</b>	650	386	\$25.53	Work experience in related field
<b>Sales representatives, services, all other</b>	763	363	\$17.27	Moderate-term training
<b>Customer service representatives</b>	455	333	\$13.60	Moderate-term training

*Source: EMSI*

The information technology sector has been a main-stay of the Austin-Round Rock MSA economic structure since the 1990s. Over two decades ago the region became a major hub for the manufacturing of semiconductors and computers. The industry is now shifting into relatively new and emerging sectors such as digital & creative media (game development in particular) as well as software development and related services.

**Information Technology/Computers/Digital & Creative Media Cluster Employment  
by Industry in Austin-Round Rock MSA**

	<b>Jobs 2009</b>	<b>Expected Job Growth 2009-2019</b>	<b>Establishments 2008</b>
<b>Semiconductor and electronic component mfg.</b>	14,827	-3,256	113
<b>Software publishers</b>	6,070	1,307	165
<b>Motion picture and video industries</b>	2,737	780	132
<b>Wireless telecommunications carriers</b>	2,259	426	83
<b>Data processing and related services</b>	2,078	219	154
<b>Computer systems design and related services</b>	21,338	8,435	1,996
<b>Total</b>	49,311	7,907	2,642

**Information Technology/Computers/Digital & Creative Media Cluster Employment  
by Education/Training Requirement in Austin-Round Rock MSA, 2009**

	<b>Jobs</b>	<b>% Total Jobs in Cluster</b>	<b>Average Hourly Wage</b>
<b>Bachelor's degree</b>	21,913	44.90%	\$27.12
<b>Moderate-term on-the-job training</b>	6,510	13.34%	\$13.97
<b>Short-term on-the-job training</b>	5,631	11.54%	\$11.19
<b>Associate's degree</b>	5,389	11.04%	\$21.01
<b>Degree plus work experience</b>	4,694	9.62%	\$37.90
<b>Work experience in a related field</b>	2,449	5.02%	\$23.62
<b>Doctoral degree</b>	877	1.80%	\$33.05
<b>Long-term on-the-job training</b>	523	1.07%	\$15.46
<b>Postsecondary vocational award</b>	523	1.07%	\$17.35
<b>Master's degree</b>	252	0.52%	\$34.87
<b>First professional degree</b>	44	0.09%	\$36.81

**Fastest Growing Occupations in Information Technology/Computers/Digital & Creative Media Cluster  
in Austin-Round Rock MSA**

	<b>Jobs 2009</b>	<b>Expected Job Growth 2009-2019</b>	<b>Median Hourly Earnings</b>	<b>Education/Training Requirement</b>
<b>Computer software engineers, applications</b>	3,954	1,517	\$41.92	Bachelor's degree
<b>Computer software engineers, systems</b>	2,945	1,070	\$41.96	Bachelor's degree
<b>Computer systems analysts</b>	2,605	836	\$30.36	Bachelor's degree
<b>Network systems and data comm. analysts</b>	1,401	722	\$24.00	Bachelor's degree
<b>Computer support specialists</b>	1,575	647	\$18.62	Associate's degree
<b>Network, computer systems administrators</b>	755	378	\$26.51	Bachelor's degree
<b>Customer service representatives</b>	1,292	328	\$13.60	Moderate-term training
<b>Computer programmers</b>	3,225	319	\$32.13	Bachelor's degree
<b>Management analysts</b>	931	254	\$22.20	Degree plus work experience
<b>Computer and information systems managers</b>	865	253	\$52.69	Degree plus work experience
<b>Chief executives</b>	815	244	\$22.65	Degree plus work experience
<b>Managers, all other</b>	793	239	\$16.52	Work experience in related field
<b>Computer, information scientists, research</b>	864	227	\$41.19	Doctoral degree
<b>Sales representatives, services, all other</b>	713	182	\$17.27	Moderate-term training
<b>Database administrators</b>	411	166	\$31.38	Bachelor's degree
<b>Computer specialists, all other</b>	594	159	\$31.36	Associate's degree
<b>Sales reps, technical and scientific products</b>	762	153	\$25.85	Moderate-term training
<b>Accountants and auditors</b>	529	147	\$22.88	Bachelor's degree
<b>Executive secretaries</b>	639	123	\$16.90	Moderate-term training
<b>Producers and directors</b>	342	119	\$15.92	Degree plus work experience

*Source: EMSI*

These three sectors – health care/biotechnology, renewable energy, and information technology (digital media and software development) are bringing new types of jobs to the regions, jobs which are high-skill and high-demand. A skills gap may be looming for employers in these industries. Students are not entering and receiving certificates and degrees in many of the occupational areas these industries offer in numbers sufficient to meet future demand. This is an acute problem in occupations that require a strong background in science, technology, engineering, and math (STEM skills).

# OBSERVATIONS & RECOMMENDATIONS

## Observations

The Austin-Round Rock MSA is a rapidly growing region with an economy that is performing well overall compared to other U.S. regions. Even during this most recent recession, it has fared much better than most areas within Texas and across the U.S. The unemployment rate, while the highest it has been in more than 10 years, has stayed well below state and national averages. While the region has experienced job losses (nearly 20,000 in 2009-2010), the losses are half of what they were in the dot.com bust of 2002-2003. While employment levels have declined, the region remains one of the most competitive regions in the U.S. for technology manufacturing industries, such as semiconductors and testing instruments. In addition, the transition to technology services – system design, software, custom programming – has already found solid footing in the Austin-Round Rock MSA. Finally, the region is well-positioned to take advantage of expected growth in emerging sectors such as renewable energy and clean technology, biotechnology, and digital media.

The region is a magnet for attracting new residents and talent, gaining an average of 49,000 new residents per year. The region is also routinely found among the leaders in the “best of” or “top 10” lists. There are a number of factors that contribute to the success of the region, including:

- The overall young age of the population and labor force
- A creative and innovative culture
- An available supply of skilled labor
- Favorable cost of living
- Business-friendly environment
- Overall quality of life – quality education, parks and recreation, music and arts, a blend of urban and rural, etc.

For all its strengths and potential, the region faces certain underlying challenges that must be addressed if it is to remain competitive in the global economy. As one of the fastest growing regions in the U.S., the Austin-Round Rock MSA cannot become complacent relying on population growth to drive its economic development and fill the demand for skilled labor. Sustainability and equity are of primary concern.

Significant disparities in education, income and employment exist between racial/ethnic groups and gender. While we have benefitted from an influx of talent as a result of population migration to the region, we simply have not taken full advantage of our native human capital. As the E3 Alliance appropriately states, overall, too few students: graduate high school, enter college and get a post-secondary degree to meet the needs of our region in a globally competitive economy.

There will be plenty of jobs available for job seekers at all levels of education and experience. Most of the projected job growth, in terms of sheer numbers of jobs, however, will be in low-skill, low-wage occupations with little opportunity for upward mobility.

As the economy continues to grow, it will be adding high-skill, high-demand jobs. The vast majority of these new jobs will require some level of education and/or training beyond high school. Many of these jobs can be filled by individuals with a one-year industry certificate or an Associate's degree, particularly in a technology-related field.

Not only is the region not graduating enough of its high school students, many of those who do graduate are not work or college ready. They are ill-equipped in the basic or foundation skills of reading, writing, and math as evidenced by the high number of incoming students at post-secondary institutions that require some level of remediation. They are also lacking the "4<sup>th</sup> R" skills (i.e., workforce readiness) - teamwork, problem-solving, communications, interpersonal skills, ethics, and work habits. This means that nearly half of the region's new workforce entrants were unlikely to be prepared for anything more than entry-level work.

School districts are seeing a rapid growth in minority and low-income students. Significant gaps exist in test scores and grades and a disproportionate number of minority students are at risk of dropping out. A growing number of students and adults lack adequate English language skills, making both educational attainment and obtaining employment difficult.

Of the students who do graduate from high school and enter post-secondary education, fewer than 50 percent earn any degree within 6 years. When examining the areas of study students enroll and receive either a certificate or degree in compared to the high-skill, high-demand occupations in the region, a misalignment becomes evident.

These are the underlying challenges that the region must face to prevent a labor and skills shortage and to maintain a competitive edge. They are not insurmountable, but they are beyond the ability of any one group. They are of a nature that will require collective thinking, action and collaboration by the region's leaders in education, business, economic development, workforce development, and government.

## Recommendations

The following recommendations are intended to stimulate discussion and debate, and to drive a regional dialogue on addressing the challenges facing the region.

- The education system (K-16) must understand that it is part of a workforce delivery chain; and that schools and what they teach must be aligned to the needs of the labor market.
- With the growth of high-skill, high-demand occupations, particularly in technology-related areas that require post-secondary education and training, school districts should place a greater emphasis on career and technology education.
- Jobs in renewable energy/energy efficiency, biotechnology, digital media, information technology, and health care are increasing in demand. Education and training initiatives need to target these industry clusters to ensure that a skilled supply of labor is available to meet demand.

- High schools need to increase career guidance capacity and ensure that counselors have access to the latest labor market information.
- Workforce readiness or “soft” skills should be incorporated into the curriculum at all levels of the K-16 system.
- Workforce education programs should incorporate work-based learning practices, integrating internships and work experience into programs.
- The Independent School Districts throughout the region and Austin Community College should explore establishing a regional career and technology education and training center.
- Increased support must be provided for Adult Basic Education and English as a Second Language programs. These programs should integrate literacy and occupational skills training.
- Students, parents, teachers, and counselors need to become more aware of the region’s driver industries and the occupations and career pathways that are available.
- Seek funding and develop special education and training services for specific segments of the population (e.g., ex-offenders, people with disabilities, individuals with limited English proficiency, and others) to ensure their inclusion in the workforce.
- New strategies must be adopted to prevent students from dropping out of school and recover those who do.
- Strategies are needed to increase minority participation in education and workforce development and access to high-skill, high-demand jobs.
- Strategies are needed to encourage more students to enter post-secondary education and training, and to enroll and complete study in those areas where labor supply is lagging.
- A collaborative structure between education, workforce development and economic development needs to be established.
- A **region-wide** human capital strategy with a regional economic growth strategy should be developed.
- Over 90 percent of funding for the region’s workforce development activities is derived from federal funding sources. Federal financial resources have declined over the past decade. A locally funded workforce education and training fund should be established to reduce dependence on federal funds.

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