

# Regional Audit Update: 2008



Prepared for the North East  
Texas Workforce Board

Updating the state of the 21st century workforce of  
North East Texas and Southwest Arkansas

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## Section I: Economic and workforce background

### Introducing the Regional Audit Update

This study is intended to update a 2005 Regional Audit report for the North East Texas Workforce region. The report that follows picks up where the previous report left off with updates of some vital economic and workforce information. This report also investigates what has changed in the region by comparing the current economic and workforce snapshot of the region with conditions prevalent at the time of the 2005 study.

This report is not intended as a point-for-point re-creation of the previous study; rather, we have selected the information and analysis of the most important trends and themes uncovered by the previous report, which guide our current exploration. This report features many informational components that provide continuity with the previous study, and also establishes some new threads of analysis by which we attempt to explore more fully the skills and competencies of the workforce of the North East Texas region.

A separate, strategically focused Executive Summary, paired with this report, will examine the strategic implications of current workforce conditions and suggest directions for planning based on these trends.

### A note on the bi-state region and analysis

This report deals not only with the nine counties under the jurisdiction of the North East Texas Workforce Board, but also with three adjacent counties across the border in Arkansas – Hempstead, Little River, and Miller Counties. These counties interact importantly with the economy of North East Texas and form a combined workshed, so considerations of the workforce on one side would be incomplete to some degree without a consideration of conditions on the other side.

Throughout this report, we approach the bi-state region in several different ways, depending on the availability and compatibility of data for both regions. Sometimes the data make it possible to consider the entire 12-county region as a whole. More often a somewhat fragmented view is necessary, using data from the three Arkansas counties under consideration, or sometimes from the Southwest Arkansas workforce region to which they belong. For some pieces of this analysis the nine-county North East Texas region is considered by itself. Data sources are indicated wherever graphic or tabular analysis appears.

### Back story: Setting the stage with the 2005 Regional Audit

The 2005 Regional Audit paints the picture that forms the economic backdrop for the present updated study. Some of the key points of that previous study include these:

### **General employment**

Employment data showed relatively low labor force participation and high unemployment. Research in the 2005 study linked counties with relatively low educational attainment to the worst unemployment, poverty, and retention rates. Conversely, counties with higher educational attainment were linked to more jobs, better pay, and growing population.

### **Manufacturing and health care help drive the regional economy**

Among those who were employed, though, the largest shares of employment were in the manufacturing, retail trade, and health care sectors. Retail was not seen as a promising source of strong earnings opportunities for people with high skills, but was nonetheless acknowledged as an economic force in the region due to the sheer size of its share of employment. It is also worth noting that government employment is comparatively high in the region, because of the presence of the Red River Army Depot and the Lone Star Army Ammunition Plant.

Manufacturing and health care were therefore the focus of much of the workforce analysis of the 2005 study, as the most significant employers and sources of personal wealth in the region.

- Because of the size and positioning of these sectors within the North East Texas economy, they were perceived as offering the best opportunities for driving economic growth.
- Wage opportunities are strong in both sectors for skilled occupations.
- Occupations in both industries fit progressive long-term career paths that retail employment largely lacks.

### **Earnings in Northeast Texas are generally lower than the state.**

North East Texas is a relatively low-wage region when compared to Texas as a whole, according to the findings of the 2005 study. The industries that paid best – for example, Mining and Utilities – tended not to employ large numbers. One exception and cause for hope among these findings, though, was that the manufacturing sector actually does offer significantly competitive pay overall in the region.

Lower wages, combined with relatively low labor force participation and employment rates, contributed to relatively high poverty in the region – 13.5% vs. 12% for the state of Texas and 9.2% for the United States as a whole.

### **The region faces workforce challenges.**

The North East Texas regional workforce was reported to be generally not prepared for high-skill 21<sup>st</sup> century employment by the 2005 Regional Audit. The study cited:

- Generally low adult educational attainment

- An employment base loaded heavily with more traditional types of employment, especially in manufacturing, that required fewer highly developed skills.
- The region's K12 students scored well on the TAKS state examinations, but performance on SAT/ACT college entrance exams was low, signaling insufficient preparation for postsecondary education at the university level.

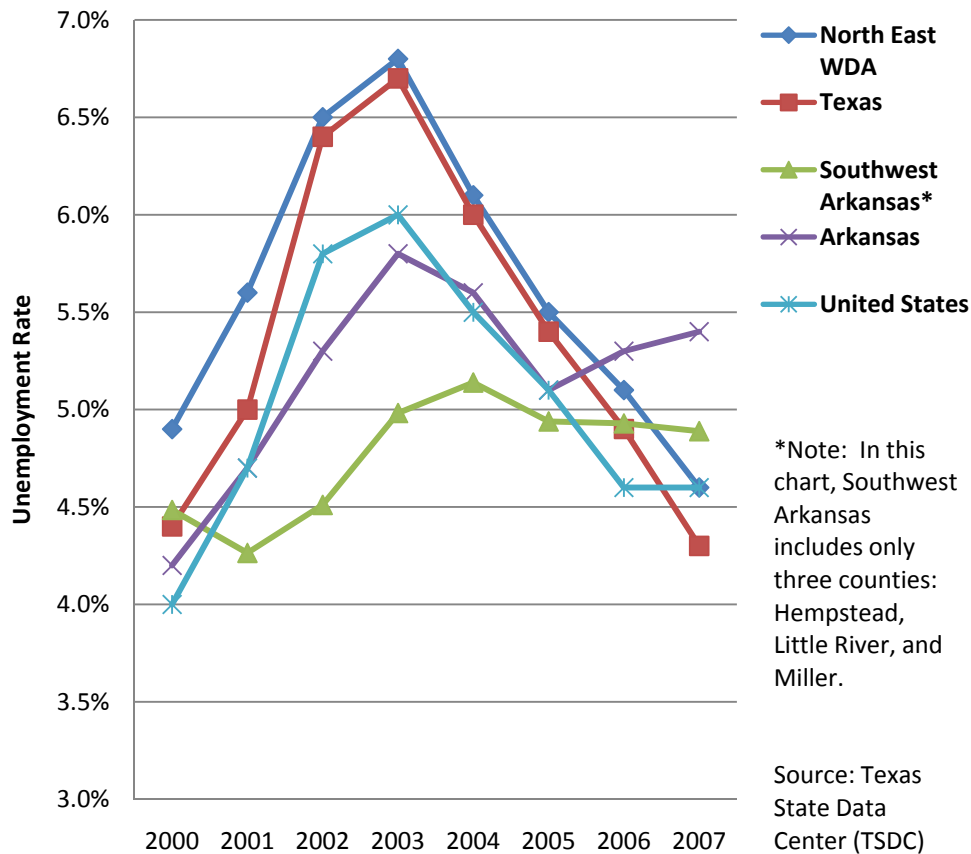
Recruitment, talent attraction, and retention were all seen as challenges as well, as low wages and the region's industry and employment mix (lots of low-skilled jobs) limited some opportunities for highly qualified people.

In the present report that follows, we will pay particular attention to the major trends indicated by this review of the previous Regional Audit. This new snapshot in time will explore how much has changed, what remains the same, and what strategic implications arise from these conditions.

### **Employment and Unemployment in the Region**

Unemployment rates in the region during the first seven years of this decade have fluctuated widely over the period and varied greatly among its two sub-regions (North East Texas and Southwest Arkansas). In North East Texas, the year-to-year movement of unemployment rates has generally paralleled those of the entire state of Texas. That said, these rates have also consistently been lower than those of the state as a whole, although generally higher and much more volatile than those of the nation. The most recent annual data, those for 2007, show the rates for Northeast Texas and the United States both at 4.6%.

Figure 1. Regional Unemployment Rates, 2000 to 2007



For most of this decade, unemployment rates in the three-county area of Southwest Arkansas were below those of Arkansas, Texas, Northeast Texas, and the United States. From 2005 on, however, that relationship has reversed. While annual unemployment rates in Southwest Arkansas remained stubbornly just below 5%; those in Texas, Northeast Texas, and the nation fell closer to 4%. Conversely, these counties have avoided a sharp upturn in unemployment since 2005 in the entire state of Arkansas.

Note that at the time data were available for the previous study – i.e. for 2004 – unemployment rates were on the decline, but still relatively high, coming down from peaks in 2003. That they have stabilized more or less in the range of the overall US rate is a sign of some progress.

There is considerable unemployment variation within the region. By county, rates vary from a low of 3.3% in Little River County to a high of 6.4% in Red River County. As will be seen later, each of the counties whose unemployment rate exceeds that of the United States has also lost population in recent years.

## Unemployment Rates

### Counties of the Area, Texas & USA, March 2008

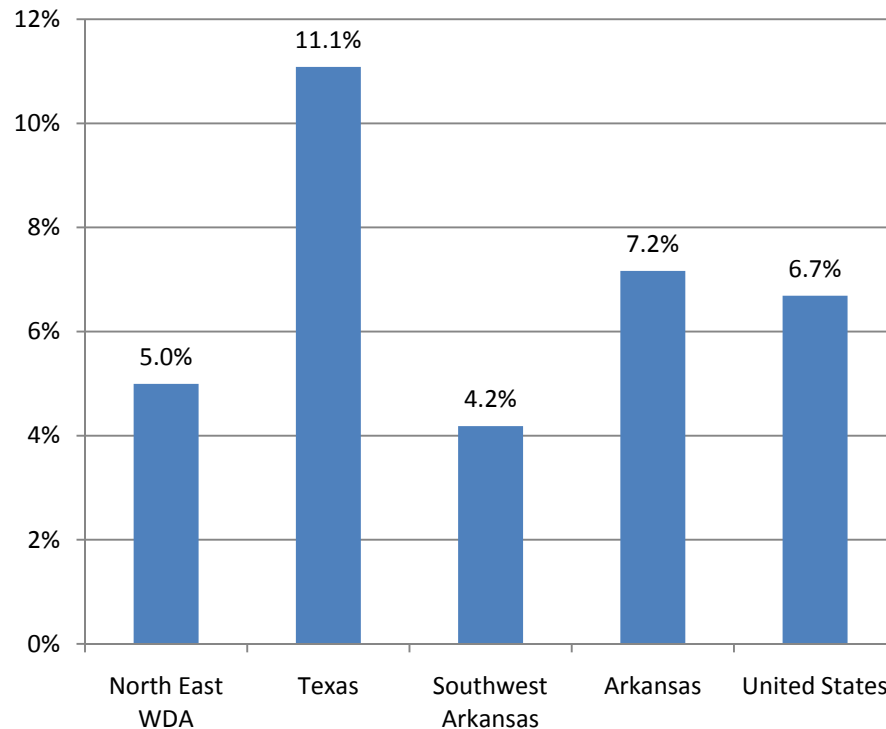
Area	Unemployment Rate
Red River County	6.4
Cass County	5.6
Hempstead County	5.3
Morris County	5.3
<b>Southwest Arkansas</b>	<b>5.2</b>
<b>United States</b>	<b>5.2</b>
Lamar County	4.6
<b>North East WDA</b>	<b>4.5</b>
Bowie County	4.4
Delta County	4.2
<b>Texas</b>	<b>4.2</b>
Miller County	4.1
Hopkins County	3.9
Titus County	3.7
Franklin County	3.4
Little River County	3.3

Source: Texas State Data Center (TSDC). Numbers not seasonally adjusted.

### Regional Job Growth

While unemployment has shrunk over the past few years, overall employment growth in North East Texas during the first seven years of this decade was considerably slower than in all of Texas. Likewise, job growth in Southwest Arkansas lagged behind that of the state of Arkansas. Both trail the nation's percentage job growth (while, interestingly, both the states of Arkansas and Texas are ahead of the national average).

**Figure 2. Regional Job Growth, 2000-2007**



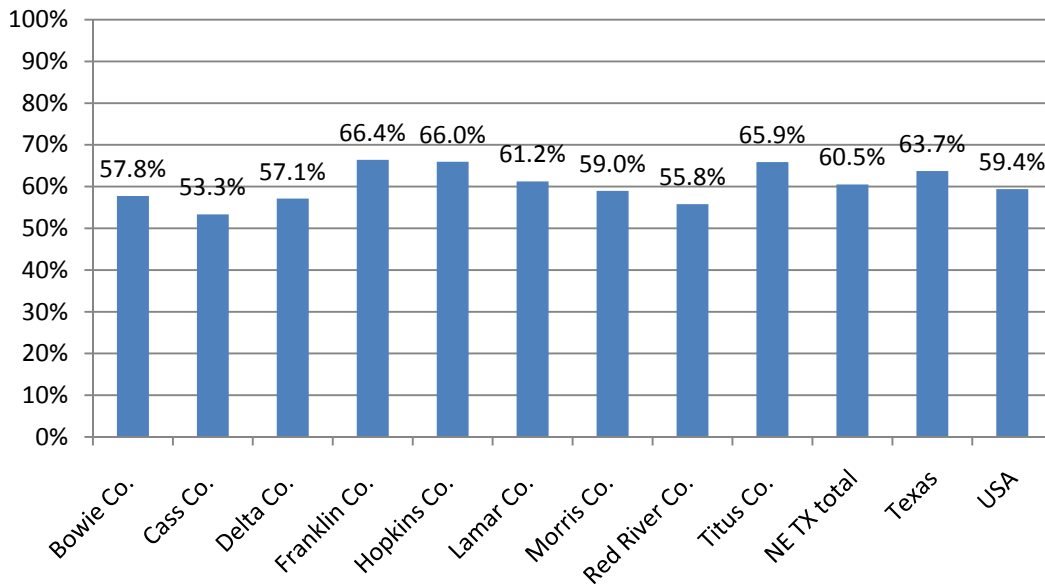
**Labor Force Participation in North East Texas**

In the entire nine-county North East Texas region, labor force participation – that is, the percentage share of the over-16 population that is working or actively seeking work – stands at 60.5% as of 2007. This is not a high percentage, but this situation has changed since the time of the 2005 regional audit, in that the North East Texas region is now not so unique. In fact, since that study, labor force participation in North East Texas has risen by about four percent, while the participation rate for the United States has dropped by roughly the same margin – so the region’s 60.5% labor force participation rate now beats that of the United States (59.4%).

However, this is not true of the entire region. In fact, in only four of the counties of North East Texas does labor force participation exceed the rate of the United States – only three exceed the Texas state rate of labor force participation of 63.7%.

Overall, signs of increasing labor force participation and decreasing unemployment, coupled with relatively slow job growth and population decline in counties with high unemployment, are surface indicators of a job market that may be growing tighter in the region.

**Figure 3. Labor Force Participation Rates**



Sources: BLS, TWC (Tracer)

### Industry Employment and Earnings

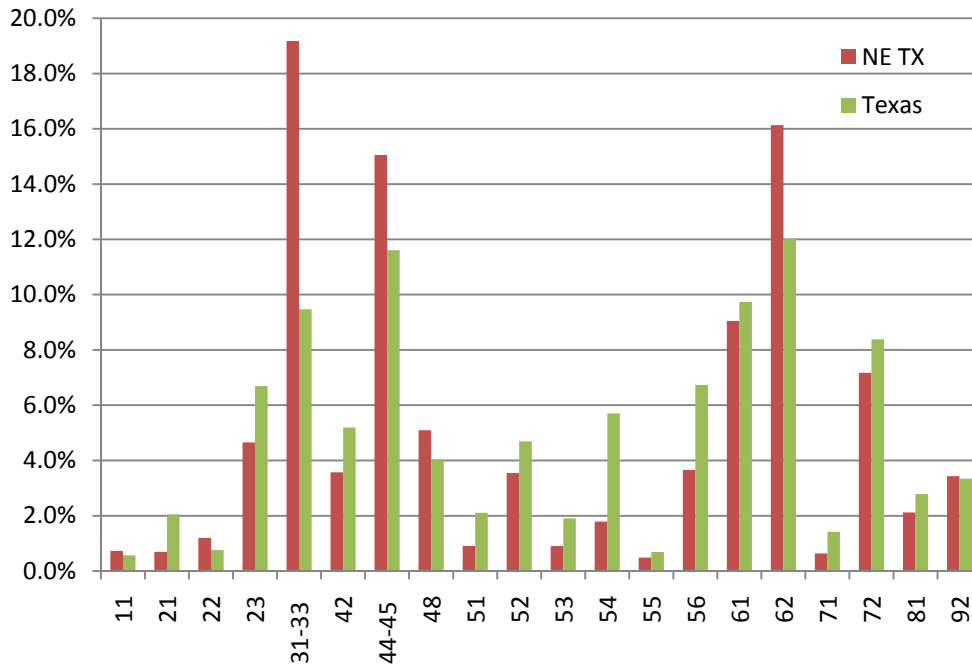
Industry employment figures show an industry mix that mostly matches very closely with the region’s situation in 2005. Manufacturing, health care, and retail trade continue to dominate employment in the region, in percentage shares that are comparable to their market dominance as of the 2005 report. This fact is dramatically illustrated by Figure 4. In fact, it appears that retail’s share of regional employment has even increased above 15%. The remainder of the region’s workforce is spread across a variety of relatively diverse industries, as was also the case as of the 2005 study.

### Employment by Industry, Q3 2007

	Industry	# Employed		% of Total Employment	
		NE TX	Texas	NE TX	Texas
11	Agriculture, Forestry, Fishing, and Hunting	847	57,222	0.7%	0.6%
21	Mining	809	206,240	0.7%	2.0%
22	Utilities	1,395	76,235	1.2%	0.8%
23	Construction	5,428	674,165	4.7%	6.7%
31-33	Manufacturing	22,360	954,485	19.2%	9.5%
42	Wholesale Trade	4,164	523,155	3.6%	5.2%
44-45	Retail Trade	17,550	1,169,433	15.1%	11.6%
48	Transportation and Warehousing	5,941	407,115	5.1%	4.0%
51	Information	1,057	212,400	0.9%	2.1%
52	Finance and Insurance	4,134	472,767	3.5%	4.7%
53	Real Estate and Rental and Leasing	1,052	191,886	0.9%	1.9%
54	Professional, Scientific, and Technical Services	2,083	574,349	1.8%	5.7%
55	Management of Companies and Enterprises	566	69,618	0.5%	0.7%
56	Administrative and Support and Waste Management and Remediation Services	4,266	678,702	3.7%	6.7%
61	Educational Services	10,546	981,070	9.0%	9.7%
62	Health Care and Social Assistance	18,808	1,211,586	16.1%	12.0%
71	Arts, Entertainment, and Recreation	744	143,127	0.6%	1.4%
72	Accommodation and Food Services	8,362	844,841	7.2%	8.4%
81	Other Services (except Public Administration)	2,473	280,889	2.1%	2.8%
92	Public Administration	3,999	336,491	3.4%	3.3%

Source: US Census Bureau, Local Employment Dynamics

Figure 4. Industries' Shares of Employment, Q3 2007



Source: US Census Bureau, Local Employment Dynamics

### Changes in Industry Employment

There were dramatic disparities in the rates of individual industry growth between the region and the state of Texas.

Manufacturing jobs expanded by 4.5% in the region while they contracted by 8.4% statewide. Retail trade also expanded much more rapidly in the region than in the state.

Meanwhile, the Health Care and Social Assistance sector actually lost 9.3% of its jobs regionally while expanding 23.5% statewide. However, this overall drop between 2001 and 2007 masks an actual recent increase in employment in health care, from 18,135 in the region in 2004 to 18,808 in quarter 3 of 2007. This is a relatively small increase – about 3.7% - but it signals that the high demand for health care workers identified by the 2005 study has remained strong and, if current trends continue, may become stronger yet.

Two sectors showing what appears to be runaway growth over the decade so far are Finance and Insurance and the Professional, Scientific, and Technical Services sector. Looking back to the total regional employment in these two sectors, though, we see that professional services employ a very small portion of the regional workforce (1.8%), so high percentage growth translates to relatively small actual numbers. The same is somewhat true of finance and

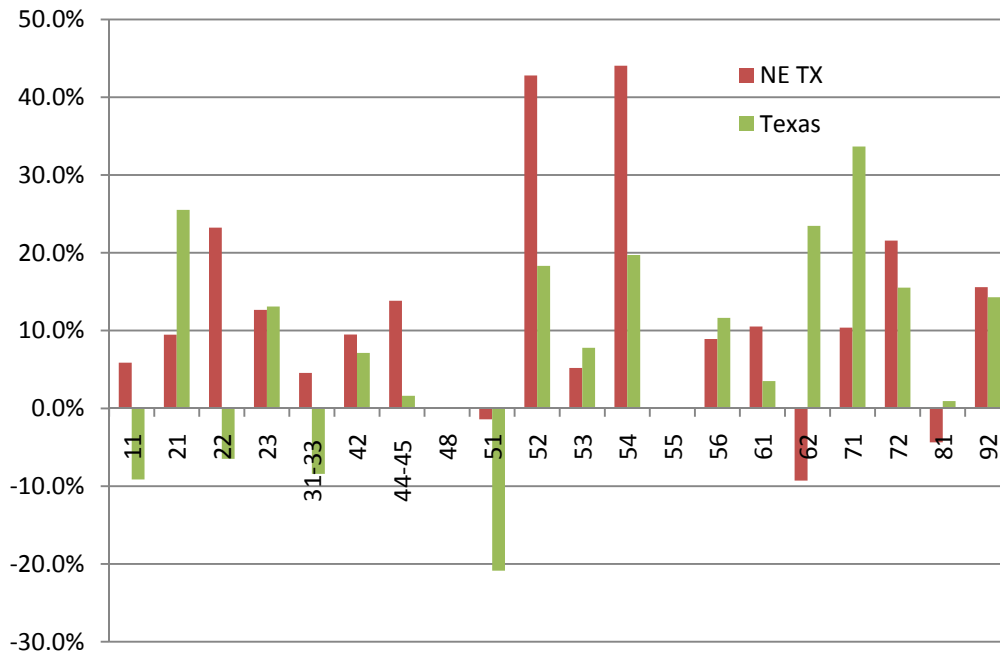
insurance, though this sector might present opportunities to watch, considering that its share of regional employment (3.5%) is at least approaching that of the construction sector (4.7%), and continued growth at the 2001-2007 pace may bring it even closer.

### Employment change by Industry, 2001 to 2007, Q3

Industry		% Growth of Employment	
		NE TX	Texas
	All Industries	11.1%	10.0%
11	Agriculture, Forestry, Fishing, and Hunting	5.9%	-9.1%
21	Mining	9.5%	25.5%
22	Utilities	23.2%	-6.5%
23	Construction	12.7%	13.1%
31-33	Manufacturing	4.6%	-8.4%
42	Wholesale Trade	9.5%	7.1%
44-45	Retail Trade	13.8%	1.6%
48	Transportation and Warehousing		
51	Information	-1.4%	-20.9%
52	Finance and Insurance	42.8%	18.3%
53	Real Estate and Rental and Leasing	5.2%	7.8%
54	Professional, Scientific, and Technical Services	44.1%	19.7%
55	Management of Companies and Enterprises		
	Administrative and Support and Waste Management and Remediation		
56	Services	8.9%	11.6%
61	Educational Services	10.5%	3.5%
62	Health Care and Social Assistance	-9.3%	23.5%
71	Arts, Entertainment, and Recreation	10.4%	33.7%
72	Accommodation and Food Services	21.6%	15.5%
81	Other Services (except Public Administration)	-4.4%	0.9%
92	Public Administration	15.6%	14.3%

Source: US Census Bureau, Local Employment Dynamics

**Figure 5. Employment Change by Industry, 2001-2007**

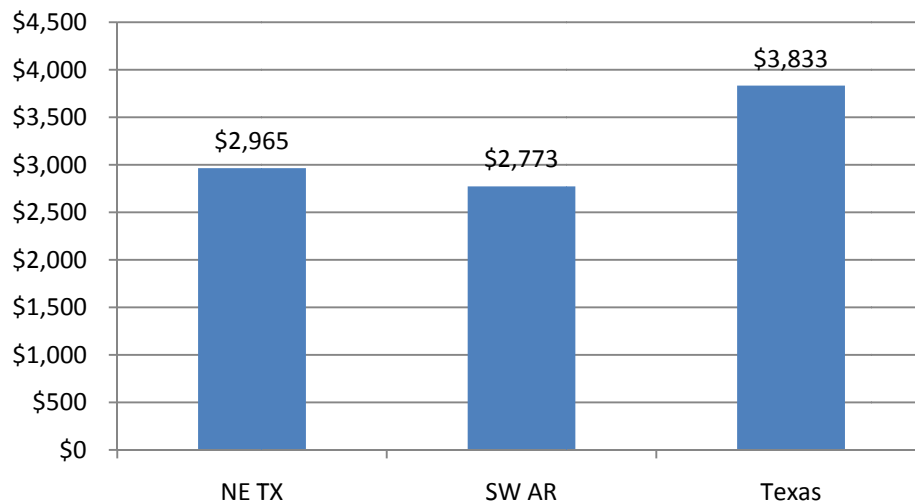


Source: US Census Bureau, Local Employment Dynamics

**Earnings have been growing, but still lag behind the state of Texas.**

Averaged over all industries, average monthly earnings in the second quarter of 2007 were nearly 25% less than in Texas as a whole, and earnings in Southwest Arkansas trailed those in North East Texas by 6.4%. Still, these average monthly earnings were more than 17% greater than they were in the fourth quarter of 2004.

**Figure 6. Average Monthly Earnings for All Industries, Q2 2007**



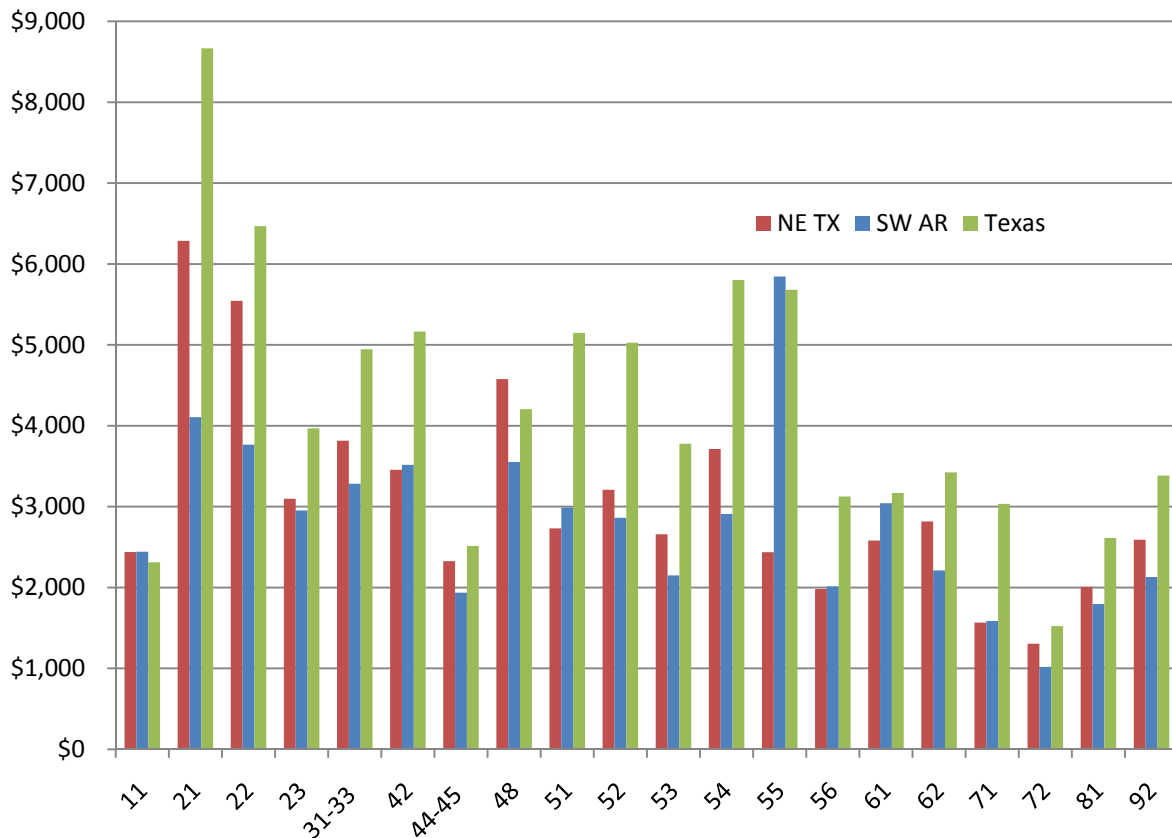
Source: US Census Bureau, Local Employment Dynamics

A comparison of industry earnings reveals that in only two industries (Agriculture et al., and Transportation and Warehousing) did average monthly earnings in North East Texas exceed those for the state as a whole.

Mining (Including gas and oil extraction) led all other industries in earnings once again in the North East Texas region, with average monthly earnings of \$6,286, followed by Utilities (\$5,545) and Transportation and Warehousing (\$4,578). While Mining and Utilities still employ relatively few people in the region, Transportation and Warehousing is a growing sector – employing 5,941 people in the region in the third quarter of 2007, up dramatically from 2,876 in the second quarter of 2004, according to the 2005 Regional Audit. This is promising news for this targeted industry.

Manufacturing still offers respectable wages, over the regional average at \$3,815. (Monthly earnings in Southwest Arkansas also exceed regional averages, at \$3,284.) Thus does this sector remain the dominant force for earnings in the region, given its high number of employees and large employment share.

**Figure 7. Average Monthly Earnings by Industry, Q2 2007**



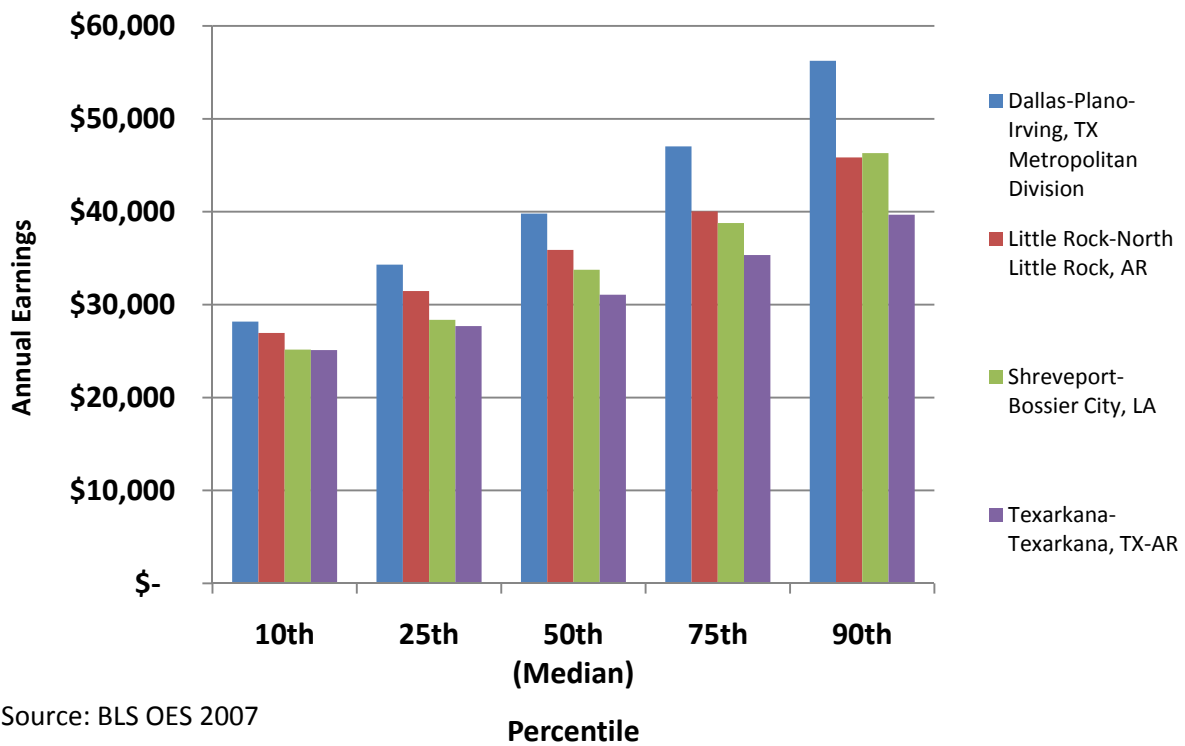
Source: US Census Bureau, Local Employment Dynamics

**Wage competition with other regions is high.**

Workforce Associates, Inc. performed analyses of compensation levels for some of the critical occupations in the North East Texas area, as compared to compensation for these same occupations in metro areas surrounding the region. (These “critical occupations” are based on occupations indicated by employers in the survey presented in Section II as being either “critical” to their businesses and/or especially challenging to find.) These metropolitan areas represent not-too-distant places where people from the North East Texas or Southwest Arkansas regions might go to seek higher education, may have family or other connections, or to which they may simply gravitate because of work and other opportunities. How big of a draw might these surrounding metro areas be for the kinds of workers that North East Texas employers want the most?<sup>1</sup> One example of this analysis follows; figures for a selection of other critical occupations (those for which data were available) can be found in Appendix B to this report.

<sup>1</sup>The Texarkana MSA is used as a proxy for the entire region here because the most extensive data on wages and salaries for this area, as compared with either of the two official workforce regions covered by this study.

**Figure 8. Earnings Compared with Other Regional Metropolitan Areas – Licensed Practical and Licensed Vocational Nurses**



The chart above exhibits a fairly typical result of this analysis, this one for Licensed Practical Nurses (LPNs). Data from the 2007 Occupational Employment Statistics from BLS give us earnings levels for all of these metro areas at the 10<sup>th</sup> through 90<sup>th</sup> percentiles, offering a good approximation of wage levels for people of all levels of experience within the profession. We find with LPNs, as with many other critical occupations, that at the entry level, differentiation among wages is not vast and probably can be accounted for fairly significantly by differences in the costs of living in each area. However, moving up the earnings ladder for the more senior LPNs in the workforce, we see that at each progressively higher pay scale, the wage competition for the surrounding regions becomes much wider. Essentially, this means that – for example – the best-paid LPNs in Texarkana are being paid over \$16,000 less than their peers in Dallas.

This pattern of earnings competition holds, generally speaking, for many of the occupations that the region’s employers desire most. Since many of these critical occupations are also critical for the same industries in other areas, workers with no other incentive to stay in the region may pursue careers outside the region.

## Demographics – the People of the North East Texas Region

### Population growth is slow and decreasing in some counties.

The growth of the North East Texas and Southwest Arkansas region in terms of overall population is much lower than in the United States or the state of Texas. Growth over the entire period from 2000 to 2007 in the region was 2.6%, and population figures projected to 2012 anticipate just 2.7% growth in that five-year period.

Growth rates among the counties of the region vary significantly. The highest percentage growth in the region was marked by Franklin County, which has the second smallest overall population in the region. The smallest county in the region, Delta, has experienced some growth lately because of affluent suburban sprawl from the greater Dallas region.

The two counties who split the city of Texarkana are also somewhat split in their growth rates. Miller County, Arkansas is shown to be growing faster, at 7.5%, and has actually added about 1,000 more people than Bowie County, Texas between 2000 and 2007.

Meanwhile, several counties are shedding population – Little River County, Arkansas and Red River County, Texas have lost significant percentages. Because of their low population, this loss amounts to less than 1,000 people in each county, but population loss of any kind is reason to take note in a situation of high labor demand.

Meanwhile, population projections to 2012 envision slowed population growth in counties that are growing, and relative stasis or continued decline in those that are declining in population.

## Population Over Time

	1990	2000	2007	2012	% Change 2000-2007	% Change 2007-2012
Entire US	248,710,012	281,421,906	301,825,750	316,054,480	7.3%	4.7%
Texas	16,986,524	20,851,820	23,624,214	25,534,828	13.3%	8.1%
NE TX/SW AR	322,669	348,126	357,090	366,854	2.6%	2.7%
Franklin	7,802	9,458	10,326	10,975	9.2%	6.3%
Miller	38,467	40,443	43,485	45,516	7.5%	4.7%
Titus	24,009	28,118	29,631	30,949	5.4%	4.4%
Delta	4,857	5,327	5,613	5,854	5.4%	4.3%
Hopkins	28,833	31,960	33,626	35,066	5.2%	4.3%
Lamar	43,949	48,499	50,080	51,667	3.3%	3.2%
Bowie	81,666	89,306	91,344	93,868	2.3%	2.8%
Morris	13,200	13,048	13,016	13,191	-0.2%	1.3%
Hempstead	21,621	23,587	23,457	23,538	-0.6%	0.3%
Cass	29,982	30,438	29,923	30,085	-1.7%	0.5%
Little River	13,966	13,628	13,121	12,924	-3.7%	-1.5%
Red River	14,317	14,314	13,468	13,221	-5.9%	-1.8%

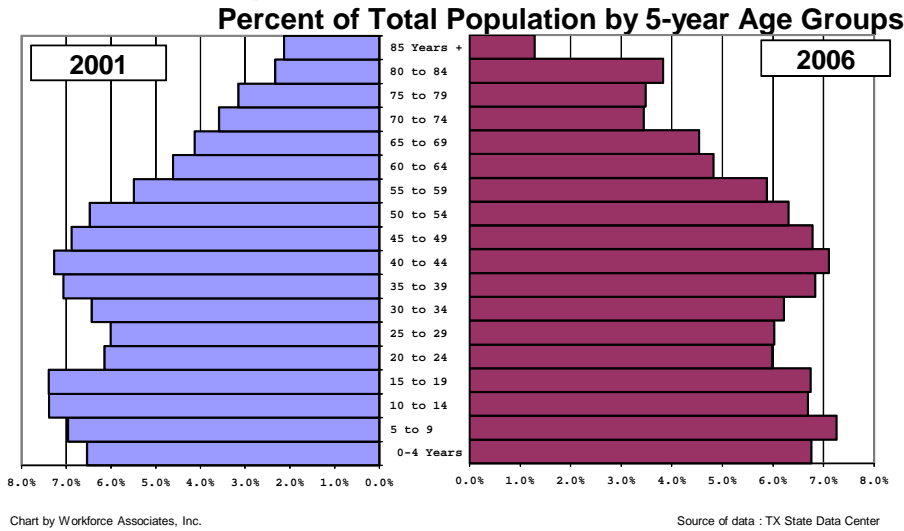
Source: US Census Bureau, Experian/Applied Geographic Solutions

### The region continues to age.

The 2005 report stated that the population of the region is ‘growing slowly and aging rapidly.’ We have seen that growth still seems slow, and demographics from the Texas State Data Center suggest that the trend of aging continues. The “population pyramids” below show the percentages of the region’s population in each five-year age group from 0 to over 85. The movement from 2001 to 2006 of these age groups shows a region whose population shows a continued subtle shift toward the upper ranges of the age spectrum. The swell in the ranks of those in middle age – now slightly farther along into middle age – reflects, of course, the movement of the Baby Boom generation through the ages, while percentages in the upper age brackets are filling in as people in the region live longer.

We will examine further components of change in the regional population in Section III: Availability of Workers and Skills.

## Total Population of North East Texas: 2001 & 2006



<----- Percent of total population ----->

### Regional Ethnic Composition is showing signs of change.

The 2005 study said that the North East Texas region was one of “little racial/ethnic diversity.” This aspect of regional demography is changing, and will probably continue to change, at least with respect to the percentage of the population accounted for by people of Hispanic origin.

Figure 9. Percentage of Total Regional Population by Ethnicity, 2001 and 2006

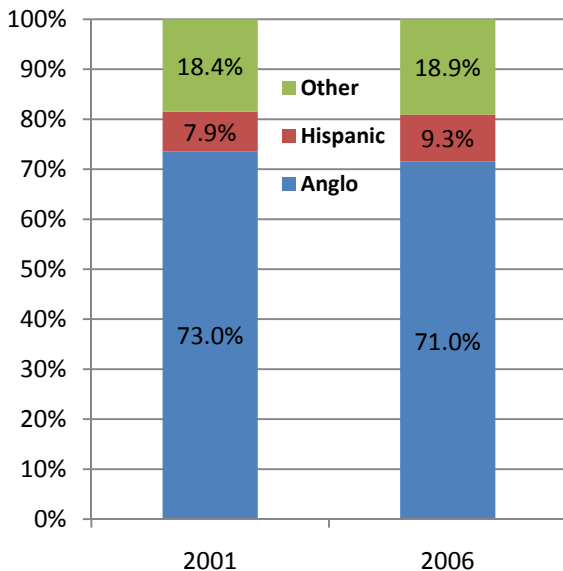
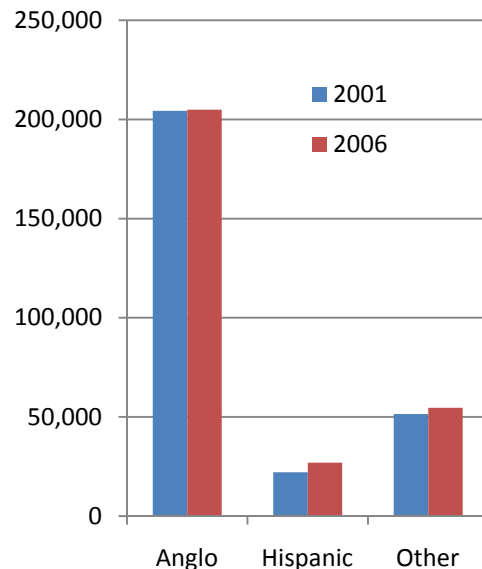


Figure 10. Growth of Regional Population by Ethnic Group, 2001 and 2006

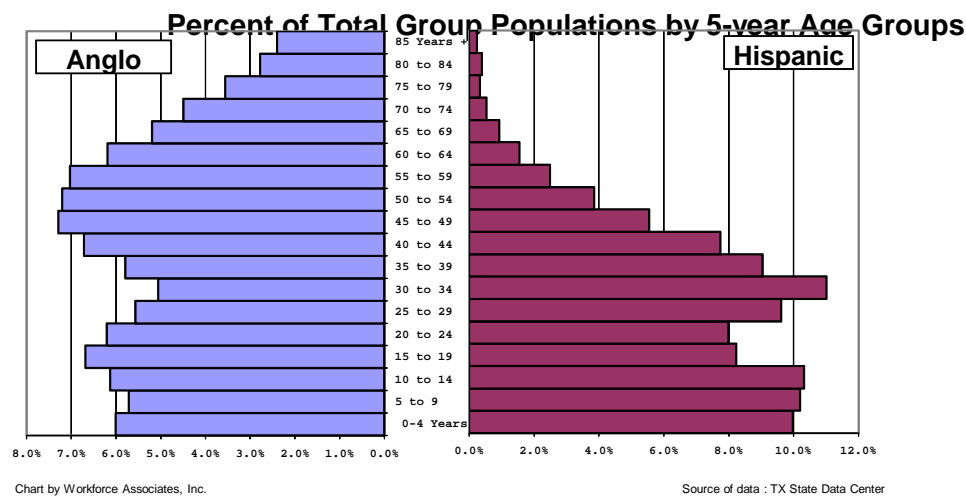


Total numbers of Hispanic residents may not have changed in dramatic fashion, but their presence as a percentage of the total population is beginning to change. Figure 8 shows the relative percentages of the majority White non-Hispanic population (“Anglos”), the Hispanic population, and people of all other non-hispanic races or ethnicities (nearly all Black). The White non-Hispanic population’s share of the overall population has shrunk by two percentage points, while the percentage of Hispanic residents rose by 1.4% and all others by 0.6%.

**The demographic future: cresting population, further ethnic shifts**

Furthermore, this change seems poised to continue, which becomes apparent when we look at the population pyramids for the “Anglo” and Hispanic portions of the North East Texas population from 2001 to 2006. The age distribution of the Hispanic population shows one much more heavily weighted in younger age groups, even as the Anglo population shows a top-heavy age structure.

**Age Distribution of Anglo & Hispanic Populations in North East Texas: 2006**



<----- Percent of total population ----->

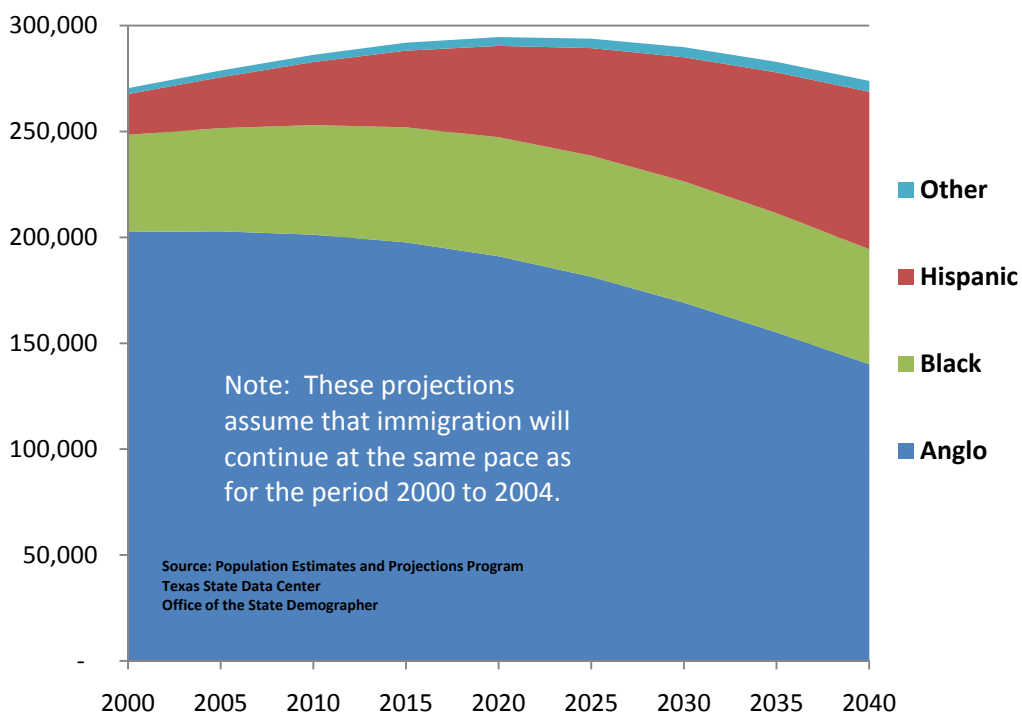
Population projections from the Texas State Data Center corroborate this idea, as we see in the figure below. Total population for the area is expected to peak by the year 2020 at a level of over 294,000 people, after which it is expected to decline until 2040.

Meanwhile, decomposing the racial and ethnic structure of the population in this time period, we find that the Anglo population is actually expected to begin shrinking after 2015, and the Black population after 2030. The only ethnic group showing significant growth over this period

is Hispanic – in fact, a 287% increase in the Hispanic population is expected over the first 40 years of the 21<sup>st</sup> century.

Looking this far ahead always presents certain caveats, of course, and the figure notes that these projections are dependent upon a major component of population growth that does not affect the Anglo or Black populations in quite the same way – immigration. Changes in policy toward immigration at the local, state, and national levels may alter this equation. Meanwhile, it seems clear that those of Hispanic origin will form a more significant part of both the region’s population and workforce.

**Figure 11. Projected Population of North East Texas by Ethnic Group, 2000-2040**



## Section II: Key Industries and their workforce needs (Demand Side)

### Key Industries for Economic Viability and Growth

The 2005 Regional Audit, as mentioned before, stressed the importance of manufacturing and health care to the regional economy and focused on the needs of those industries to drive analysis of the state of the North East Texas workforce.

### Manufacturing and Health Care still Vital

As we saw in Section I, these two industries still form important cornerstones for the creation of personal and collective wealth for the region. They also provide plentiful opportunities for the development of highly skilled career paths. As such, they remain in focus as vital employers driving the current and future workforce needs of the region.

### Construction and Logistics added

The North East Texas Workforce Board decided at the outset of this Regional Audit update that additional study foci should be placed on the fortunes of the region's construction and logistics sectors.

- **Both sectors have grown since the 2005 study.** As seen in Section I, employment is higher now in both industries, having enjoyed significant growth in the last few years. Logistics – as represented by the “Transportation and Warehousing” sector – has jumped in employment by over 3,000 people since the publication of that previous study.
- **Economic changes have brought opportunity to both sectors.**
  - With the building of new roads through the region and other infrastructure improvements – an area that was judged to be relatively weak in the 2005 study – Logistics has become a more realistic contender for employment growth in the region.
  - Meanwhile, these infrastructure improvements, combined with several other major projects in the area – including expansion of the campus of Texas A&M University - Texarkana; a new kiln for the Ash Grove Cement company in Foreman, Arkansas; and other major efforts – have created demand for construction employment that will continue to be strong for the next several years.

With an expanded focus on all four of these key industries, we approach the 2008 workforce needs of the North East Texas/Southwest Arkansas regional economy.

## The Employer Survey and Occupations and Skills in Demand

The most thorough and relevant view of the “demand side” of the region’s workforce equation comes from contact with the employer community. Workforce Associates, Inc. developed a list of employers to which to deliver a survey that focuses on their critical workforce needs, with the help of Dave Vershaw of the North East Texas Workforce Board. This focused list contained influential and important employers from the region in each of the four industry areas, based on their numbers employed, criticality to the regional economy, and other factors. In all, the survey was distributed to eight (8) Construction employers, eleven (11) Health care providers, six (6) logistics employers, and twenty-seven (27) manufacturers.

The results of this effort yielded the following successful responses to the survey. In all, the 2008 employer survey accounts for 31 unique responses for employers, who themselves account for over 7,400 workers in the region. (Actually, this number of employees is very likely higher, since a few survey respondents did not respond to the question of how many workers they currently employ – some may not have had access or authority to share this information.) Most of the responders to the survey were Human Resources professionals, and most of the rest were executives of their respective firms.

### Responses to Employer Survey

	Unique Responses	# of Employees*
<b>Construction</b>	3	406
<b>Health Care</b>	6	1,812
<b>Logistics</b>	5	587
<b>Manufacturing</b>	17	4,617
<b>Total</b>	<b>31</b>	<b>7,422</b>

Survey results compiled by Workforce Associates, Inc.

\*Approximate. Actual totals are probably higher as some employers skipped this question.

The geographic distribution of survey responses largely matches the major concentrations of population and business activity in the region of North East Texas and Southwest Arkansas, as demonstrated below.

### Counties Represented by Survey

<b>Bowie, TX</b>	26.5%
<b>Cass, TX</b>	5.9%
<b>Delta, TX</b>	0.0%
<b>Franklin, TX</b>	0.0%
<b>Hempstead, AR</b>	2.9%
<b>Hopkins, TX</b>	8.8%
<b>Lamar, TX</b>	26.5%

Little River, AR	0.0%
Miller, AR	5.9%
Morris, TX	0.0%
Red River, TX	2.9%
Titus, TX	20.6%

Survey results compiled by Workforce Associates, Inc.

**The bulk of employment in these industries is operational.**

Employers who responded to the survey were asked about the composition of their workforce according to general categories of employment. The table below shows how the survey respondents replied to this question, and is sorted by industry.

**Approximately what percentage of your employees are . . .**

	Production/operations?	Technicians?	Professional?	Administrative/clerical?	Management?	Other? (Please specify.)	"Other" notes
Construction	15%	0%	15%	10%	20%	40%	"Subcontractors"
	70%	10%	8%	2%	10%	0%	
	-	-	28%	8%	5%	-	
	50%	-	-	25%	25%	-	
Health Care	4%	10%	33%	7%	10%	36%	
	3%	4%	68%	20%	5%	-	
	0%	1%	3%	-	9%	-	
	14%	28%	36%	17%	5%	-	
Logistics	62%	0%	5%	20%	13%	-	
	90%	1%	2%	4%	3%	-	
Manufacturing	80%	-	-	5%	15%	5%	
	64%	18%	3%	4%	11%	0%	"14% Maintenance"
	75%	5%	10%	0%	10%	-	
	88%	0%	0%	5%	7%	6%	
	70%	5%	5%	5%	15%	-	
	90%	5%	0%	1%	4%	0%	
	61%	2%	20%	4%	13%	-	
	64%	12%	-	12%	12%	-	
	10%	65%	10%	5%	10%	-	
	35%	15%	20%	15%	15%	-	
	59%	20%	15%	1%	5%	-	
	80%	1%	8%	4%	12%	-	
	93%	1%	1%	1%	4%	-	
40%	10%	6%	8%	7%	28%	"Craft and Security"	

Survey results compiled by Workforce Associates, Inc.

The responses show that the vast majority of employees in most of the region’s key industries are the “troops on the ground,” i.e., those most closely connected with the day-to-day production and operation of the business. These are the people who run machines, who drive trucks, pack boxes, and lay foundations – essential, usually labor-intensive work.

The exceptions to this norm are to be found mostly in Health Care, where their staffs of nurses, therapists, and other health providers fall more into the ranks of the “professional” workforce.

**Near future hiring needs**

The employers who responded to the survey also indicated that the general classes of workers they intend to seek in the near future correspond to this generally production-heavy worker balance. Skilled and unskilled labor topped the lists of the categories of workers for which these firms intended to seek new candidates in the next year to 18 months.

**For each of these categories of workers, do you expect the number in your organization to INCREASE, DECREASE, or STAY THE SAME in the next 12-18 months?**

Answer Options	Increase	Decrease	Same	N/A	Response Count
Management/Professional	7	1	17	0	25
Skilled Labor	14	0	10	0	24
Unskilled Labor	8	1	14	1	24

Survey results compiled by Workforce Associates, Inc.

A wider variety of occupation titles was indicated by employers when they were asked to name the specific positions for which they intend to recruit in this period – in an open-ended question – but again we see that these firms’ expectations for recruitment match the general balance of their workforce.

**For what SPECIFIC POSITIONS do you expect to seek more workers within the next 12-18 months?**

Position	Response Count
Unskilled Labor	5
Operators/Production workers	4
Engineering/Eng Tech	3
Skilled labor	3
Roofers	2
Nurses	2
Machinists	2
Mechanics/Maintenance	2
Physical Therapist	1
Certified Nursing Assistants	1
Occupational Therapist	1
Drivers	1
Packagers/Forklift Operators	1
Management	1

Nutritional Services	1
Production Planners	1
Information Technology	1

Survey results compiled by Workforce Associates, Inc.

**Turnover generates demand for workers.**

Of course, part of the need to recruit for these positions in higher numbers has to do with the need to replace workers for these occupations. The survey asked an open-ended question to the regional employers about turnover rates for their various kinds of employees, with the following results:

**Turnover Rates for Critical Occupations**

<b>Construction</b>	Less than 10% per year
	Approximately 10%
	7%
<b>Health Care</b>	Nursing 20%, Other 2%
	Nursing 12%
	Overall turnover for 2007: 15.7%
<b>Logistics</b>	Truck drivers - 15%, Sales reps - 10%, Stock clerks - 25%
	Approximately 14%
<b>Manufacturing</b>	8%
	3% terminations, 2% voluntary - Machine Operators
	4%
	2% annually
	Less than 2% unless downsizing
	20%, expected to increase dramatically in next 1-3 years due to anticipated retirements.
	Management 0%, Maintenance 1%, Clerical 0%, Machine Operator/Assembly/Line Worker 14%
	10-12% in salaried, 4-5% in hourly
	5%
	30% overall
	1% - Low turnover in the production/non-exempt levels of the organization.
	Turnover rate for line worker is about 5% per year, Turnover rate for Engineers is about 20%.
	All other less than 1%
10% electricians & welder/cutters, "insignificant" overall	

Survey results compiled by Workforce Associates, Inc.

The results naturally show wide variance between individual businesses, but some trends and other noteworthy items arise from an analysis of this. We can make the following observations from these responses:

- Manufacturers report a disparate group of observations. One mentions turnover rates for line workers at about 14% per year, but others list very low turnover for such positions.
- Meanwhile, turnover for some relatively highly skilled occupations in manufacturing is reported by some to be very high. One manufacturer reports a 20% turnover rate for Engineers, and another turns over 10% of their welders and electricians. High demand and wage competition could be behind such rapid movement of people in these highly skilled positions.
- There seems to be high attrition in health care occupations, especially for nursing. This is consistent with trends around the country for these professions that WFA has observed. Nursing and related occupations often require long hours and a stressful work environment – especially in hospitals and other large health care providers. Many nurses have also indicated a tendency for those in the profession to “eat their young” – that is, older and more experienced nurses sometimes engage in competitive behavior with their younger counterparts, for whom they are often supervisors and managers.
- The logistics employers also report relatively high turnover, and again, a stressful job might be the culprit, at least for the truck driving profession.

*Why do they leave?*

When asked to share why workers leave jobs in their businesses, employers’ responses were distributed as below.

**Employers Reporting Reasons for Turnover**

Found another job (any reason)	12
Termination for cause (any reason)	6
Relocation (Leaving area or job closer to home)	6
Retirements	5
Seeking better pay/benefits	5
Health/Personal	4
Layoffs/Downsizing	3
Attendance	3

Survey results compiled by Workforce Associates, Inc.

- There is significant overlap between some of these causes. For example, while seeking better pay is its own category, it is a chief motivation of employees looking for other positions in any way – people do not typically move from job to job without some expectation of realizing an economic advantage from the move. Job-hopping was by far the most popular response among the employers who listed reasons for turnover.

- The phenomenon of relocating or seeking a job closer to home may continue with rising fuel prices. One employer mentioned this explicitly, and there are other signs that people are taking such matters under consideration when deciding whether to seek or stay in a job. See the issue of “willingness to commute” in the employers’ discussion of recruitment difficulties below.
- Terminations for cause frequently cite deficiencies of basic work ethic and what some have called “employability” skills – such as attendance, punctuality, positive attitude, and other “soft” attributes.

### Which Occupations are Critical?

From the general trends of categories of workers we move to try to capture the very specific occupations that the key businesses of the region seek and want to keep. Two different questions in the survey approached this matter from slightly different angles. In both questions, employers chose from a list of occupations that employ significant numbers in their industries or that employers frequently cite as essential. The employers first chose the occupations that they deemed “critical” or otherwise essential to the success of their businesses. They also indicated from among the same list which occupations were hardest to fill when they need to recruit additional workers. These lists follow, organized by industry. These will form the basis of the analysis of worker and skill availability for the region’s key industries that follows in the next section.

### Employers' Views on "Critical" Occupations

Industry	Rank	"Critical" occupations	Hardest to fill
Construction	1	Electricians	Roofers
	2	Carpenters	Painters
		Construction Equipment	
	3	Operators	Cement Masons
	4	Plumbers/Pipefitters/Steamfitters	Carpenters
	5	Cement Masons	Plumbers/Pipefitters/Steamfitters
	6	Supervisors and Managers	Supervisors and Managers
	7	Laborers	
	8	Painters	
	9	HVAC	
	10	Roofers	
Health Care	1	Registered Nurses (RNs)	Licensed Practical Nurses (LPNs)
	2	Licensed Practical Nurses (LPNs)	Radiological Technicians
			Medical Records/Health Information Technicians
	3	Radiological Technicians	
		Medical Records/Health Information Technicians	
	4	Information Technicians	Occupational Therapists
	5	Housekeepers	Physical Therapists
	6	Medical and Clinical Lab Technicians	
	7	Nursing Aides, Orderlies, and	

- Attendants
- 8 Pharmacists
- 9 Maintenance Workers
- 10 Occupational Therapists
- 11 Physical Therapists

Logistics	1	Stock Clerks and Order Fillers Truck Drivers (Heavy/Tractor Trailer)	Truck Drivers (Heavy/Tractor Trailer)
	2	Trailer)	Sales Representatives Industrial Truck/Tractor Operators (Forklift, etc.)
	3	Sales Representatives Industrial Truck/Tractor	Laborers and Freight/Stock/Material
	4	Operators (Forklift, etc.) Clerks - Shipping, Receiving,	Movers
	5	Traffic Laborers and	
	6	Freight/Stock/Material Movers	
Manufacturing	1	Maintenance	Maintenance
	2	Machine operator	Electrical/electronics
	3	Management/supervisor	Engineering
	4	Administrative/Clerical	Management/supervisor
	5	Engineering	Machinist
	6	Electrical/electronics	Machine operator
	7	Information Technology	

Survey results compiled by Workforce Associates, Inc.

### Employers Reveal their Preferences for Abilities, Skills, and Knowledge

A specific set of questions in the survey aimed to discover employers’ needs and desires not just for the specific occupations that drive their industries, but also for the vital qualities of their critical occupations. Knowing which specific kinds of abilities, skills, and knowledge are most valued by employers will help us answer the question of how well-prepared the region’s workforce is to meet those employers’ needs.

### What does the applicant pool for critical occupations look like?

The survey asked employers to assess the difficulty they have finding employees with the “right stuff” for the job – and to list what that “stuff” is in detail. Here is what they said.

## Which of the following factors contribute to difficulty RECRUITING for your critical positions?

Answer Options	No difficulty	Slight difficulty	Moderate difficulty	Significant difficulty	Major difficulty
Basic skills	13%	30%	52%	4%	0%
Job-specific skills	0%	17%	29%	38%	17%
Literacy (reading/writing)	13%	71%	17%	0%	0%
Math skills/numeracy	8%	38%	29%	21%	4%
Work ethic/"soft" skills	4%	30%	43%	17%	4%
Job interviewing skills	17%	29%	42%	13%	0%
High school diploma/GED attainment	22%	57%	22%	0%	0%
Willingness to relocate	29%	25%	17%	25%	4%
Willingness to commute	39%	22%	22%	13%	4%
Area housing availability	61%	22%	13%	0%	4%
English speaking skills	48%	26%	26%	0%	0%
Citizenship/work permit status	54%	25%	21%	0%	0%
Wage/Salary	25%	33%	33%	8%	0%
Fringe benefits	48%	35%	13%	0%	4%
Willingness to do shift work	27%	32%	27%	0%	14%

- **Basic skills** seem to be a concern – 82% are having slight to moderate difficulty with these.
- Employers truly have difficulty finding people with the right **specific qualifications** for the jobs they're looking for – a sign that their critical occupations are in short supply in the region.
- This attribute is rated usually as causing only "slight" to "moderate" difficulty, but a large majority cites **reading skills** as a trouble spot.
- A similar case presents itself with **GED/high school degree attainment**. No one seems to be having more than "moderate" difficulty, but this leaves 79% having some level of trouble finding high school-educated workers.
- **Math skills** may be causing still more problems – 92% report having difficulty of some kind.
- Some specific employer responses shed some light on how current economic conditions are affecting the hunt for well-qualified workers:
  - Willingness to relocate and to commute is potentially becoming a problem. 62% of employers see this as a recruitment difficulty. With a region as widely spread as North East Texas, this could be troublesome as current fuel price escalations continue.
    - Areas with slimmer populations could find themselves with a shrinking labor pool for their vital occupations.

- Continued trends might see further clustering close to or within the larger metropolitan areas of the region – which may reverse such recent trends as the expansion of suburban wealth in parts of Delta County.
    - About half of employers who responded list English skills and citizenship status among their concerns.
  - While not cited as a major difficulty by anyone, earnings levels for these industries’ occupations have been the cause of at least some problems for 74% of the respondents in terms of their recruitment levels.

**How do current workers shape up?**

Employers were asked what difficulties they have retaining workers because of particular skills, abilities, or knowledge.

**How much do each of the following factors contribute to difficulty RETAINING workers in your organization?**

Answer Options	No difficulty	Slight difficulty	Moderate difficulty	Significant difficulty	Major difficulty
Basic skills	38%	38%	25%	0%	0%
Job-specific/technical skills	22%	43%	30%	4%	0%
Literacy (reading)	43%	43%	9%	4%	0%
Verbal communication	35%	39%	22%	4%	0%
Written communication	22%	48%	26%	4%	0%
Math skills/numeracy	22%	43%	17%	17%	0%
Work ethic/"soft" skills	8%	38%	29%	13%	13%
Critical thinking	9%	23%	50%	14%	5%
High school diploma/GED attainment	61%	30%	9%	0%	0%
Willingness to relocate	48%	22%	22%	4%	4%
Willingness to commute	52%	22%	17%	9%	0%
Area housing availability	57%	35%	9%	0%	0%
English speaking skills	57%	30%	17%	0%	0%
Citizenship/work permit status	57%	26%	17%	0%	0%
Wage/Salary	26%	35%	22%	17%	0%
Fringe benefits	43%	30%	17%	4%	4%
Willingness to do shift work	35%	26%	22%	9%	9%

There is a different mix of responses for job retention than we saw for recruitment, as some of the problems that cause recruitment trouble are necessarily “weeded out” once the right candidates are found. In other words, if an employee was hired in the first place, chances are good that he or she has not exhibited some of the same problems as the rest of the recruitment pool.

- So, those who can’t pass muster with basic skills, literacy, or a high school diploma aren’t in these companies’ current worker pools to cause problems – at least not in such high numbers as they are apparently to be found among the region’s applicant pool.

- Still, problems with **writing skills** and **math skills** have apparently reared their heads among incumbent workers of many of these firms.
- Also, 92% of employers list **work ethic and “soft skills”** among the things that make incumbent workers difficult to retain. Complaints about workers’ ability to show up on time (or at all), exhibit a positive attitude, and work as team players are common themes among the region’s employers.
- One health care employer speaks to this “soft skills” issue in an open response: “We need people that are supportive of others, . . . dependable and willing to accept accountability and [to] do their jobs to the best of their ability.” It could reasonably be said that any employer seeks workers who exhibit these qualities, but the fact that they merit a special comment for this health organization suggests that such qualities are harder to find and to keep than some employers would like.
- Also, for the most part, companies seem satisfied with the ability of the employees they currently have on board to do their **specific jobs** – though 77% still seem less than fully enthusiastic on some level with the job-specific skills of their employees.
- Again, willingness to relocate and to commute could be a source of difficulty as reflected by concerns among about half of the employers contacted.
- **Wages and salaries** tend to cause some difficulty with retention for more than half of these businesses. This evidence is corroborated by findings about turnover in critical occupations, which we have already examined.

### **What is most important for the most important occupations?**

The surveyed employers were also asked about their opinions on which abilities, skills, and knowledge are essential for the workers who fill their most critical occupations. Here, the survey respondents presented a wide array of answers which merit further examination.

### How important are each of the following skills to the critical occupations in your organization?

Answer Options	Not important or N/A	Somewhat important	Important	Very important	Essential
Math skills	0%	22%	35%	22%	26%
Reading skills	0%	9%	43%	26%	22%
Written communication	0%	35%	43%	13%	9%
Verbal communication	0%	9%	52%	22%	17%
Computer literacy	0%	42%	33%	8%	17%
Critical thinking	0%	13%	43%	26%	17%
Customer service	9%	9%	36%	18%	27%
Problem identification/troubleshooting	0%	4%	26%	43%	26%
Problem solving	0%	0%	39%	35%	26%
Decision making	0%	9%	35%	39%	17%
Time/resource management	0%	4%	52%	26%	17%
Social perceptiveness ("people skills")	4%	17%	35%	30%	13%
Teamwork/Coordination with others	0%	5%	32%	27%	36%
Management skill	0%	30%	43%	22%	4%
Sales skill	48%	30%	13%	4%	4%
Clerical/office skills	9%	36%	45%	0%	9%
Specialized technical skills	0%	9%	30%	48%	13%
Other	33%	0%	33%	0%	33%

Hardly anything rated as “not important” to a significant number of respondents, besides sales skills – not surprisingly, since most of the critical occupations cited by the region’s employers do not engage directly in sales with their customers.

- North East Texas employers need **excellent critical thinkers and problem solvers**. The importance of these cognitive skills is clear from the clustering of importance scores around:
  - **Critical thinking:** 87% rate this ability anywhere from “important” to “essential.”
  - **Problem identification/troubleshooting:** 96% of responses fall in the top three categories of importance.
  - **Problem solving:** Every single employer who responded to this question believed that this skill is crucial to the success of employees and their businesses – not a one even ranked this ability as low as even “somewhat important.”
  - **Decision making:** 91% value decisiveness very highly.
- There’s no avoiding the three “R”s – Knowledge of **Reading, Math, and Writing** were listed as areas of importance by considerable majorities of employers.
  - The critical occupations in these businesses, however, do not seem to be as intensive in writing as they are in math and reading – only nine percent of employers view written communication as an “essential” skill for their critical workers.

- Playing well with others still counts:
  - 95% of employers regard **teamwork** as an important to essential component of their critical occupations.
  - Somewhat less emphasis – though still a large majority at 79% - is placed on employees’ **“people skills.”**
- Furthermore, the mix of occupations that these regional employers consider to be critical depends on **specialized abilities, skills, and knowledge** – 91% of employers say that their employees’ job-specific technical skills are of crucial importance. After all, if anyone could do these jobs, they would probably be easier for employers to fill.

**Low-tech recruiting is still most effective in the region.**

For the occupations that the region’s employers consider to be critical, the most popular and effective methods for recruiting still seem to be those that put opportunities before the eyes of job seekers in direct and old-fashioned ways, with newspaper classified ads leading the responses.

It is an encouraging sign for the North East Texas Workforce Board that the second most popular option for recruitment cited by these employers is the one-stop system. This speaks to a level of trust in the quality of the employees that businesses get from this system that is by no means the case for many workforce regions throughout the country.

“Word of mouth” was not originally on the list of responses for this question, but it was popular enough among survey respondents to merit a mention here – direct recruitment by referral is still a strong source of good candidates for many of the area’s employers.

**Employers' Most Used Recruiting Methods**

<b>Answer Options</b>	<b>Response Percentage</b>	<b>Response Count</b>
Classified ads	73%	16
The public workforce system/one-stop centers	50%	11
Job fairs	36%	8
Internet job boards	32%	7
Word of mouth/referrals	27%	6
Private staffing agencies	27%	6
College placement offices (4-year)	9%	2
Company Web site/Intranet	9%	2
College placement offices (2-year)	0%	0

Survey results compiled by Workforce Associates, Inc.

## Section III: Availability of Workers and Skills

### Workers and their Availability by Age

Here we discuss the effects of general demography on availability of workers, building on age and ethnic composition analysis set forth in Section I.

#### Age cohort analysis and consequences

**Comparing age groups:** Most readers will be familiar with comparisons based on age groups. For example, if we say that the number of persons living in North East Texas in the age group 40 to 44 grew from 19,778 to 19,880 or by 102 persons (0.516%) in the period 2001 to 2006, that meaning will be clear to most readers.

**Cohort comparisons:** Because they are made less frequently, cohort comparisons are less familiar to most people. But they are easy enough to comprehend. To grasp the idea, it is important first to understand the meaning of the word “cohort.”

*Definition:* A **cohort of people** in a given jurisdiction (e.g., North East Texas) refers to a set of persons living in that jurisdiction who were born in the same period of time. For example, persons born between 1980 and 1984 would be members of a single five-year cohort. Persons born in the year 1980 would be members of a single one-year cohort.

*Definition:* A **cohort comparison** in a given jurisdiction is a comparison of the number of people in various cohorts who were living in that jurisdiction at two moments in time (say, in 2001 and 2006).

The tables that follow here show the percentage changes and numerical changes in the size of 83 individual single-year cohorts living in North East Texas in two years, 2001 and 2006.

Figure 11 and Figure 12 pertain to the entire population of North East Texas. Figure 1 shows the percentage changes in the various cohorts while Figure 2 shows the actual numerical changes in those same cohorts. The left hand axis shows the age of persons in each cohort as they were in 2006. Obviously, in 2001, they were five years younger.<sup>2</sup>

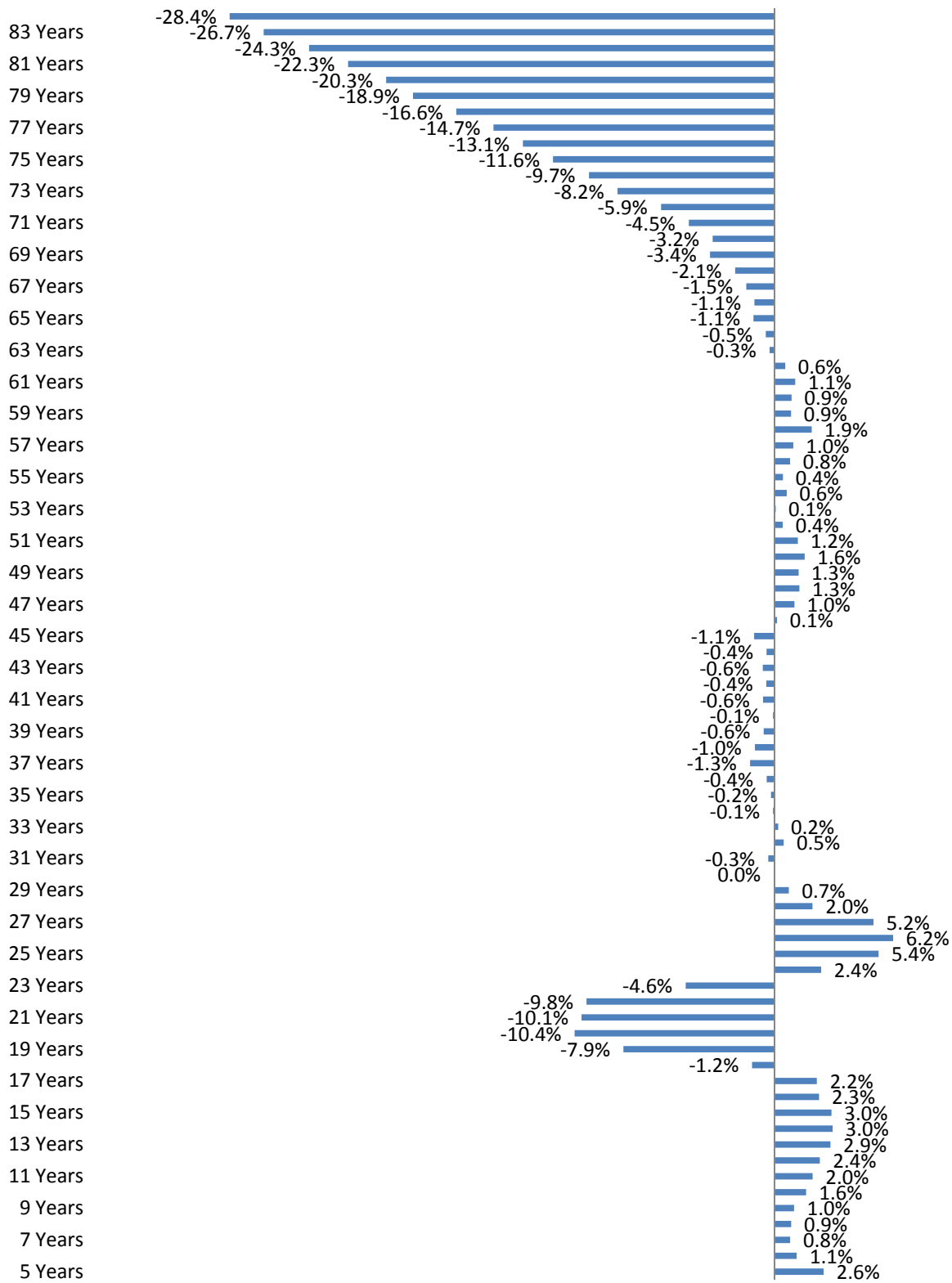
Figure 13 and Figure 14 display the percentage and numerical changes in only the Anglo portion of the various cohorts between 2001 and 2006.

Figure 15 and Figure 16 do the same as the preceding pairs except that they pertain only to the Hispanic portion of the region’s population.

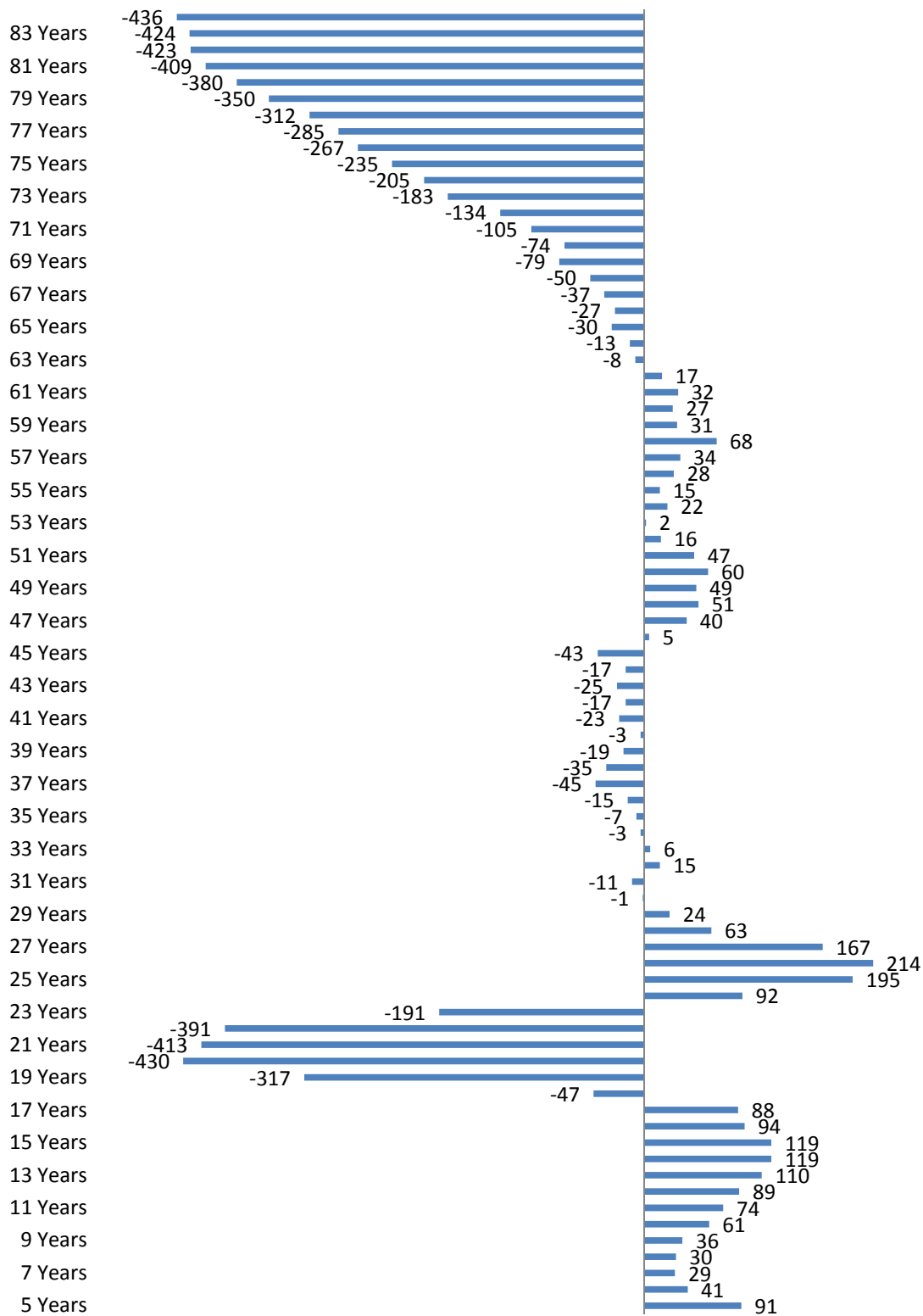
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<sup>2</sup> To avoid crowding, the left-hand axis displays labels only for every other cohort (those whose ages were in odd numbers in 2006). However, the bars with their associated data points pertain to each and every cohort.

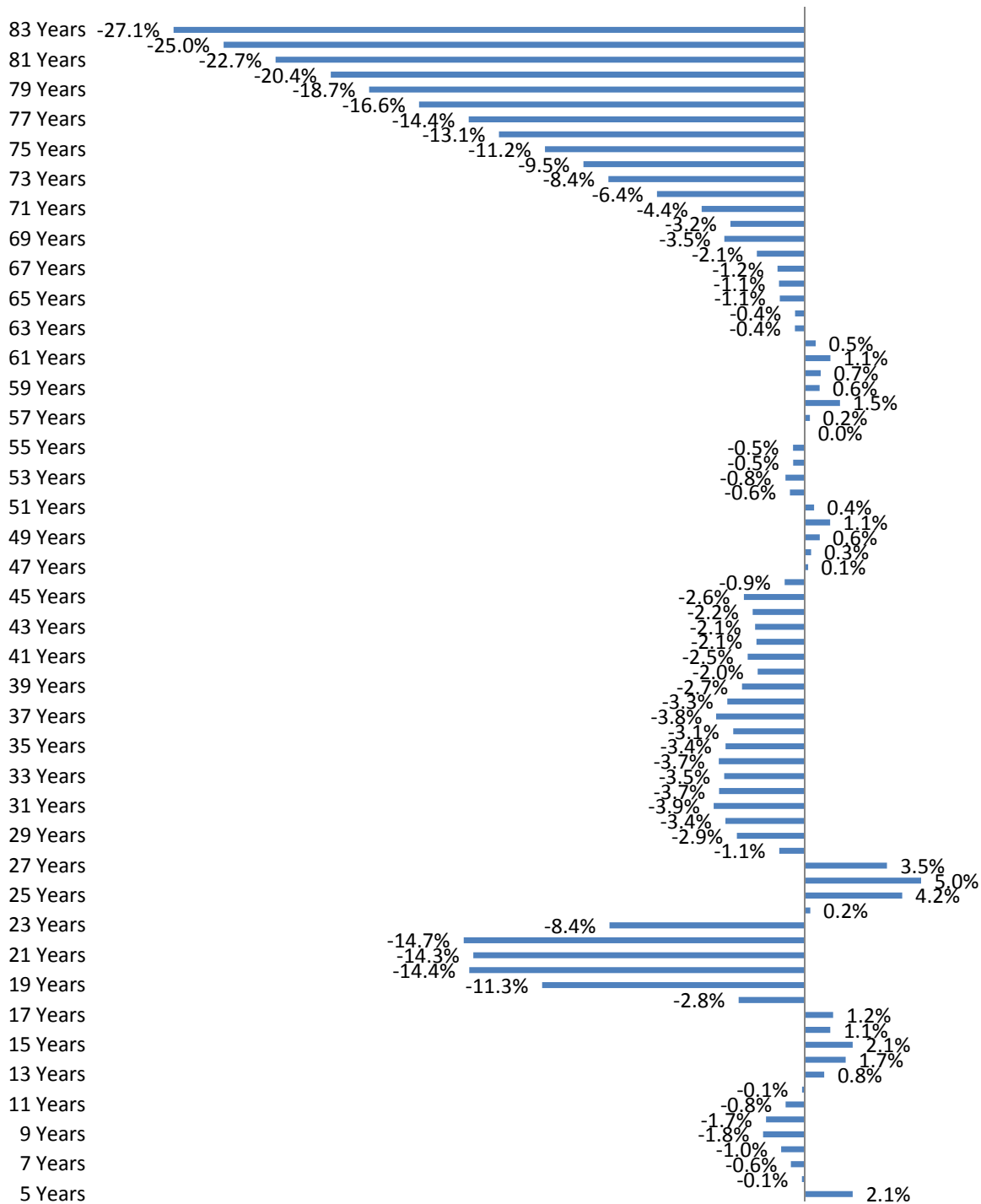
**Figure 12. Single-Year Age Cohort Changes in North East Texas, 2001-2006 (Percentage)**



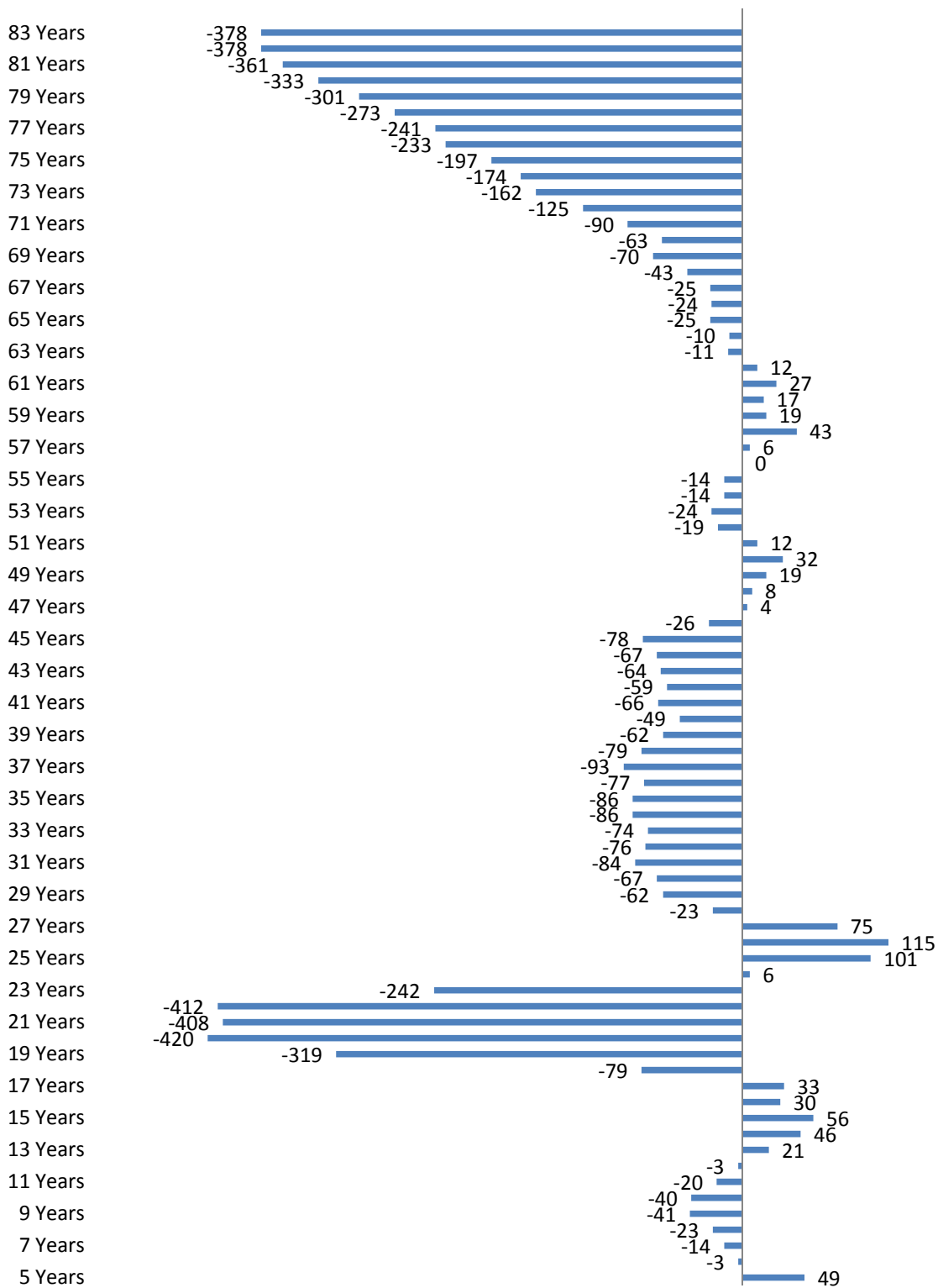
**Figure 13. Single-Year Age Cohort Changes in North East Texas, 2001-2006 (Total)**



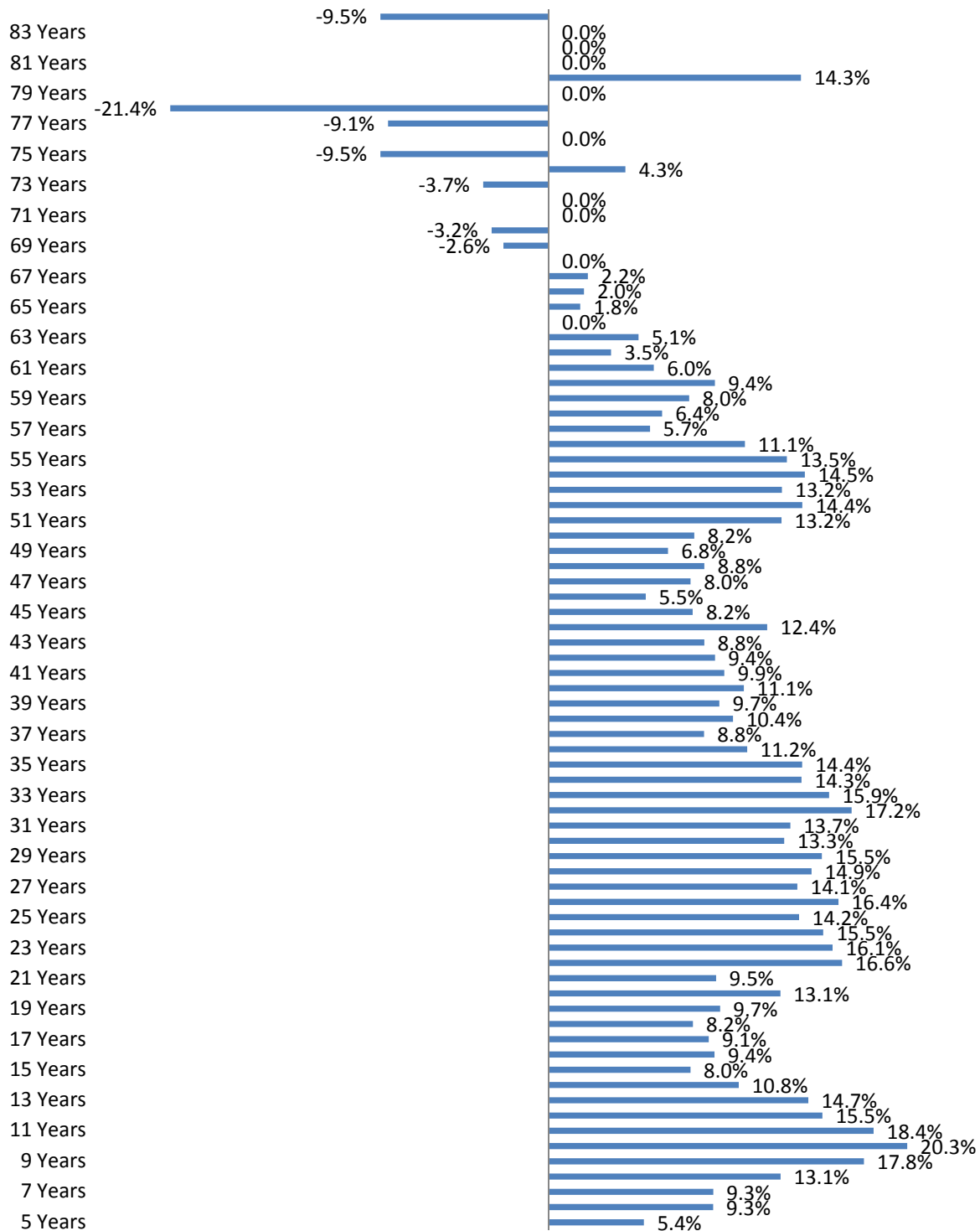
**Figure 14. Single-Year Age Cohort Changes in North East Texas, 2001-2006  
(Percentage - Anglos)**



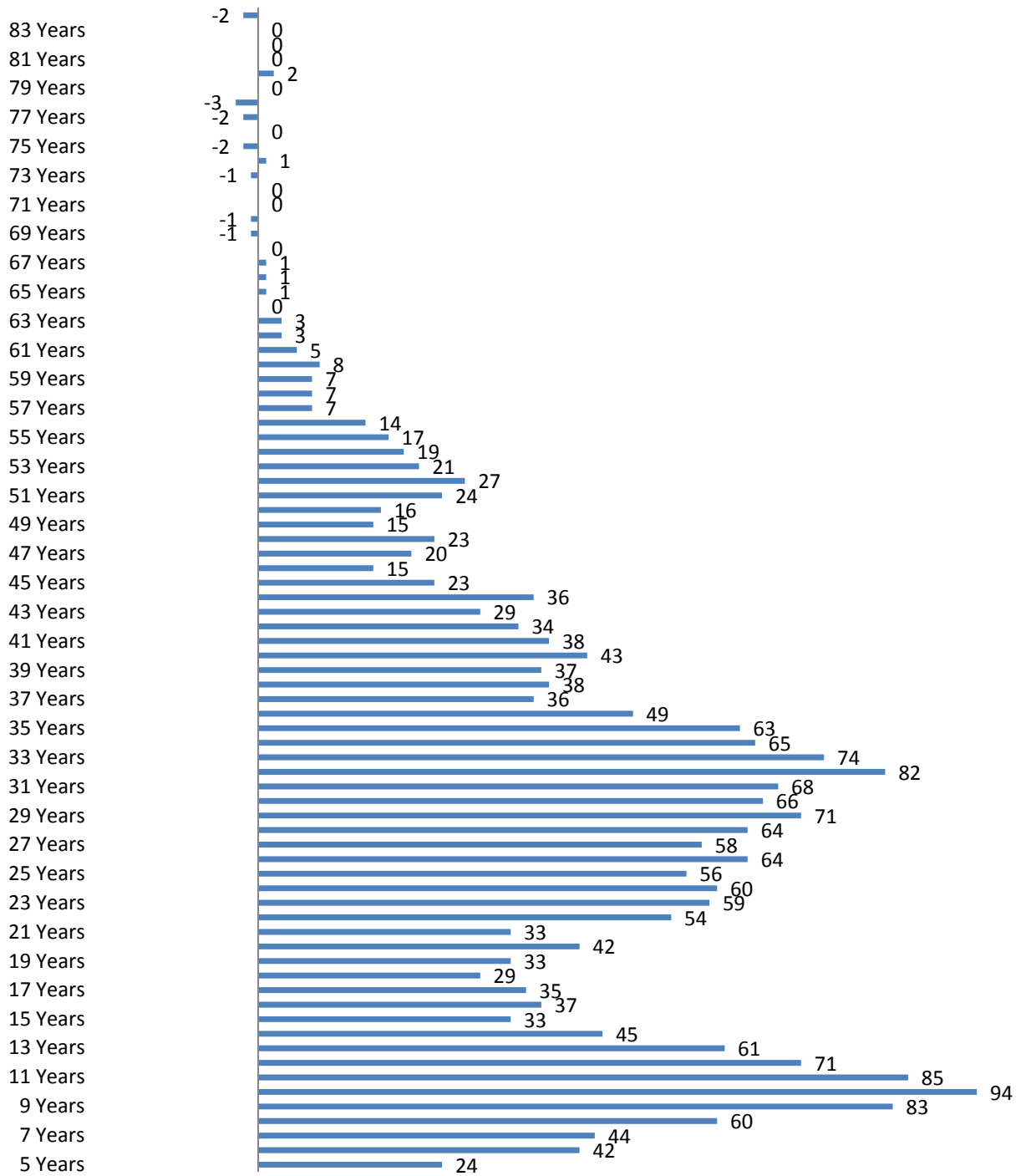
**Figure 15. Single-Year Age Cohort Changes in North East Texas, 2001-2006 (Total - Anglos)**



**Figure 16. Single-Year Age Cohort Changes in North East Texas, 2001-2006  
(Percentage - Hispanic)**



**Figure 17. Single-Year Age Cohort Changes in North East Texas, 2001-2006  
(Total - Hispanic)**



### **Cohort Changes for the Total North East Texas Population (Figures 1 and 2)**

For the total regional population, cohort change breaks down into five major groupings:

1. The cohorts of children and most teenagers, i.e., those who were aged 5 to 17 in 2006 (and, obviously, aged 0 to 12 in 2001) show modest percentage increases over the period in the range of 1% to 3%.
2. The cohorts of persons who were in their late teens and early twenties in 2006 were down significantly. Some of these declines were on the order of 10%. This reflects the departure of young adults to seek educational and employment opportunities outside North East Texas.
3. The numbers of persons in the cohorts aged in their mid- to late- twenties in 2006 were up from the number five years earlier.
4. The cohorts of persons who were ages 30 to 61 years showed little change over the five-year period. The first half of those showed slight declines while the second half showed increases of about the same magnitude.
5. The cohorts of persons who were ages 62 and above showed declines that increased with the age of the cohort.

### **Cohort Changes for the Anglo Population of North East Texas (Figures 3 and 4)**

The graphs of cohort changes for the region's Anglo population appear roughly similar in shape to those of the total population. But that similarity hides significant differences.

1. For example, instead of increases in all of the younger cohorts, we see modest declines in those cohorts of persons aged 6 to 13.
2. Additionally, there were much larger drops in the cohorts of persons who were in their early twenties in 2006.
3. Meanwhile, the increases in the cohorts of persons in the late twenties in 2006 were notably smaller.
4. The departures of persons in Anglo cohorts who were in their thirties and forties in 2006 are also noticeably greater than among cohorts of the total population.

### **Cohort Changes for the Hispanic Population of North East Texas (Figures 5 and 6)**

The graphs of cohort changes for the region's Hispanic population look completely different from those of the Anglo population. Here we see significant numerical changes and very large percentage changes for all age cohorts except for the very oldest. The largest increases were for children in cohorts ages 7 to 13 in 2006 and in those cohorts with ages in their twenties and thirties in 2006.

### Implications of Cohort Changes for the Workforce of North East Texas

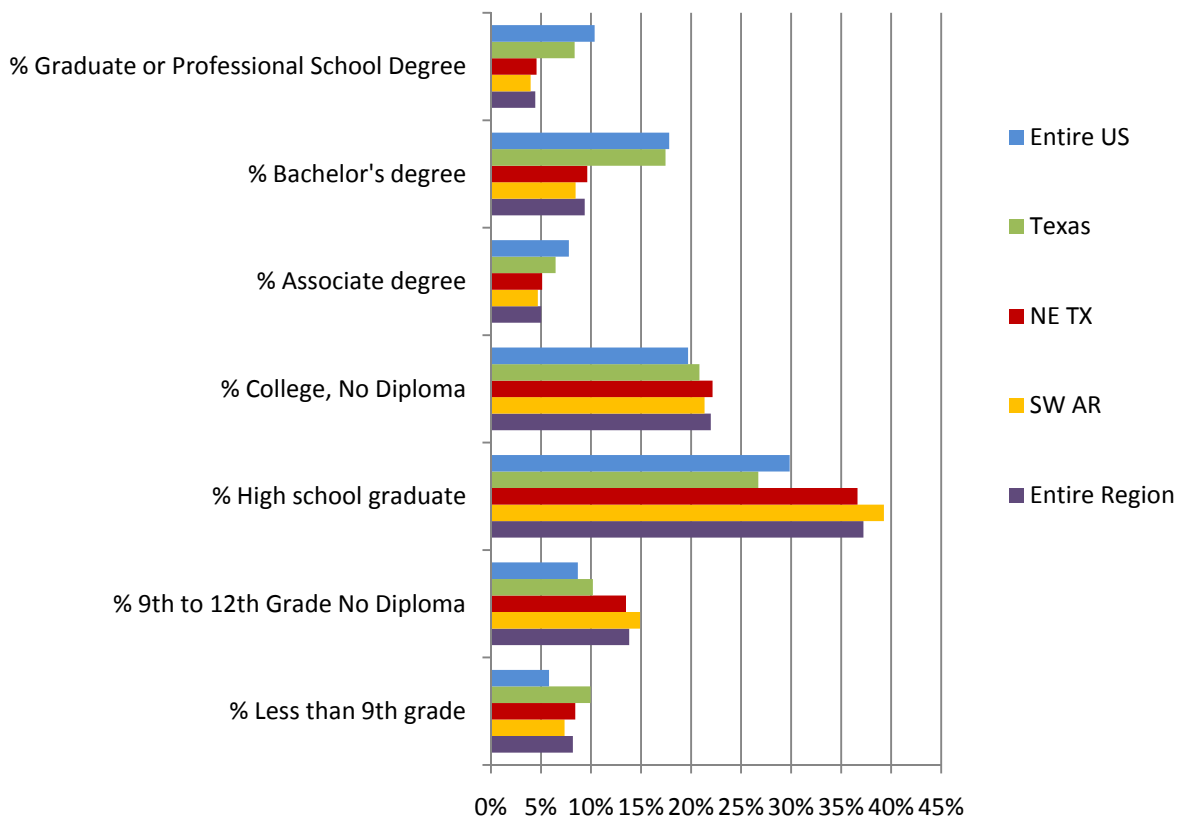
The cohort changes documented here carry major implications for the ethnic dynamics of the North East Texas workforce. Those may be succinctly summarized as follows:

- Anglos in the prime working ages, especially those in their twenties but also in their thirties and forties, were departing and not returning during the period 2001 to 2006.
- Conversely, the numbers of Hispanics in every working age cohort and every pre-working age cohort were increasing, many of them by double digits percentages.
- Whatever growth occurred in virtually any cohort of the total population that showed it was due chiefly to the growth of the Hispanic population.
- If the cohort changes noted for the period 2001 to 2006 constitute a trend, and if that trend is to continue, then the workforce of North East Texas will be increasingly Hispanic at an accelerating rate. This ties to the population projections that we have already seen for the region.

### Adult Educational Attainment – How Prepared are the region’s workers?

Adult educational attainment remains low.

**Figure 18. Adult Educational Attainment Comparison**



From where it stood in 2005, the picture of the region’s adult educational attainment has not moved. Percentages of educational attainment below the high school level fall below ten percent for every postsecondary degree category. Meanwhile, many people in the region seem to have started on the path toward postsecondary education, but failed to secure a diploma. Meanwhile a significant portion of the population has failed even to achieve a high school diploma. Even lower attainment rates across the border pull down the overall picture for the entire region.

Three years is not much time to change the educational makeup of the entire adult population of the region. Still, since the situation has not changed, the conclusion of the 2005 study stands with regard to the region’s educational attainment: It is a potential brake on economic development in highly sophisticated 21<sup>st</sup> century industry. This may not be a serious problem at the moment, but it could become one very soon.

### Skills profile of workers in region

The O\*NET® database is a rich storehouse of information about the abilities, skills, and knowledge requirements of more than 800 individual occupations.<sup>3</sup> Each of those occupations is scored according to 55 separate Ability attributes, 35 Skills attributes, and 33 Knowledge attributes. These are aggregated into groups known as “families.”

Workforce Associates, Inc. has computed the “Location Quotients” (or “LQ”) for North East Texas for both individual attributes and their “families,” based on their presence in the region’s employed workforce. The LQ as computed measures the concentration of the respective attributes in the North East Texas workforce relative to that of the United States as a whole. The LQs have been computed using data from the employment projections for the period 2004-2014, as made for Texas by the Texas Workforce Commission and for the United States by the Bureau of Labor Statistics. LQs are shown in the tables that follow for the two years (2004 and 2014), for the change in occupational employment as projected for the decade, and for the total number of job openings projected for the period.

In the tables to follow, LQ values exactly equal to 1.0 for a particular attribute (or family thereof) indicate that the concentration of that attribute is exactly equal to that in the workforce of the United States. LQ values lower than 1.0 indicate a comparative weakness in the North East Texas workforce relative to that of the nation as a whole. The smaller the LQ (i.e., the amount by which it is less than 1.0), the less is that attribute concentrated in this region’s workforce relative to the nation’s. Finally, LQ values greater than 1.0 for attributes

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<sup>3</sup> O\*NET® refers to the Occupational Information Network and is a trademark of the US Department of Labor/Employment and Training Administration (USDOL/ETA)

indicate greater concentration of those attributes in the North East Texas workforce relative to the United States workforce.

### Abilities Location Quotients for North East Texas - Families of Abilities

	Abilities 2004	Abilities 2014	Change 2004 - 2014	Total Job Openings
<b>Cognitive Abilities</b>	<b>0.98</b>	<b>0.98</b>	<b>0.97</b>	<b>0.99</b>
Verbal Abilities	0.95	0.95	0.94	0.96
Idea Generation and Reasoning Abilities	0.96	0.96	0.95	0.97
Quantitative Abilities	0.97	0.97	0.94	0.98
Memory	0.96	0.96	0.95	0.97
Perceptual Abilities	0.99	0.99	0.98	0.99
Spatial Abilities	1.07	1.07	1.10	<b>1.14</b>
Attentiveness	0.98	0.98	0.98	0.98
<b>Psychomotor Abilities</b>	<b>1.17</b>	<b>1.18</b>	<b>1.23</b>	<b>1.14</b>
Fine Manipulative Abilities	<b>1.12</b>	<b>1.13</b>	<b>1.16</b>	<b>1.15</b>
Control Movement Abilities	<b>1.17</b>	<b>1.18</b>	<b>1.22</b>	<b>1.12</b>
Reaction Time and Speed Abilities	<b>1.21</b>	<b>1.22</b>	<b>1.30</b>	<b>1.14</b>
<b>Physical Abilities</b>	<b>1.23</b>	<b>1.25</b>	<b>1.46</b>	<b>1.20</b>
Physical Strength Abilities	<b>1.17</b>	<b>1.18</b>	<b>1.29</b>	<b>1.12</b>
Endurance	<b>1.19</b>	<b>1.21</b>	<b>1.36</b>	<b>1.13</b>
Flexibility, Balance, and Coordination	<b>1.30</b>	<b>1.33</b>	<b>1.64</b>	<b>1.29</b>
<b>Sensory Abilities</b>	<b>1.06</b>	<b>1.07</b>	<b>1.08</b>	<b>1.07</b>
Visual Abilities	1.08	1.09	<b>1.12</b>	<b>1.11</b>
Auditory and Speech Abilities	1.03	1.03	1.02	1.01

Sources: Texas Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

Abilities Location Quotients for North East Texas - Specific Abilities

Ability Family	Ability Group	Specific Ability	Change			Total Job Openings
			Abilities 2004	Abilities 2014	2004 - 2014	
Cognitive Abilities	Verbal Abilities	Oral Comprehension	0.95	0.95	0.95	0.96
		Written Comprehension	0.95	0.95	0.94	0.95
		Oral Expression	0.95	0.95	0.94	0.95
	Idea Generation and Reasoning Abilities	Written Expression	0.94	0.94	0.93	0.94
		Fluency of Ideas	0.97	0.97	0.97	0.98
		Originality	0.96	0.96	0.95	0.97
		Problem Sensitivity	0.97	0.97	0.96	0.97
		Deductive Reasoning	0.95	0.95	0.94	0.96
		Inductive Reasoning	0.95	0.95	0.94	0.95
		Information Ordering	0.97	0.96	0.96	0.97
	Quantitative Abilities	Category Flexibility	0.97	0.97	0.96	0.97
		Mathematical Reasoning	0.96	0.96	0.93	0.97
	Memory	Number Facility	0.98	0.98	0.95	0.98
		Memorization	0.96	0.96	0.95	0.97
	Perceptual Abilities	Speed of Closure	0.98	0.98	0.96	0.97
		Flexibility of Closure	0.99	0.99	0.97	0.99
Perceptual Speed		1.01	1.01	1.00	1.00	
Spatial Abilities	Spatial Orientation	1.12	1.12	1.16	1.23	
	Visualization	1.02	1.02	1.03	1.05	
Attentiveness	Selective Attention	0.98	0.98	0.98	0.98	
	Time Sharing	0.98	0.98	0.98	0.99	
Psychomotor Abilities	Fine Manipulative Abilities	Arm-Hand Steadiness	1.18	1.18	1.23	1.21
		Manual Dexterity	1.17	1.18	1.23	1.20
		Finger Dexterity	1.03	1.03	1.02	1.03
	Control Movement Abilities	Control Precision	1.07	1.07	1.07	1.11
		Multilimb Coordination	1.13	1.14	1.18	1.13
		Response Orientation	1.12	1.12	1.11	1.08
		Rate Control	1.36	1.37	1.51	1.17
	Reaction Time and Speed Abilities	Reaction Time	1.25	1.26	1.32	1.12
Wrist-Finger Speed		1.14	1.14	1.16	1.14	
Speed of Limb Movement		1.25	1.27	1.43	1.17	
Physical Abilities	Physical Strength Abilities	Static Strength	1.24	1.25	1.39	1.17
		Explosive Strength	1.07	1.07	1.06	1.08
		Dynamic Strength	1.28	1.31	1.56	1.18
		Trunk Strength	1.07	1.08	1.16	1.05
	Endurance	Stamina	1.19	1.21	1.36	1.13
	Flexibility, Balance, and Coordination	Extent Flexibility	1.18	1.19	1.30	1.12
		Dynamic Flexibility	1.47	1.53	2.25	1.67
		Gross Body Coordination	1.23	1.25	1.43	1.17
Gross Body Equilibrium		1.31	1.33	1.58	1.18	
Sensory Abilities	Visual Abilities	Near Vision	0.96	0.96	0.95	0.97
		Far Vision	0.98	0.98	0.97	0.98
		Visual Color Discrimination	1.03	1.03	1.02	1.05
		Night Vision	1.19	1.19	1.26	1.28
		Peripheral Vision	1.22	1.24	1.40	1.27
		Depth Perception	1.07	1.07	1.05	1.09
		Glare Sensitivity	1.15	1.15	1.17	1.13
	Auditory and Speech Abilities	Hearing Sensitivity	1.06	1.06	1.06	1.03
		Auditory Attention	1.03	1.03	1.03	1.02
		Sound Localization	1.17	1.17	1.15	1.12
		Speech Recognition	0.97	0.96	0.95	0.97
		Speech Clarity	0.95	0.95	0.94	0.94

Sources: Texas State Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

The results of this LQ analysis provide very meaningful insights into the quality of this region’s workforce as it compares with the nation’s in terms of its various abilities, skills and knowledge.

**Concentration of Abilities in the North Texas Workforce Relative to that of the Nation**

The two Abilities tables displayed above permit some very significant generalizations about this region’s workforce compared to that of the nation as a whole.

- The North East Texas workforce shows slight weakness in most Cognitive Abilities. That weakness is most pronounced in Verbal Abilities and Written Expression where the LQs for 2004 were 0.95 and 0.94, respectively.
- Conversely, the region’s workforce shows impressive comparative strength in Psychomotor and Physical Abilities.
- Sensory Abilities as a whole are comparatively strong in the North East Texas workforce. That strength is most evident in Peripheral Vision, Night Vision, Glare Sensitivity, and Sound Localization. Relative weaknesses appear in such attributes as Speech Clarity and Speech Recognition.
- Generally speaking, the relative strengths and weaknesses revealed among these Ability attributes in the North East Texas workforce are those to be expected in a predominantly blue-collar workforce.

**Skills Location Quotients for North East Texas - Families of Skills**

	Skills 2004	Skills 2014	Change 2004 - 2014	Total Job Openings
<b>Basic Skills</b>	<b>0.99</b>	<b>0.99</b>	<b>0.97</b>	<b>0.98</b>
Content	0.98	0.98	0.98	0.98
Process	0.99	0.99	0.97	0.98
<b>Cross-Functional Skills</b>	<b>1.01</b>	<b>1.01</b>	<b>1.03</b>	<b>1.02</b>
Social Skills	0.99	0.99	0.97	0.98
Complex Problem Solving Skills	0.98	0.98	0.98	0.98
Technical Skills	1.03	1.03	1.06	1.04
Systems Skills	1.00	1.00	1.03	1.00
Resource Management Skills	1.01	1.01	1.01	1.02

Sources: Texas Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

Skills Location Quotients for North East Texas - Specific Skills

Skills Family	Skills Group	Specific Skill	Skills	Skills	Change	Total Job Openings
			2004	2014	2004 - 2014	
Basic Skills — Developed capacities that facilitate learning or the more rapid acquisition of knowledge	Content	Reading Comprehension	0.99	0.99	0.97	0.98
		Active Listening	0.98	0.98	0.96	0.98
		Writing	0.97	0.97	0.95	0.97
		Speaking	0.99	0.99	0.96	0.98
		Mathematics	0.99	0.99	1.01	0.99
	Science	0.98	0.98	1.01	0.97	
	Process	Critical Thinking	0.98	0.98	0.95	0.98
		Active Learning	0.99	0.99	0.98	0.98
		Learning Strategies	0.99	0.99	0.96	0.98
		Monitoring	1.00	1.00	0.98	0.99
Cross-Functional Skills — Developed capacities that facilitate performance of activities that occur across jobs	Social Skills	Social Perceptiveness	0.99	0.99	0.95	0.97
		Coordination	0.99	0.99	0.98	0.99
		Persuasion	0.98	0.98	0.97	0.99
		Negotiation	0.97	0.97	0.97	0.98
		Instructing	0.99	0.99	0.95	0.98
	Service Orientation	0.99	0.99	0.97	0.98	
	Complex Problem Solving Skills	Complex Problem Solving	0.98	0.98	0.98	0.98
	Technical Skills	Operations Analysis	1.02	1.02	1.05	1.03
		Technology Design	1.02	1.03	1.08	1.05
		Equipment Selection	1.03	1.04	1.06	1.05
		Installation	1.04	1.04	1.14	1.10
		Programming	0.94	0.94	1.01	0.98
		Operation Monitoring	1.10	1.10	1.10	1.06
		Operation and Control	1.08	1.08	1.08	1.07
		Equipment Maintenance	1.08	1.09	1.16	1.10
		Troubleshooting	1.04	1.04	1.11	1.07
		Repairing	1.04	1.04	1.15	1.10
	Quality Control Analysis	1.02	1.02	1.05	1.02	
	Systems Skills	Judgment and Decision Making	0.99	0.98	0.98	0.98
		Systems Analysis	1.01	1.01	1.05	1.01
Systems Evaluation		1.01	1.01	1.05	1.01	
Resource Management Skills	Time Management	0.99	0.99	0.98	0.99	
	Management of Financial Resources	0.99	0.99	0.99	1.02	
	Management of Material Resources	1.02	1.02	1.03	1.05	
	Management of Personnel Resources	1.03	1.03	1.02	1.02	

Sources: Texas Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

Concentration of Skills in the North Texas Workforce Relative to that of the Nation

Here, again, we see significant patterns in the relative concentrations of skills in the workforce of North East Texas.

- The Basic Skills of the North East Texas workforce, as measured by the LQs of these skill attributes, are very similar to those of the nation’s workforce. Indeed, most of the LQs here are in the range of 0.99 to 1.00.
- Social Skills likewise are very similarly concentrated in the local the nation’s workforce. Only in Negotiation does the LQ drop down as low as 0.97.
- Complex Problem Solving Skills are slightly less concentrated within the North East Texas workforce than in that of the nation as a whole.
- This region’s workforce shows significant relative strength in Technical Skills. That is most noticeable with respect to Installation, Operational Monitoring, Equipment Maintenance, Troubleshooting, and Repairing.

- Systems Skills and Resource Management Skills hover close to 1.0. That said, it is gratifying to see LQs of 1.02 and 1.03, respectively, for Management of Material Resources and Management of Personnel Resources.

As with Ability attributes, the LQs for the Skills attributes of the North East Texas workforce are those to be expected in a workforce with well-developed blue-collar qualifications.

### Knowledge Location Quotients for North East Texas - Families of Knowledge

	Knowledge 2004	Knowledge 2014	Change 2004 - 2014	Total Job Openings
Business and Management	1.01	1.01	1.00	1.01
Manufacturing and Production	1.08	1.08	1.10	1.07
Engineering and Technology	1.02	1.02	1.01	1.08
Mathematics and Science	0.99	1.00	1.01	0.99
Health Services	1.01	1.01	1.01	0.97
Education & Training	0.99	0.99	1.00	0.97
Arts and Humanities	0.96	0.97	1.00	0.96
Law and Public Safety	0.99	0.98	0.96	0.98
Communications	1.02	1.02	1.01	1.04
Transportation	1.01	1.01	0.99	1.00

Sources: Texas Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

### Concentration of Knowledge in the North Texas Workforce Relative to that of the Nation

- The patterns revealed by LQ analysis of the Knowledge attributes are entirely consistent with those of the Ability and Skills attributes.
- The North East Texas workforce is relatively strong in Knowledge families such as Business Management as well as Manufacturing and Production, especially the latter.
- The local workforce shows considerable relative strength in the Engineering & Technology and Mechanical attributes. It is comparable in strength with the national average in the Knowledge fields of Computers and Electronics and Design.
- In the Mathematics and Science family of Knowledge attributes, the North East Texas workforce shows relative strengths especially in Chemistry, Physics, and Biology but weakness in fields such as Psychology, Sociology & Anthropology, and Geography.
- The LQ for Medicine and Dentistry is good (1.05) while that for Therapy and Counseling is not so good (0.97).

### Knowledge Location Quotients for North East Texas - Specific Knowledge

Knowledge Family	Specific Knowledge	Knowledge 2004	Knowledge 2014	Change	Total Job Openings
				2004 - 2014	
Business and Management	Administration and Management	1.02	1.02	1.02	1.02
	Clerical	1.00	1.00	0.99	1.00
	Economics and Accounting	0.99	0.98	0.96	1.00
	Sales and Marketing	1.05	1.05	1.05	1.07
	Customer and Personal Service	1.01	1.01	1.00	1.00
	Personnel and Human Resources	1.01	1.01	1.00	1.00
Manufacturing and Production	Production and Processing	1.08	1.07	1.05	1.09
	Food Production	1.09	1.10	<b>1.15</b>	1.04
Engineering and Technology	Computers and Electronics	1.00	1.00	0.99	1.02
	Engineering and Technology	1.06	1.06	1.03	<b>1.10</b>
	Design	1.00	1.00	1.00	1.09
	Building and Construction	0.98	0.98	0.98	1.08
	Mechanical	1.06	1.06	1.05	<b>1.10</b>
Mathematics and Science	Mathematics	1.00	1.00	0.99	1.01
	Physics	1.03	1.03	1.03	1.06
	Chemistry	1.05	1.06	1.09	1.05
	Biology	1.02	1.02	1.06	1.00
	Psychology	0.99	0.99	0.99	0.96
	Sociology and Anthropology	0.94	0.94	0.93	0.89
	Geography	0.95	0.94	0.93	0.94
Health Services	Medicine and Dentistry	1.05	1.05	1.06	1.02
	Therapy and Counseling	0.97	0.97	0.97	0.92
Education & Training	Education and Training	0.99	0.99	1.00	0.97
Arts and Humanities	English Language	0.99	0.99	1.00	0.99
	Foreign Language	0.96	0.96	0.97	0.92
	Fine Arts	1.05	1.07	<b>1.19</b>	1.10
	History and Archeology	0.90	0.90	0.90	0.88
	Philosophy and Theology	0.92	0.92	0.92	0.89
Law and Public Safety	Public Safety and Security	1.02	1.02	1.00	1.02
	Law and Government	0.95	0.95	0.92	0.94
Communications	Telecommunications	1.05	1.05	1.04	1.09
	Communications and Media	0.98	0.98	0.99	1.00
Transportation	Transportation	1.01	1.01	0.99	1.00

Sources: Texas Workforce Commission and O\*NET. Analysis by Workforce Associates, Inc.

- The local workforce shows relative weakness in most Knowledge attributes in the families of Education & Training as well as in the Arts and Humanities. Only in Fine Arts (with an LQ of 1.05) does the North East Texas workforce display higher Knowledge proficiency than the nation.
- Public Safety and Security shows relative strength in the local workforce, as do the Knowledge attributes of Telecommunications and Transportation.

In summary, this LQ analysis of the relative concentrations of Abilities, Skills and Knowledge in the North East Texas workforce shows it to be strong in those attributes that make for a very competent, conventional blue-collar workforce. It is relatively less strong in the cognitive Abilities, Content (i.e., academic) and Social Skills, and Knowledge categories that are associated with a 21<sup>st</sup> century workforce.

### TORQ™ - Using Transferable Skills to Find Job Candidates

TORQ™ – the Transferable Occupation Relationship Quotient – is an analysis tool developed by Workforce Associates, Inc., which links occupations based on the *abilities, skills, and knowledge* required by a vast spectrum of jobs. TORQ™ expands the notion of career pathways into a truly interconnected web of possibilities based on the factors that really matter for career mobility – not a specific job that someone has done, but what someone who has held that job is *capable* of doing.

#### What does TORQ™ do?

TORQ™ measures the “transferability” of workers among and between different occupations by analyzing worker-oriented and job-oriented “descriptors” of those occupations from the Department of Labor’s O\*NET database of job attributes, which we have just been using to explore the skills profile of the North East Texas regional workforce.

From this vast database, TORQ™ sweeps in a comprehensive set of measurements of each occupation’s attributes in the vital categories of abilities, skills, and knowledge (also known as ASK). Based on this set of attributes from O\*NET, TORQ™ generates an analysis of transferability between any two pairs of listed occupations.

For our purposes, “transferability” between two occupations means that:

- The two occupations require very similar worker attributes, or
- Any gaps that exist between worker and job characteristics can be closed with reasonable investments in education and training.

Obviously, “transferability” between pairs of occupations can vary over a wide range. We need a measure of that.

#### So, what is TORQ™?

TORQ™ provides quantitative measures of transferability between *every pair of occupations* in the O\*NET list of 801 occupations. Specifically, **TORQ™ is a numeric value between 0 and 100, measuring the transferability of workers from one occupation to another.**

A more detailed model of TORQ™ interpretation follows below. In general, the TORQ™ value is straightforward: The closer to 100, the closer the relationship between two jobs’ key abilities,

skills, and knowledge (or “ASK” for short). Therefore, the closer to 100, the easier it is to transfer from one job to another.

### Interpreting TORQ™ Reports

Included in Appendix A of this report are TORQ™ Recruiter reports for each of the critical, hard-to-fill occupations identified by the employer survey conducted as part of this study. Each of these reports takes the form of a table of occupational listings, ranked in order of the TORQ™ value for each. Here is a guide to interpreting this table, column by column.

#### O\*NET Code

This code is the official listing number for the occupation within the Department of Labor’s O\*NET database, from which the data used to calculate TORQ™ are derived.

#### Occupational Title

The name of each occupation in the list at the top of each list is the critical target occupation – which becomes, of course, the destination occupation for the Recruiter report and the starting occupation for the Promoter report.

#### Grand TORQ™

This is the number that drives the entire chart’s listing priority. The Grand TORQ™ is the single number that measures the “transferability” between the listed occupation and the target occupation. The following table presents a more detailed way to interpret the relationship between two occupations based on the TORQ™ value:

TORQ Value	Interpretation
Above 95	The two occupations are virtually identical.
90 – 95	The prospects for transition are excellent. No major ability barriers; minimal investment of time and money should close gaps in skills and/or knowledge.
85 – 89	Prospects are good for transition. There are likely to be a few more gaps in skills and knowledge that will need filling in some cases.

80 – 84	Fair prospects for transition with significant investment in training and/or education.
75 – 79	Some gaps likely to pose serious challenges. Abilities may be misaligned.
Below 75	Abilities may be seriously misaligned. Prospects for transition not so good, although not impossible, depending on individual circumstances.

### O\*NET Job Zone

O\*NET divides occupations into five broad categories known as Job Zones, based on the levels of training, education, and experience needed to enter each occupation. These levels are as follows:

- Job Zone 1 - occupations that need little or no preparation
- Job Zone 2 - occupations that need some preparation
- Job Zone 3 - occupations that need medium preparation
- Job Zone 4 - occupations that need considerable preparation
- Job Zone 5 - occupations that need extensive preparation

Job Zone listings are useful for evaluating transferability as a thumbnail sketch of the amount of additional preparation a worker in one occupation would need to complete in order to make the transition to or from the target occupation. A shift of one “job zone” is probably feasible given a reasonable investment in education and training; two or more might present more significant challenges.

### Median Annual Wage/Salary

Earnings figures for each occupation, where available, come from official labor market information for the Texarkana MSA.<sup>4</sup>

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<sup>4</sup> For the purposes of the TORQ analysis presented in this report, the Texarkana MSA is used since it presented opportunities for the most complete variety of labor market information. Data suppression rules affect the availability of data for many occupations in the official North East Texas and Southwest Arkansas regions.

### Difference from . . .

This number is based on the earnings figures in the previous column – it shows how much more or less someone in a given occupation earns, compared to the occupation being analyzed. In the reports displayed in Appendix A, this will always be less than the target occupation.

### Total Texarkana Employment

These are official OES data for the Texarkana MSA. These measures include:

#### Employment in 2007

A general idea of what the Texarkana employment picture looked like for a given occupation in the base year of 2004.

#### Percent Growth 2004-2014

The projected percentage change in employment for a given occupation for the 10-year period from 2004-2014 as computed by the Texas Workforce Commission. This will not necessarily reflect “growth,” of course – a negative percentage indicates just the opposite expected result.

#### Job Openings: Annual Average Total

The number of projected openings per year in the region for a given occupation, according to TWC .

### Exploring the workforce pools for hard-to-fill occupations in North East Texas

The employer survey conducted as part of this project (described in Section II of this Report) revealed positions were “hardest to fill” in some 23 “critical” occupations.<sup>5</sup> Where adequate labor market information exists for the Texarkana MSA, we have used TORQ to explore the “workforce pool potential” for each of these occupations.

How does TORQ identify the “workforce pool potential” for an occupation? It does so in two steps:

1. For any given occupation, it first computes the Grand TORQ values for transitioning workers from all 800 other occupations for which the median annual wage (or salary) is **less** than that for the given occupation. It then displays that list of other occupations in **declining** order of their Grand TORQ scores.
2. The number of workers employed in the 29 occupations with the highest Grand TORQ scores are **summed cumulatively** and displayed graphically to show the number of workers in occupations.

A specific example will clarify this procedure. The following page displays a table and a graph showing the workforce pool potential for Registered Nurses.

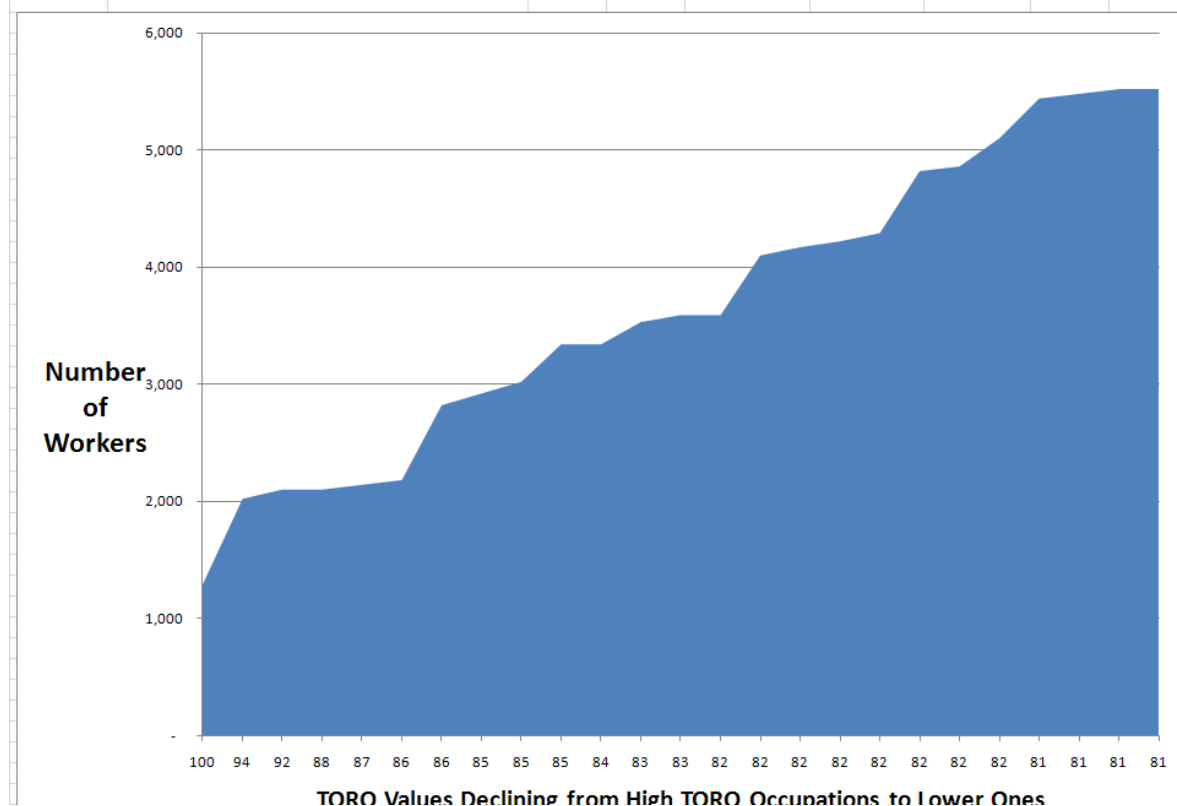
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<sup>5</sup> Please refer to the table in Section II entitled “Employers’ Views on “Critical” Occupations.”

Workforce Pool Potential for Registered Nurses								
		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Registered Nurses	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-1111	Registered Nurses	100.0	3	\$ 55,620	0	1,290	28%	167
29-2061	Licensed Practical and Licensed Vocational Nurses	94.1	3	\$ 31,070	-24,550	730	12%	76
29-1126	Respiratory Therapists	92.1	3	\$ 43,420	-12,200	80	42%	12
31-2021	Physical Therapist Assistants	87.7	3	\$ 48,190	-7,430		55%	8
39-1021	First-Line Supervisors/Managers of Personal Service Workers	87.3	3	\$ 19,220	-36,400	40		
21-1022	Medical and Public Health Social Workers	86.1	5	\$ 43,590	-12,030	40	43%	7
31-1012	Nursing Aides, Orderlies, and Attendants	85.9	2	\$ 20,110	-35,510	640	19%	109
29-2034	Radiologic Technicians	84.9	3	\$ 43,620	-12,000	100	20%	13
29-2034	Radiologic Technologists	84.6	3	\$ 43,620	-12,000	100	20%	13
33-3051	Sheriffs and Deputy Sheriffs	84.6	3	\$ 33,430	-22,190	320	17%	49
33-3021	Police Detectives	84.1	4	\$ 39,370	-16,250		2%	8
31-9092	Medical Assistants	83.0	3	\$ 22,870	-32,750	190	38%	32
29-2021	Dental Hygienists	82.8	3	\$ 51,960	-3,660	60		
33-3021	Immigration and Customs Inspectors	82.3	4	\$ 39,370	-16,250		2%	8
25-2022	Middle School Teachers, Except Special and Vocational Education Teachers	82.3	4	\$ 38,250	-17,370	510	16%	51
29-1127	Speech-Language Pathologists	82.3	5	\$ 50,820	-4,800	70	39%	11
25-2032	Vocational Education Teachers, Secondary School	82.1	4	\$ 39,770	-15,850	50	23%	16
39-9032	Recreation Workers	81.9	4	\$ 17,590	-38,030	70	13%	15
25-2031	Secondary School Teachers, Except Special and Vocational Education Teachers	81.7	4	\$ 41,380	-14,240	530	15%	86
21-1092	Probation Officers and Correctional Treatment Specialists	81.6	4	\$ 29,700	-25,920	40	44%	8
21-1093	Social and Human Service Assistants	81.5	3	\$ 19,180	-36,440	240	18%	34
39-9011	Nannies	81.4	3	\$ 13,860	-41,760	340	26%	121
27-2022	Coaches and Scouts	80.9	5	\$ 17,940	-37,680	40	36%	8
21-1015	Rehabilitation Counselors	80.8	4	\$ 30,740	-24,880	40	9%	3
33-3021	Police Identification and Records Officers	80.8	3	\$ 39,370	-16,250		2%	8

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

Graph of Workforce Pool Potential for Registered Nurses



In the table on the preceding page, the second column from the left lists the names of 30 occupations beginning with Registered Nurses followed by 29 others arrayed in declining order of their Grand TORQs.<sup>6</sup>

- The column labeled “O\*NET Job Zone” indicates the general level of education and complexity of the occupation.<sup>7</sup>
- The next column displays the Median Annual Wage or Salary paid for each occupation in 2007 in the Texarkana MSA.<sup>8</sup>
- The sixth column from the left shows the difference between the median annual wage or salary and that of the target occupation (that would be Registered Nurses in this example).<sup>9</sup>
- The next column shows the Employment in 2007 in each occupation in the Texarkana MSA.

The graph displayed on the lower half of the page plots the cumulative summation of the 2007 employment figures (vertical axis) against a declining count of the TORQ scores (horizontal axis). This summation reveals the workforce pool potential for the target occupation (RNs here) as TORQ dips deeper into occupations with lower and lower Grand TORQ scores.

### Drawing Meaningful Conclusions from TORQ™

Appendix A contains tables and charts analogous to that of this example for all “hard-to-fill” occupations for which adequate Texarkana labor market data permit TORQ to compute workforce pool potentials. The table below contains brief descriptions of TORQ results for each of those occupations.

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<sup>6</sup> Note that Registered Nurses show a Grand TORQ of 100. By definition, every occupation has a Grand TORQ of 100 relative to itself.

<sup>7</sup> Job Zones group occupations into one of five categories based on levels of education, experience, and training necessary to perform the occupation. For more on this, see <http://online.onetcenter.org/find/>.

<sup>8</sup> These data are from the Bureau of Labor Statistics, OES reports. See <http://www.bls.gov/OES/>.

<sup>9</sup> Note that the difference is zero (0) for Registered Nurses in this example. That would be obvious since the difference of the earnings of any occupations compared to itself would be nil.

## Thumbnail Descriptions of Workforce Pool Potentials for Hard-to-Fill Occupations as Determined by TORQ

(See Appendix A for details of each occupation)

*O\*NET-*

*O\*NET Occupational Title*

*SOC Code*

**17-2071.00 Electrical Engineers**

Inadequate Texarkana salary data for TORQ analysis.

**17-2112.00 Industrial Engineers**

Inadequate Texarkana salary data for TORQ analysis.

**17-2141.00 Mechanical Engineers**

Inadequate Texarkana salary data for TORQ analysis.

**29-1051.00 Pharmacists**

In 2007, there were 110 Pharmacists working in the Texarkana MSA. This is an occupation in high demand nationwide. It is also one requiring a demanding and time-consuming education to become qualified as indicated by its O\*NET Job Zone of 5. Furthermore, while TORQ identifies a large number of workers with reasonably high TORQ scores, many of them are also listed among the hard-to-fill occupations as identified by health-sector respondents to the project's employer survey.

**29-1111.00 Registered Nurses**

In 2007, there were 1,290 Registered Nurses working in the Texarkana MSA. TORQ identifies some 1,600 candidates with TORQ scores of 86 or greater who could transition to become Registered Nurses. The largest pools of potential RNs are to be found among LPN/LVNs (of which there were 730), an occupation also listed in the hard-to-fill by survey respondents, and Nursing Aides, Orderlies, and Attendants (640). Workers in these two occupations are good candidates to ascend the career lattice to become RNs.

**29-1122.00 Occupational Therapists**

In 2007, there were 80 Occupational Therapists (OTs) working in the Texarkana

MSA. TORQ analysis indicates a large pool of workers with high TORQ scores who could transition to become OTs. The occupations with the highest TORQ scores are RNs and LPN/LVNs, both of which show lower median annual earnings than OTs. But these two occupations are also listed among those hard to fill and perhaps should not be considered “happy hunting grounds” for recruitment to become OTs. Looking deeper into the pool, TORQ finds several occupations (e.g., Social and Human Services Assistants – TORQ=86.5) with relatively high TORQ scores who could be requalified to become OTs with reasonable investment in time and training.

**29-1123.00 Physical Therapists**

In 2007, there were 110 Physical Therapists (PTs) working in the Texarkana MSA. PTs. Like OTs, are well-paid in this area and the occupation offers ample opportunity for lower-paid workers to better their incomes. Also like OTs, TORQ finds the prime candidates to become PTs among occupations (e.g., RNs) that are, themselves, in relative shortage in the North East Texas region. Nevertheless, by dipping no lower than a TORQ score of 80, it is possible to find a large number of candidates who could make the transition to PTs.

**29-2012.00 Medical and Clinical Laboratory Technicians**

In 2007, there were 170 Medical and Clinical Laboratory Technicians (Med Techs) working in the Texarkana MSA. With the exception of Medical Assistants, TORQ discovered that even the closest occupations were far down the scale, many of them with TORQ scores below 75.

**29-2034.02 Radiologic Technicians**

In 2007, there were 100 Radiologic Technicians (Rad Techs) working in the Texarkana MSA. Dipping no farther than 80 into the potential workforce pool, TORQ identified a very large number of workers who could be requalified to become Rad Techs.

**29-2061.00 Licensed Practical and Licensed Vocational Nurses**

In 2007, there were 730 Licensed Practical and Licensed Vocational Nurses (LPN/LVNs)

working in the Texarkana MSA. The pool of potential candidates with high TORQ scores is not deep. Most promising would be the 640 workers now occupied as Nursing Aides, Orderlies, and Attendants. But TORQ scores that

transition at only 79.5 which indicates that serious challenges exist with respect to abilities, skills and knowledge (the ASKs).

**29-2071.00 Medical Records and Health Information Technicians**

In 2007, there were 100 Medical Records and Health Information Technicians working in the Texarkana MSA. TORQ identifies a large number of workers in occupations with high TORQ scores who could make the transition to become Medical Records and Health Information Technicians.

**31-2011.00 Occupational Therapist Assistants**

Inadequate Texarkana salary data for TORQ analysis.

**31-2021.00 Physical Therapist Assistants**

The number of Physical Therapist Assistants (PTAs) working in the Texarkana MSA in 2007 is not recorded in the OES database. However, the pool of potential candidates to become PTAs with TORQ scores above 80 is quite large.

**47-1011.00 First-Line Supervisors/Managers of Construction Trades and Extraction Workers**

In 2007, there were 130 workers in this occupation in the Texarkana MSA. TORQ identifies a several hundred potential transition candidates with TORQ scores above 80.

**47-2031.01 Construction Carpenters**

In 2007, there were 100 Construction Carpenters working in the Texarkana MSA. The pool of potential workers with high TORQ scores who could transition to this occupation is not deep. The most promising would be Drywall and Ceiling Tile Installers (with a TORQ score of 87.4) and Rough Carpenters with a TORQ score of 81.5. Those are the only two occupation with TORQ scores above 80.

**47-2051.00 Cement Masons and Concrete Finishers**

In 2007, there were 110 Cement Masons and Concrete Finishers working in the Texarkana MSA. Construction laborers, who number 430, with TORQ score of 88 offer a sizeable pool of potential cement workers.

**47-2111.00 Electricians**

In 2007, there were 220 Electricians working in the Texarkana MSA. TORQ finds

that their numbers could be augmented substantially by recruiting and retraining workers in less-well-paying occupations with reasonably high TORQ score (e.g., above 84).

**47-2181.00 Roofers**

Inadequate Texarkana salary data for TORQ analysis.

**47-3015.00 Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters**

Inadequate Texarkana salary data for TORQ analysis.

**47-3015.00 Helpers--Painters, Paperhangers, Plasterers and Stucco Masons**

**49-9021.01 Heating and Air Conditioning Mechanics and Installers**

In 2007, there were 120 Heating and Air Conditioning Mechanics and Installers working in the Texarkana MSA. TORQ found a substantial number of workers in ASK-compatible but lower-paying occupations. These would offer fertile recruiting opportunities for this hard-to-fill occupation.

**49-9041.00 Industrial Machinery Mechanics**

In 2007, there were 100 Industrial Machinery Mechanics working in the Texarkana MSA. TORQ finds that their numbers could augmented substantially by dipping no lower than 85 into the workforce pool. For example, TORQ shows a score of 87.2 for Maintenance and Repair Workers, General who number 590 workers with median annual earnings nearly \$20,000 than Industrial Machinery Mechanics.

**49-9043.00 Maintenance Workers, Machinery**

Inadequate Texarkana salary data for TORQ analysis.

**49-9044.00 Millwrights**

Inadequate Texarkana salary data for TORQ analysis.

**51-1011.00 First-Line Supervisors/Managers of Production and Operating Workers**

In 2007, there were 270 First-Line Supervisors/Managers of Production and Operating Workers working in the Texarkana MSA. TORQ finds that their numbers could be augmented substantially by dipping no lower than 85 into the

workforce pool. For example, TORQ shows several other categories of supervisory workers with high TORQ scores earning substantially less than those in this occupation.

**51-2022.00 Electrical and Electronic Equipment Assemblers**

Inadequate Texarkana salary data for TORQ analysis.

**51-2092.00 Team Assemblers**

Official data show 100 workers occupied as Team Assemblers in 2007 in the Texarkana MSA. TORQ finds that the he pool of potential recruits for this occupation is quite shallow. It identifies only two occupations with TORQ scores above 80, but these comprise a reservoir of more than 600 workers making less, at the median, than Team Assemblers.

**51-4041.00 Machinists**

In 2007, official data show 90 machinists working in the Texarkana MSA. By dipping no farther into the potential workforce pool than to occupations with TORQ scores of 80, TORQ identifies more than 1,000 potential recruits...most of them earning substantially less than Machinists.

**51-4121.06 Welders, Cutters, and Welder Fitters**

In 2007, there were 240 Welders, Cutters, and Welder Fitters working in the Texarkana MSA. Good welders are in high demand nationwide. TORQ identifies 590 workers working as Maintenance and Repair Workers, General (TORQ score of 90.4) who could transition to become Welders, Cutters, and Welder Fitters.

**53-3032.00 Truck Drivers, Heavy and Tractor-Trailer**

In 2007, there were 980 Truck Drivers, Heavy and Tractor-Trailer working in the Texarkana MSA. TORQ finds this the above-80 workforce pool of ASK-compatible occupations to be exceptionally shallow. Only Industrial Truck and Tractor Operators, with a TORQ score of 85.36, show promise for transition to become Truck Drivers, Heavy and Tractor-Trailer and they are, themselves in the hard-to-fill category. Furthermore their numbers are comparatively small (only 280).

**53-7033.00 Loading Machine Operators, Underground Mining**

Inadequate Texarkana salary data for TORQ analysis.

**53-7051.00 Industrial Truck and Tractor Operators**

In 2007, there were 280 Industrial Truck and Tractor Operators working in the Texarkana MSA. As for their long-haul brothers, the potential workforce pool for these truckers among other occupations is very shallow. TORQ finds it necessary to dip into occupations with TORQ scores below 80 to find candidates which is to say that workers in ASK-compatible occupations are few in number.

**53-7062.00 Laborers and Freight, Stock, and Material Movers, Hand**

In 2007, there were 1,030 Laborers and Freight, Stock, and Material Movers, Hand working in the Texarkana MSA. This is low-paying occupation (2007 median earnings of only \$21,320). Because of that, TORQ finds no ASK-compatible occupations with workers who could better themselves by working in this occupation. The only occupations with lower median annual earnings are those with Grand TORQ scores below 80. However, more in-depth TORQ analysis...of the type not done for this project...would show no serious skill or knowledge barriers to transitions from several of those occupations. For example, Packers and Packagers, hand (who make \$2,890 less per year at the median) show a TORQ score of only 79.3 but in-depth TORQ analysis reveals Static Strength to be the only potential ASK barrier to workers in that occupation transitioning to become Laborers and Freight, Stock, and Material Movers, Hand.

## Section IV: Education and the Pipeline

Education is the primary source for continuing workforce quality and economic success, so the performance of the educational system in supplying a high-quality “pipeline” of talent is a leading indicator of what to expect from the region’s workforce in the years to come.

### Enrollment: The First Signs of Demographic Change

One of these leading indicators is demographic – the mix of students in the generation currently in school reflects that which will be present in tomorrow’s workforce. The 2005 study concluded that the North East Texas region was one of little racial and ethnic diversity. We have already seen ample evidence in this report that this condition is changing, and nowhere is it clearer than in school enrollment throughout the region. Comparing enrollments by race below in the 2003-04 and 2007-08 school years, we find that the schools of North East Texas are quickly becoming more heterogeneous in their student composition.

A quick scan of these two tables – both sorted high to low by their percentages of the White non-Hispanic “Anglo” population – reveals that in nearly every case, schools are becoming more ethnically diverse. Even among the most extremely homogeneous schools from 2003-2004, we find that hardly any are becoming “whiter.” The vast majority of school districts in the region are still more homogeneous than in Texas as a whole, in which nearly half of all students are of Hispanic descent. Only one majority Black school district and two majority Hispanic districts in Titus county – which has by far the largest percentage of Hispanics in its general population as well – exhibit more extreme tendencies than the state here.

## Student Race and Ethnicity in North East Texas Districts, 2003-04

		2003-04				
County	District	African American	Asian / Pacific Islander	Hispanic	Native American	White
Bowie	Leary ISD	2.5%	0.0%	0.0%	0.0%	97.5%
Bowie	Malta ISD	0.7%	0.0%	1.4%	0.7%	97.3%
Bowie	Simms ISD	0.0%	0.0%	1.0%	1.7%	97.2%
Cass	McLeod ISD	3.5%	0.0%	1.3%	0.4%	94.8%
Bowie	Redwater ISD	3.9%	0.5%	0.7%	0.5%	94.4%
Bowie	Red Lick ISD	2.0%	0.6%	2.5%	1.4%	93.5%
Cass	Bloomburg ISD	2.3%	0.4%	4.9%	0.0%	92.4%
Bowie	Maud ISD	6.5%	0.0%	1.3%	1.0%	91.3%
Lamar	Prairiland ISD	0.6%	0.6%	5.4%	2.3%	91.1%
Hopkins	Cumby ISD	0.8%	0.0%	7.3%	0.8%	91.1%
Lamar	Chisum ISD	5.7%	0.4%	2.0%	1.8%	90.0%
Lamar	North Lamar ISD	5.2%	0.5%	3.4%	1.4%	89.5%
Hopkins	Sulphur Bluff ISD	0.8%	0.0%	11.6%	0.0%	87.6%
Bowie	Pleasant Grove ISD	8.4%	2.8%	2.4%	0.3%	86.1%
Red River	Rivercrest ISD	4.9%	0.6%	9.3%	0.9%	84.4%
Red River	Detroit ISD	12.0%	0.2%	2.9%	0.7%	84.2%
Red River	Avery ISD	5.7%	0.0%	8.1%	2.6%	83.6%
Hopkins	Miller Grove ISD	0.0%	0.0%	14.8%	1.6%	83.6%
Hopkins	Saltillo ISD	2.0%	0.0%	15.9%	0.4%	81.7%
Hopkins	North Hopkins ISD	3.9%	0.2%	15.5%	0.0%	80.3%
Delta	Cooper ISD	15.8%	0.1%	4.1%	1.5%	78.5%
Cass	Hughes Springs ISD	15.2%	0.1%	5.8%	0.6%	78.4%
Cass	Queen City ISD	19.4%	0.0%	1.9%	1.1%	77.7%
Franklin	Mount Vernon ISD	5.6%	0.3%	17.1%	0.6%	76.4%
Lamar	Roxton ISD	19.4%	0.0%	3.0%	1.3%	76.4%
Cass	Avinger ISD	21.4%	0.0%	1.8%	1.8%	75.0%
Bowie	Hooks ISD	21.8%	0.4%	2.7%	0.8%	74.3%
Titus	Chapel Hill ISD	3.8%	0.1%	20.1%	2.0%	73.9%
Cass	Linden-Kildare CISD	25.1%	0.0%	1.9%	0.0%	73.0%
Bowie	New Boston ISD	23.5%	0.9%	2.3%	0.8%	72.5%
Morris	Pewitt CISD	23.4%	0.3%	5.8%	0.2%	70.3%
Hopkins	Sulphur Springs ISD	13.3%	0.4%	16.3%	0.2%	69.8%
Bowie	Hubbard ISD	0.0%	1.2%	1.2%	27.9%	69.8%
Bowie	Dekalb ISD	26.7%	0.0%	6.9%	0.6%	65.8%
Hopkins	Como-Pickton CISD	5.5%	0.5%	27.9%	0.6%	65.5%
<b>All NE TX districts</b>		<b>25.2%</b>	<b>0.5%</b>	<b>9.9%</b>	<b>0.8%</b>	<b>63.6%</b>
Titus	Harts Bluff ISD	0.8%	0.0%	36.1%	1.3%	61.9%
Cass	Atlanta ISD	35.4%	0.2%	2.8%	0.2%	61.4%
Delta	Fannindel ISD	35.0%	0.0%	6.8%	0.0%	58.2%
Cass	Marietta ISD	47.8%	0.0%	0.0%	0.0%	52.2%
Bowie	Liberty-Eylau ISD	47.2%	0.2%	1.3%	0.2%	51.1%
Lamar	Paris ISD	41.3%	0.6%	6.4%	1.4%	50.4%
Morris	Daingerfield-Lone Star ISD	42.0%	0.1%	7.8%	0.6%	49.6%
Bowie	Texarkana ISD	50.0%	0.8%	4.9%	0.4%	44.0%
Titus	Winfield ISD	0.0%	0.0%	58.3%	0.0%	41.7%
<b>All TX Districts</b>		<b>14.2%</b>	<b>2.9%</b>	<b>43.8%</b>	<b>0.3%</b>	<b>38.7%</b>
Red River	Clarksville ISD	52.7%	0.4%	11.5%	1.4%	34.0%
Titus	Mount Pleasant ISD	15.4%	0.5%	52.6%	0.4%	31.1%

Source: Texas Education Agency

## Student Race and Ethnicity in North East Texas Districts, 2007-08

		2007-08				
County	District	African	Asian /	Hispanic	Native	White
		American	Pacific Islander		American	
Bowie	Simms ISD	0.8%	0.0%	0.5%	1.2%	97.5%
Bowie	Leary ISD	3.8%	0.0%	0.8%	0.0%	95.4%
Bowie	Malta ISD	0.0%	0.8%	2.5%	1.7%	94.9%
Cass	Bloomburg ISD	4.3%	0.0%	1.1%	0.0%	94.6%
Cass	McLeod ISD	3.7%	0.5%	2.3%	0.0%	93.5%
Lamar	Prairiland ISD	0.9%	0.3%	6.0%	1.7%	91.1%
Bowie	Hubbard ISD	0.0%	0.0%	3.3%	5.7%	91.0%
Bowie	Redwater ISD	5.8%	0.4%	2.3%	0.5%	91.0%
Bowie	Maud ISD	7.5%	0.4%	0.6%	0.6%	90.9%
Bowie	Red Lick ISD	2.5%	0.5%	4.8%	2.0%	90.2%
Hopkins	Sulphur Bluff ISD	2.4%	1.6%	7.5%	0.8%	87.8%
Hopkins	Cumby ISD	1.4%	0.0%	10.1%	0.9%	87.6%
Lamar	Chisum ISD	7.3%	0.4%	4.6%	1.5%	86.2%
Lamar	North Lamar ISD	5.9%	1.0%	5.3%	2.2%	85.6%
Red River	Avery ISD	3.4%	0.0%	8.9%	3.6%	84.2%
Red River	Rivercrest ISD	4.0%	1.2%	9.9%	1.0%	83.9%
Red River	Detroit ISD	12.6%	0.0%	3.0%	0.6%	83.9%
Hopkins	Miller Grove ISD	1.6%	0.0%	16.9%	0.8%	80.7%
Bowie	Pleasant Grove ISD	11.3%	3.6%	4.7%	0.4%	79.9%
Cass	Queen City ISD	18.4%	0.1%	1.6%	1.2%	78.7%
Delta	Cooper ISD	14.8%	1.0%	4.4%	1.2%	78.6%
Hopkins	Saltillo ISD	2.0%	0.0%	19.2%	1.2%	77.6%
Hopkins	North Hopkins ISD	3.9%	0.2%	18.6%	1.0%	76.2%
Cass	Hughes Springs ISD	16.1%	0.0%	7.4%	0.8%	75.8%
Morris	Pewitt CISD	17.8%	0.4%	6.3%	0.2%	75.3%
Bowie	New Boston ISD	20.2%	0.9%	4.2%	1.2%	73.5%
Cass	Linden-Kildare CISD	20.6%	0.5%	5.9%	0.2%	72.8%
Bowie	Hooks ISD	21.4%	0.9%	4.3%	0.9%	72.5%
Franklin	Mount Vernon ISD	7.4%	0.9%	19.1%	0.9%	71.7%
Titus	Chapel Hill ISD	2.3%	0.9%	25.8%	0.8%	70.1%
Cass	Avinger ISD	20.4%	0.0%	10.2%	0.7%	68.6%
Lamar	Roxton ISD	24.7%	0.0%	6.1%	0.9%	68.4%
Hopkins	Sulphur Springs ISD	14.3%	0.7%	19.7%	0.2%	65.0%
Delta	Fannindel ISD	28.2%	0.0%	6.9%	0.0%	64.9%
Bowie	Dekalb ISD	27.0%	0.6%	6.8%	1.3%	64.4%
Cass	Atlanta ISD	33.3%	0.4%	4.2%	0.2%	61.8%
Hopkins	Como-Pickton CISD	3.6%	0.5%	33.3%	1.1%	61.5%
Cass	Marietta ISD	32.3%	0.0%	6.5%	0.0%	61.3%
<b>All NE TX districts</b>		<b>25.6%</b>	<b>0.8%</b>	<b>12.4%</b>	<b>0.9%</b>	<b>60.4%</b>
Titus	Harts Bluff ISD	0.7%	0.0%	41.7%	0.9%	56.7%
Lamar	Paris ISD	39.7%	0.8%	10.3%	1.2%	48.1%
Bowie	Liberty-Eylau ISD	50.4%	0.1%	2.9%	0.2%	46.4%
Morris	Daingerfield-Lone Star ISD	42.9%	0.5%	11.6%	0.8%	44.1%
Bowie	Texarkana ISD	49.9%	1.0%	6.5%	0.6%	41.9%
<b>All TX Districts</b>		<b>14.2%</b>	<b>3.4%</b>	<b>47.2%</b>	<b>0.3%</b>	<b>34.9%</b>
Red River	Clarksville ISD	57.1%	0.1%	16.1%	1.3%	25.4%
Titus	Mount Pleasant ISD	14.4%	0.6%	60.0%	0.4%	24.6%
Titus	Winfield ISD	0.0%	0.0%	80.3%	0.0%	19.7%

Source: Texas Education Agency

North East Texas High School Completion Data, 2007

County	District	Graduates	GED		Longitudinal Dropout	Graduates +	
			Recipients	Continuers		GED Recipients + Continuers	Graduates + Continuers
Cass	Avinger ISD	100	0	0	0	100	100
Cass	Bloomburg ISD	100	0	0	0	100	100
Hopkins	Miller Grove ISD	100	0	0	0	100	100
Hopkins	Sulphur Bluff ISD	100	0	0	0	100	100
Bowie	Dekalb ISD	98.4	0	1.6	0	100	100
Titus	Chapel Hill ISD	98	2	0	0	100	98
Cass	Hughes Springs ISD	97.6	0	0	2.4	97.6	97.6
Cass	Queen City ISD	97.5	1.2	1.2	0	100	98.8
Bowie	Pleasant Grove ISD	97.2	0	2.1	0.7	99.3	99.3
Cass	Linden-Kildare CISD	97.1	1.4	0	1.4	98.6	97.1
Cass	Atlanta ISD	96.9	0.8	0	2.3	97.7	96.9
Hopkins	Cumby ISD	96.9	0	3.1	0	100	100
Bowie	Maud ISD	96.8	0	3.2	0	100	100
Cass	McLeod ISD	96.6	3.4	0	0	100	96.6
Bowie	Simms ISD	96.4	0	3.6	0	100	100
Lamar	Chisum ISD	96.3	0	1.9	1.9	98.1	98.1
Delta	Cooper ISD	95.5	1.5	0	3	97	95.5
Hopkins	Saltillo ISD	95.2	0	4.8	0	100	100
Franklin	Mount Vernon ISD	94.4	1.9	0.9	2.8	97.2	95.3
Bowie	Redwater ISD	93.2	1.1	0	5.7	94.3	93.2
Lamar	Prairiland ISD	92.1	5.3	0	2.6	97.4	92.1
Lamar	North Lamar ISD	91.7	1.7	1.7	5	95	93.3
Hopkins	North Hopkins ISD	91.4	2.9	5.7	0	100	97.1
Hopkins	Sulphur Springs ISD	91.2	2.2	2.9	3.6	96.4	94.2
Lamar	Roxton ISD	90.9	9.1	0	0	100	90.9
Morris	Pewitt CISD	89.9	1.4	2.9	5.8	94.2	92.8
Red River	Avery ISD	89.7	0	0	10.3	89.7	89.7
Bowie	Texarkana ISD	88.8	0.8	3.1	7.4	92.6	91.8
Red River	Clarksville ISD	88.3	2.6	3.9	5.2	94.8	92.2
Red River	Detroit ISD	87.5	6.3	3.1	3.1	96.9	90.6
Bowie	Liberty-Eylau ISD	87.2	7.2	3.3	2.2	97.8	90.6
Bowie	New Boston ISD	86.9	2	6.1	5.1	94.9	92.9
Titus	Mount Pleasant ISD	84.9	0.9	3	11.3	88.7	87.8
Lamar	Paris ISD	84.7	3.4	3.4	8.5	91.5	88.1
Red River	Rivercrest ISD	83.7	10.2	6.1	0	100	89.8
Bowie	Hooks ISD	81.6	0	1.3	17.1	82.9	82.9
Delta	Fannindel ISD	80	0	20	0	100	100
Hopkins	Como-Pickton CISD	77.9	11.8	5.9	4.4	95.6	83.8
Morris	Daingerfield-Lone Star ISD	74.8	2.9	4.9	17.5	82.5	79.6
Bowie	Hubbard ISD	.	.	.	.	.	.
Bowie	Leary ISD	.	.	.	.	.	.
Bowie	Malta ISD	.	.	.	.	.	.
Bowie	Red Lick ISD	.	.	.	.	.	.
Cass	Marietta ISD	.	.	.	.	.	.
Titus	Harts Bluff ISD	.	.	.	.	.	.
Titus	Winfield ISD	.	.	.	.	.	.

Source: Texas Education Agency

Test Performance – Going the Right or Wrong Way?

The 2005 study found that performance of North East Texas students on the Texas Assessment of Knowledge and Skills was good. With overall regional passing rates on this junior-year battery of exams ranging in the 80s and 90s for individual subjects, and a solid though not

stellar overall passing rate of 74%, it can indeed be said that students that year seemed to have a good grasp on what they needed to get out of a high school education.<sup>10</sup>

### TAKS Performance of NE TX Grade 11 Students, 2004

County	Number of Grade 11 Students	All Students Eng Lang Arts %	All Students Mathematics %	All Students Science %	All Students Social Studies %	All Students All Tests %
<b>Bowie</b>	1,131	88%	86%	87%	98%	75%
<b>Cass</b>	386	94%	98%	90%	97%	81%
<b>Delta</b>	85	88%	85%	91%	0%	81%
<b>Franklin</b>	108	86%	90%	93%	99%	74%
<b>Hopkins</b>	441	80%	78%	84%	96%	66%
<b>Lamar</b>	583	91%	87%	89%	74%	77%
<b>Morris</b>	146	81%	86%	83%	97%	73%
<b>Red River</b>	170	74%	80%	76%	96%	54%
<b>Titus</b>	360	88%	86%	82%	96%	71%
<b>NE TX</b>	<b>3,410</b>	<b>87%</b>	<b>86%</b>	<b>86%</b>	<b>91%</b>	<b>74%</b>

Source: Texas Education Agency

Comparing these figures with the results of the students who took the TAKS exam in 2007, however, we find mixed results. Overall in the region, students improved their scores in English/Language Arts and Social Studies, but fell in Math and Science and in overall performance. Nearly every county of the region lost some ground in passing rates, some dramatically so. (Of course, Red River improved overall performance by 19 percentage points, which is impressive.)

Keeping in mind that year-to-year comparisons of exams can exhibit significant volatility – sometimes there is simply a “bad year” for students or for the exam itself – to see slipping scores in seven of nine counties should be sufficient motivation to sit up and take notice of what might be happening in school performance around the region.

<sup>10</sup> A rogue “zero” percentage for Delta county for this year likely results from data availability, though with a small sample size of just 85 students, it is perhaps remotely possible that all 85 somehow failed their Social Studies exam in 2004. Likewise the “improvement” of 87 percentage points between the two years is doubtful because of the “zero” score.

### TAKS Performance of NE TX Grade 11 Students, 2007

County	Number of Grade 11 Students	All Students Eng Lang Arts %	All Students Mathematics %	All Students Science %	All Students Social Studies %	All Students All Tests %
<b>Bowie</b>	1,187	92%	81%	81%	95%	72%
<b>Cass</b>	391	86%	76%	83%	92%	68%
<b>Delta</b>	81	81%	82%	71%	87%	58%
<b>Franklin</b>	108	87%	79%	69%	94%	59%
<b>Hopkins</b>	431	93%	81%	75%	93%	70%
<b>Lamar</b>	638	93%	87%	82%	97%	74%
<b>Morris</b>	151	92%	89%	69%	91%	67%
<b>Red River</b>	198	91%	84%	80%	94%	72%
<b>Titus</b>	460	87%	82%	75%	92%	68%
<b>NE TX</b>	<b>3,645</b>	<b>91%</b>	<b>82%</b>	<b>79%</b>	<b>94%</b>	<b>70%</b>

Source: Texas Education Agency

### TAKS Performance of NE TX Grade 11 Students % Change 2004-2007

County	Number of Grade 11 Students	All Students Eng Lang Arts %	All Students Mathematics %	All Students Science %	All Students Social Studies %	All Students All Tests %
<b>Bowie</b>	1,187	4%	-6%	-6%	-3%	-3%
<b>Cass</b>	391	-8%	-22%	-8%	-5%	-13%
<b>Delta</b>	81	-7%	-3%	-20%	87%	-23%
<b>Franklin</b>	108	1%	-11%	-24%	-5%	-15%
<b>Hopkins</b>	431	13%	3%	-9%	-3%	3%
<b>Lamar</b>	638	2%	0%	-7%	22%	-3%
<b>Morris</b>	151	11%	3%	-13%	-6%	-5%
<b>Red River</b>	198	17%	4%	4%	-2%	19%
<b>Titus</b>	460	-1%	-4%	-7%	-4%	-3%
<b>NE TX</b>	<b>3,645</b>	<b>4%</b>	<b>-4%</b>	<b>-8%</b>	<b>3%</b>	<b>-3%*</b>

Source: Texas Education Agency

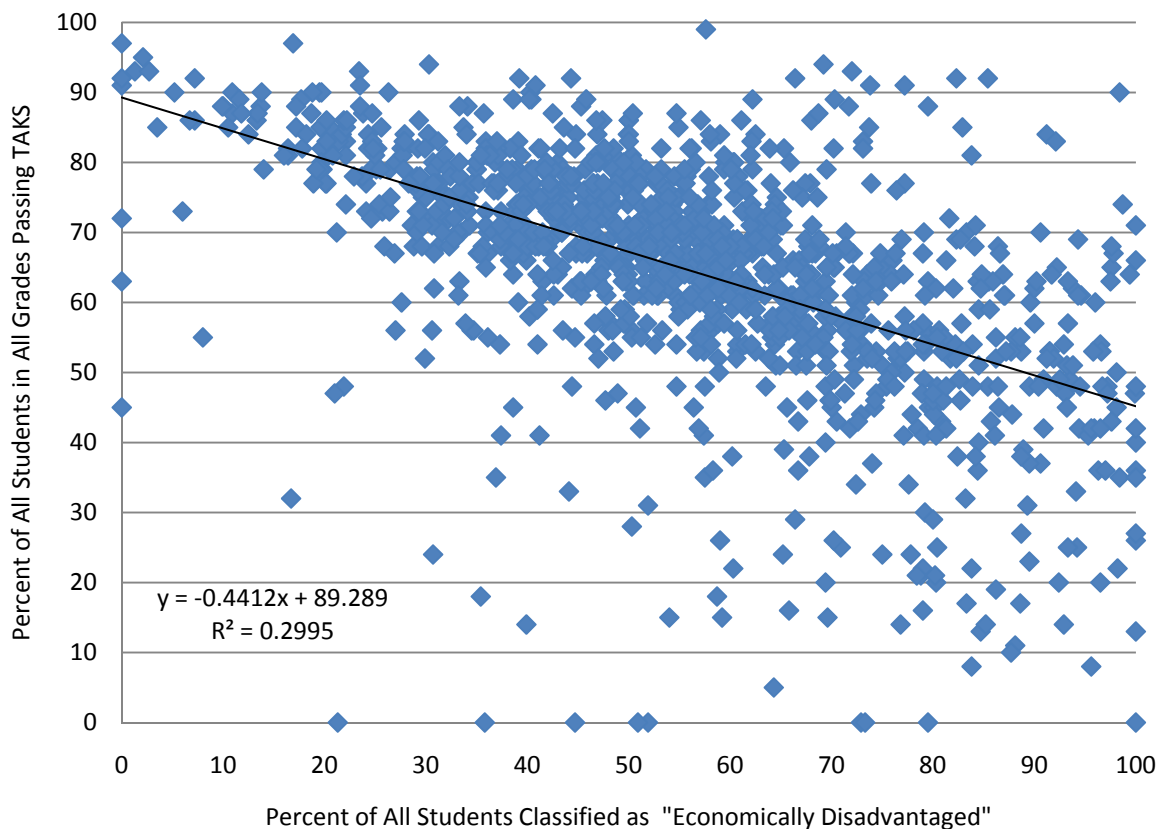
\*Rounding of percentages in the first two tables results in this

### Student performance vs. economics

The 2005 study examined the possibility of a link between poverty and poor performance on standardized tests in the area. Let us examine this idea slightly deeper, to explore not only the veracity of this linkage, but also its consequences in terms of test performance, and some surprising results that come from such analysis.

We begin with a bit of statistical sleight of hand which reveals, via regression analysis, that a definite trend seems to exist that links “economic disadvantage” as reported by the Texas Education Agency with the performance of students on the TAKS. Analyzing readings from each school district in Texas on their TAKS passing rates as compared to the percentage of their students listed as “economically disadvantaged” produces the distribution below.

**Figure 19. Regression Analysis of TAKS Performance vs. Percentage of Students "Economically Disadvantaged"**



The trend line here shows a general trend of declining performance as we move toward schools with higher and higher poverty rates. Using the correlation established by this analysis allows us to “predict” a school district’s performance on the TAKS based on its rate of student poverty. (i.e., If a certain percentage of a school district’s student body is “economically disadvantaged,”

then we would *expect* to see a passing rate of *y* based on the general correlation between poverty and TAKS performance.)

Where this is most interesting, however, is where it is “wrong.” By comparing the *expected* passing rates for school districts with certain percentages of poor students with the rates at which their students *actually* passed the grade 11 TAKS, we can begin to get an idea of how well these school districts are really educating their students. (Essentially, we are “handicapping” these districts’ scores, to use a sports analogy.) The table below shows a range of performance results based on this analysis. At the top end, the Malta Independent School District in Bowie County outperformed its “predicted” passing rate by over 20 percentage points, exceeding the statistically calculated expectation by a whopping 1.6 standard deviations. (The standard deviation column is color-coded to provide an easy indicator of how well schools performed relative to their “predicted” performance.)

On the other end of the spectrum, students in the Roxton Independent School District in Lamar County passed the 2007 TAKS at a rate that was over nine percentage points less than the predicted rate. This comparison may present some opportunities to find out what the schools who are outperforming their own predicted academic fate are doing well, and what the underperforming schools could do better.

### Student Performance on TAKS Examinations vs. Economic Status

County	District	Actual Percent of All District Students Meeting 2007 TAKS Standard	"Predicted" Percent of All District Students Meeting 2007 TAKS Standard	"Error" of Prediction	Number of Standard Deviations of Prediction Error
Bowie	Malta ISD	89	68.8	20.2	1.6
Lamar	Prairiland ISD	82	64.3	17.7	1.4
Bowie	Red Lick ISD	97	81.5	15.5	1.2
Titus	Winfield ISD	64	48.7	15.3	1.2
Titus	Harts Bluff ISD	77	62.4	14.6	1.1
Hopkins	Sulphur Bluff ISD	82	68.0	14.0	1.1
Bowie	Dekalb ISD	78	64.5	13.5	1.1
Bowie	New Boston ISD	81	67.6	13.4	1.1
Bowie	Hubbard ISD	81	68.0	13.0	1.0
Cass	Linden-Kildare CISD	78	65.0	13.0	1.0
Hopkins	Como-Pickton CISD	75	62.4	12.6	1.0
Hopkins	Saltillo ISD	77	64.5	12.5	1.0
Cass	Avinger ISD	73	60.5	12.5	1.0
Bowie	Leary ISD	78	65.9	12.1	1.0
Cass	McLeod ISD	83	71.7	11.3	0.9

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Bowie	Texarkana ISD	72	60.8	11.2	0.9
Red River	Rivercrest ISD	77	66.6	10.4	0.8
Lamar	Chisum ISD	79	69.8	9.2	0.7
Red River	Avery ISD	76	66.9	9.1	0.7
Bowie	Liberty-Eylau ISD	68	59.2	8.8	0.7
Titus	Mount Pleasant ISD	63	55.6	7.4	0.6
Cass	Queen City ISD	72	64.9	7.1	0.6
Morris	Pewitt CISD	71	64.0	7.0	0.6
Morris	Daingerfield-Lone Star ISD	67	60.5	6.5	0.5
Hopkins	Sulphur Springs ISD	71	65.7	5.3	0.4
Lamar	Paris ISD	63	58.4	4.6	0.4
Titus	Chapel Hill ISD	77	72.6	4.4	0.3
Delta	Fannindel ISD	61	56.7	4.3	0.3
Cass	Atlanta ISD	67	63.2	3.8	0.3
Bowie	Pleasant Grove ISD	85	81.4	3.6	0.3
Bowie	Hooks ISD	71	68.8	2.2	0.2
Hopkins	North Hopkins ISD	62	60.5	1.5	0.1
Delta	Cooper ISD	66	64.6	1.4	0.1
Franklin	Mount Vernon ISD	71	69.9	1.1	0.1
Bowie	Simms ISD	66	66.3	-0.3	0.0
Bowie	Redwater ISD	75	75.9	-0.9	-0.1
Lamar	North Lamar ISD	73	73.9	-0.9	-0.1
Cass	Hughes Springs ISD	64	65.6	-1.6	-0.1
Red River	Clarksville ISD	53	54.9	-1.9	-0.1
Bowie	Maud ISD	67	69.2	-2.2	-0.2
Hopkins	Cumby ISD	64	68.1	-4.1	-0.3
Cass	Bloomburg ISD	61	65.7	-4.7	-0.4
Red River	Detroit ISD	61	66.8	-5.8	-0.5
Cass	Marietta ISD	45	50.9	-5.9	-0.5
Hopkins	Miller Grove ISD	68	75.2	-7.2	-0.6
Lamar	Roxton ISD	54	63.4	-9.4	-0.7

Source: Texas Education Agency. Analysis by Workforce Associates, Inc.

### College Entrance Exam Scores are Still Relatively Low

The most recent available score information for the students of the North East Texas region reveals that students in the region are still not meeting or exceeding Texas Education Agency criteria for scores on the two most common college entrance exams, the SAT and ACT. In only one county of the region (Franklin) did students exceed the state average for the percentage of students exceeding the TEA criterion score. Only 11 of the individual school districts for which data are available surpassed the state.

This means that, relatively speaking, most students in North East Texas are less well prepared than their counterparts in the rest of the state to succeed in education at the university level. This limits the future earning options of many of these students and makes the prospect of improving the region’s relatively low levels of adult educational attainment somewhat more difficult.

### Performance on College Entrance Exams (SAT/ACT) by NE TX County, 2006

County	% of Students Taking Test	% of Students Above Criterion*
Franklin	49.5	33.3
All TX Districts	65.8	27.1
Titus	39.6	26.35
Lamar	52.4	24.2
Bowie	63.9	23.8
Delta	52.7	20.7
Cass	89.7	20
Red River	84.2	18.2
Morris	65.2	15.6
Hopkins	60.4	14.85

Source: Texas Education Agency

\*% of examinees who scored at or above TEA criterion scores on the SAT or ACT exams.

### Performance on College Entrance Exams (SAT/ACT) by NE TX School District, 2006

County	District	% of Students Taking Test	% of Students Above Criterion*
Bowie	Pleasant Grove ISD	75.2	51
Lamar	Paris ISD	48.8	39
Bowie	Hooks ISD	66	37.1
Bowie	Redwater ISD	89	36.9
Franklin	Mount Vernon ISD	49.5	33.3
Hopkins	Sulphur Springs ISD	60.3	32.9
Bowie	New Boston ISD	86.7	32.3
Cass	McLeod ISD	94.1	31.3

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Red River	Detroit ISD	36.8	28.6
Lamar	North Lamar ISD	40.1	27.8
Titus	Chapel Hill ISD	52.4	27.3
<b>All TX Districts</b>		<b>65.8</b>	<b>27.1</b>
Titus	Mount Pleasant ISD	26.8	25.4
Lamar	Prairiland ISD	52.4	24.2
Lamar	Chisum ISD	71.7	24.2
Bowie	Texarkana ISD	63.9	23.8
Cass	Atlanta ISD	75	22.7
Delta	Cooper ISD	52.7	20.7
Cass	Avinger ISD	100	20
Cass	Queen City ISD	74.6	20
Cass	Linden-Kildare CISD	95.8	19.6
Bowie	Liberty-Eylau ISD	61.6	18.8
Red River	Rivercrest ISD	86.8	18.2
Morris	Pewitt CISD	61.8	17.6
Hopkins	Cumby ISD	52.2	16.7
Red River	Clarksville ISD	62	16.1
Morris	Daingerfield-Lone Star ISD	65.2	15.6
Hopkins	Como-Pickton CISD	60.5	15.4
Bowie	Dekalb ISD	.	15.3
Hopkins	Sulphur Bluff ISD	58.3	14.3
Red River	Avery ISD	84.2	12.5
Cass	Hughes Springs ISD	89.7	11.5
Bowie	Maud ISD	80	10
Cass	Bloomburg ISD	71.4	10
Hopkins	Miller Grove ISD	78.6	9.1
Bowie	Simms ISD	52.2	8.3
Hopkins	North Hopkins ISD	64.3	5.6
Hopkins	Salttillo ISD	27.8	0
Lamar	Roxton ISD	88.9	0
Bowie	Hubbard ISD	0	.
Bowie	Leary ISD	.	.
Bowie	Malta ISD	.	.
Bowie	Red Lick ISD	.	.
Cass	Marietta ISD	.	.
Titus	Harts Bluff ISD	.	.
Titus	Winfield ISD	.	.
Delta	Fannindel ISD	.	.

Source: Texas Education Agency

\*% of examinees who scored at or above TEA criterion scores on the SAT or ACT exams.

## Career and Technical Education Participation

A bright spot in the educational picture of North East Texas is definitely the participation of its students in career and technical education programs offered throughout the region. Figures from 2007 show that the percentages of students in each North East Texas school district participating in career and technical education, already high in 2004, have increased in most areas. These students are bucking a trend seen throughout Texas and the United States in general of decreasing participation in such programs. Far from being obsolete, career and technical education programs are a much-needed source of a talent pipeline for critical occupations in many industries. They also provide a chance for students who may not be interested or able to pursue a four-year university education path to find their way into productive, highly skilled work opportunities.

### Participation in Career/Tech Ed Programs % of District Students, Change from 2004 to 2007

County	District	2004	2007	Difference
Hopkins	Miller Grove ISD	38.5	50	11.5
Cass	Bloomburg ISD	47.7	48.9	1.2
Lamar	Prairiland ISD	29.1	42.9	13.8
Titus	Chapel Hill ISD	32	39.3	7.3
Hopkins	Sulphur Bluff ISD	40.9	39.1	-1.8
Hopkins	North Hopkins ISD	20.7	35.8	15.1
Red River	Detroit ISD	16.8	33.3	16.5
Bowie	Maud ISD	28.2	31.6	3.4
Lamar	Roxton ISD	32.1	31.4	-0.7
Bowie	Redwater ISD	34.8	30.6	-4.2
Bowie	Dekalb ISD	28.4	29.5	1.1
Bowie	Hooks ISD	26.7	29.2	2.5
Bowie	Simms ISD	23.4	28.6	5.2
Cass	McLeod ISD	29.3	28.2	-1.1
Delta	Cooper ISD	24.9	28	3.1
Hopkins	Cumby ISD	24.3	26.8	2.5
Bowie	Liberty-Eylau ISD	18.7	26.7	8
Red River	Clarksville ISD	27.8	26.6	-1.2
Lamar	Paris ISD	22.2	26.5	4.3
Red River	Rivercrest ISD	24.8	26.5	1.7
Cass	Linden-Kildare CISD	28.8	26.5	-2.3
Titus	Mount Pleasant ISD	24.6	26	1.4
Lamar	North Lamar ISD	21.6	25.9	4.3
Cass	Queen City ISD	29.6	25.9	-3.7
Cass	Hughes Springs ISD	27.1	25.6	-1.5
Bowie	Texarkana ISD	23.1	25.4	2.3
Hopkins	Saltillo ISD	13.9	25.3	11.4
Lamar	Chisum ISD	19	24.3	5.3
Hopkins	Como-Pickton CISD	14.5	23.9	9.4

Cass	Atlanta ISD	23.7	21.9	-1.8
Bowie	New Boston ISD	24.7	21.9	-2.8
Morris	Pewitt CISD	25.6	21.5	-4.1
Red River	Avery ISD	16.7	21.4	4.7
Franklin	Mount Vernon ISD	22	21.4	-0.6
<b>All TX Districts</b>		<b>20.1</b>	<b>20.6</b>	<b>0.5</b>
Cass	Avinger ISD	22	20.1	-1.9
Delta	Fannindel ISD	31.8	19.8	-12
Morris	Daingerfield-Lone Star ISD	23.5	18.8	-4.7
Hopkins	Sulphur Springs ISD	18.4	18.3	-0.1
Bowie	Pleasant Grove ISD	23.3	15.8	-7.5
Bowie	Hubbard ISD	0	10.1	10.1

Source: Texas Education Agency

### Education Across the Border

Looking across into the Arkansas side of the region’s educational picture, we find a region whose students are mostly not affluent, yet seem to be managing to complete a K-12 education with reasonable rates of success. According to officially reported numbers, graduation rates in the region are relatively high and dropouts relatively low. One wonders, however, who is slipping through the cracks in some districts that show very low dropout rates – which is nearly all of them in the three Arkansas counties in our study region – but also some lower graduation rates, like a 1.6% dropout rate compared to 87.3% graduation in the Foreman school district. Failure to achieve a high school education for any portion of the region’s student population is a sentence to limited economic opportunities for the future.

### Arkansas School Districts in the Region: General Indicators

District	Dropout Rate			Graduation Rate			% "Economically Disadvantaged" students		
	2006-07	2005-06	2004-05	2006-07	2005-06	2004-05	2006-07	2005-06	2004-05
Fouke School District	3.6	2.4	2.9	96.5	86.7	80	53.7	55.3	49.8
Blevins School District	4.7	1.7	1.4	92.7	91.4	90	70.5	69.1	68.1
Ashdown School District	1.8	2.1	2	90.7	89.5	84.1	50.6	50.1	47.4
Hope School District	2.9	2.6	3.1	90.2	85.1	84.6	73.2	70	65.6
Spring Hill School District	5.6	2.4	2.8	88.5	78.1	81.2	46.8	46	43.9
Genoa Central School District	3	1.3	2.4	87.4	92.7	91.2	37	38.7	35.5
Foreman School District	1.6	2.8	0.8	87.3	76.7	92.6	61.2	61.7	59.1
Texarkana School District	8	4.1	4.5	84.4	81.6	80	68.7	69.2	66.2

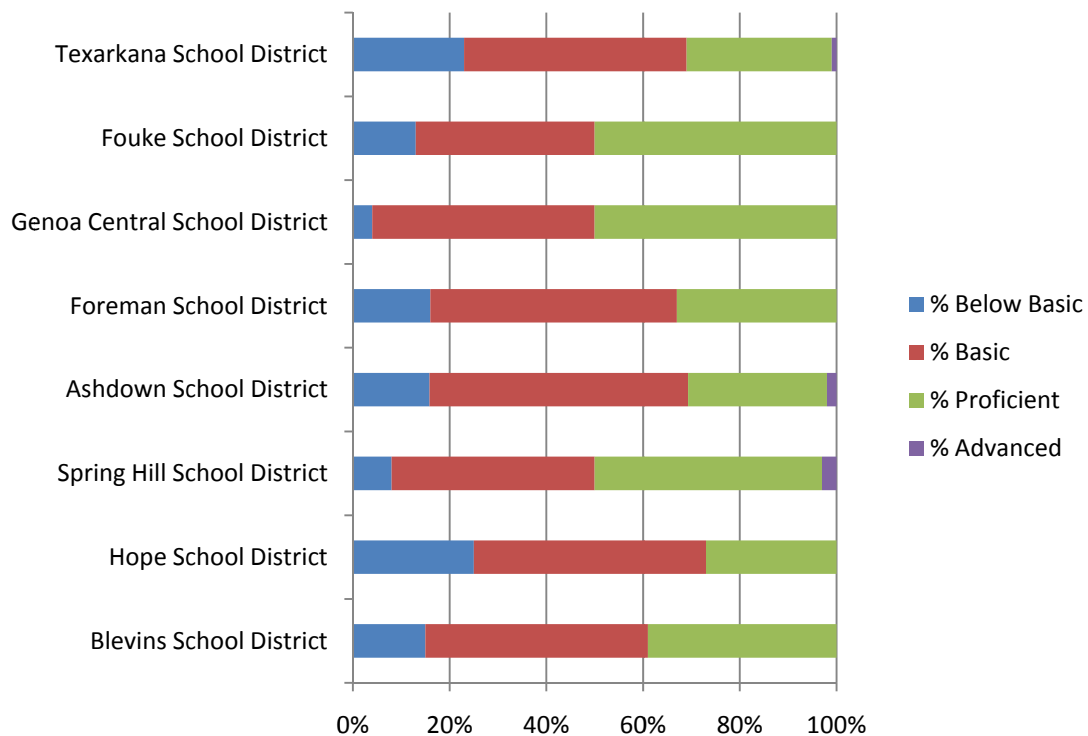
Source: Arkansas Department of Education

### Testing in Arkansas

As in Texas, Arkansas schools have their own system of standardized tests to measure student performance on key educational criteria. The Arkansas Comprehensive Testing, Assessment and Accountability Program (ACTAAP) contains, at the high school level, several subject tests that aim to capture how well students live up to educational requirements. The 2007 administration of this set of tests yields mixed results for students in these counties of Southwest Arkansas.

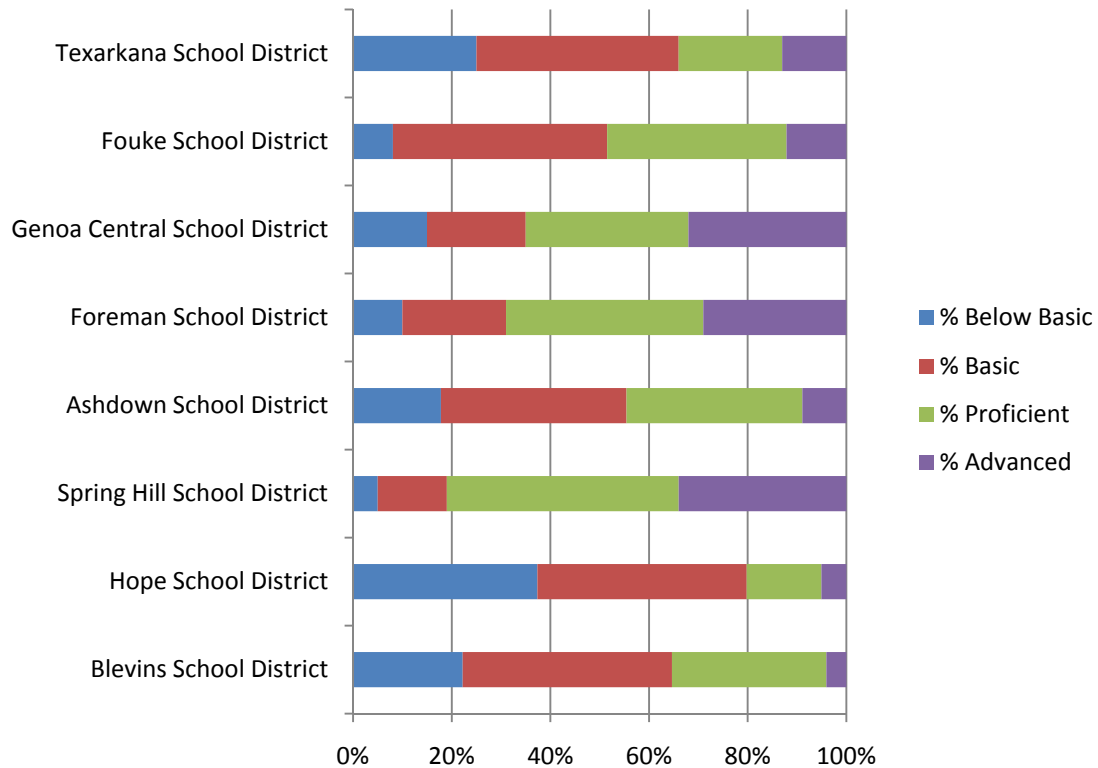
Students can be rated in one of four categories of proficiency on these exams: “Below Basic,” “Basic,” “Proficient,” and “Advanced.” A “Proficient” rating indicates that students are performing at grade level in a particular subject. By this rating system, the results for the 2007 ACTAAP Literacy exam, show a region struggling somewhat with literacy. None of the school districts within the three-county area of Southwest Arkansas can claim that any more than about half of their high school students are reading at an appropriate grade level. Negligible percentages qualify as “advanced” readers.

**Figure 20. Performance of Southwest Arkansas High School Students on Literacy Subject Exam, 2007**



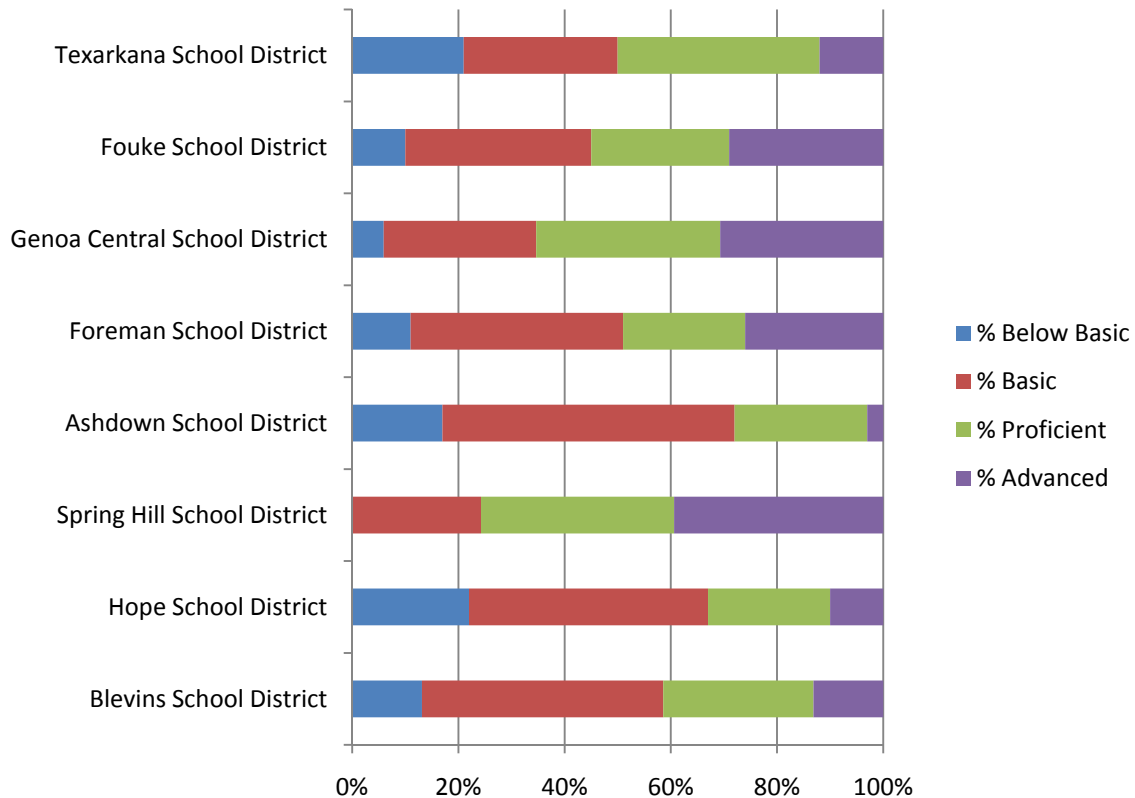
The Geometry examination demonstrates a wider range of performance among students in Southwest Arkansas. The Foreman, Spring Hill, and Genoa school districts are getting significant numbers of their students over the line in Geometry, yet there are several school districts who seem to be struggling here as well, notably Texarkana, Blevins, and especially Hope.

**Figure 21. Performance of Southwest Arkansas High School Students on Geometry Subject Exam, 2007**



Performance on the Algebra exam yields similar results. The Hope and Blevins school districts seem to be struggling to provide students with the essential education they need to stay with their peers at grade level. Perhaps not surprisingly, these two districts have the highest percentages of their student populations in poverty. Ultimately, education is the best and most reliable ticket out of poverty, and more students in this region need to be able to get access to such an opportunity.

**Figure 22. Performance of Southwest Arkansas High School Students on Algebra Subject Exam, 2007**



**Higher Education – A pipeline for careers**

How well does the educational pipeline beyond high school fit the workforce and economic needs of the region? Let us take a brief look at the state of higher education in North East Texas and Southwest Arkansas.

**Basic Statistics for Regional Institutions of Higher Education, 2006-07 Academic Year**

	Northeast Texas Community College	Paris Junior College	Texarkana College	Texas A & M University-Texarkana	University of Arkansas Community College-Hope
Total enrollment	2409	4331	4045	1670	1127
Undergraduate enrollment	2409	4331	4045	1006	1127
<b>Undergraduates by Attendance Status</b>					

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Full-time	46%	41%	41%	39%	52%
Part-time	54%	59%	59%	61%	48%
<b>Undergraduates by Gender</b>					
Male	38%	37%	36%	27%	30%
Female	62%	63%	64%	73%	70%
<b>Undergraduates by Race / ethnicity</b>					
White non-Hispanic	74%	80%	80%	80%	66%
Black non-Hispanic	8%	11%	17%	13%	31%
Hispanic	15%	6%	2%	5%	2%
Asian/Pacific Islander	1%	1%	0%	1%	0%
American Indian/Alaskan Native	1%	2%	0%	1%	0%
Race/ethnicity unknown	0%	0%	0%	0%	1%
Non-resident alien	1%	0%	0%	0%	0%
<b>First-time student retention</b>					
Full-time	43%	54%	43%	-	60%
Part-time	41%	38%	49%	-	32%
<b>Graduation rates for full-time, first-time undergraduates who began program in 2003</b>					
Percentage of entering students counted in calculating graduation rate	39%	35%	47%	-	55%
Overall graduation rate	19%	18%	11%	-	46%
Transfer out rate	4%	20%	12%	-	25%

Source: National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS)

Some key points emerge from a basic look:

- **The region’s institutions are better suited to “workforce training” than a four-year degree.** The area features one institution that offers four-year degrees and some graduate programs – Texas A&M Texarkana – and a network of community colleges who offer certificate and Associate’s degree programs. These colleges are situated such that most of the region has access to at least one of these institutions.
- **Higher education students in the region are mostly women.** Across the board, well over half of each institution’s student body is female.
- **Students are also mostly white.** This, however, seems more to reflect the demographics of the region than an imbalance in the proportions of the population seeking postsecondary education. Northeast Texas Community College seems to be seeing its share of Titus County’s large Hispanic population, and a large percentage of Black students help fill the halls of the University of Arkansas Community College at Hope.

- **Graduation and retention rates could use some work.** Though not atypical of community colleges, four-year graduation rates under 20% at three of the region's institutions leave plenty of room for improvement. (These rates describe degree achievement of up to an Associate's degree in four years.)

### Programs offered vs. Industry Opportunities

How well are the region's higher education institutions providing for the needs of the region's key industries? An inventory of program completions for the 2006-2007 academic year provide the means to address this question. The following table presents numbers of recent graduates from programs relevant to the occupations that drive the region's key industries. From this table the following observations can be made:

- **Health Care-related programs are popular.** This segment of the higher education population in the region is dominated by individuals completing programs to become Registered Nurses (RNs) and Licensed Practical Nurses (LPNs). As demand for these occupations will likely remain strong for a long time, this is a wise investment.
- **Industrial Maintenance students are needed.** Manufacturing employers in the region have expressed difficulty finding essential qualified maintenance personnel. There are many people enrolled in various maintenance-related programs – but the majority of these are pursuing certification as HVAC technicians.
- **Computer-related programs seem less popular.** With just 43 people graduating from computer and IT-related programs in the region, the supply of new IT professionals in the region is smaller yet than the number of welders produced.
- **Current production from construction-related programs seems relatively low.** The 2006-07 academic year put 31 more electricians into the job market, but activity in community college-based construction training programs seems mostly limited to that for the moment. Other avenues of training, however, produce competencies in construction, especially apprenticeship programs. The community college pipeline may not give us the full picture of potential supply of newly trained construction professionals.

**Regional Production of Graduates of Programs Relevant to Key Industry Employment, 2006-07**  
**Academic Year**

Program	Institution	1 to <2			
		<1 year Certificate	year Certificate	Associate	Bachelor
<b>Construction trades</b>					
Carpentry/Carpenter	Texarkana College	-	0	-	-
Electrical and Power Transmission Installation/Installer, General	Northeast Texas Community College	2	-	-	-
Electrician	Texarkana College	-	31	-	-
<b>Category subtotal</b>		<b>2</b>	<b>31</b>	<b>0</b>	<b>0</b>
<b>Health professions and related clinical sciences</b>					
Dental Hygiene/Hygienist	Northeast Texas Community College	-	-	14	-
Emergency Care Attendant (EMT Ambulance)	University of Arkansas Community College - Hope	13	-	-	-
Emergency Medical Technology/Technician (EMT Paramedic)	Northeast Texas Community College	11	-	3	-
	Texarkana College	22	2	1	-
Licensed Practical/Vocational Nurse Training	Northeast Texas Community College	-	30	-	-
	Paris Junior College	-	53	-	-
	Texarkana College	-	75	-	-
	University of Arkansas Community College - Hope	-	31	-	-
Medical Administrative/Executive Assistant and Medical Secretary	Northeast Texas Community College	3	-	2	-
Medical Insurance Coding Specialist/Coder	Paris Junior College	-	14	-	-
Medical/Clinical Assistant	Northeast Texas Community College	1	-	4	-
Nursing Administration (MSN, MS, PhD)	Paris Junior College	-	-	10	-
Nursing/Registered Nurse (RN, ASN, BSN, MSN)	Northeast Texas Community College	-	-	23	-
	Paris Junior College	-	1	46	-
	Texarkana College	-	-	66	-
	Texas A&M Texarkana	-	-	-	17
Pre-Medicine/Pre-Medical Studies	Paris Junior College	-	-	1	-
Pre-Pharmacy Studies	Paris Junior College	-	-	3	-
Radiologic Technology/Science - Radiographer	Paris Junior College	-	-	36	-
Respiratory Care Therapy/Therapist	University of Arkansas Community College - Hope	-	-	6	-
Surgical Technology/Technologist	Paris Junior College	-	8	-	-
<b>Category subtotal</b>		<b>50</b>	<b>214</b>	<b>215</b>	<b>17</b>
<b>Engineering technologies/technicians</b>					
Drafting and Design Technology/Technician, General	Paris Junior College	-	5	3	-
	Texarkana College	-	30	1	-
Electrical/Electronic/Communications Engr Technology/Technician	Paris Junior College	-	2	1	-
	Texarkana College	-	7	4	-
Electromechanical Technology/Electromechanical Engineering Tech	Paris Junior College	-	5	2	-
<b>Category subtotal</b>		<b>0</b>	<b>49</b>	<b>11</b>	<b>0</b>
<b>Engineering</b>					
Engineering, General	Paris Junior College	-	-	3	-
	Texarkana College	-	-	0	-
<b>Category subtotal</b>		<b>0</b>	<b>0</b>	<b>3</b>	<b>0</b>
<b>Mechanic and repair technologies/technicians</b>					
Autobody/Collision and Repair Technology/Technician	Texarkana College	-	13	-	-
Automobile/Automotive Mechanics Technology/Technician	Northeast Texas Community College	3	-	-	-
	Texarkana College	-	19	-	-
Diesel Mechanics Technology/Technician	University of Arkansas Community College - Hope	-	4	-	-
	Northeast Texas Community College	0	-	0	-
Heating/AC/Ventilation/Refrig Maint Technology/Technician	Texarkana College	-	4	-	-
	University of Arkansas Community College - Hope	11	12	-	-
	Northeast Texas Community College	0	-	-	-
	Paris Junior College	-	23	1	-
Heavy/Industrial Equipment Maintenance Technologies, Other	Texarkana College	-	49	-	-
	University of Arkansas Community College - Hope	5	-	-	-
Industrial Electronics Technology/Technician	University of Arkansas Community College - Hope	6	7	-	-
Industrial Mechanics and Maintenance Technology	University of Arkansas Community College - Hope	1	5	-	-
Small Engine Mechanics and Repair Technology/Technician	Northeast Texas Community College	0	-	-	-
	Texarkana College	-	10	-	-
Vehicle Maintenance and Repair Technologies, Other	Northeast Texas Community College	-	-	0	-
<b>Category subtotal</b>		<b>26</b>	<b>146</b>	<b>1</b>	<b>0</b>
<b>Precision production</b>					
Welding Technology/Welder	Northeast Texas Community College	0	-	1	-
	Paris Junior College	-	26	-	-
	Texarkana College	-	29	-	-
<b>Category subtotal</b>		<b>0</b>	<b>55</b>	<b>1</b>	<b>0</b>
<b>Computer and information sciences and support services</b>					
Computer and Information Sciences, General	Northeast Texas Community College	-	-	2	-
	Paris Junior College	-	1	5	-
Computer Programming/Programmer, General	Northeast Texas Community College	0	-	-	-
	Texarkana College	27	5	3	-
Computer Science	Northeast Texas Community College	0	-	-	-
Data Processing and Data Processing Technology/Technician	Northeast Texas Community College	0	-	-	-
<b>Category subtotal</b>		<b>27</b>	<b>6</b>	<b>10</b>	<b>0</b>

Source: National Center for Education Statistics Integrated Postsecondary Education Data System (IPEDS)

## Job-Specific Training: How Employers Ensure Skills for their Workers

Returning to the employer survey yields an added dimension that encompasses the involvement of employers in the region’s key industries in ensuring the proper preparation and training of their critical workers.

All of the employers who responded to the survey indicated that they provide some kind of training for their employees. These employers report that 1-15% of their annual budgets are devoted to training their employees.

### Which Forms of Training do Employers Use Most Often?

Training Type	Most Popular	Widely Used	Sometimes Used	Seldom Used	Least Popular
Specific, occupation-related skills	48%	22%	9%	17%	4%
Training on company administrative practices (HR policies, safety procedures, etc.)	35%	26%	26%	13%	0%
Use of specific machinery, equipment, or IT resources	43%	17%	30%	9%	0%
"Soft skills" (Communication, problem solving, etc.)	0%	22%	35%	39%	4%
Basic skills (Math, reading)	9%	13%	17%	4%	57%

Survey results compiled by Workforce Associates, Inc.

When asked which kinds of training they use most often, employers made their preferences clear: businesses like to spend their training dollars on programs of direct use to their own businesses. The survey respondents did not seem to have much interest in training employees for basic or “soft” skills, since these are attributes that employees should bring to the table before they even apply. Businesses have a mission to make money, not to remediate deficient skills in their workers.

When asked who provides training, employers answered with a variety of preferred providers. Manufacturers were more likely to mention vendors of individual job-specific equipment as trainers; others cited cooperative ventures with outside providers to provide training for supervisors according to external training standards. Paris Junior College was mentioned favorably by several of the survey respondents as a provider of special courses and training for their employees.

### **Collaboration: The Regional Advanced Manufacturing Academy (RAMA)**

Employer cooperation to create training options for the manufacturing industry in the region has just received a significant boost in the form of a grant from the Texas Workforce Commission to create a “Regional Advanced Manufacturing Academy” (RAMA) for the entire nine-county region. This effort has been produced in part by the collective efforts of a group of area manufacturers and the North East Texas workforce board, stemming from increased involvement and annual “Manufacturing Summits” convened as an outgrowth of the findings of the previous Community Audit report in 2005.

The creation of the RAMA allows for the creation of region-wide standards (based on existing industry group standards) for manufacturing training, increased access for students seeking training across the region, and the shared use of resources and knowledge to meet the ongoing strategic training needs of the region’s advanced manufacturing employers.

Detailed curricula have been developed which allow each of the participating community colleges in the region – Paris Junior College, Northeast Texas Community College, and Texarkana College – to become a “Center of Excellence” with certain areas of specialization to avoid service duplication and make better use of limited training resources. Standards will be developed for these “Centers of Excellence” in accordance with competency models already established by the National Association of Manufacturers (NAM) and the Manufacturing Skill Standards Council (MSSC). Students would then be able to use any of the institutions within this network of Centers of Excellence to get the training they need – helping employers get the workforce qualifications they desire and individual workers to buy some job security and a stable career path.

Furthermore, employers are involved in this process at every step, from curriculum development to agreements to interview applicants who have been certified through the RAMA training process.

The RAMA is an ambitious effort whose scope and vision should be applauded, and which should be supported and encouraged in this vital stage of its development.

## Section V: Workforce System Evaluation

The public workforce system in the North East Texas region is an important part of the way the region ensures the quality and quantity of the regional workforce, and to ensure the best match between employers and job seekers.

### Employers' views of the workforce system

Employers already indicated in the survey described in Section II that they rely on the North East Texas workforce system for recruiting needs when they need to seek candidates for their key occupations, which speaks well of the reputation and ability of the system to achieve its primary purpose. Those findings may have been biased somewhat by the fact that the North East Texas Workforce Board had some active contacts with at least some of the listed employers.

However, that does not necessarily mean that each of these businesses is making extensive use of the services available to them through the North East Texas Workforce Board. Even though many employers did mention that they used the workforce system as an active source of recruitment, follow-up communication with some of the survey respondents indicated that they didn't make much use of the workforce system for their recruitment or training needs. HR managers at Alcoa and AEP SWEPCO expressed little connection with the North East Texas workforce system, citing their ability to meet staffing needs on their own. These two are very likely "employers of choice" in the region, though, so it should perhaps not be very surprising that they can operate independently.

That does not mean, however, that these HR managers had a negative impression of the Workforce Board or its services. An HR manager from Titus Regional Hospital said that although most of the positions for which she hires candidates are specialized professional positions (RNs, Rad Techs, etc.), the Workforce Board's services have been "helpful" to her in filling her other hiring needs.

### Overview of Major Aspects of the North East Texas Workforce Investment Board

WFA conducted interviews on site in Texarkana with several key players involved with the North East Texas Workforce Board, to uncover the main strategic and operational issues facing the Board and its activities to support and promote the workforce of the region. Interviewed were:

- Kay O'Dell, Executive Director, North East Texas Workforce Board
- Dave Vershaw, Project Coordinator, North East Texas Workforce Board
- Steve Harris, former board chair, business representative, North East Texas Workforce Board

Kay O’Dell has been the Executive Director of the North East Texas Workforce Investment Board for the past four years. The Board is responsible for managing programs and operations related to 17 different funding streams. There are a total of 28 workforce boards in the state: 5 are small boards; 16 are medium boards; and 7 are large boards. North East Texas is considered a medium-sized area.

### Performance Measurements

The State of Texas tracks individual WIB performance for Incentive Awards. The four measured categories are:

1. Staff-Assisted Entered Employment (i.e. job placement)
2. Choices (All Families – Exempt Non-recipient Parent Participation Rate)
3. WIA Youth Attainment of Degree or Certificate
4. Staff-Created Job Openings Filled

North East Texas has exceeded goals on two measures, and has achieved 80.88% of its goal for “Staff-Created Job Openings Filled”, but has only achieved 11.65% of its goal for the Choices program. The region’s overall ranking is ninth of sixteen medium sized Workforce Boards. Achieving Choices participation rates would significantly improve the WIBs overall state placement in contracted performance measures. It should be noted that 27 of the 28 WIBs failed to meet this performance measure; only Golden Crescent achieved the goals for both “All Families” and “Two Parent Families.”

Of the WIA Reportable Measures, only “Literacy & Numeracy Gains” falls below performance expectations. All other measures exceed negotiated standards (WIA Adult Average Earnings, WIA Dislocated Average Earnings, Placement in Employment or Education, and Attainment of Degree or Certificate).

Ms. O’Dell indicated that when she first assumed the role as Executive Director, the region was ranked in the bottom third of all the workforce boards in the state in terms of performance. Slow but steady and significant progress has been made by focusing attention on outcome performance. Performance improvement is directly related to holding service providers accountable for meeting performance objectives.

A comprehensive monthly report not only tracks indicators against actual performance, but also measures the percentage of progress made during the reporting period. These metrics are crucial to identifying areas of weaknesses, and thereby for enacting course correction solutions prior to the end of the Program Year.

### Staffing Issues

Finding the right staff has been somewhat difficult in some cases. Certain positions have been hard to fill; for example, there have been four different directors of Finance since Ms. O'Dell became Executive Director. Ms. O'Dell expresses confidence in her current staff, but worries about succession planning for data management, since this job resides currently with just one highly capable individual and requires a great deal of specialized knowledge. The ideal plan would allow the Board to hire an assistant for the data manager, but current funding levels make that impossible. Ideally, Ms O'Dell would like to have a grant writer and a monitoring team on staff as well.

### Board Involvement

The Workforce Investment Board is comprised of 25 members who meet on a quarterly basis. Members are appointed by a County Judge. One third of the board rotates off each year. New board members receive a 2-3 hour orientation session conducted by WIB staff.

Committees handle the backbone of the board's work. Committees meet monthly. The Oversight Committee is responsible for reviewing performance outcomes and sharing this information at quarterly board meetings.

An annual board retreat is held for the purpose of strategic planning and setting priorities. While the board is still operational in nature, efforts are being made to make the board more strategically focused.

The WIB participates in wider strategic partnerships and other events and ventures, including the following:

- The Annual State WIB Meeting conducted by the TWC. The meetings are usually held in Houston or Dallas.
- The National Association of Workforce Boards (NAWB).
- Texas Economic Development meetings.
- Community Development Institute.

Board members contribute the following to the workforce system:

- A strategic view.
- Community knowledge.
- Employer knowledge. Many are employers themselves.
- Contacts in the wider community.

## CHALLENGES

1. WIA funding was cut from \$3.5M in 2007 to \$2.4M in 2008.
2. One employer (Turner Welding) needs 800 welders by next June.
3. Local control over operations has diminished somewhat.
4. Minimal grass roots input
5. There is no grant writer on staff. Skills Development grants must be contracted out to the community college system, which works for the moment, but it would be preferable to have (community college writes the Skills Development grants)
6. Choices performance is difficult to meet
7. Limited involvement with economic development professionals in the region

## OPPORTUNITIES

1. Explore a system (i.e. TORQ) that will provide data on the existing workforce with transferable skills that will assist economic development professionals with crucial data for business attraction and retention efforts.
2. Review Choices protocols used by regions meeting or close to meeting goals (Golden Crescent, Capital Area, and Alamo Area).
3. Explore options to enable hiring an assistant for the data manager.

## Evaluation of the Texarkana Workforce Center

The Texarkana Workforce Center is one of the most well-integrated, customer-friendly one-stop workforce service facilities in the experience of Workforce Associates, Inc. WFA has extensive experience evaluating such facilities, and the evaluation which follows represents a thorough review of operational details of the facility, as well as an overall assessment of its fitness in service of the North East Texas regional workforce.

Especially important and interesting to this consideration is that the Texarkana workforce center in particular is a collaboration between two states' differently managed and separately administered workforce systems. Some of these differences are evident, as detailed below, but overall the center operates well as a single facility, emulating the motto on the city's water tower, visible from the front door of the workforce center – "twice as nice."

## Facilities

The Workforce Solutions center is conveniently located off a major highway (I-30) with access via a frontage road (Hampton Road). The center is visible from the highway. The facility is large and the grounds are well manicured. In addition to excellent signage with logos of the operating workforce agencies in Texas and Arkansas, flags of both states and the U.S. are prominently displayed on tall flag poles.

There is ample customer parking in front of the building and there are adequate handicapped parking spaces. Although guests must climb a few stairs to the front door, there is a wheelchair ramp for those who cannot navigate steps. There were no noticeable wheelchair assistance buttons located near the entrance doors; therefore, a person in a wheelchair may have difficulty opening the doors.

The building is smoke free but there are “butt stations” located near the entrance to encourage visitors to dispose of cigarette butts properly. The windows are not cluttered with signs. There are “no smoking” and “no food or drinks” signs posted.

There are three restrooms for public use located off the main lobby area. All three restrooms were private, clean, and accessible by wheelchair.

### Employment and Job Search Process

Service provision for Texarkana, Texas is contracted through LT Consulting, which has a one-year contract with an option for renewal. The current contract expires in December 2008. Services on the Arkansas side of the facility are provided by state employees. Texas state employees manage the front desk and provide system support.

Upon entering the center, guests are greeted by a V-shaped desk with two greeters. One greeter handles Arkansas guests; the other handles Texas visitors. Each side is clearly marked with signage. Each state has its own lobby area, and both lobby areas are attractively arranged in a style that more closely resembles a hotel or bank lobby than a bureaucratic office facility. The area is clean, wide open, comfortable, and aesthetically appealing. There are two flat screen TV monitors in the lobby, positioned one above the other, scrolling listings of job vacancies. There are no posters on display to clutter the area.

Visitors register with a greeter that provides initial intake information to the client tracking system. The greeter determines if, and how, the customer requires assistance. At that point, customers are directed to a computer to sign onto the “Work in Texas” job matching system, or they remain in the lobby for staff assistance. There is no menu of services on display; rather, it appears that customers learn about the array of services through staff assistance. Intake and eligibility are handled in private offices by case managers, located on the perimeter of the public areas.

**Note:** The Texas job matching system, “Work in Texas”, is Web-based and can be accessed from any computer at [www.workintexas.com](http://www.workintexas.com). A job seeker desiring information about jobs in Arkansas must sign into the Arkansas system at [www.arjoblink.arkansas.gov](http://www.arjoblink.arkansas.gov).

Center employees are notified of visitors waiting for assistance via the *En Route* customer-cued communications system. Employees receive notification via email that a visitor is waiting. If the employee is not at his/her desk, other center employees keep tabs on cued visitors and can let the employee know that a customer is ready to be served. Teamwork and cooperation is apparent and the employees pride themselves on serving customers expediently. Customers are called by name when a team member is ready to serve them.

Employees take turns serving as greeters and serving customers with job search and other core services. The rotation of tasks (three hours each) keeps employees fresh and minimizes “burnout” for greeters and intake staff. Other employees assist in the self-serve area when customer volumes require additional manpower.

The center utilizes *PreVisor*, an online skills assessment program. *PreVisor* offers skills assessments in 90 areas. Essential skills that are evaluated include Microsoft software applications, math, reading, English, accounting, etc.

The workforce center also offers a work readiness class, Work Certified. Employers can require job applicants to complete this certification successfully prior to consideration for employment.

### Resource Area

There is no Resource Area *per se* on the Texas side of the center. On the Arkansas side, there are traditional resource materials (tri-folds, flyers, brochures, pamphlets, etc.) displayed at a workstation in the back of the public area. There are also self-help materials on racks. These materials are well-organized and well-presented, but since they are located in the back of the public area, it is unclear how customers find out that the materials are available for their use.

### Classrooms

Several classrooms are located throughout the center. All were in use at the time of the WFA evaluation visit. One was being used for case management training (for internal staff) and another for a training class conducted by a regional employer. The center encourages regional employers to use their facility.

There is one small room used for GED training. The GED room is open from 8:30 a.m. – Noon daily and is staffed by a Texarkana Independent School District (Basic Adult Education) instructor. Three clients were being assisted by the GED instructor at the time of WFA’s visit. The room appears small, but, there are plans to relocate GED services to a larger space.

Classes and workshops are offered Tuesday, Wednesday and Thursday. These include qualifying for services, Work Certified classes, interviewing, etc.

### **Other Employment Partners**

Short term occupancy is provided for staffing agencies and Job Corps. The center should be congratulated for open-mindedness in providing space for other organizations that can help job seekers find employment. The center makes every attempt to get displaced workers back to work in ten (10) weeks by using Reemployment Assistance grants.

### **Business Services**

The Business Services team targets those industries with high demand and high wage jobs, and works diligently to assist those employers with fulfilling their staffing needs. Members of the workforce team participate in Chamber activities and often receive leads from Chamber members.

When a customer has a match for a job, the name of the company may or may not be identified. If the name is identified, the customer may apply directly. The job order identifies the method for employment application. Applications may be taken online or taken at the employer's location, whichever the employer prefers. (This is a Level 1 posting.)

Most employers do not identify themselves on the job order. Employers often prefer that the workforce center pre-screen applicants. When a match like this occurs, customers are interviewed by a member of the business services team who checks credentials and verifies that the applicant has the appropriate skills, and has taken and successfully passed all the necessary assessments. Once the match has been validated by a business services representative, the applicant is provided further instruction for making an application. In some cases, additional assessments are required. (This is a Level 2 posting.)

### **Training Services**

The office team meets every Wednesday afternoon to discuss which customers are likely to have successful placement as a result of WIA funded training. Candidate selection is a group decision. Those individuals selected are invited to discuss training opportunities as part of their Individual Employment Plan (IEP). This process may reduce the number of training enrollees; however, it also increases the potential for successful training and placement.

### **Unemployment**

Unemployment registration for Texas is handled at a separate location. The Texas side of the workforce center is strictly the employment office. Claimants are required to register for work within three (3) days of filing for unemployment, and must register at the workforce center.

Arkansas customers, however, do file for unemployment at the workforce center.

### **Rapid Response**

Staff is provided to assist employers with layoffs and plant closings. The team responds as agreed to by the employer. In most situations, assistance is provided at the employer's work site so employees can receive services on company time or during break periods.

### **Branding**

All employees identify themselves as Workforce Solutions employees and are not using the names of their respective individual employers (i.e. LT Consulting, Arbor, Texas state employees). This eliminates confusion for the customers and makes the system appear seamless. All business cards and print materials display the Workforce Solutions logo. The only distinction in service delivery is two separate states occupying the same facility.

### **Child Care**

The Child Care call center is located at the Texarkana facility. This group manages eligibility, vouchers, billing, and applications for those interested in becoming a child care provider. Information is provided by telephone; this operation does not meet face-to-face with clients. This location serves as a call center for all offices.

### **Veterans' Services**

There are two Texas Vet Reps at this location. Neither representative was available to be interviewed at the time of our visit.

### **Youth Services**

Two Arbor employees are contracted to provide out-of-school youth services. LT Consulting handles in-school youth services.

### **Other Observations**

The staff of the Texarkana Workforce Center is well groomed and professionally dressed. The workstations are neat, clean and organized. Movement in and around the workforce center is easy thanks to wide, uncluttered aisles. The employees were very helpful and friendly on the day of WFA's visit. Employees clearly take pride in their workstations, their appearance, and their service to customers. The office has a friendly, non-bureaucratic appearance that is inviting and welcoming.

With employees from both Texas and Arkansas sharing the same space, including break room and restroom facilities, the two groups interacted well and appeared to be compatible. This arrangement also facilitates cooperation between the two entities.

Texas employees are required to complete eight modules from Dynamics Institute to achieve their own workforce certification. Employees are given time at work to complete this task.

LT Consulting receives ten percent (10%) of its pay based on overall center performance. Since all employees share in this “reward,” there is cooperation amongst the employees to help each other during busy and/or difficult times. They also encourage each other to complete their credentialing requirements.

Partners speak highly of each other and appear to take pride in the services they provide to one-stop customers.

# Appendix A: TORQ™ Workforce Pool Reports for Critical North East Texas Occupations

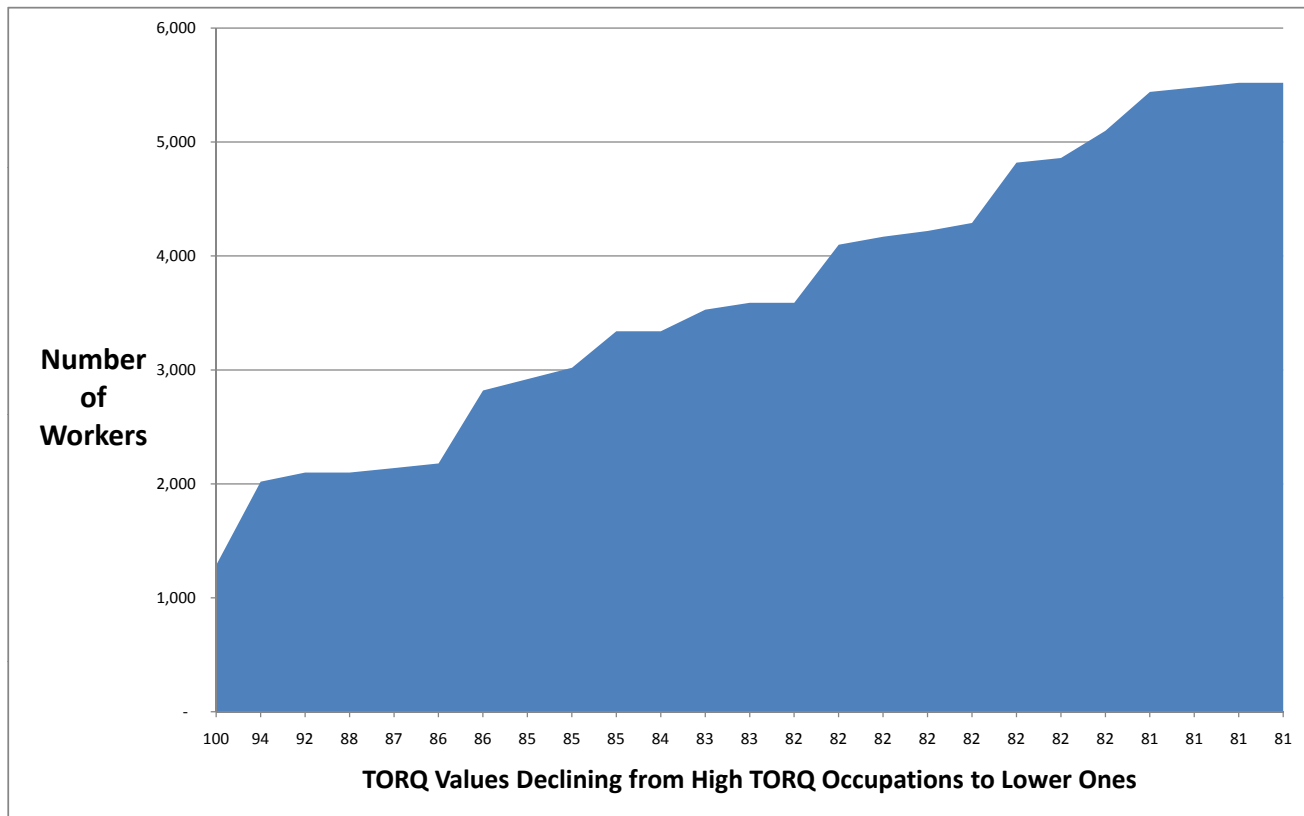


## Workforce Pool Potential for Registered Nurses

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Registered Nurses	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-1111	Registered Nurses	100.0	3	\$ 55,620	0	1,290	28%	167
29-2061	Licensed Practical and Licensed Vocational Nurses	94.1	3	\$ 31,070	-24,550	730	12%	76
29-1126	Respiratory Therapists	92.1	3	\$ 43,420	-12,200	80	42%	12
31-2021	Physical Therapist Assistants	87.7	3	\$ 48,190	-7,430		55%	8
39-1021	First-Line Supervisors/Managers of Personal Service Workers	87.3	3	\$ 19,220	-36,400	40		
21-1022	Medical and Public Health Social Workers	86.1	5	\$ 43,590	-12,030	40	43%	7
31-1012	Nursing Aides, Orderlies, and Attendants	85.9	2	\$ 20,110	-35,510	640	19%	109
29-2034	Radiologic Technicians	84.9	3	\$ 43,620	-12,000	100	20%	13
29-2034	Radiologic Technologists	84.6	3	\$ 43,620	-12,000	100	20%	13
33-3051	Sheriffs and Deputy Sheriffs	84.6	3	\$ 33,430	-22,190	320	17%	49
33-3021	Police Detectives	84.1	4	\$ 39,370	-16,250		2%	8
31-9092	Medical Assistants	83.0	3	\$ 22,870	-32,750	190	38%	32
29-2021	Dental Hygienists	82.8	3	\$ 51,960	-3,660	60		
33-3021	Immigration and Customs Inspectors	82.3	4	\$ 39,370	-16,250		2%	8
25-2022	Middle School Teachers, Except Special and Vocational Education	82.3	4	\$ 38,250	-17,370	510	16%	51
29-1127	Speech-Language Pathologists	82.3	5	\$ 50,820	-4,800	70	39%	11
25-2032	Vocational Education Teachers, Secondary School	82.1	4	\$ 39,770	-15,850	50	23%	16
39-9032	Recreation Workers	81.9	4	\$ 17,590	-38,030	70	13%	15
25-2031	Secondary School Teachers, Except Special and Vocational Education	81.7	4	\$ 41,380	-14,240	530	15%	86
21-1092	Probation Officers and Correctional Treatment Specialists	81.6	4	\$ 29,700	-25,920	40	44%	8
21-1093	Social and Human Service Assistants	81.5	3	\$ 19,180	-36,440	240	18%	34
39-9011	Nannies	81.4	3	\$ 13,860	-41,760	340	26%	121
27-2022	Coaches and Scouts	80.9	5	\$ 17,940	-37,680	40	36%	8
21-1015	Rehabilitation Counselors	80.8	4	\$ 30,740	-24,880	40	9%	3
33-3021	Police Identification and Records Officers	80.8	3	\$ 39,370	-16,250		2%	8

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Registered Nurses

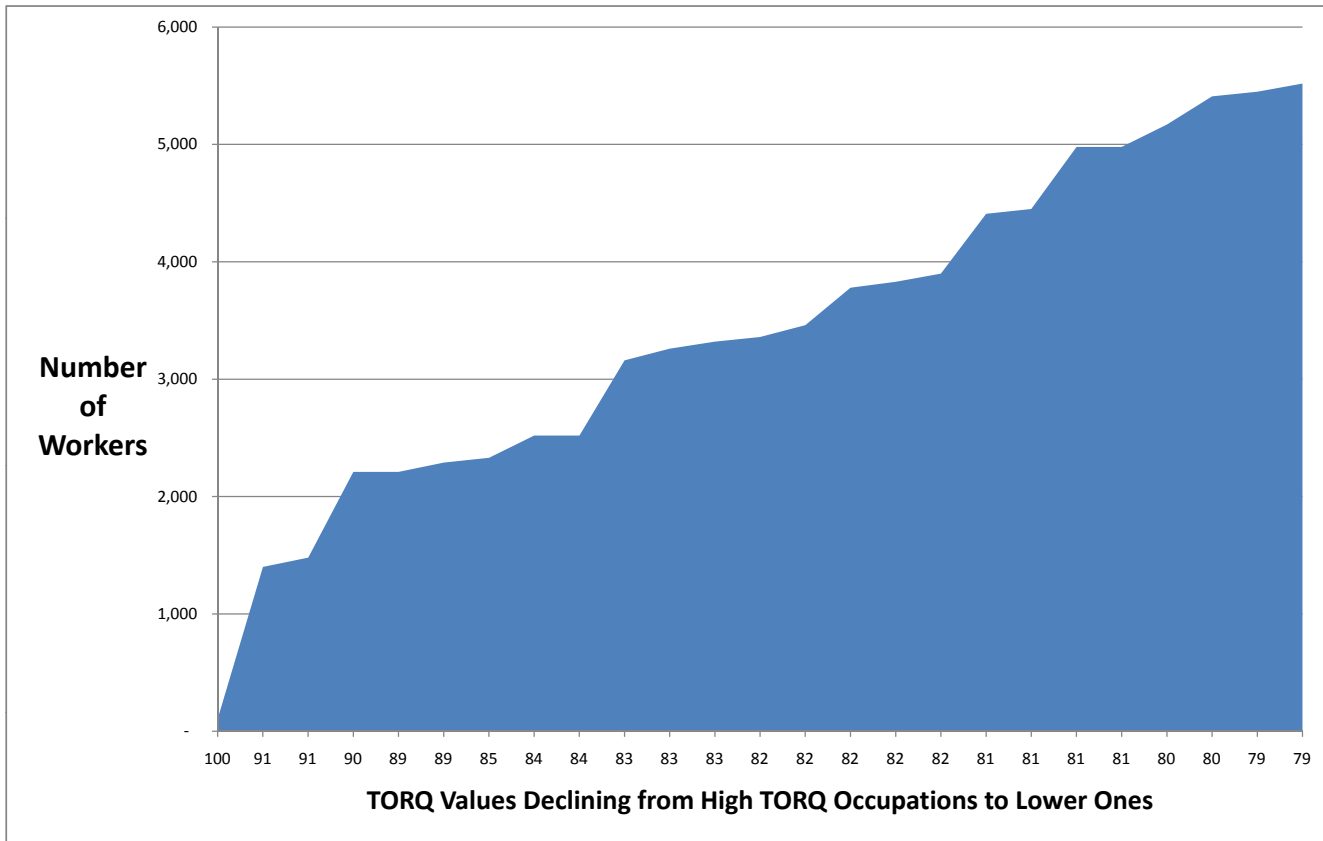


## Workforce Pool Potential for Physical Therapists

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Physical Therapists	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-1123	Physical Therapists							
29-1123	Physical Therapists	100.0	5	\$ 72,850	0	110	27%	8
29-1111	Registered Nurses	91.4	3	\$ 55,620	-17,230	1,290	28%	167
29-1122	Occupational Therapists	91.0	4	\$ 72,400	-450	80	33%	9
29-2061	Licensed Practical and Licensed Vocational Nurses	90.1	3	\$ 31,070	-41,780	730	12%	76
31-2021	Physical Therapist Assistants	89.4	3	\$ 48,190	-24,660		55%	8
29-1126	Respiratory Therapists	88.6	3	\$ 43,420	-29,430	80	42%	12
39-1021	First-Line Supervisors/Managers of Personal Service Worker	85.2	3	\$ 19,220	-53,630	40		
11-9111	Medical and Health Services Managers	84.3	5	\$ 67,520	-5,330	190	25%	21
29-1071	Physician Assistants	83.9	4	\$ 68,760	-4,090			
31-1012	Nursing Aides, Orderlies, and Attendants	83.4	2	\$ 20,110	-52,740	640	19%	109
29-2034	Radiologic Technicians	82.8	3	\$ 43,620	-29,230	100	20%	13
29-2021	Dental Hygienists	82.6	3	\$ 51,960	-20,890	60		
27-2022	Coaches and Scouts	82.3	5	\$ 17,940	-54,910	40	36%	8
29-2034	Radiologic Technologists	82.3	3	\$ 43,620	-29,230	100	20%	13
33-3051	Sheriffs and Deputy Sheriffs	82.2	3	\$ 33,430	-39,420	320	17%	49
25-2032	Vocational Education Teachers, Secondary School	81.9	4	\$ 39,770	-33,080	50	23%	16
29-1127	Speech-Language Pathologists	81.8	5	\$ 50,820	-22,030	70	39%	11
25-2022	Middle School Teachers, Except Special and Vocational Edu	81.4	4	\$ 38,250	-34,600	510	16%	51
21-1022	Medical and Public Health Social Workers	81.2	5	\$ 43,590	-29,260	40	43%	7
25-2031	Secondary School Teachers, Except Special and Vocational	81.0	4	\$ 41,380	-31,470	530	15%	86
33-3021	Police Detectives	80.5	4	\$ 39,370	-33,480		2%	8
31-9092	Medical Assistants	79.8	3	\$ 22,870	-49,980	190	38%	32
21-1093	Social and Human Service Assistants	79.6	3	\$ 19,180	-53,670	240	18%	34
25-2012	Kindergarten Teachers, Except Special Education	79.4	4	\$ 38,830	-34,020	40	19%	10
39-9032	Recreation Workers	79.3	4	\$ 17,590	-55,260	70	13%	15

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Physical Therapists

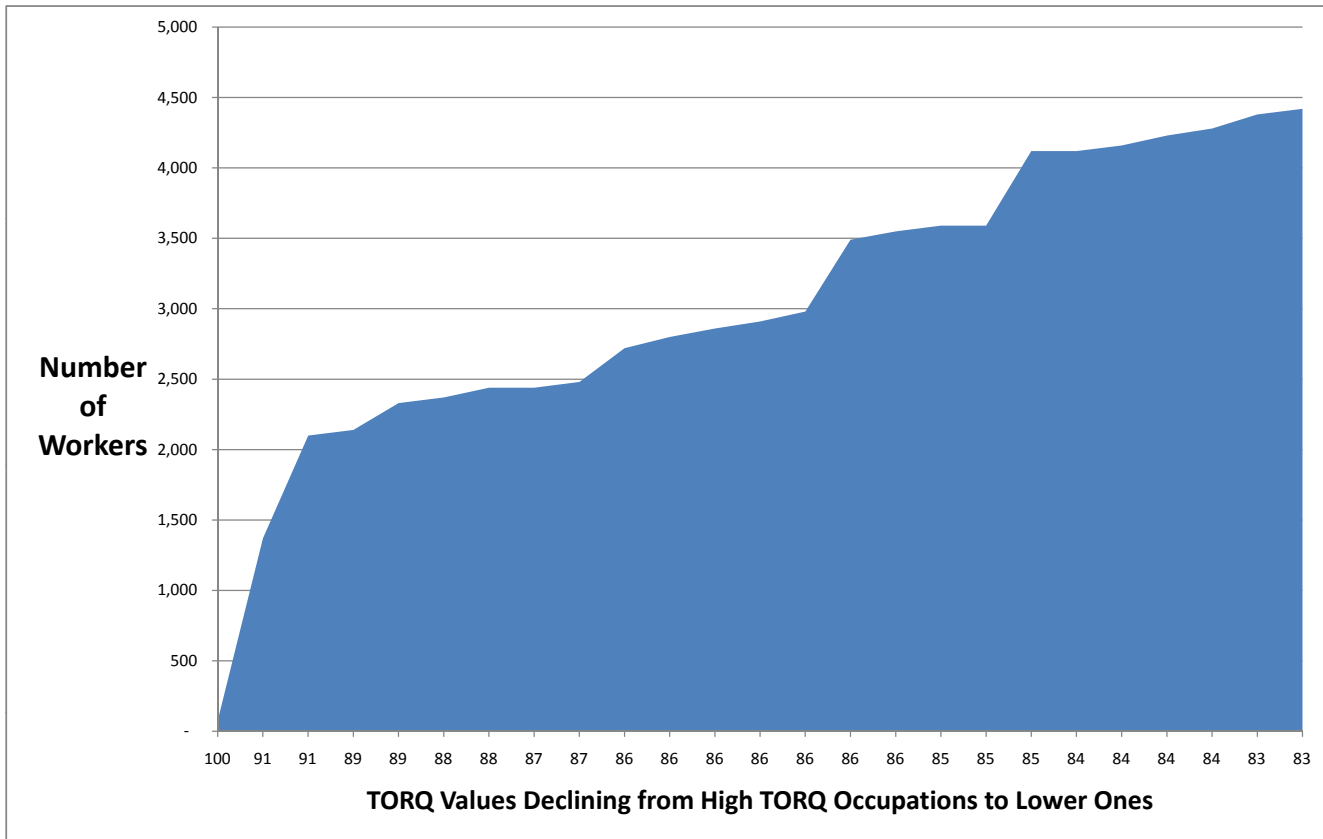


## Workforce Pool Potential for Occupational Therapists

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Occupational Therapists	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-1122	Occupational Therapists	100.0	4	\$ 72,400	0	80	33%	9
29-1111	Registered Nurses	91.4	3	\$ 55,620	-16,780	1,290	28%	167
29-2061	Licensed Practical and Licensed Vocational Nurses	91.3	3	\$ 31,070	-41,330	730	12%	76
39-1021	First-Line Supervisors/Managers of Personal Service Worker	88.7	3	\$ 19,220	-53,180	40		
11-9111	Medical and Health Services Managers	88.5	5	\$ 67,520	-4,880	190	25%	21
21-1022	Medical and Public Health Social Workers	88.0	5	\$ 43,590	-28,810	40	43%	7
29-1127	Speech-Language Pathologists	87.5	5	\$ 50,820	-21,580	70	39%	11
31-2021	Physical Therapist Assistants	87.4	3	\$ 48,190	-24,210		55%	8
21-1015	Rehabilitation Counselors	87.0	4	\$ 30,740	-41,660	40	9%	3
21-1093	Social and Human Service Assistants	86.5	3	\$ 19,180	-53,220	240	18%	34
29-1126	Respiratory Therapists	86.4	3	\$ 43,420	-28,980	80	42%	12
21-1012	Educational, Vocational, and School Counselors	86.3	5	\$ 49,630	-22,770	60	20%	14
25-2032	Vocational Education Teachers, Secondary School	86.0	4	\$ 39,770	-32,630	50	23%	16
39-9032	Recreation Workers	85.9	4	\$ 17,590	-54,810	70	13%	15
25-2022	Middle School Teachers, Except Special and Vocational Edu	85.9	4	\$ 38,250	-34,150	510	16%	51
21-1014	Mental Health Counselors	85.5	5	\$ 47,430	-24,970	60		
27-2022	Coaches and Scouts	85.4	5	\$ 17,940	-54,460	40	36%	8
29-1071	Physician Assistants	85.1	4	\$ 68,760	-3,640			
25-2031	Secondary School Teachers, Except Special and Vocational	85.0	4	\$ 41,380	-31,020	530	15%	86
33-3021	Police Detectives	84.1	4	\$ 39,370	-33,030		2%	8
21-1092	Probation Officers and Correctional Treatment Specialists	84.1	4	\$ 29,700	-42,700	40	44%	8
21-1021	Child, Family, and School Social Workers	84.1	5	\$ 29,220	-43,180	70	23%	16
11-9151	Social and Community Service Managers	83.5	4	\$ 27,010	-45,390	50	5%	4
11-9032	Education Administrators, Elementary and Secondary Schoo	83.5	5	\$ 61,480	-10,920	100	14%	16
25-2012	Kindergarten Teachers, Except Special Education	83.3	4	\$ 38,830	-33,570	40	19%	10

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Occupational Therapists

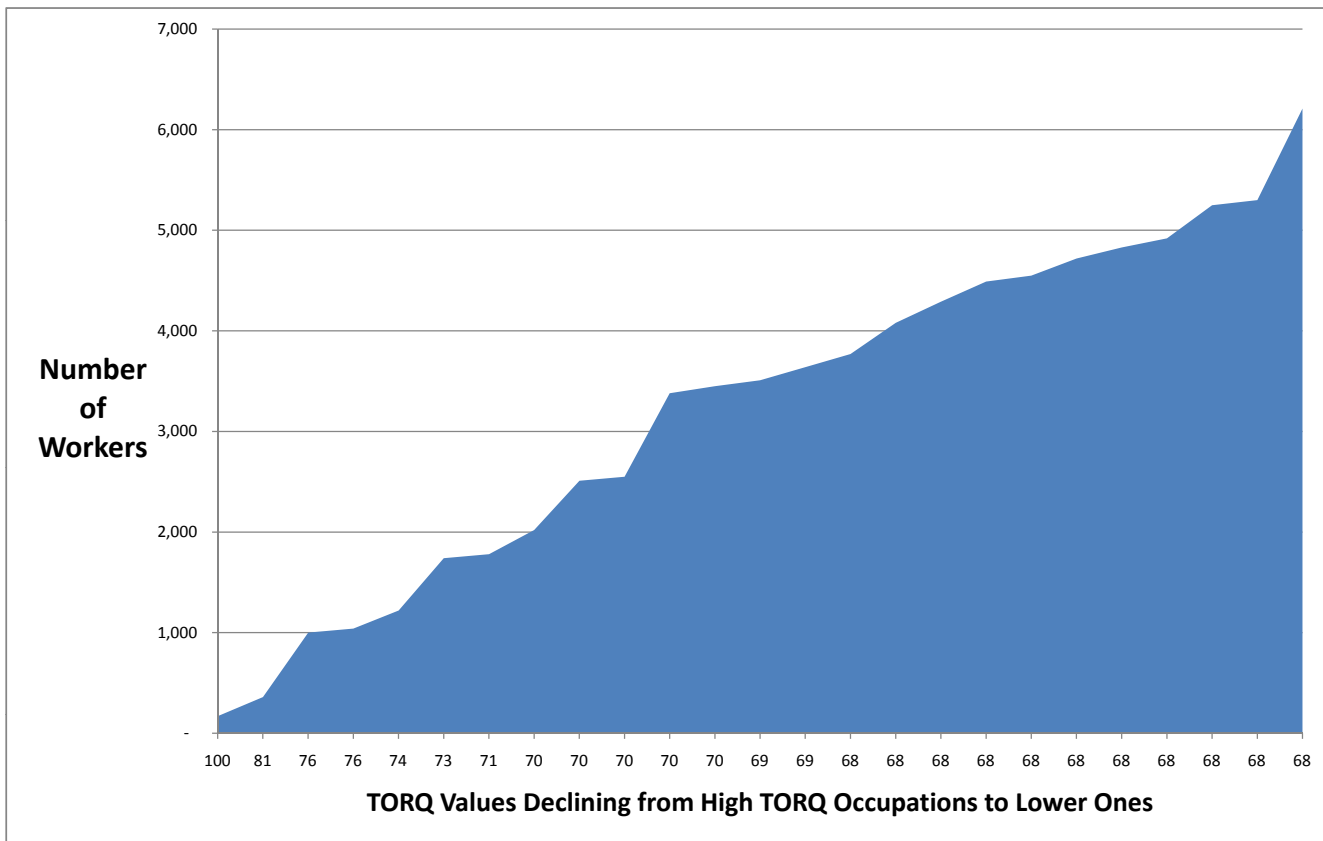


## Workforce Pool Potential for Medical and Clinical Laboratory Technicians

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Medical and Clinical Laboratory Technicians	Total Texarkana MSA Employment		
29-2012	Medical and Clinical Laboratory Technicians					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
O*NET Code	Occupational Title							
29-2012	Medical and Clinical Laboratory Technicians	100.0	2	\$ 25,100	0	170	26%	13
31-9092	Medical Assistants	80.9	3	\$ 22,870	-2,230	190	38%	32
31-1012	Nursing Aides, Orderlies, and Attendants	76.1	2	\$ 20,110	-4,990	640	19%	109
39-1021	First-Line Supervisors/Managers of Personal Service Worker	75.6	3	\$ 19,220	-5,880	40		
29-2052	Pharmacy Technicians	74.0	2	\$ 23,250	-1,850	180		
43-4051	Customer Service Representatives	73.0	2	\$ 23,940	-1,160	520	23%	73
51-3011	Bakers	70.8	2	\$ 17,130	-7,970	40	3%	7
21-1093	Social and Human Service Assistants	70.5	3	\$ 19,180	-5,920	240	18%	34
35-1012	First-Line Supervisors/Managers of Food Preparation and Se	70.4	2	\$ 22,990	-2,110	490	19%	55
27-2022	Coaches and Scouts	70.2	5	\$ 17,940	-7,160	40	36%	8
31-1011	Home Health Aides	70.1	2	\$ 14,200	-10,900	830	50%	82
39-9032	Recreation Workers	69.6	4	\$ 17,590	-7,510	70	13%	15
51-8031	Water and Liquid Waste Treatment Plant and System Operat	69.1	3	\$ 24,360	-740	60	0%	8
25-2011	Preschool Teachers, Except Special Education	68.7	3	\$ 16,170	-8,930	130	39%	26
33-9032	Security Guards	68.3	2	\$ 22,050	-3,050	130	3%	18
43-3021	Billing, Cost, and Rate Clerks	68.3	3	\$ 24,690	-410	310	4%	20
43-4071	File Clerks	68.3	3	\$ 20,340	-4,760	210	-33%	7
43-3011	Bill and Account Collectors	68.2	3	\$ 24,390	-710	200	31%	20
43-9021	Data Entry Keyers	68.2	2	\$ 23,250	-1,850	60	8%	10
35-2012	Cooks, Institution and Cafeteria	68.1	2	\$ 14,990	-10,110	170	2%	50
43-4081	Hotel, Motel, and Resort Desk Clerks	68.0	2	\$ 15,260	-9,840	110	1%	11
51-6011	Laundry and Dry-Cleaning Workers	68.0	2	\$ 14,070	-11,030	90	17%	15
49-3023	Automotive Specialty Technicians	67.9	3	\$ 24,780	-320	330	15%	40
43-4151	Order Clerks	67.6	2	\$ 19,150	-5,950	50	-9%	7
43-6014	Secretaries, Except Legal, Medical, and Executive	67.5	2	\$ 21,950	-3,150	910	-1%	55

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Medical and Clinical Laboratory Technicians

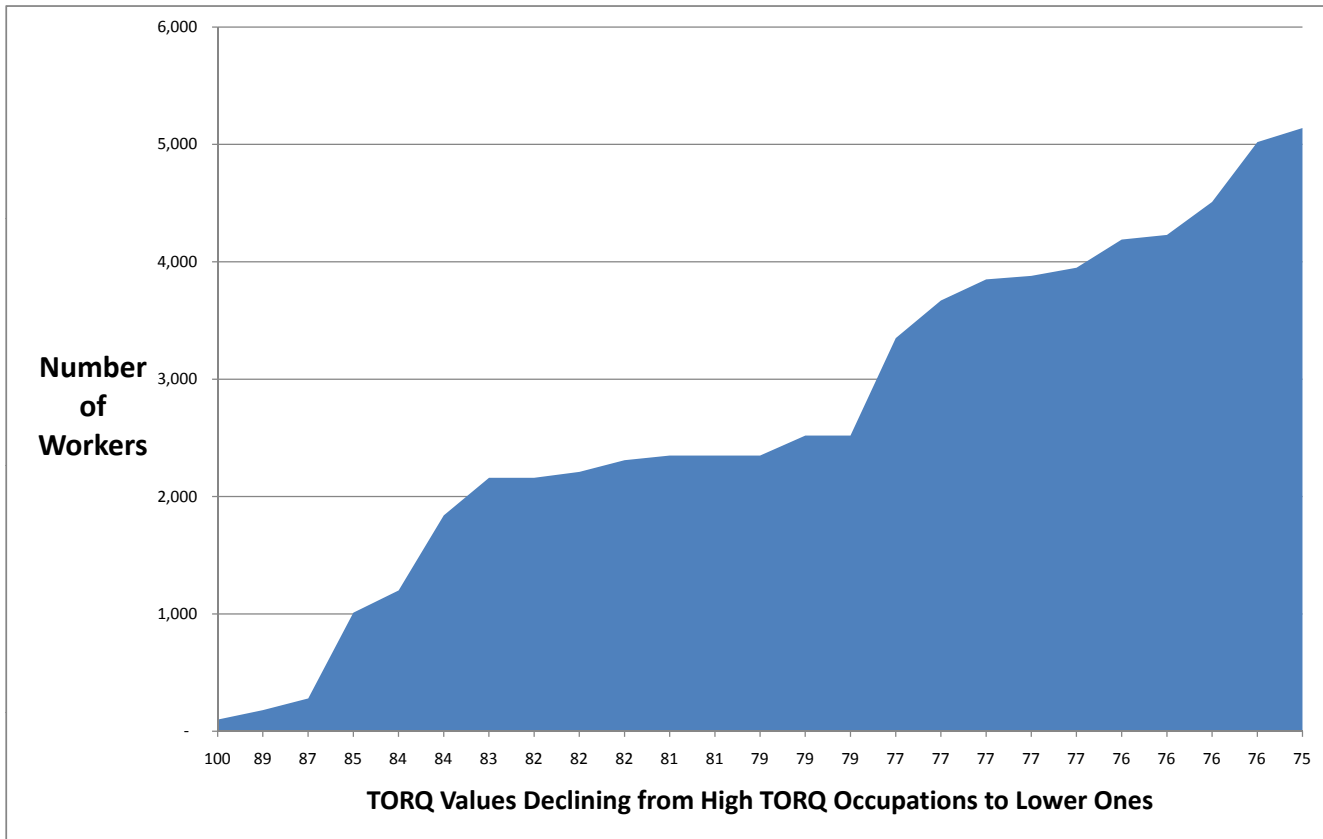


## Workforce Pool Potential for Radiologic Technicians

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Radiologic Technicians	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-2034	Radiologic Technicians	100.0	3	\$ 43,620	0	100	20%	13
29-1126	Respiratory Therapists	89.2	3	\$ 43,420	-200	80	42%	12
29-2034	Radiologic Technologists	87.3	3	\$ 43,620	0	100	20%	13
29-2061	Licensed Practical and Licensed Vocational Nurses	85.5	3	\$ 31,070	-12,550	730	12%	76
31-9092	Medical Assistants	84.5	3	\$ 22,870	-20,750	190	38%	32
31-1012	Nursing Aides, Orderlies, and Attendants	83.5	2	\$ 20,110	-23,510	640	19%	109
33-3051	Sheriffs and Deputy Sheriffs	83.0	3	\$ 33,430	-10,190	320	17%	49
33-3021	Immigration and Customs Inspectors	82.3	4	\$ 39,370	-4,250		2%	8
25-2032	Vocational Education Teachers, Secondary School	82.1	4	\$ 39,770	-3,850	50	23%	16
31-9091	Dental Assistants	81.6	2	\$ 29,200	-14,420	100	23%	11
39-1021	First-Line Supervisors/Managers of Personal Service Worker	80.9	3	\$ 19,220	-24,400	40		
33-3021	Police Identification and Records Officers	80.8	3	\$ 39,370	-4,250		2%	8
33-3021	Police Detectives	79.4	4	\$ 39,370	-4,250		2%	8
29-2012	Medical and Clinical Laboratory Technicians	79.1	2	\$ 25,100	-18,520	170	26%	13
33-3021	Criminal Investigators and Special Agents	79.1	4	\$ 39,370	-4,250		2%	8
31-1011	Home Health Aides	77.2	2	\$ 14,200	-29,420	830	50%	82
33-3051	Police Patrol Officers	77.1	3	\$ 33,430	-10,190	320	17%	49
29-2052	Pharmacy Technicians	77.0	2	\$ 23,250	-20,370	180		
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Serv	76.8	2	\$ 26,180	-17,440	30	52%	7
39-9032	Recreation Workers	76.7	4	\$ 17,590	-26,030	70	13%	15
21-1093	Social and Human Service Assistants	75.9	3	\$ 19,180	-24,440	240	18%	34
27-2022	Coaches and Scouts	75.8	5	\$ 17,940	-25,680	40	36%	8
43-5071	Shipping, Receiving, and Traffic Clerks	75.7	2	\$ 33,570	-10,050	280	8%	31
25-2022	Middle School Teachers, Except Special and Vocational Edu	75.6	4	\$ 38,250	-5,370	510	16%	51
49-9021	Refrigeration Mechanics and Installers	75.3	3	\$ 31,470	-12,150	120	8%	5

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Radiologic Technicians

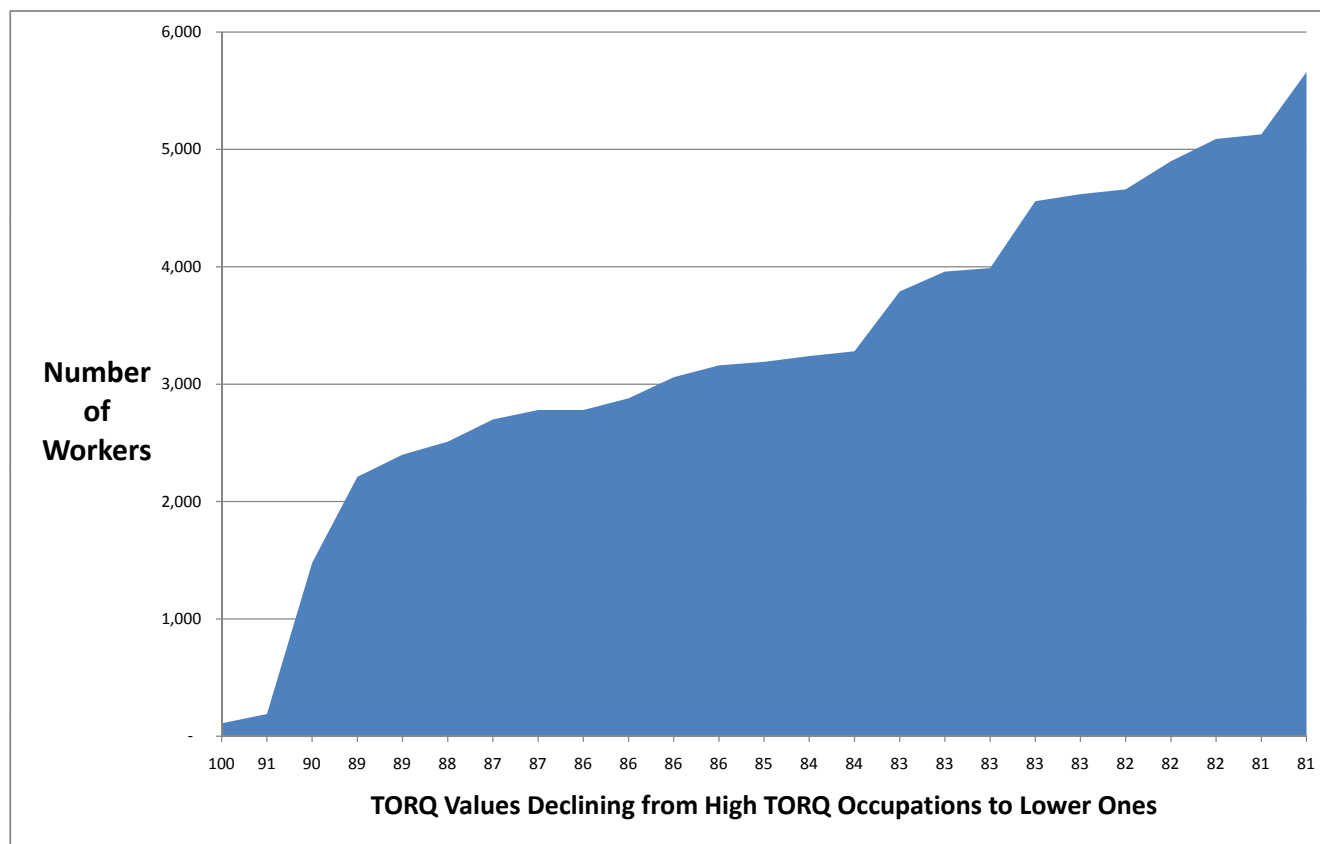


### Workforce Pool Potential for Pharmacists

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Pharmacists	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-1051	Pharmacists	100.0	5	\$ 98,170	0	110		
29-1126	Respiratory Therapists	91.2	3	\$ 43,420	-54,750	80	42%	12
29-1111	Registered Nurses	90.4	3	\$ 55,620	-42,550	1,290	28%	167
29-2061	Licensed Practical and Licensed Vocational Nurses	88.9	3	\$ 31,070	-67,100	730	12%	76
11-9111	Medical and Health Services Managers	88.7	5	\$ 67,520	-30,650	190	25%	21
29-1123	Physical Therapists	88.0	5	\$ 72,850	-25,320	110	27%	8
31-9092	Medical Assistants	87.2	3	\$ 22,870	-75,300	190	38%	32
29-1122	Occupational Therapists	87.0	4	\$ 72,400	-25,770	80	33%	9
29-1071	Physician Assistants	86.5	4	\$ 68,760	-29,410			
29-2034	Radiologic Technologists	86.2	3	\$ 43,620	-54,550	100	20%	13
29-2052	Pharmacy Technicians	85.8	2	\$ 23,250	-74,920	180		
29-2034	Radiologic Technicians	85.7	3	\$ 43,620	-54,550	100	20%	13
13-1031	Insurance Adjusters, Examiners, and Investigators	85.1	3	\$ 55,050	-43,120	30		
25-2032	Vocational Education Teachers, Secondary School	84.0	4	\$ 39,770	-58,400	50	23%	16
39-1021	First-Line Supervisors/Managers of Personal Service Worker	83.9	3	\$ 19,220	-78,950	40		
25-2022	Middle School Teachers, Except Special and Vocational Edu	83.3	4	\$ 38,250	-59,920	510	16%	51
29-2012	Medical and Clinical Laboratory Technicians	82.8	2	\$ 25,100	-73,070	170	26%	13
13-1031	Claims Examiners, Property and Casualty Insurance	82.8	3	\$ 55,050	-43,120	30		
43-1011	First-Line Supervisors/Managers of Office and Administrative	82.7	3	\$ 33,910	-64,260	570	9%	57
29-2021	Dental Hygienists	82.6	3	\$ 51,960	-46,210	60		
25-4021	Librarians	82.0	5	\$ 47,900	-50,270	40	21%	13
21-1093	Social and Human Service Assistants	81.9	3	\$ 19,180	-78,990	240	18%	34
41-3021	Insurance Sales Agents	81.6	3	\$ 30,610	-67,560	190	-2%	10
21-1022	Medical and Public Health Social Workers	81.5	5	\$ 43,590	-54,580	40	43%	7
25-2031	Secondary School Teachers, Except Special and Vocational	81.3	4	\$ 41,380	-56,790	530	15%	86

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Pharmacists

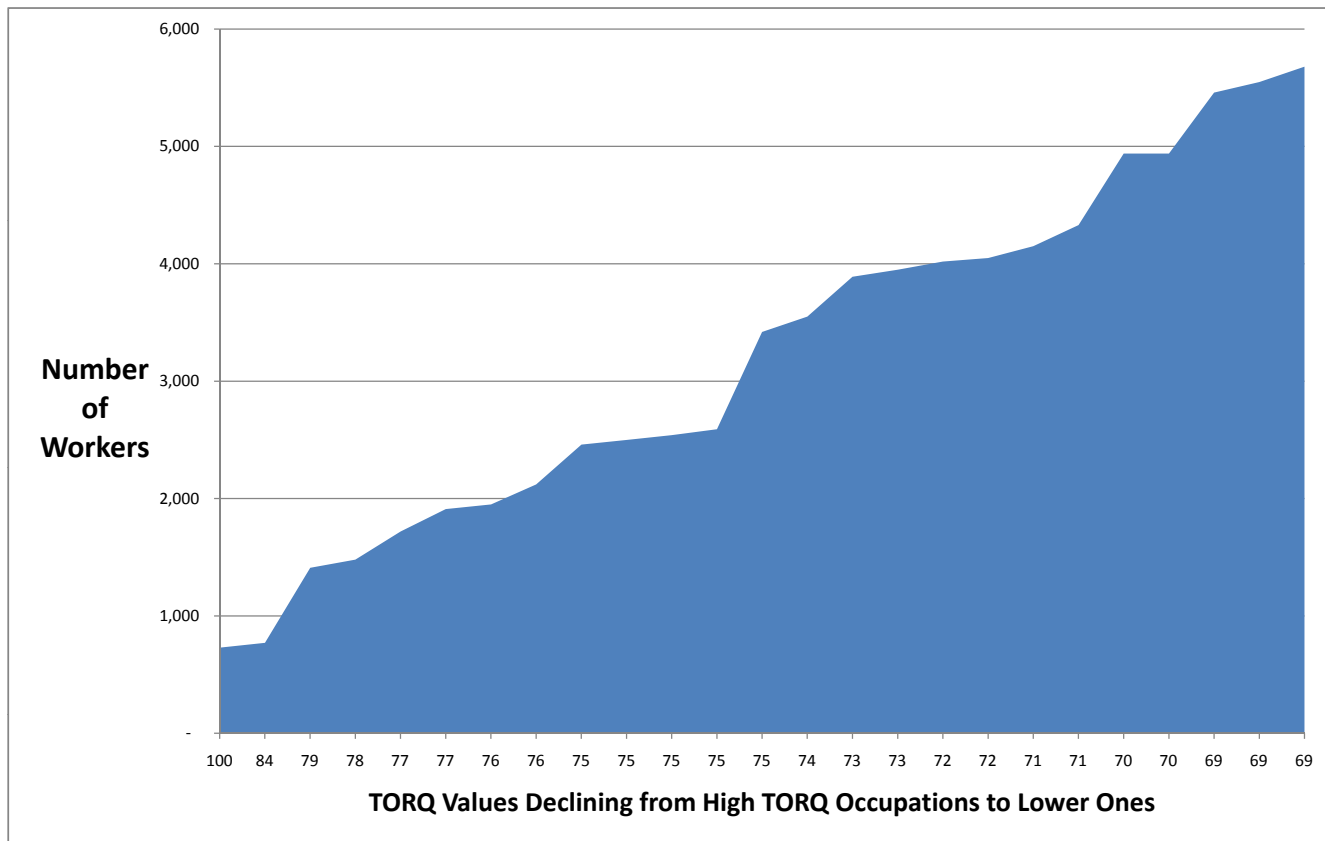


## Workforce Pool Potential for Licensed Practical and Licensed Vocational Nurses

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Licensed Practical and Licensed Vocational	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
29-2061	Licensed Practical and Licensed Vocational Nurses	100.0	3	\$ 31,070	0	730	12%	76
39-1021	First-Line Supervisors/Managers of Personal Service Worker	83.8	3	\$ 19,220	-11,850	40		
31-1012	Nursing Aides, Orderlies, and Attendants	79.5	2	\$ 20,110	-10,960	640	19%	109
39-9032	Recreation Workers	77.5	4	\$ 17,590	-13,480	70	13%	15
21-1093	Social and Human Service Assistants	76.9	3	\$ 19,180	-11,890	240	18%	34
31-9092	Medical Assistants	76.6	3	\$ 22,870	-8,200	190	38%	32
27-2022	Coaches and Scouts	76.4	5	\$ 17,940	-13,130	40	36%	8
29-2012	Medical and Clinical Laboratory Technicians	75.8	2	\$ 25,100	-5,970	170	26%	13
39-9011	Nannies	75.3	3	\$ 13,860	-17,210	340	26%	121
21-1015	Rehabilitation Counselors	75.2	4	\$ 30,740	-330	40	9%	3
21-1092	Probation Officers and Correctional Treatment Specialists	74.8	4	\$ 29,700	-1,370	40	44%	8
11-9151	Social and Community Service Managers	74.6	4	\$ 27,010	-4,060	50	5%	4
31-1011	Home Health Aides	74.5	2	\$ 14,200	-16,870	830	50%	82
25-2011	Preschool Teachers, Except Special Education	74.2	3	\$ 16,170	-14,900	130	39%	26
39-9011	Child Care Workers	73.5	2	\$ 13,860	-17,210	340	26%	121
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and M	73.0	3	\$ 30,700	-370	60	25%	17
21-1021	Child, Family, and School Social Workers	72.3	5	\$ 29,220	-1,850	70	23%	16
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	71.6	2	\$ 26,180	-4,890	30	52%	7
31-9091	Dental Assistants	71.3	2	\$ 29,200	-1,870	100	23%	11
29-2052	Pharmacy Technicians	71.1	2	\$ 23,250	-7,820	180		
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	70.2	2	\$ 28,930	-2,140	610	7%	74
25-3021	Self-Enrichment Education Teachers	70.1	3	\$ 25,800	-5,270		40%	7
43-4051	Customer Service Representatives	69.4	2	\$ 23,940	-7,130	520	23%	73
43-4111	Interviewers, Except Eligibility and Loan	69.1	3	\$ 21,400	-9,670	90	18%	13
33-9032	Security Guards	69.0	2	\$ 22,050	-9,020	130	3%	18

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Licensed Practical and Licensed Vocational Nurses

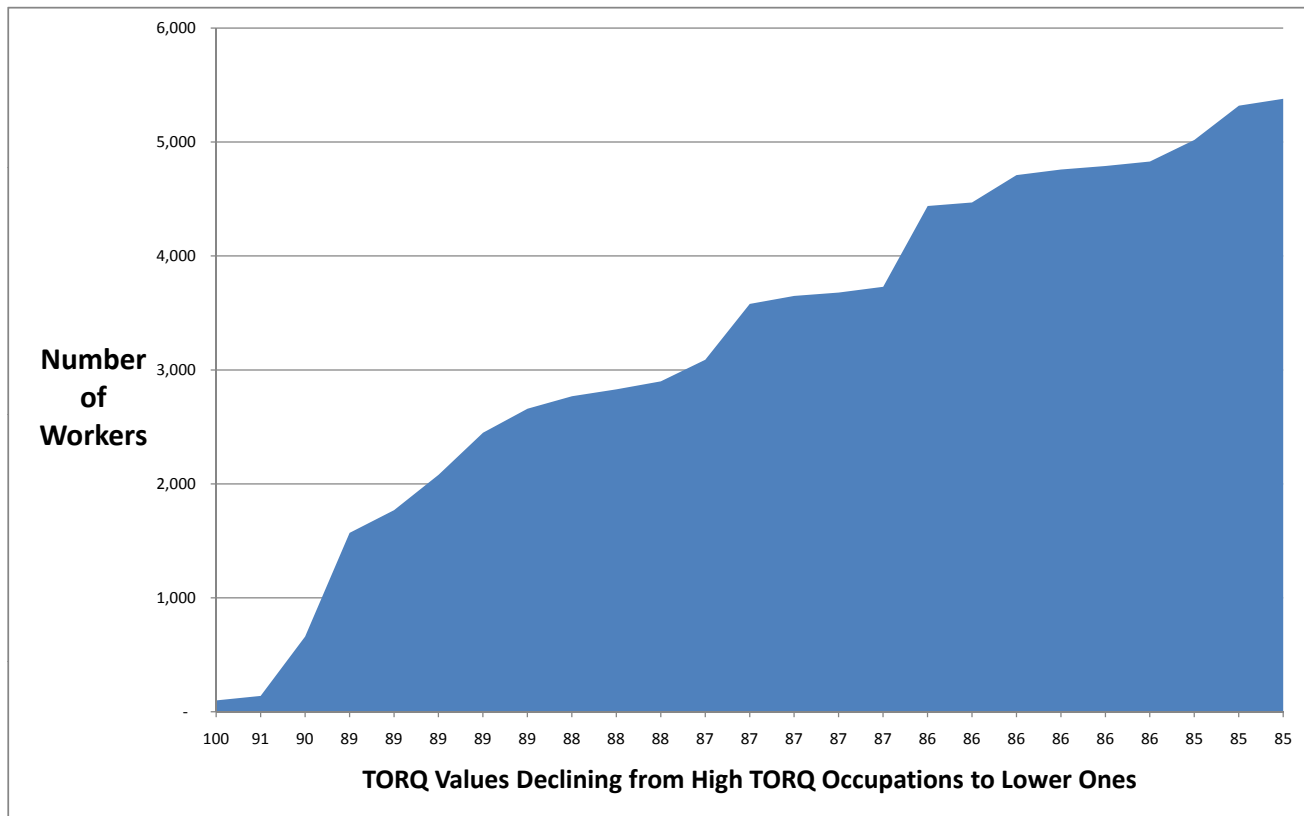


## Workforce Pool Potential for Medical Records and Health Information Technicians

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Medical Records and Health Information	Total Texarkana MSA Employment		
29-2071	Medical Records and Health Information Technicians					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
O*NET Code	Occupational Title							
29-2071	Medical Records and Health Information Technicians	100.0	3	\$ 32,460	0	100	28%	7
43-4161	Human Resources Assistants, Except Payroll and Timekeepi	90.6	3	\$ 27,510	-4,950	40	5%	8
43-4051	Customer Service Representatives	90.3	2	\$ 23,940	-8,520	520	23%	73
43-6014	Secretaries, Except Legal, Medical, and Executive	89.5	2	\$ 21,950	-10,510	910	-1%	55
43-3011	Bill and Account Collectors	89.3	3	\$ 24,390	-8,070	200	31%	20
43-3021	Billing, Cost, and Rate Clerks	89.3	3	\$ 24,690	-7,770	310	4%	20
43-6011	Executive Secretaries and Administrative Assistants	89.0	3	\$ 29,350	-3,110	370	14%	47
43-4071	File Clerks	88.8	3	\$ 20,340	-12,120	210	-33%	7
43-4081	Hotel, Motel, and Resort Desk Clerks	88.3	2	\$ 15,260	-17,200	110	1%	11
43-9021	Data Entry Keyers	88.0	2	\$ 23,250	-9,210	60	8%	10
43-6013	Medical Secretaries	87.8	2	\$ 27,660	-4,800	70	19%	12
31-9092	Medical Assistants	87.3	3	\$ 22,870	-9,590	190	38%	32
43-4171	Receptionists and Information Clerks	87.1	2	\$ 18,700	-13,760	490	18%	55
39-9032	Recreation Workers	86.9	4	\$ 17,590	-14,870	70	13%	15
43-9041	Insurance Claims Clerks	86.8	2	\$ 26,840	-5,620	30	-2%	1
11-9151	Social and Community Service Managers	86.6	4	\$ 27,010	-5,450	50	5%	4
43-9061	Office Clerks, General	86.4	2	\$ 20,030	-12,430	710	7%	112
43-4031	License Clerks	86.1	2	\$ 26,610	-5,850	30	7%	5
21-1093	Social and Human Service Assistants	86.1	3	\$ 19,180	-13,280	240	18%	34
43-5032	Dispatchers, Except Police, Fire, and Ambulance	86.1	2	\$ 30,140	-2,320	50	3%	8
43-4031	Municipal Clerks	85.6	3	\$ 26,610	-5,850	30	7%	5
39-1021	First-Line Supervisors/Managers of Personal Service Worker	85.6	3	\$ 19,220	-13,240	40		
41-3021	Insurance Sales Agents	85.3	3	\$ 30,610	-1,850	190	-2%	10
41-2022	Parts Salespersons	85.3	2	\$ 28,500	-3,960	300	-3%	13
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and M	84.8	3	\$ 30,700	-1,760	60	25%	17

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Medical Records and Health Information Technicians**

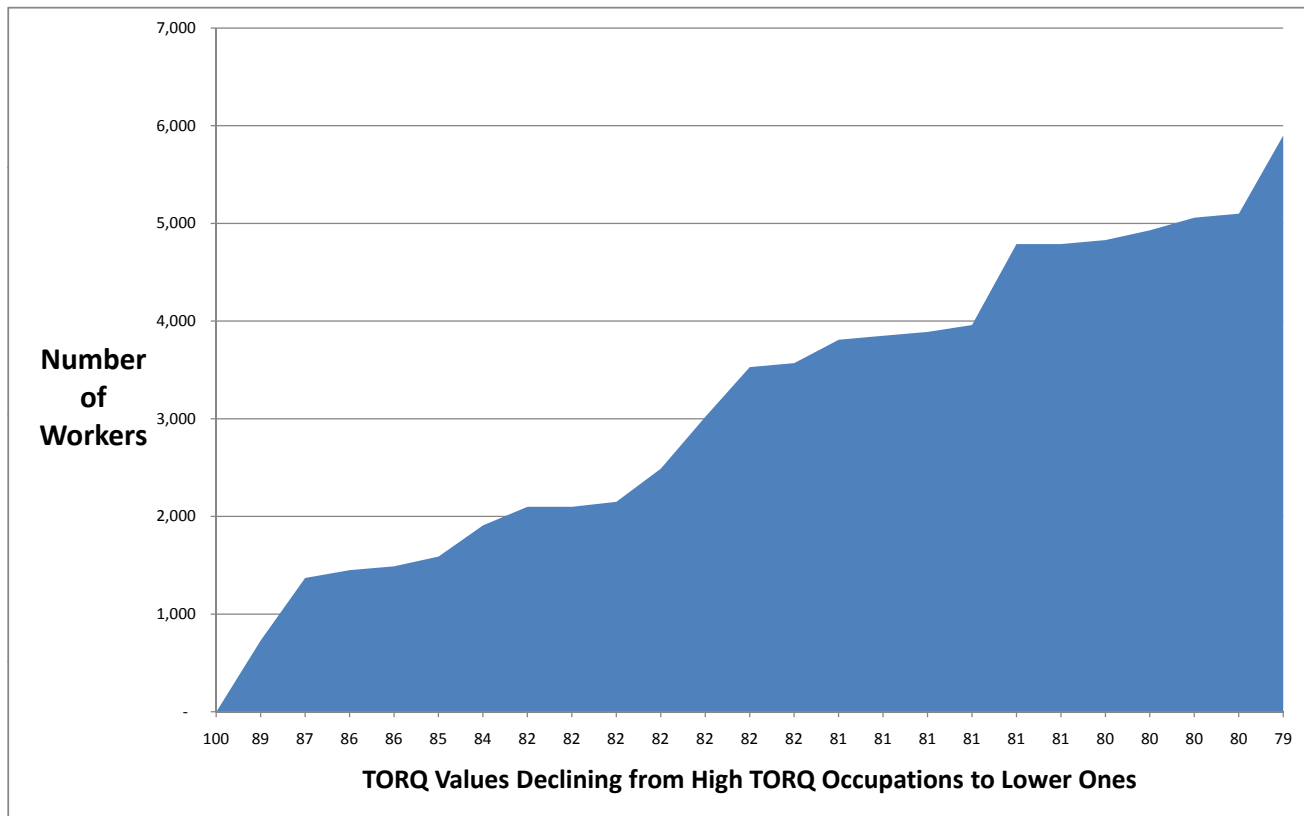


## Workforce Pool Potential for Physical Therapist Assistants

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Physical Therapist Assistants	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
31-2021	Physical Therapist Assistants							
31-2021	Physical Therapist Assistants	100.0	3	\$ 48,190	0		55%	8
29-2061	Licensed Practical and Licensed Vocational Nurses	88.6	3	\$ 31,070	-17,120	730	12%	76
31-1012	Nursing Aides, Orderlies, and Attendants	86.7	2	\$ 20,110	-28,080	640	19%	109
29-1126	Respiratory Therapists	86.0	3	\$ 43,420	-4,770	80	42%	12
39-1021	First-Line Supervisors/Managers of Personal Service Worker	85.9	3	\$ 19,220	-28,970	40		
29-2034	Radiologic Technicians	85.2	3	\$ 43,620	-4,570	100	20%	13
33-3051	Sheriffs and Deputy Sheriffs	84.3	3	\$ 33,430	-14,760	320	17%	49
31-9092	Medical Assistants	82.5	3	\$ 22,870	-25,320	190	38%	32
33-3021	Police Detectives	82.2	4	\$ 39,370	-8,820		2%	8
25-2032	Vocational Education Teachers, Secondary School	82.0	4	\$ 39,770	-8,420	50	23%	16
39-9011	Nannies	81.9	3	\$ 13,860	-34,330	340	26%	121
25-2031	Secondary School Teachers, Except Special and Vocational	81.7	4	\$ 41,380	-6,810	530	15%	86
25-2022	Middle School Teachers, Except Special and Vocational Edu	81.6	4	\$ 38,250	-9,940	510	16%	51
27-2022	Coaches and Scouts	81.6	5	\$ 17,940	-30,250	40	36%	8
21-1093	Social and Human Service Assistants	81.3	3	\$ 19,180	-29,010	240	18%	34
21-1022	Medical and Public Health Social Workers	81.2	5	\$ 43,590	-4,600	40	43%	7
21-1092	Probation Officers and Correctional Treatment Specialists	81.2	4	\$ 29,700	-18,490	40	44%	8
39-9032	Recreation Workers	81.0	4	\$ 17,590	-30,600	70	13%	15
31-1011	Home Health Aides	80.9	2	\$ 14,200	-33,990	830	50%	82
33-3021	Immigration and Customs Inspectors	80.6	4	\$ 39,370	-8,820		2%	8
25-2012	Kindergarten Teachers, Except Special Education	80.3	4	\$ 38,830	-9,360	40	19%	10
29-2034	Radiologic Technologists	79.8	3	\$ 43,620	-4,570	100	20%	13
25-2011	Preschool Teachers, Except Special Education	79.6	3	\$ 16,170	-32,020	130	39%	26
21-1015	Rehabilitation Counselors	79.6	4	\$ 30,740	-17,450	40	9%	3
25-2021	Elementary School Teachers, Except Special Education	79.4	4	\$ 37,310	-10,880	800	17%	117

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Physical Therapist Assistants**

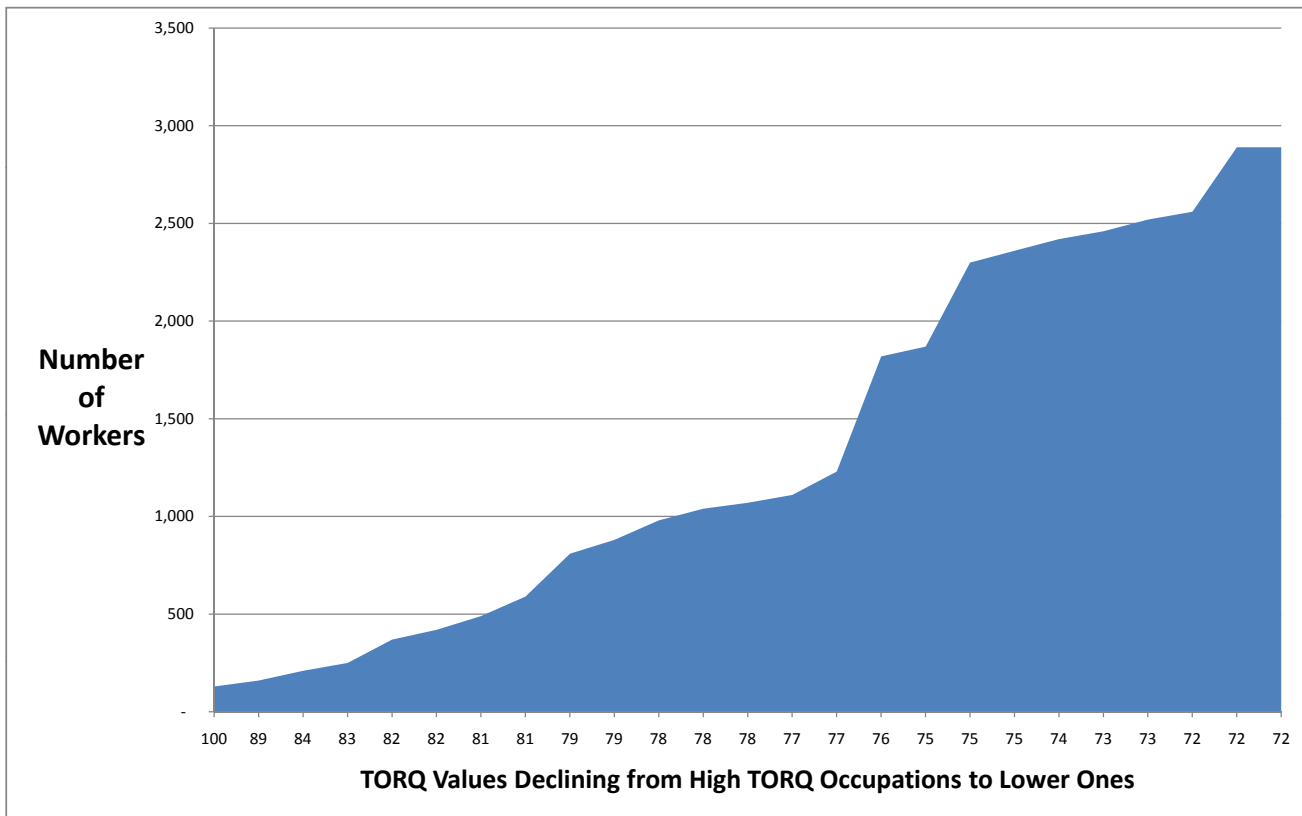


## Workforce Pool Potential for First-Line Supervisors/Managers of Construction Trades and Extraction Workers

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from First-Line Supervisors/Managers of Construction	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
47-1011	First-Line Supervisors/Managers of Construction Trades and	100.0	3	\$ 44,770	0	130	17%	25
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	88.5	2	\$ 26,180	-18,590	30	52%	7
47-4011	Construction and Building Inspectors	83.8	3	\$ 36,970	-7,800	50	3%	1
47-2081	Drywall and Ceiling Tile Installers	82.7	2	\$ 29,120	-15,650	40	43%	7
49-9021	Refrigeration Mechanics and Installers	82.4	3	\$ 31,470	-13,300	120	8%	5
25-2032	Vocational Education Teachers, Secondary School	81.8	4	\$ 39,770	-5,000	50	23%	16
47-2152	Pipe Fitters and Steamfitters	81.4	3	\$ 33,750	-11,020	70	4%	12
47-2031	Construction Carpenters	81.1	3	\$ 30,230	-14,540	100	7%	15
47-2111	Electricians	79.4	3	\$ 37,680	-7,090	220	11%	27
47-2152	Plumbers	78.9	3	\$ 33,750	-11,020	70	4%	12
47-2031	Rough Carpenters	78.4	2	\$ 30,230	-14,540	100	7%	15
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitc	78.1	3	\$ 25,840	-18,930	60	7%	10
49-9012	Control and Valve Installers and Repairers, Except Mechanic	77.6	3	\$ 43,230	-1,540	30	-7%	1
47-2211	Sheet Metal Workers	76.9	2	\$ 35,160	-9,610	40	22%	15
49-9021	Heating and Air Conditioning Mechanics and Installers	76.7	3	\$ 31,470	-13,300	120	8%	5
49-9042	Maintenance and Repair Workers, General	75.6	3	\$ 23,160	-21,610	590	15%	73
17-3022	Civil Engineering Technicians	74.9	3	\$ 32,130	-12,640	50		
47-2061	Construction Laborers	74.7	1	\$ 19,640	-25,130	430	10%	25
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and M	74.5	3	\$ 30,700	-14,070	60	25%	17
13-1051	Cost Estimators	74.5	4	\$ 40,380	-4,390	60	32%	6
47-3013	Helpers-Electricians	73.4	2	\$ 19,050	-25,720	40		
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operator	72.7	2	\$ 35,860	-8,910	60	2%	9
51-3011	Bakers	72.5	2	\$ 17,130	-27,640	40	3%	7
49-3023	Automotive Specialty Technicians	72.3	3	\$ 24,780	-19,990	330	15%	40
33-3021	Criminal Investigators and Special Agents	72.3	4	\$ 39,370	-5,400		2%	8

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for First-Line Supervisors/Managers of Construction Trades and Extraction Workers

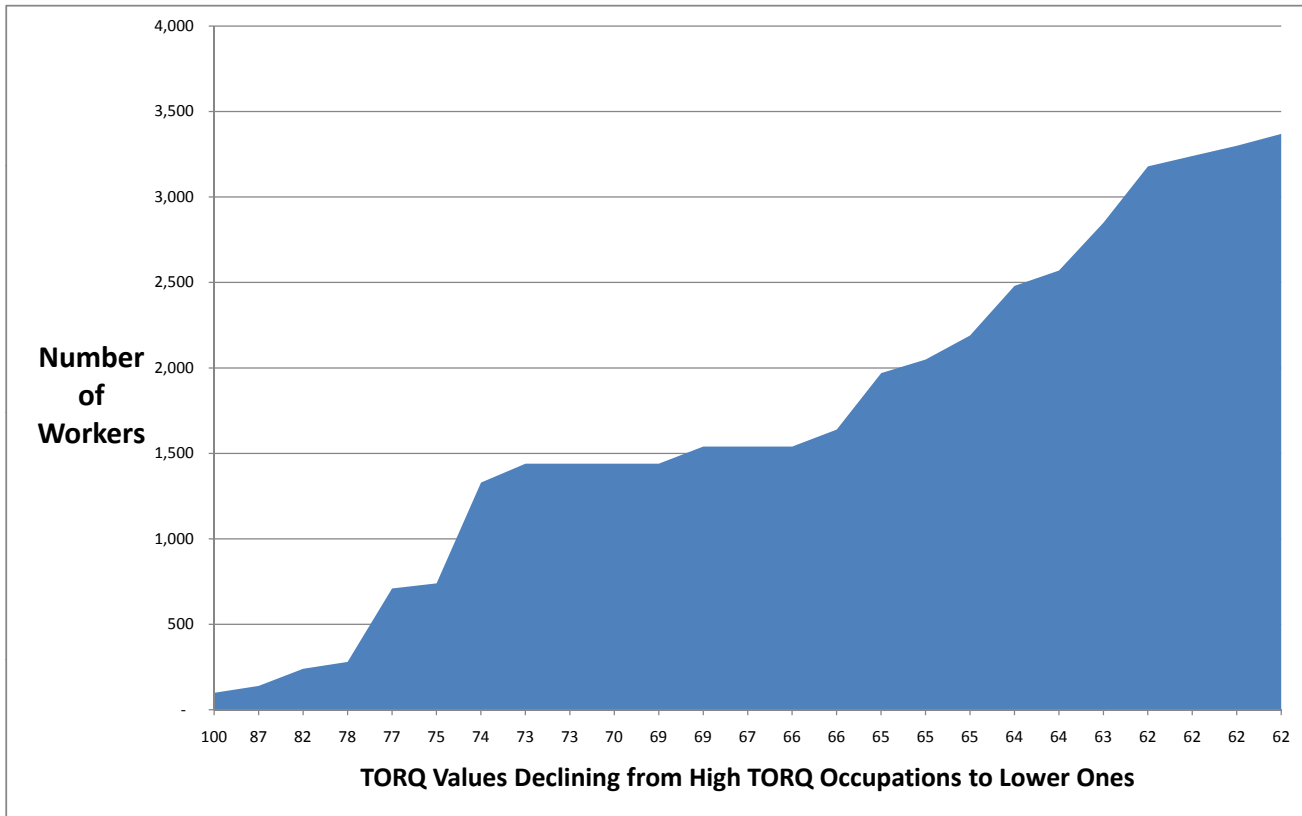


## Workforce Pool Potential for Construction Carpenters

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Construction Carpenters	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
47-2031	Construction Carpenters	100.0	3	\$ 30,230	0	100	7%	15
47-2081	Drywall and Ceiling Tile Installers	87.4	2	\$ 29,120	-1,110	40	43%	7
47-2031	Rough Carpenters	81.5	2	\$ 30,230	0	100	7%	15
47-3013	Helpers--Electricians	77.9	2	\$ 19,050	-11,180	40		
47-2061	Construction Laborers	77.0	1	\$ 19,640	-10,590	430	10%	25
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	75.4	2	\$ 26,180	-4,050	30	52%	7
49-9042	Maintenance and Repair Workers, General	73.9	3	\$ 23,160	-7,070	590	15%	73
47-2051	Cement Masons and Concrete Finishers	73.2	3	\$ 26,320	-3,910	110	23%	13
49-9098	Helpers--Installation, Maintenance, and Repair Workers	72.5	2	\$ 20,290	-9,940		25%	19
47-2121	Glaziers	69.5	2	\$ 27,600	-2,630			
45-2092	Nursery Workers	69.1	1	\$ 17,220	-13,010			
47-2073	Operating Engineers and Other Construction Equipment Ope	68.7	3	\$ 26,600	-3,630	100	9%	32
51-2041	Structural Metal Fabricators and Fitters	66.9	3	\$ 26,130	-4,100		13%	12
49-2098	Security and Fire Alarm Systems Installers	66.1	3	\$ 29,750	-480			
51-2092	Team Assemblers	66.1	2	\$ 20,070	-10,160	100	20%	116
49-3023	Automotive Specialty Technicians	65.3	3	\$ 24,780	-5,450	330	15%	40
49-3093	Tire Repairers and Changers	64.9	1	\$ 17,800	-12,430	80		
53-7061	Cleaners of Vehicles and Equipment	64.7	1	\$ 14,390	-15,840	140	16%	44
37-3011	Landscaping and Groundskeeping Workers	63.8	1	\$ 16,910	-13,320	290	9%	28
51-9111	Packaging and Filling Machine Operators and Tenders	63.6	2	\$ 24,120	-6,110	90	4%	31
53-7051	Industrial Truck and Tractor Operators	62.7	2	\$ 26,170	-4,060	280	6%	45
49-3023	Automotive Master Mechanics	62.3	3	\$ 24,780	-5,450	330	15%	40
53-6031	Service Station Attendants	61.7	1	\$ 20,260	-9,970	60	3%	7
51-8031	Water and Liquid Waste Treatment Plant and System Operat	61.6	3	\$ 24,360	-5,870	60	0%	8
51-9121	Coating, Painting, and Spraying Machine Setters, Operators,	61.5	2	\$ 29,530	-700	70	6%	8

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Construction Carpenters**

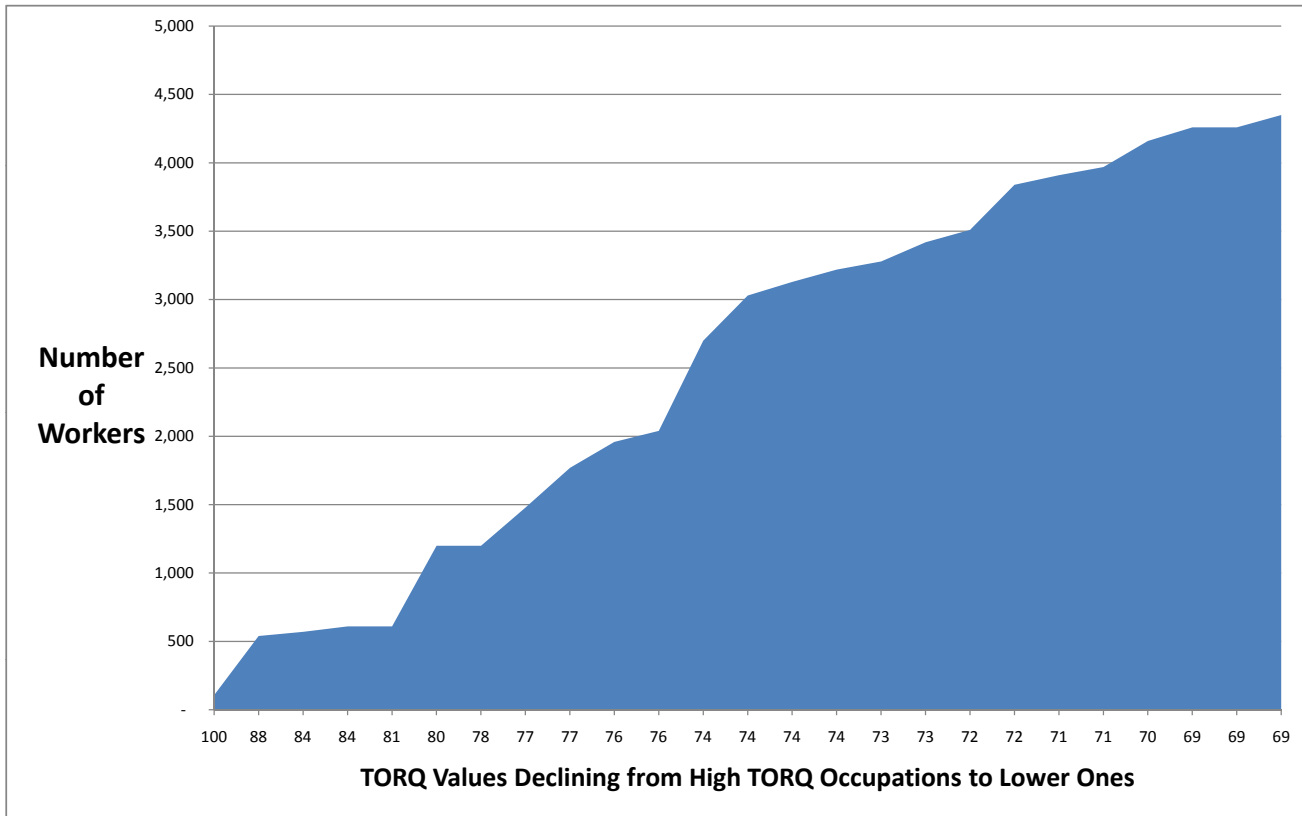


## Workforce Pool Potential for Cement Masons and Concrete Finishers

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Cement Masons and Concrete Finishers	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
47-2051	Cement Masons and Concrete Finishers	100.0	3	\$ 26,320	0	110	23%	13
47-2061	Construction Laborers	88.0	1	\$ 19,640	-6,680	430	10%	25
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Serv	84.4	2	\$ 26,180	-140	30	52%	7
47-3013	Helpers--Electricians	83.8	2	\$ 19,050	-7,270	40		
49-9098	Helpers--Installation, Maintenance, and Repair Workers	80.8	2	\$ 20,290	-6,030		25%	19
49-9042	Maintenance and Repair Workers, General	80.0	3	\$ 23,160	-3,160	590	15%	73
45-2092	Nursery Workers	78.3	1	\$ 17,220	-9,100			
53-7051	Industrial Truck and Tractor Operators	77.5	2	\$ 26,170	-150	280	6%	45
37-3011	Landscaping and Groundskeeping Workers	77.3	1	\$ 16,910	-9,410	290	9%	28
51-9198	Helpers--Production Workers	76.5	1	\$ 17,970	-8,350	190	18%	114
49-3093	Tire Repairers and Changers	76.0	1	\$ 17,800	-8,520	80		
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Clea	74.2	1	\$ 15,370	-10,950	660	20%	121
49-3023	Automotive Specialty Technicians	74.2	3	\$ 24,780	-1,540	330	15%	40
51-2092	Team Assemblers	74.1	2	\$ 20,070	-6,250	100	20%	116
53-7063	Machine Feeders and Offbearers	73.9	2	\$ 25,250	-1,070	90	-9%	22
53-6031	Service Station Attendants	73.3	1	\$ 20,260	-6,060	60	3%	7
53-7061	Cleaners of Vehicles and Equipment	73.1	1	\$ 14,390	-11,930	140	16%	44
51-9111	Packaging and Filling Machine Operators and Tenders	72.2	2	\$ 24,120	-2,200	90	4%	31
49-3023	Automotive Master Mechanics	71.9	3	\$ 24,780	-1,540	330	15%	40
53-7081	Refuse and Recyclable Material Collectors	70.7	2	\$ 24,200	-2,120	70	15%	10
51-8031	Water and Liquid Waste Treatment Plant and System Operat	70.7	3	\$ 24,360	-1,960	60	0%	8
53-7064	Packers and Packagers, Hand	70.2	1	\$ 18,430	-7,890	190	10%	31
53-3031	Driver/Sales Workers	69.4	1	\$ 20,580	-5,740	100	6%	15
51-2041	Structural Metal Fabricators and Fitters	69.3	3	\$ 26,130	-190		13%	12
51-6011	Laundry and Dry-Cleaning Workers	69.0	2	\$ 14,070	-12,250	90	17%	15

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Cement Masons and Concrete Finishers**

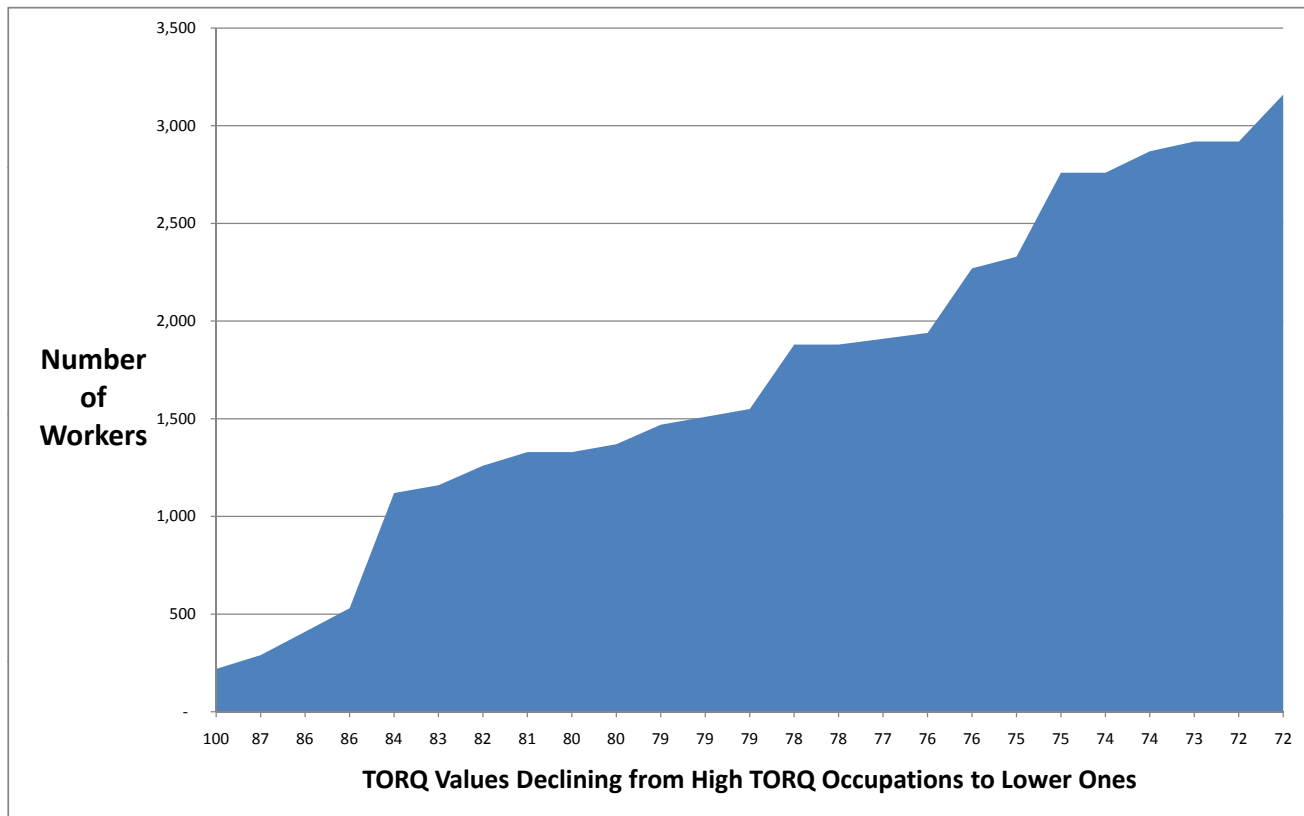


## Workforce Pool Potential for Electricians

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Electricians	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
47-2111	Electricians	100.0	3	\$ 37,680	0	220	11%	27
47-2152	Plumbers	87.3	3	\$ 33,750	-3,930	70	4%	12
49-9021	Refrigeration Mechanics and Installers	86.1	3	\$ 31,470	-6,210	120	8%	5
49-9021	Heating and Air Conditioning Mechanics and Installers	86.0	3	\$ 31,470	-6,210	120	8%	5
49-9042	Maintenance and Repair Workers, General	84.2	3	\$ 23,160	-14,520	590	15%	73
47-3013	Helpers--Electricians	83.1	2	\$ 19,050	-18,630	40		
47-2031	Rough Carpenters	81.7	2	\$ 30,230	-7,450	100	7%	15
47-2152	Pipe Fitters and Steamfitters	80.9	3	\$ 33,750	-3,930	70	4%	12
49-9098	Helpers--Installation, Maintenance, and Repair Workers	79.9	2	\$ 20,290	-17,390		25%	19
47-2081	Drywall and Ceiling Tile Installers	79.8	2	\$ 29,120	-8,560	40	43%	7
47-2031	Construction Carpenters	79.4	3	\$ 30,230	-7,450	100	7%	15
49-3021	Automotive Body and Related Repairers	79.3	2	\$ 31,420	-6,260	40	22%	15
47-2211	Sheet Metal Workers	78.7	2	\$ 35,160	-2,520	40	22%	15
49-3023	Automotive Master Mechanics	77.8	3	\$ 24,780	-12,900	330	15%	40
49-2098	Security and Fire Alarm Systems Installers	77.8	3	\$ 29,750	-7,930			
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Serv	76.8	2	\$ 26,180	-11,500	30	52%	7
49-3052	Motorcycle Mechanics	76.3	3	\$ 31,020	-6,660	30		
49-3023	Automotive Specialty Technicians	76.3	3	\$ 24,780	-12,900	330	15%	40
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operator	75.4	2	\$ 35,860	-1,820	60	2%	9
47-2061	Construction Laborers	74.8	1	\$ 19,640	-18,040	430	10%	25
47-2121	Glaziers	74.1	2	\$ 27,600	-10,080			
47-2051	Cement Masons and Concrete Finishers	73.8	3	\$ 26,320	-11,360	110	23%	13
47-4011	Construction and Building Inspectors	73.0	3	\$ 36,970	-710	50	3%	1
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	72.1	3	\$ 35,610	-2,070		18%	18
51-4121	Welders, Cutters, and Welder Fitters	71.6	2	\$ 31,160	-6,520	240	14%	64

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Electricians

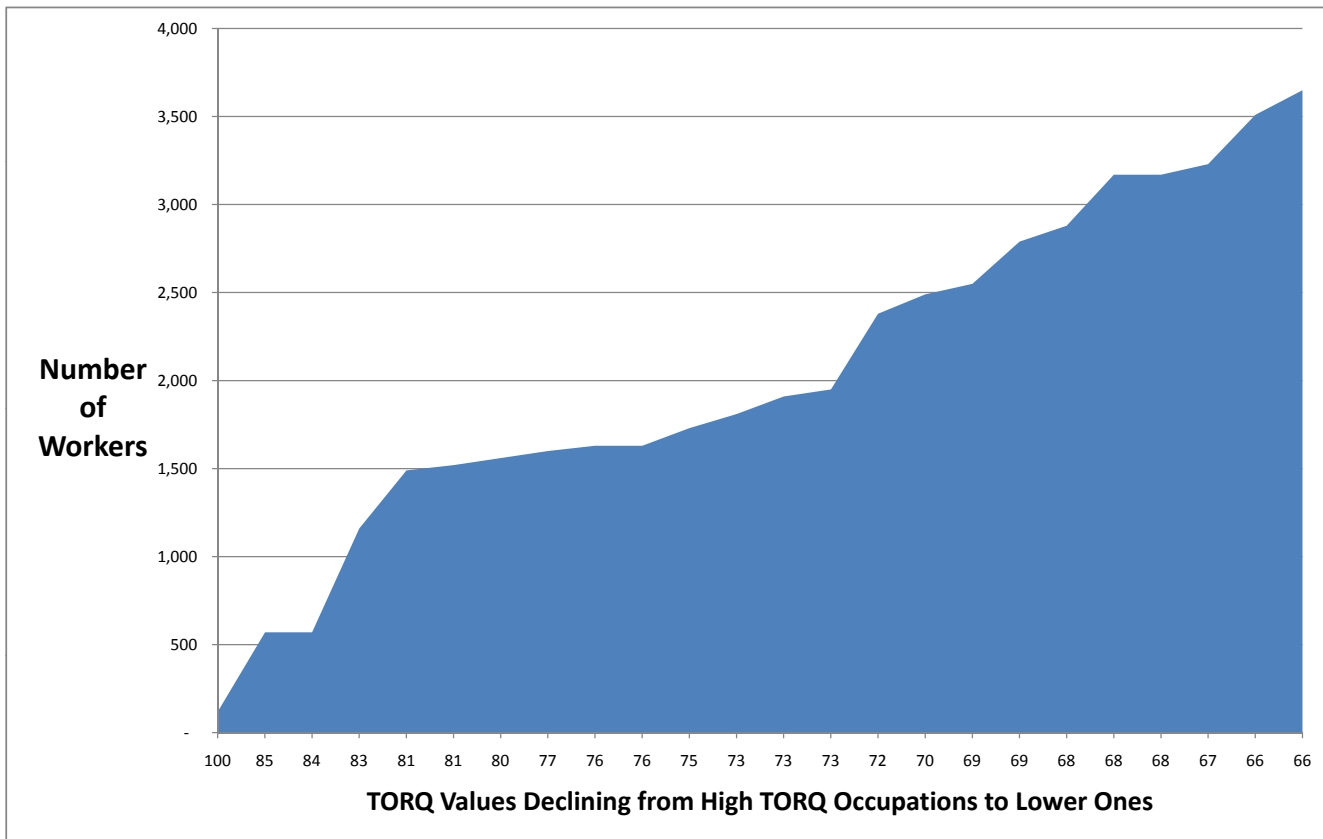


## Workforce Pool Potential for Heating and Air Conditioning Mechanics and Installers

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Heating and Air Conditioning Mechanics and Installers	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
49-9021	Heating and Air Conditioning Mechanics and Installers	100.0	3	\$ 31,470	0	120	8%	5
49-3023	Automotive Specialty Technicians	84.7	3	\$ 24,780	-6,690	330	15%	40
49-9098	Helpers--Installation, Maintenance, and Repair Workers	83.8	2	\$ 20,290	-11,180		25%	19
49-9042	Maintenance and Repair Workers, General	83.5	3	\$ 23,160	-8,310	590	15%	73
49-3023	Automotive Master Mechanics	81.4	3	\$ 24,780	-6,690	330	15%	40
49-3052	Motorcycle Mechanics	81.3	3	\$ 31,020	-450	30		
49-3021	Automotive Body and Related Repairers	80.4	2	\$ 31,420	-50	40	22%	15
47-3013	Helpers--Electricians	76.9	2	\$ 19,050	-12,420	40		
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	76.3	2	\$ 26,180	-5,290	30	52%	7
49-2098	Security and Fire Alarm Systems Installers	76.1	3	\$ 29,750	-1,720			
47-2031	Rough Carpenters	74.8	2	\$ 30,230	-1,240	100	7%	15
49-3093	Tire Repairers and Changers	73.4	1	\$ 17,800	-13,670	80		
47-2031	Construction Carpenters	73.1	3	\$ 30,230	-1,240	100	7%	15
47-2081	Drywall and Ceiling Tile Installers	72.7	2	\$ 29,120	-2,350	40	43%	7
47-2061	Construction Laborers	71.9	1	\$ 19,640	-11,830	430	10%	25
47-2051	Cement Masons and Concrete Finishers	70.3	3	\$ 26,320	-5,150	110	23%	13
51-8031	Water and Liquid Waste Treatment Plant and System Operat	69.1	3	\$ 24,360	-7,110	60	0%	8
51-4121	Welders, Cutters, and Welder Fitters	68.7	2	\$ 31,160	-310	240	14%	64
51-9111	Packaging and Filling Machine Operators and Tenders	68.1	2	\$ 24,120	-7,350	90	4%	31
37-3011	Landscaping and Groundskeeping Workers	67.8	1	\$ 16,910	-14,560	290	9%	28
47-2121	Glaziers	67.7	2	\$ 27,600	-3,870			
53-6031	Service Station Attendants	66.7	1	\$ 20,260	-11,210	60	3%	7
53-7051	Industrial Truck and Tractor Operators	65.9	2	\$ 26,170	-5,300	280	6%	45
53-7061	Cleaners of Vehicles and Equipment	65.7	1	\$ 14,390	-17,080	140	16%	44

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Heating and Air Conditioning Mechanics and Installers**

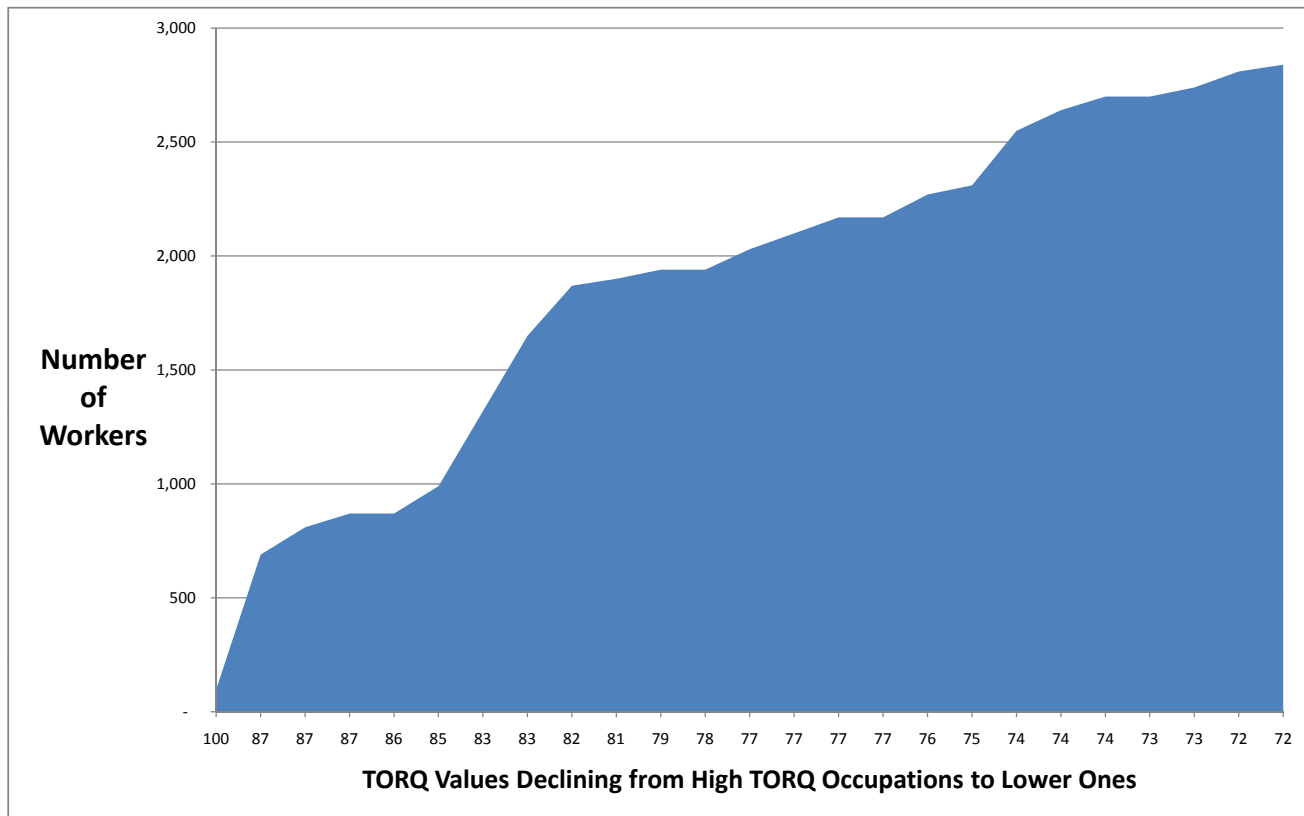


## Workforce Pool Potential for Industrial Machinery Mechanics

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Industrial Machinery Mechanics	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
49-9041	Industrial Machinery Mechanics	100.0	3	\$ 43,040	0	100	11%	36
49-9042	Maintenance and Repair Workers, General	87.2	3	\$ 23,160	-19,880	590	15%	73
49-9021	Heating and Air Conditioning Mechanics and Installers	86.9	3	\$ 31,470	-11,570	120	8%	5
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operator	86.5	2	\$ 35,860	-7,180	60	2%	9
49-9098	Helpers--Installation, Maintenance, and Repair Workers	86.0	2	\$ 20,290	-22,750		25%	19
49-9021	Refrigeration Mechanics and Installers	84.5	3	\$ 31,470	-11,570	120	8%	5
49-3023	Automotive Specialty Technicians	83.5	3	\$ 24,780	-18,260	330	15%	40
49-3023	Automotive Master Mechanics	82.6	3	\$ 24,780	-18,260	330	15%	40
47-2111	Electricians	81.6	3	\$ 37,680	-5,360	220	11%	27
49-3052	Motorcycle Mechanics	81.2	3	\$ 31,020	-12,020	30		
49-3021	Automotive Body and Related Repairers	79.3	2	\$ 31,420	-11,620	40	22%	15
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	77.8	3	\$ 35,610	-7,430		18%	18
51-4041	Machinists	77.4	3	\$ 33,740	-9,300	90	12%	24
47-2152	Plumbers	77.2	3	\$ 33,750	-9,290	70	4%	12
47-2152	Pipe Fitters and Steamfitters	77.1	3	\$ 33,750	-9,290	70	4%	12
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Ten	76.8	2	\$ 34,450	-8,590			
47-2031	Rough Carpenters	76.1	2	\$ 30,230	-12,810	100	7%	15
47-3013	Helpers--Electricians	75.3	2	\$ 19,050	-23,990	40		
51-4121	Welders, Cutters, and Welder Fitters	74.0	2	\$ 31,160	-11,880	240	14%	64
51-9111	Packaging and Filling Machine Operators and Tenders	73.6	2	\$ 24,120	-18,920	90	4%	31
51-8031	Water and Liquid Waste Treatment Plant and System Operat	73.5	3	\$ 24,360	-18,680	60	0%	8
49-2098	Security and Fire Alarm Systems Installers	73.4	3	\$ 29,750	-13,290			
47-2211	Sheet Metal Workers	73.2	2	\$ 35,160	-7,880	40	22%	15
51-9121	Coating, Painting, and Spraying Machine Setters, Operators,	72.0	2	\$ 29,530	-13,510	70	6%	8
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Serv	71.8	2	\$ 26,180	-16,860	30	52%	7

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Industrial Machinery Mechanics

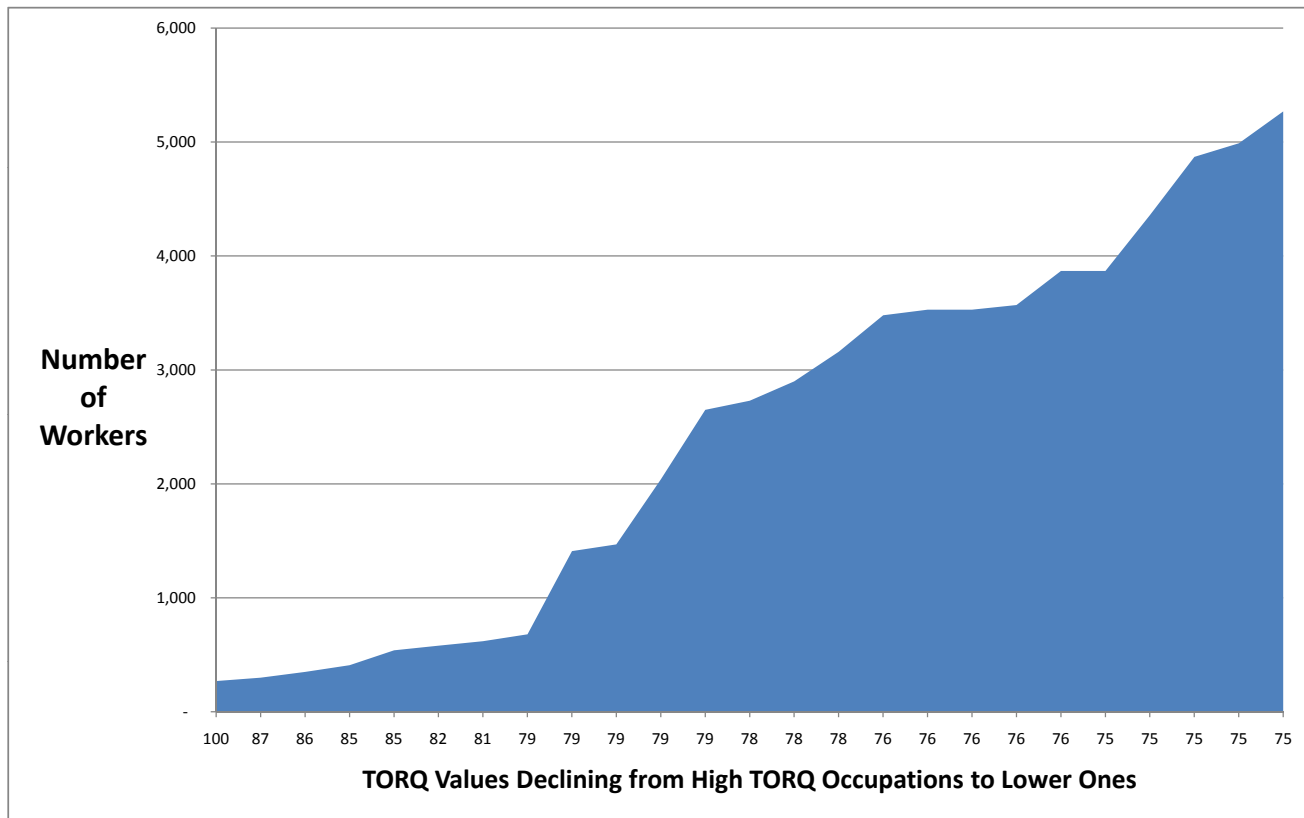


## Workforce Pool Potential for First-Line Supervisors/Managers of Production and Operating Workers

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from First-Line Supervisors/Managers of Production and	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
51-1011	First-Line Supervisors/Managers of Production and Operating	100.0	3	\$ 46,870	0	270	14%	74
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	86.8	2	\$ 26,180	-20,690	30	52%	7
25-2032	Vocational Education Teachers, Secondary School	86.2	4	\$ 39,770	-7,100	50	23%	16
53-1021	First-Line Supervisors/Managers of Helpers, Laborers, and M	85.4	3	\$ 30,700	-16,170	60	25%	17
47-1011	First-Line Supervisors/Managers of Construction Trades and	85.2	3	\$ 44,770	-2,100	130	17%	25
51-3011	Bakers	82.2	2	\$ 17,130	-29,740	40	3%	7
39-1021	First-Line Supervisors/Managers of Personal Service Worker	80.9	3	\$ 19,220	-27,650	40		
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitc	78.9	3	\$ 25,840	-21,030	60	7%	10
29-2061	Licensed Practical and Licensed Vocational Nurses	78.8	3	\$ 31,070	-15,800	730	12%	76
13-1051	Cost Estimators	78.8	4	\$ 40,380	-6,490	60	32%	6
43-1011	First-Line Supervisors/Managers of Office and Administrative	78.7	3	\$ 33,910	-12,960	570	9%	57
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	78.6	2	\$ 28,930	-17,940	610	7%	74
29-1126	Respiratory Therapists	77.9	3	\$ 43,420	-3,450	80	42%	12
43-5061	Production, Planning, and Expediting Clerks	77.9	2	\$ 39,070	-7,800	170	17%	19
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	77.8	2	\$ 38,360	-8,510	260	3%	43
33-3051	Sheriffs and Deputy Sheriffs	76.0	3	\$ 33,430	-13,440	320	17%	49
47-4011	Construction and Building Inspectors	76.0	3	\$ 36,970	-9,900	50	3%	1
33-3021	Criminal Investigators and Special Agents	75.9	4	\$ 39,370	-7,500		2%	8
27-2022	Coaches and Scouts	75.8	5	\$ 17,940	-28,930	40	36%	8
41-2022	Parts Salespersons	75.6	2	\$ 28,500	-18,370	300	-3%	13
33-3021	Immigration and Customs Inspectors	75.5	4	\$ 39,370	-7,500		2%	8
35-1012	First-Line Supervisors/Managers of Food Preparation and Se	75.1	2	\$ 22,990	-23,880	490	19%	55
41-4012	Sales Representatives, Wholesale and Manufacturing, Excep	75.1	3	\$ 36,790	-10,080	510	12%	64
49-9021	Refrigeration Mechanics and Installers	75.0	3	\$ 31,470	-15,400	120	8%	5
43-5071	Shipping, Receiving, and Traffic Clerks	74.9	2	\$ 33,570	-13,300	280	8%	31

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for First-Line Supervisors/Managers of Production and Operating Workers

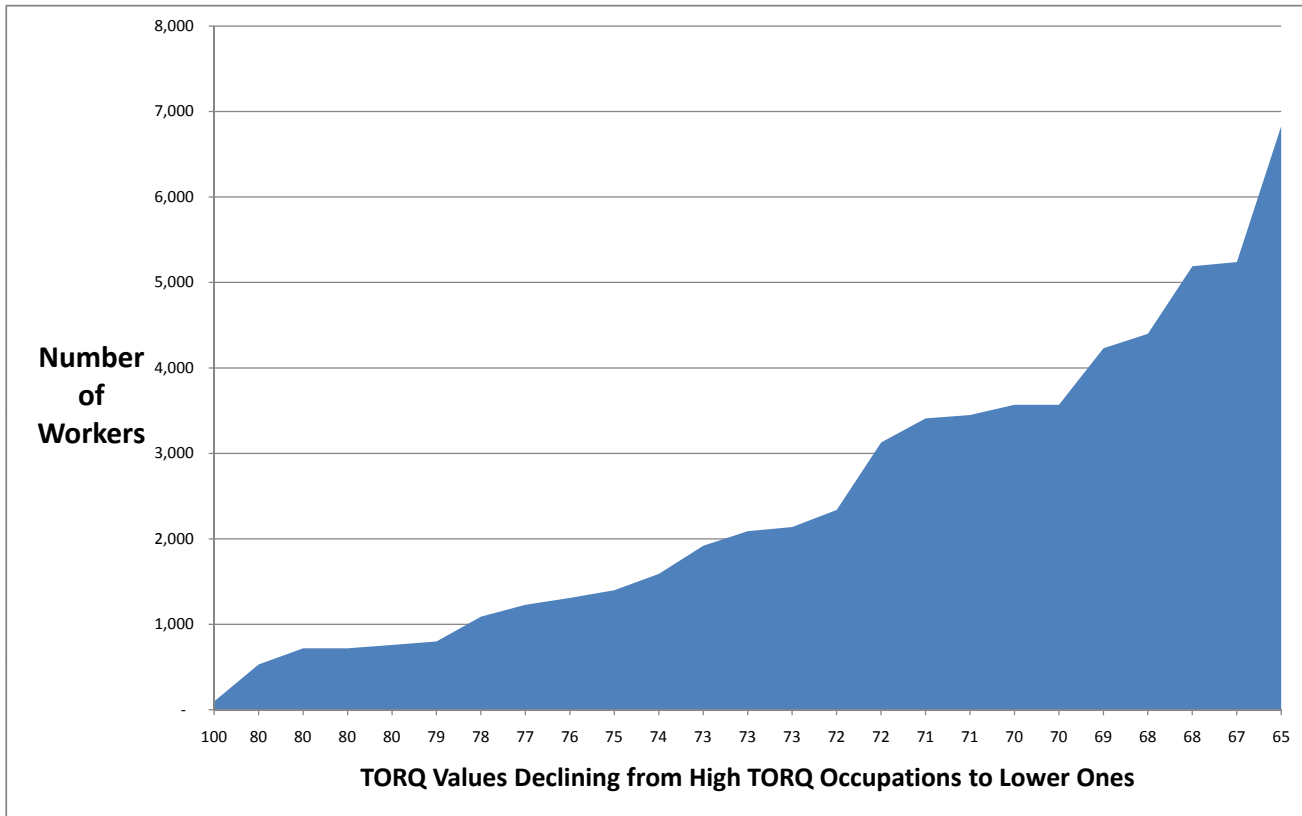


### Workforce Pool Potential for Team Assemblers

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Team Assemblers	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
51-2092	Team Assemblers	100.0	2	\$ 20,070	0	100	20%	116
47-2061	Construction Laborers	80.3	1	\$ 19,640	-430	430	10%	25
51-9198	Helpers--Production Workers	80.0	1	\$ 17,970	-2,100	190	18%	114
45-2092	Nursery Workers	79.9	1	\$ 17,220	-2,850			
51-3011	Bakers	79.8	2	\$ 17,130	-2,940	40	3%	7
47-3013	Helpers--Electricians	78.6	2	\$ 19,050	-1,020	40		
37-3011	Landscaping and Groundskeeping Workers	78.5	1	\$ 16,910	-3,160	290	9%	28
53-7061	Cleaners of Vehicles and Equipment	76.7	1	\$ 14,390	-5,680	140	16%	44
49-3093	Tire Repairers and Changers	75.7	1	\$ 17,800	-2,270	80		
51-6011	Laundry and Dry-Cleaning Workers	74.7	2	\$ 14,070	-6,000	90	17%	15
53-7064	Packers and Packagers, Hand	73.6	1	\$ 18,430	-1,640	190	10%	31
35-2014	Cooks, Restaurant	73.5	2	\$ 16,280	-3,790	330	26%	50
35-2012	Cooks, Institution and Cafeteria	73.5	2	\$ 14,990	-5,080	170	2%	50
51-6021	Pressers, Textile, Garment, and Related Materials	72.8	1	\$ 13,940	-6,130	50	-8%	2
35-2021	Food Preparation Workers	71.8	1	\$ 16,040	-4,030	200	16%	46
43-5081	Marking Clerks	71.8	2	\$ 16,990	-3,080	790	-9%	81
35-2011	Cooks, Fast Food	70.9	1	\$ 14,890	-5,180	280	9%	40
39-1021	First-Line Supervisors/Managers of Personal Service Worker	70.6	3	\$ 19,220	-850	40		
35-3041	Food Servers, Nonrestaurant	70.0	1	\$ 15,340	-4,730	120		
45-2092	Farmworkers and Laborers, Crop	69.9	1	\$ 17,220	-2,850			
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Clea	69.4	1	\$ 15,370	-4,700	660	20%	121
35-9021	Dishwashers	67.8	1	\$ 14,230	-5,840	170	19%	35
43-5081	Order Fillers, Wholesale and Retail Sales	67.7	2	\$ 16,990	-3,080	790	-9%	81
27-1023	Floral Designers	67.0	2	\$ 16,130	-3,940	50	7%	2
41-2011	Cashiers	65.5	1	\$ 14,800	-5,270	1,590	2%	294

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Team Assemblers**

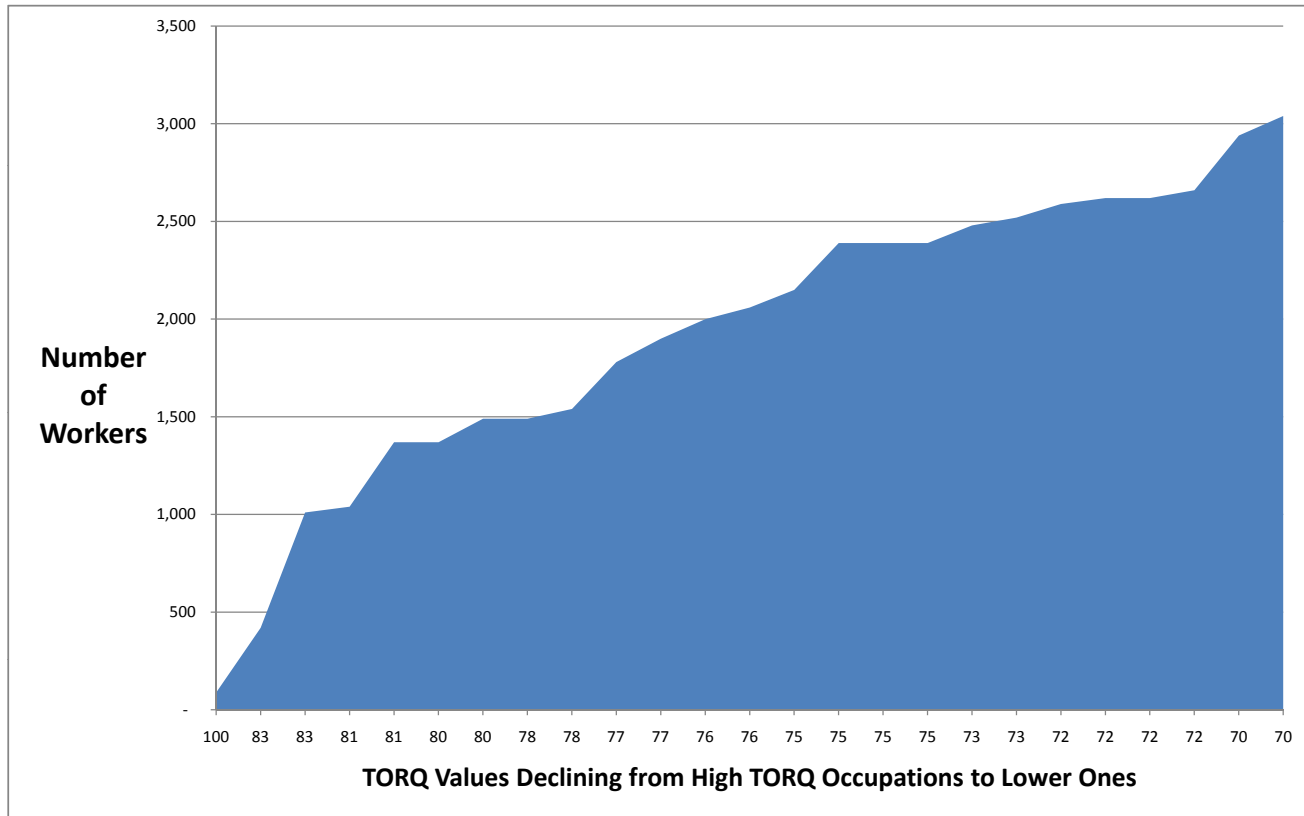


## Workforce Pool Potential for Machinists

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Machinists	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
51-4041	Machinists	100.0	3	\$ 33,740	0	90	12%	24
49-3023	Automotive Master Mechanics	83.4	3	\$ 24,780	-8,960	330	15%	40
49-9042	Maintenance and Repair Workers, General	82.8	3	\$ 23,160	-10,580	590	15%	73
49-3052	Motorcycle Mechanics	81.3	3	\$ 31,020	-2,720	30		
49-3023	Automotive Specialty Technicians	80.8	3	\$ 24,780	-8,960	330	15%	40
49-9098	Helpers--Installation, Maintenance, and Repair Workers	79.8	2	\$ 20,290	-13,450		25%	19
49-9021	Refrigeration Mechanics and Installers	79.6	3	\$ 31,470	-2,270	120	8%	5
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters	78.2	2	\$ 23,820	-9,920		1%	4
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders	77.8	2	\$ 23,720	-10,020	50	0%	14
51-4121	Welders, Cutters, and Welder Fitters	77.4	2	\$ 31,160	-2,580	240	14%	64
49-9021	Heating and Air Conditioning Mechanics and Installers	76.7	3	\$ 31,470	-2,270	120	8%	5
51-2092	Team Assemblers	76.4	2	\$ 20,070	-13,670	100	20%	116
51-8031	Water and Liquid Waste Treatment Plant and System Operators	75.7	3	\$ 24,360	-9,380	60	0%	8
53-7063	Machine Feeders and Offbearers	75.3	2	\$ 25,250	-8,490	90	-9%	22
51-4121	Solderers and Brazers	75.1	2	\$ 31,160	-2,580	240	14%	64
51-5023	Printing Machine Operators	74.8	2	\$ 25,770	-7,970			
51-2041	Structural Metal Fabricators and Fitters	74.7	3	\$ 26,130	-7,610		13%	12
51-9111	Packaging and Filling Machine Operators and Tenders	73.5	2	\$ 24,120	-9,620	90	4%	31
49-3021	Automotive Body and Related Repairers	73.4	2	\$ 31,420	-2,320	40	22%	15
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	72.5	2	\$ 29,530	-4,210	70	6%	8
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Services, and Grounds Maintenance Workers	72.4	2	\$ 26,180	-7,560	30	52%	7
49-2098	Security and Fire Alarm Systems Installers	72.3	3	\$ 29,750	-3,990			
47-3013	Helpers--Electricians	72.1	2	\$ 19,050	-14,690	40		
53-7051	Industrial Truck and Tractor Operators	70.2	2	\$ 26,170	-7,570	280	6%	45
47-2031	Rough Carpenters	70.0	2	\$ 30,230	-3,510	100	7%	15

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Machinists

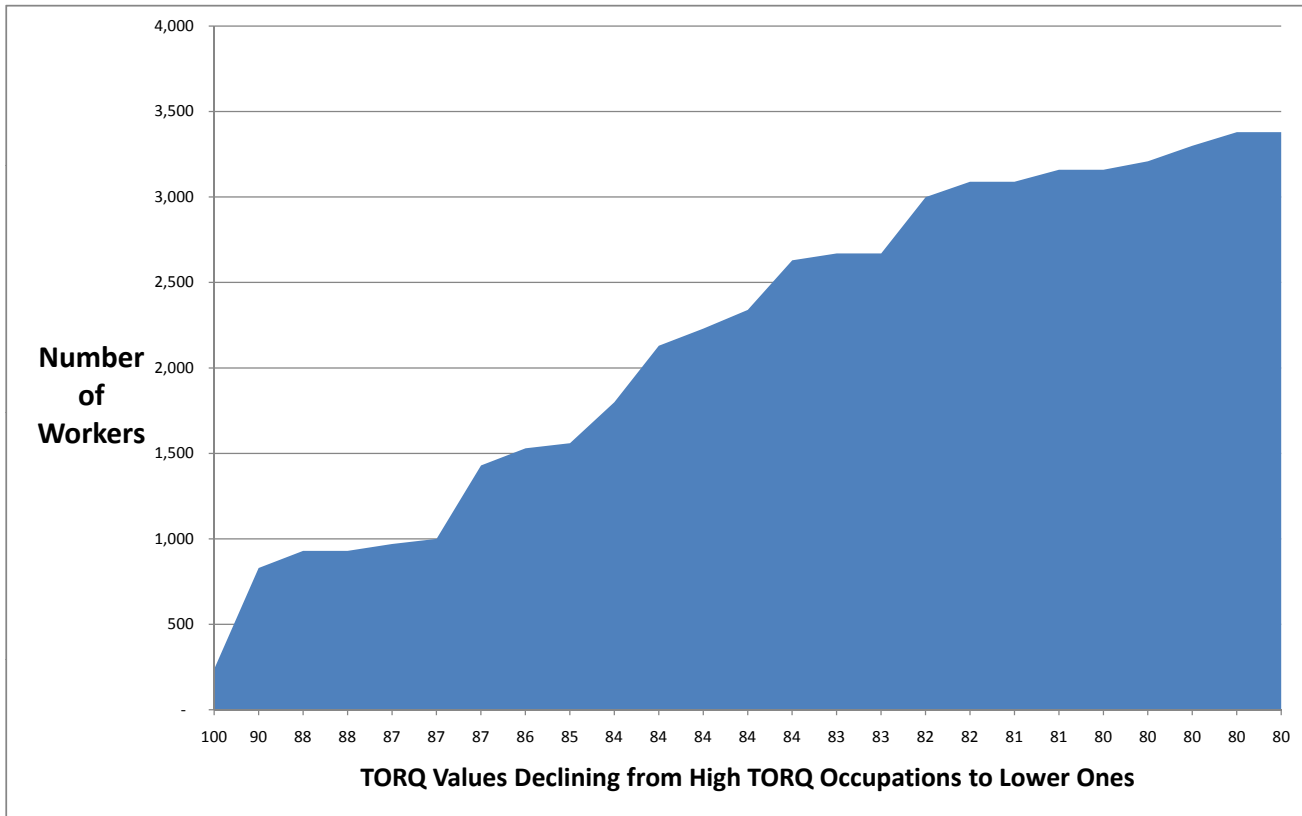


## Workforce Pool Potential for Welders, Cutters, and Welder Fitters

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Welders, Cutters, and Welder Fitters	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
51-4121	Welders, Cutters, and Welder Fitters							
51-4121	Welders, Cutters, and Welder Fitters	100.0	2	\$ 31,160	0	240	14%	64
49-9042	Maintenance and Repair Workers, General	90.4	3	\$ 23,160	-8,000	590	15%	73
47-2031	Rough Carpenters	88.1	2	\$ 30,230	-930	100	7%	15
49-9098	Helpers--Installation, Maintenance, and Repair Workers	87.6	2	\$ 20,290	-10,870		25%	19
47-3013	Helpers--Electricians	87.3	2	\$ 19,050	-12,110	40		
49-3052	Motorcycle Mechanics	87.1	3	\$ 31,020	-140	30		
47-2061	Construction Laborers	86.6	1	\$ 19,640	-11,520	430	10%	25
51-2092	Team Assemblers	85.9	2	\$ 20,070	-11,090	100	20%	116
37-1012	First-Line Supervisors/Managers of Landscaping, Lawn Servi	84.8	2	\$ 26,180	-4,980	30	52%	7
51-4121	Solderers and Brazers	84.4	2	\$ 31,160	0	240	14%	64
49-3023	Automotive Master Mechanics	84.2	3	\$ 24,780	-6,380	330	15%	40
47-2031	Construction Carpenters	84.1	3	\$ 30,230	-930	100	7%	15
47-2051	Cement Masons and Concrete Finishers	83.6	3	\$ 26,320	-4,840	110	23%	13
37-3011	Landscaping and Groundskeeping Workers	83.6	1	\$ 16,910	-14,250	290	9%	28
47-2081	Drywall and Ceiling Tile Installers	83.3	2	\$ 29,120	-2,040	40	43%	7
47-2121	Glaziers	82.9	2	\$ 27,600	-3,560			
49-3023	Automotive Specialty Technicians	82.5	3	\$ 24,780	-6,380	330	15%	40
53-7063	Machine Feeders and Offbearers	82.3	2	\$ 25,250	-5,910	90	-9%	22
51-2041	Structural Metal Fabricators and Fitters	81.1	3	\$ 26,130	-5,030		13%	12
51-9121	Coating, Painting, and Spraying Machine Setters, Operators,	80.8	2	\$ 29,530	-1,630	70	6%	8
49-2098	Security and Fire Alarm Systems Installers	80.3	3	\$ 29,750	-1,410			
51-4031	Cutting, Punching, and Press Machine Setters, Operators, ar	80.1	2	\$ 23,720	-7,440	50	0%	14
51-9111	Packaging and Filling Machine Operators and Tenders	80.1	2	\$ 24,120	-7,040	90	4%	31
49-3093	Tire Repairers and Changers	80.0	1	\$ 17,800	-13,360	80		
45-2092	Nursery Workers	79.9	1	\$ 17,220	-13,940			

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

### Graph of Workforce Pool Potential for Welders, Cutters, and Welder Fitters

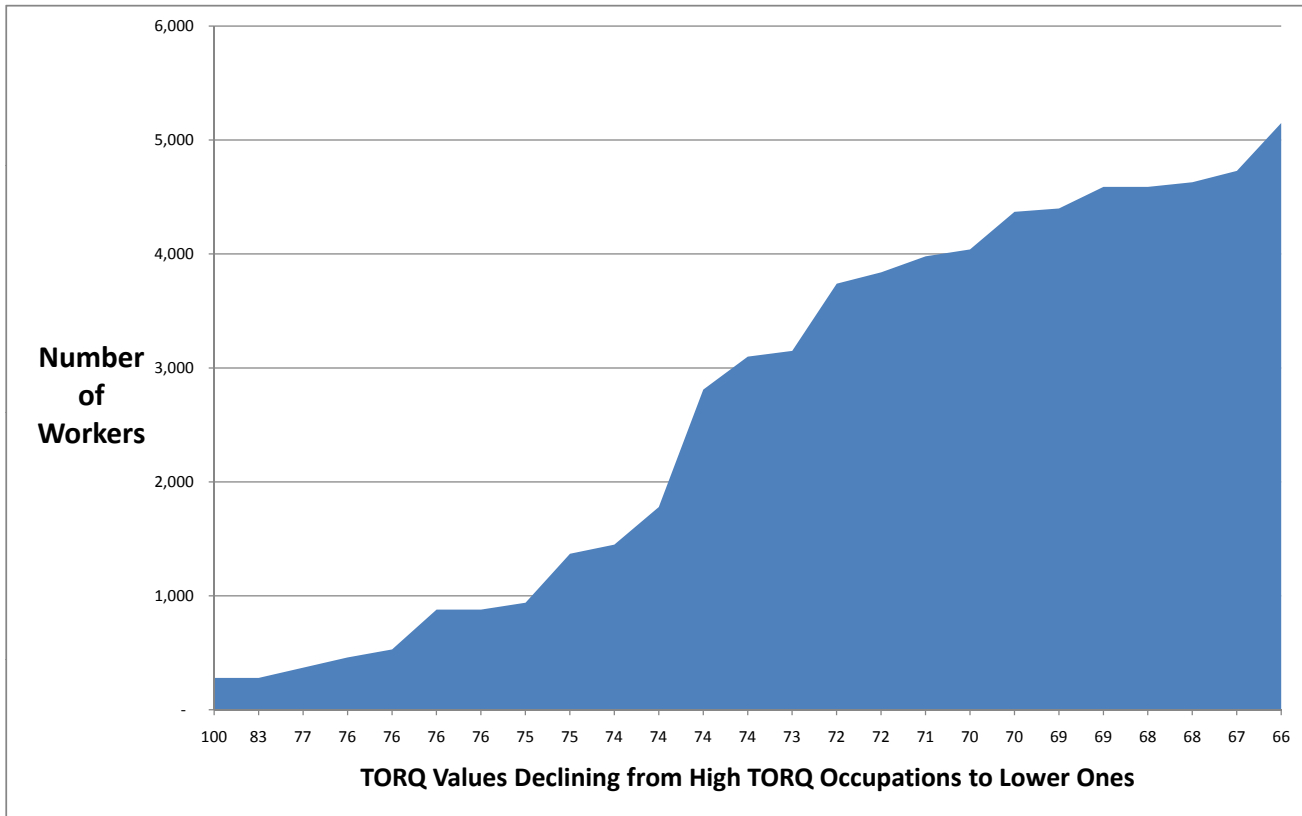


## Workforce Pool Potential for Industrial Truck and Tractor Operators

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Industrial Truck and Tractor Operators	Total Texarkana MSA Employment		
53-7051	Industrial Truck and Tractor Operators					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
O*NET Code	Occupational Title							
53-7051	Industrial Truck and Tractor Operators	100.0	2	\$ 26,170	0	280	6%	45
45-2092	Nursery Workers	82.6	1	\$ 17,220	-8,950			
51-9111	Packaging and Filling Machine Operators and Tenders	77.3	2	\$ 24,120	-2,050	90	4%	31
53-7063	Machine Feeders and Offbearers	76.1	2	\$ 25,250	-920	90	-9%	22
53-7081	Refuse and Recyclable Material Collectors	76.0	2	\$ 24,200	-1,970	70	15%	10
53-3033	Truck Drivers, Light or Delivery Services	75.9	2	\$ 26,100	-70	350	21%	49
49-9098	Helpers--Installation, Maintenance, and Repair Workers	75.7	2	\$ 20,290	-5,880		25%	19
53-6031	Service Station Attendants	75.5	1	\$ 20,260	-5,910	60	3%	7
47-2061	Construction Laborers	75.3	1	\$ 19,640	-6,530	430	10%	25
49-3093	Tire Repairers and Changers	74.3	1	\$ 17,800	-8,370	80		
49-3023	Automotive Specialty Technicians	73.9	3	\$ 24,780	-1,390	330	15%	40
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	73.9	2	\$ 21,320	-4,850	1,030	9%	164
37-3011	Landscaping and Groundskeeping Workers	73.5	1	\$ 16,910	-9,260	290	9%	28
51-4031	Cutting, Punching, and Press Machine Setters, Operators, ar	73.3	2	\$ 23,720	-2,450	50	0%	14
49-9042	Maintenance and Repair Workers, General	72.1	3	\$ 23,160	-3,010	590	15%	73
51-2092	Team Assemblers	72.1	2	\$ 20,070	-6,100	100	20%	116
53-7061	Cleaners of Vehicles and Equipment	71.3	1	\$ 14,390	-11,780	140	16%	44
51-8031	Water and Liquid Waste Treatment Plant and System Operat	70.3	3	\$ 24,360	-1,810	60	0%	8
49-3023	Automotive Master Mechanics	70.0	3	\$ 24,780	-1,390	330	15%	40
43-5021	Couriers and Messengers	69.0	2	\$ 21,490	-4,680	30	-5%	1
51-9198	Helpers--Production Workers	68.9	1	\$ 17,970	-8,200	190	18%	114
45-2092	Farmworkers and Laborers, Crop	68.0	1	\$ 17,220	-8,950			
47-3013	Helpers--Electricians	67.9	2	\$ 19,050	-7,120	40		
53-3031	Driver/Sales Workers	66.7	1	\$ 20,580	-5,590	100	6%	15
53-3022	Bus Drivers, School	66.3	2	\$ 13,970	-12,200	420	10%	33

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

**Graph of Workforce Pool Potential for Industrial Truck and Tractor Operators**

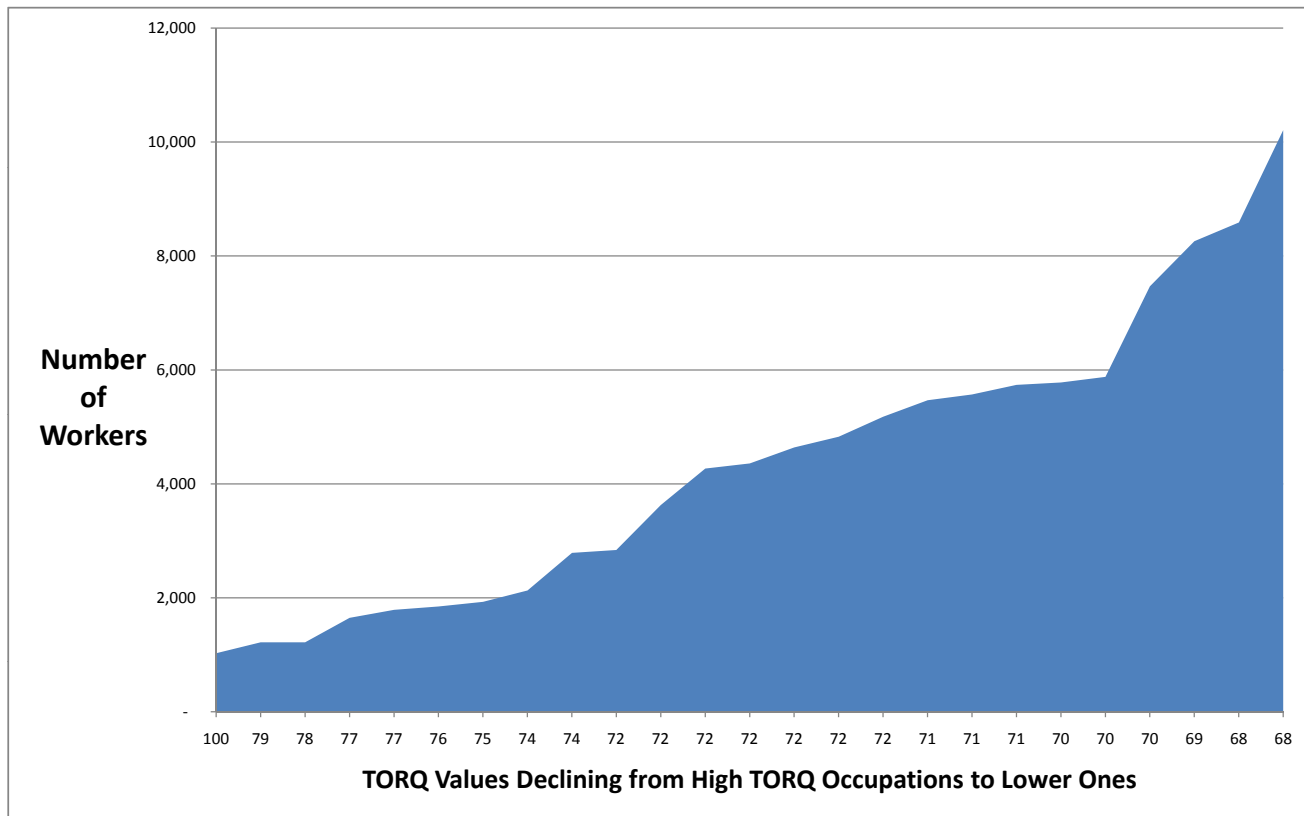


## Workforce Pool Potential for Laborers and Freight, Stock, and Material Movers, Hand

		Grand TORQ	O*NET Job Zone	Median Annual Wage or Salary 2007	Difference from Laborers and Freight, Stock, and Material Movers, Hand	Total Texarkana MSA Employment		
O*NET Code	Occupational Title					Employment in 2007	Projected Growth 2004-14 Percent	Average annual job openings
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	100.0	2	\$ 21,320	0	1,030	9%	164
53-7064	Packers and Packagers, Hand	79.3	1	\$ 18,430	-2,890	190	10%	31
45-2092	Nursery Workers	78.1	1	\$ 17,220	-4,100			
47-2061	Construction Laborers	77.4	1	\$ 19,640	-1,680	430	10%	25
53-7061	Cleaners of Vehicles and Equipment	77.2	1	\$ 14,390	-6,930	140	16%	44
53-6031	Service Station Attendants	76.1	1	\$ 20,260	-1,060	60	3%	7
49-3093	Tire Repairers and Changers	74.8	1	\$ 17,800	-3,520	80		
35-2021	Food Preparation Workers	73.8	1	\$ 16,040	-5,280	200	16%	46
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Clea	73.7	1	\$ 15,370	-5,950	660	20%	121
51-6021	Pressers, Textile, Garment, and Related Materials	72.4	1	\$ 13,940	-7,380	50	-8%	2
43-5081	Stock Clerks, Sales Floor	72.3	1	\$ 16,990	-4,330	790	-9%	81
31-1012	Nursing Aides, Orderlies, and Attendants	72.2	2	\$ 20,110	-1,210	640	19%	109
51-6011	Laundry and Dry-Cleaning Workers	72.1	2	\$ 14,070	-7,250	90	17%	15
35-2011	Cooks, Fast Food	72.0	1	\$ 14,890	-6,430	280	9%	40
51-9198	Helpers--Production Workers	71.8	1	\$ 17,970	-3,350	190	18%	114
37-2012	Maids and Housekeeping Cleaners	71.6	1	\$ 14,340	-6,980	350	9%	48
37-3011	Landscaping and Groundskeeping Workers	71.3	1	\$ 16,910	-4,410	290	9%	28
51-2092	Team Assemblers	71.0	2	\$ 20,070	-1,250	100	20%	116
35-2012	Cooks, Institution and Cafeteria	70.7	2	\$ 14,990	-6,330	170	2%	50
47-3013	Helpers--Electricians	70.3	2	\$ 19,050	-2,270	40		
53-3031	Driver/Sales Workers	70.3	1	\$ 20,580	-740	100	6%	15
41-2011	Cashiers	70.2	1	\$ 14,800	-6,520	1,590	2%	294
43-5081	Stock Clerks- Stockroom, Warehouse, or Storage Yard	68.8	1	\$ 16,990	-4,330	790	-9%	81
35-2014	Cooks, Restaurant	68.4	2	\$ 16,280	-5,040	330	26%	50
35-3021	Combined Food Preparation and Serving Workers, Including	68.1	1	\$ 14,550	-6,770	1,620	18%	238

Sources: BLS, TWC, Workforce Associates, Inc. (TORQ)

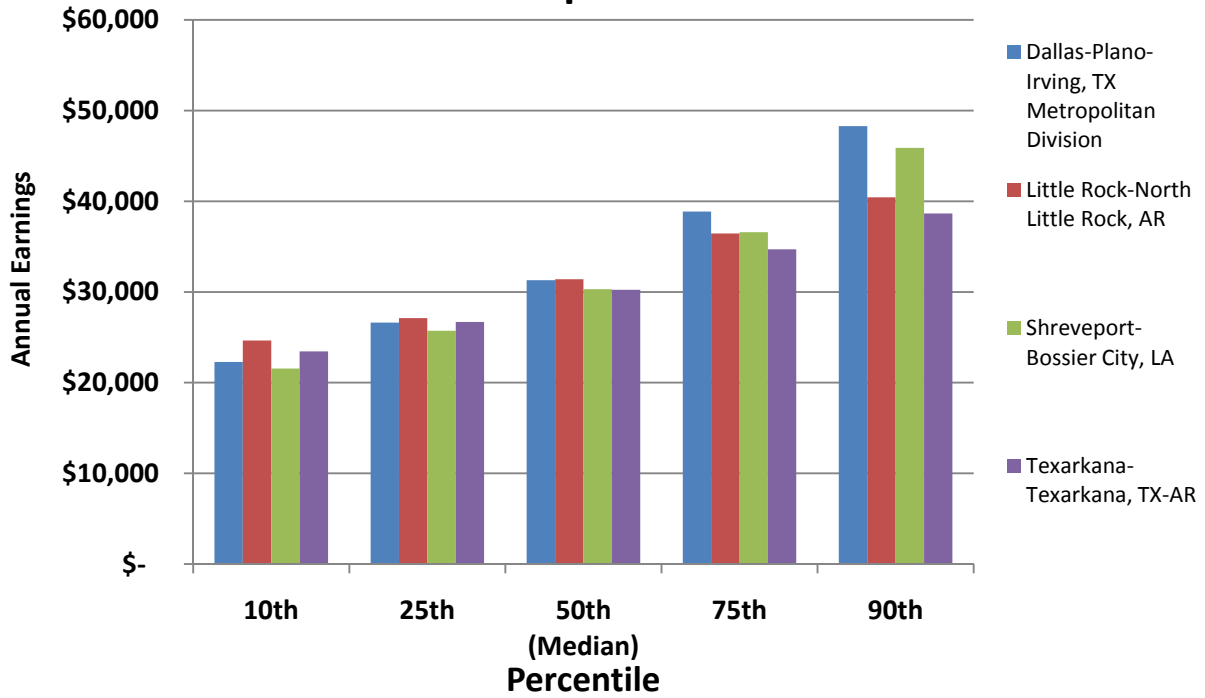
**Graph of Workforce Pool Potential for Laborers and Freight, Stock, and Material Movers, Hand**



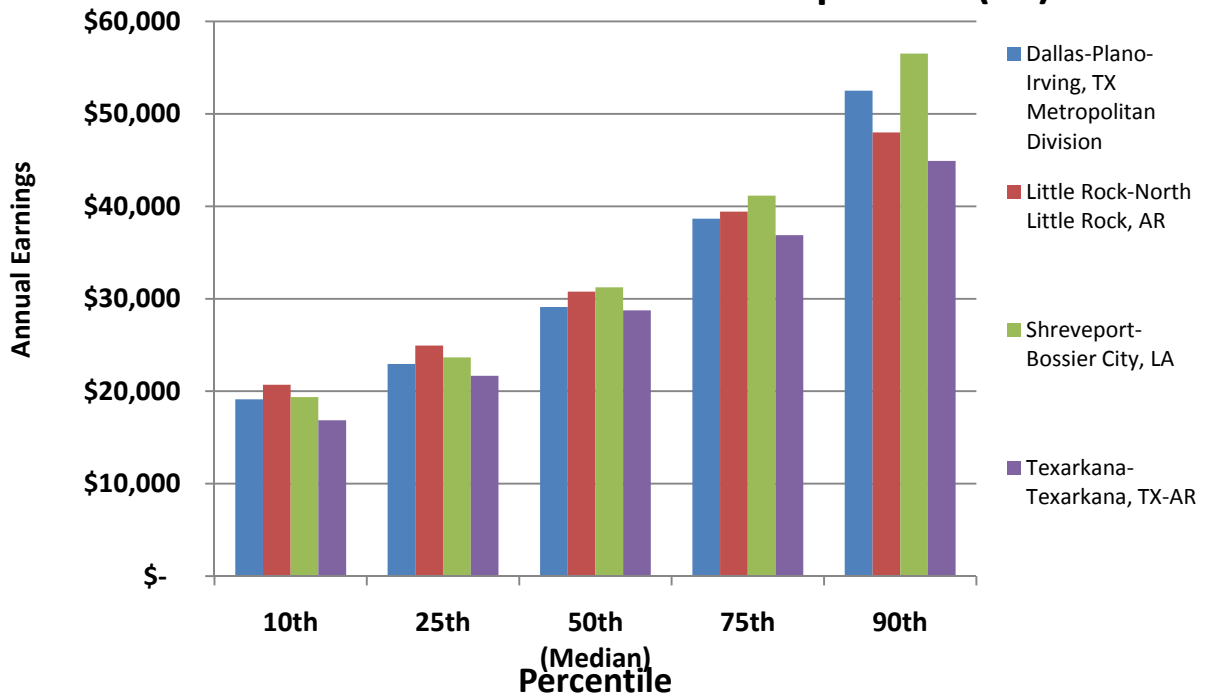
# Appendix B: Earnings Comparisons with Regional Competitors for Critical Occupations



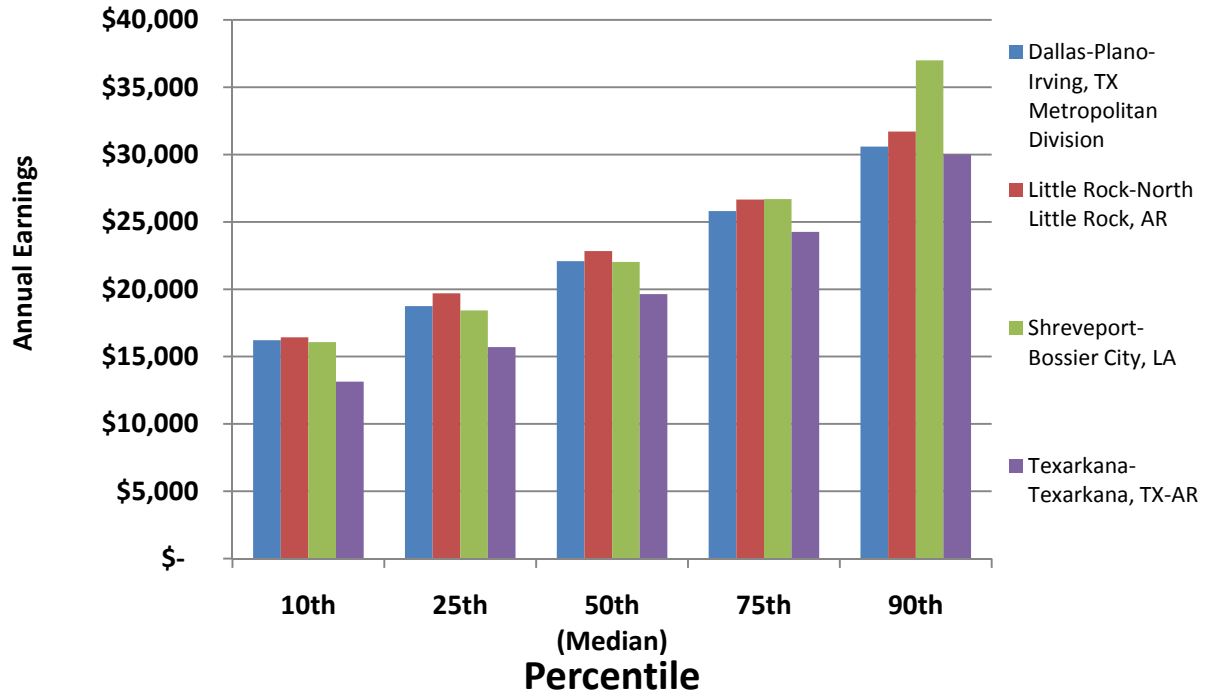
## Carpenters



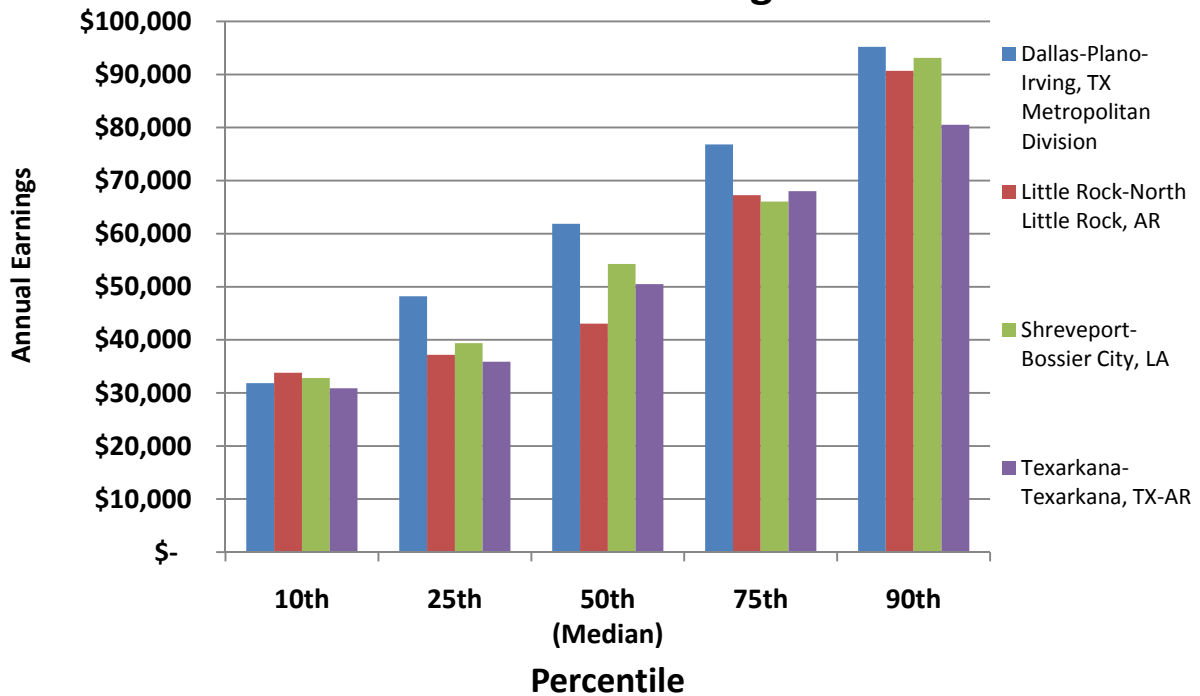
## Construction and extraction occupations (all)



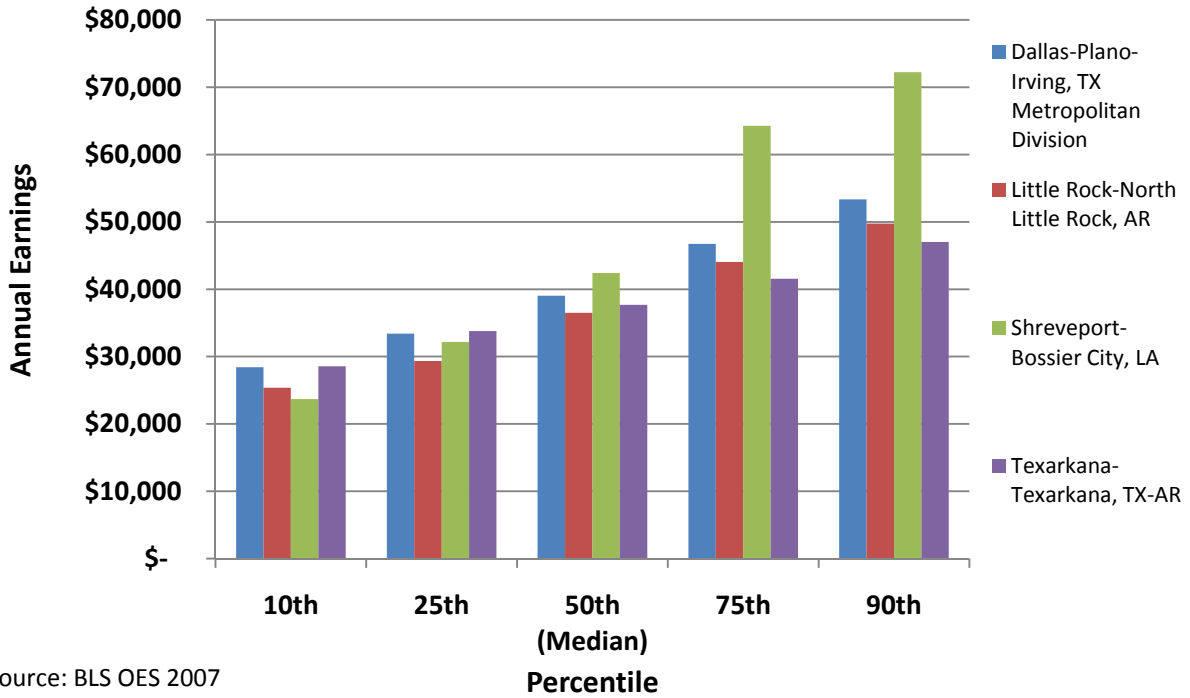
## Construction laborers



## Construction Managers

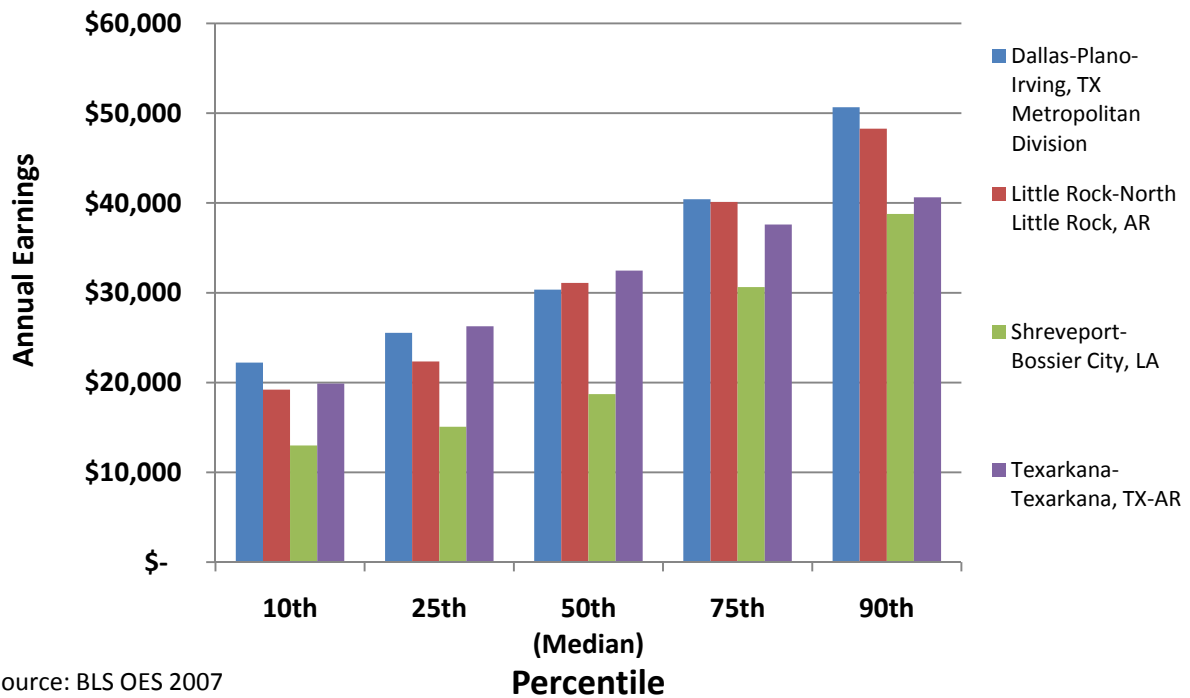


## Electricians

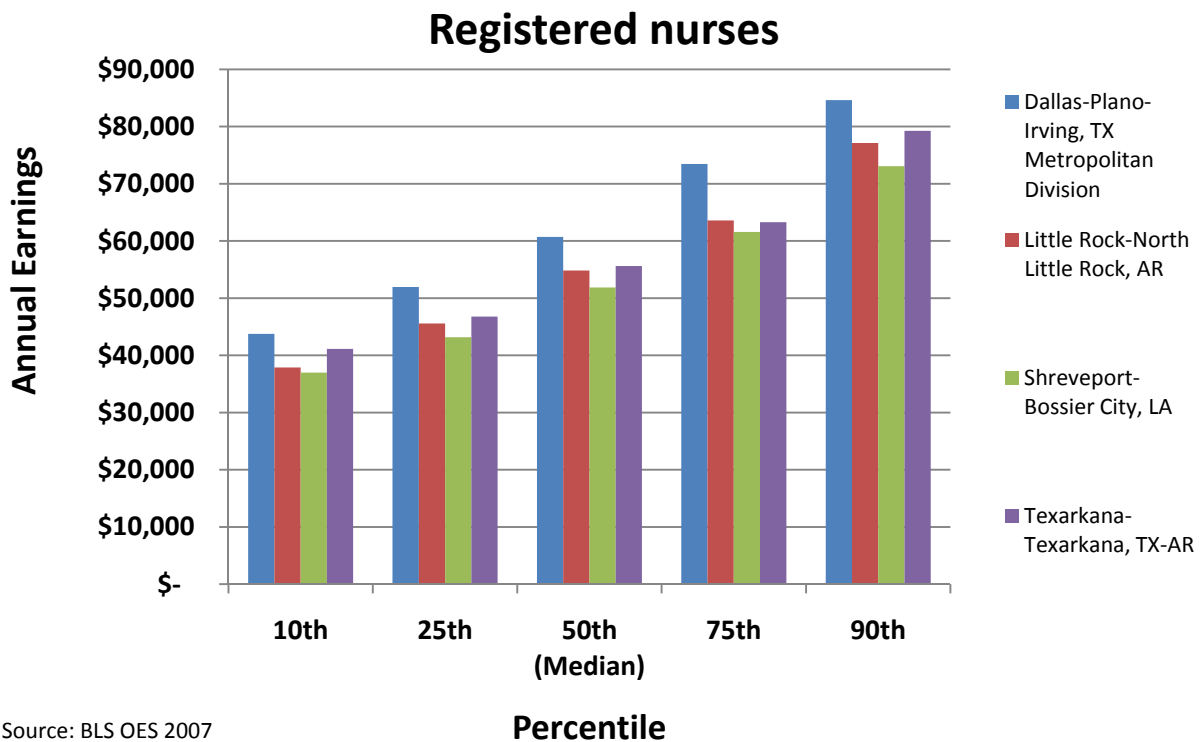
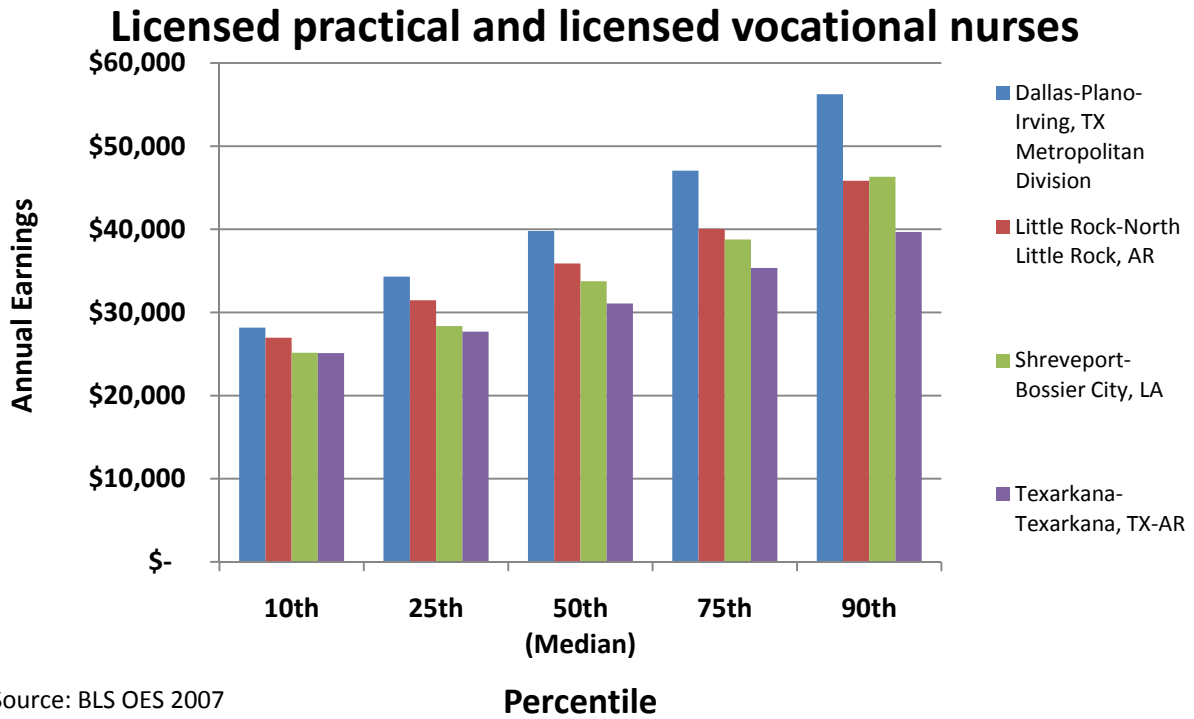


Source: BLS OES 2007

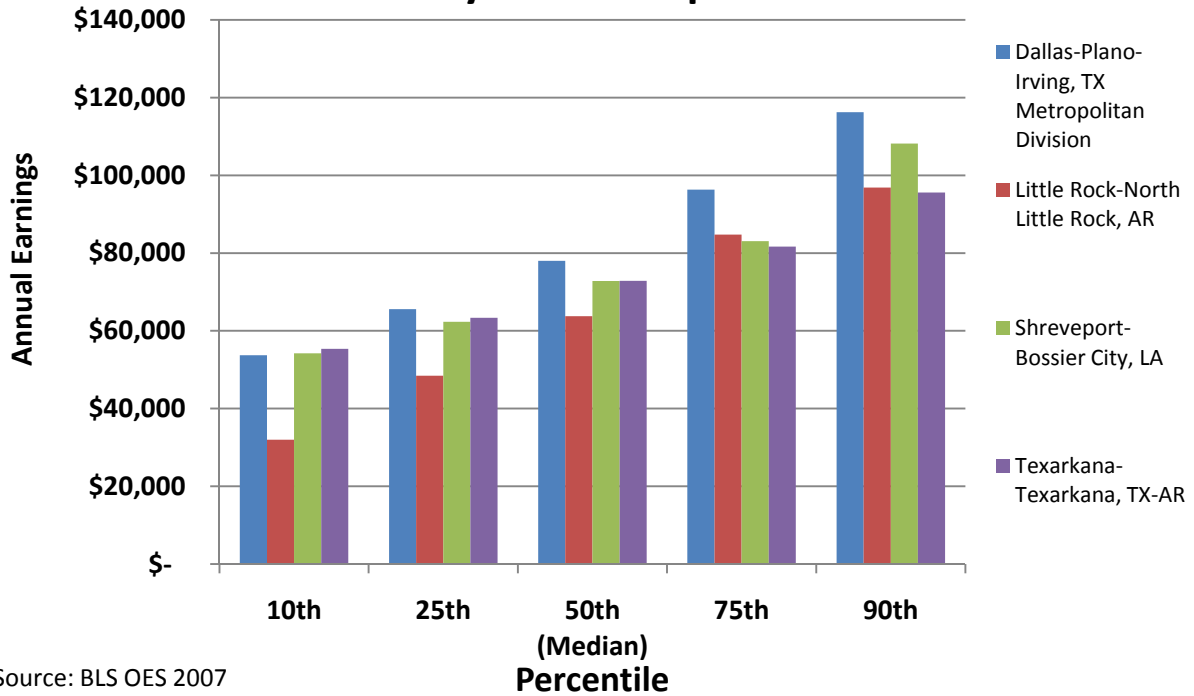
## Medical records and health information technicians



Source: BLS OES 2007

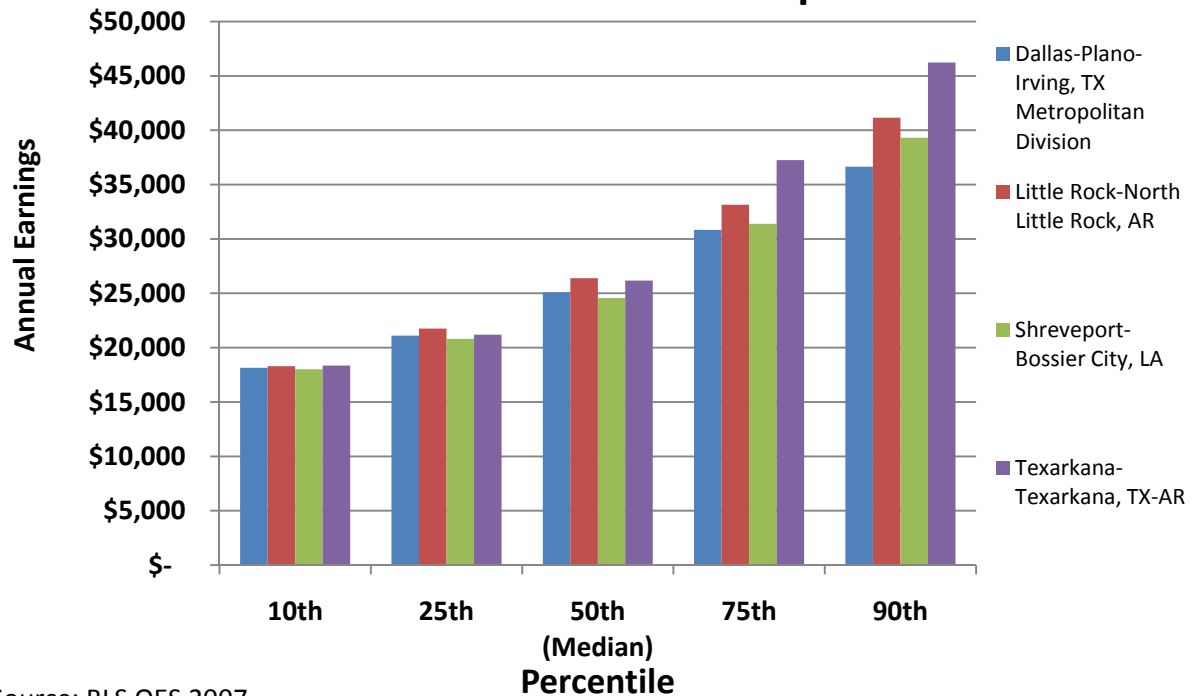


## Physical therapists



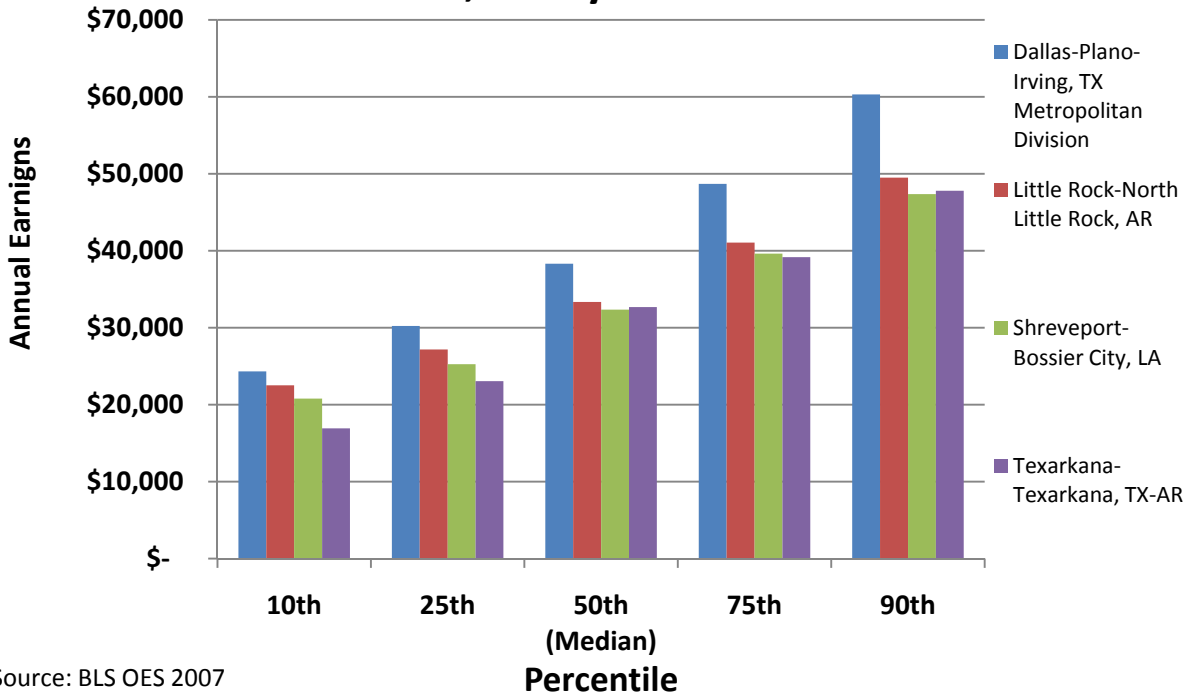
Source: BLS OES 2007

## Industrial truck and tractor operators



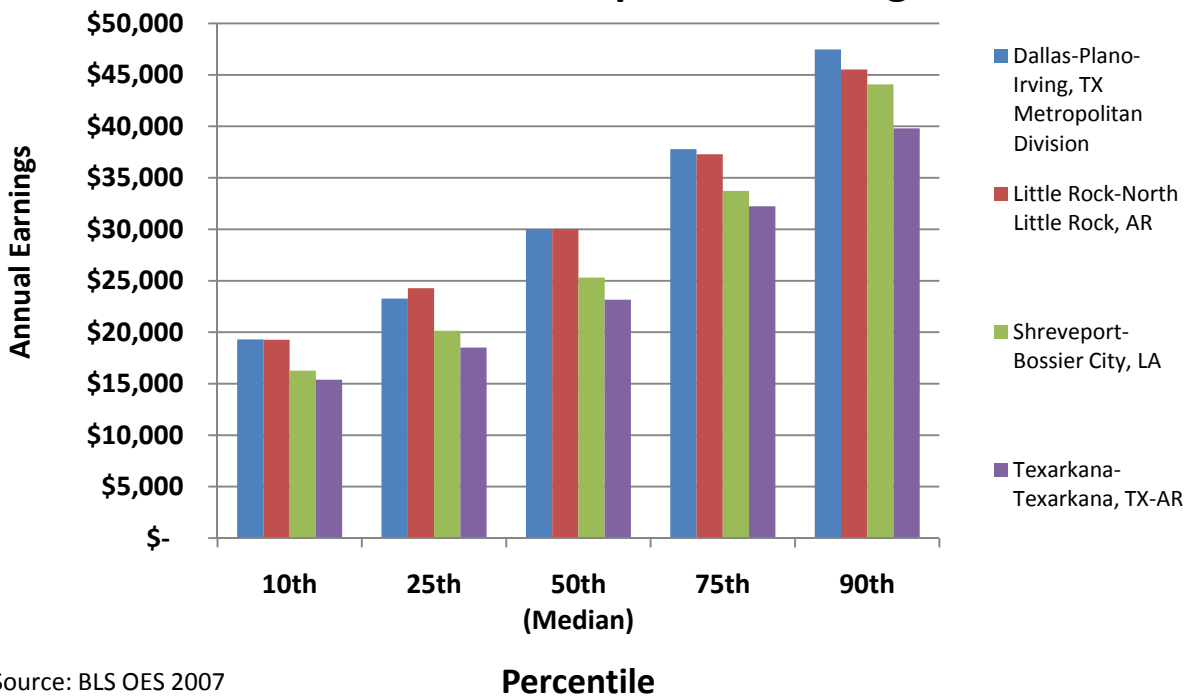
Source: BLS OES 2007

## Truck drivers, heavy and tractor-trailer



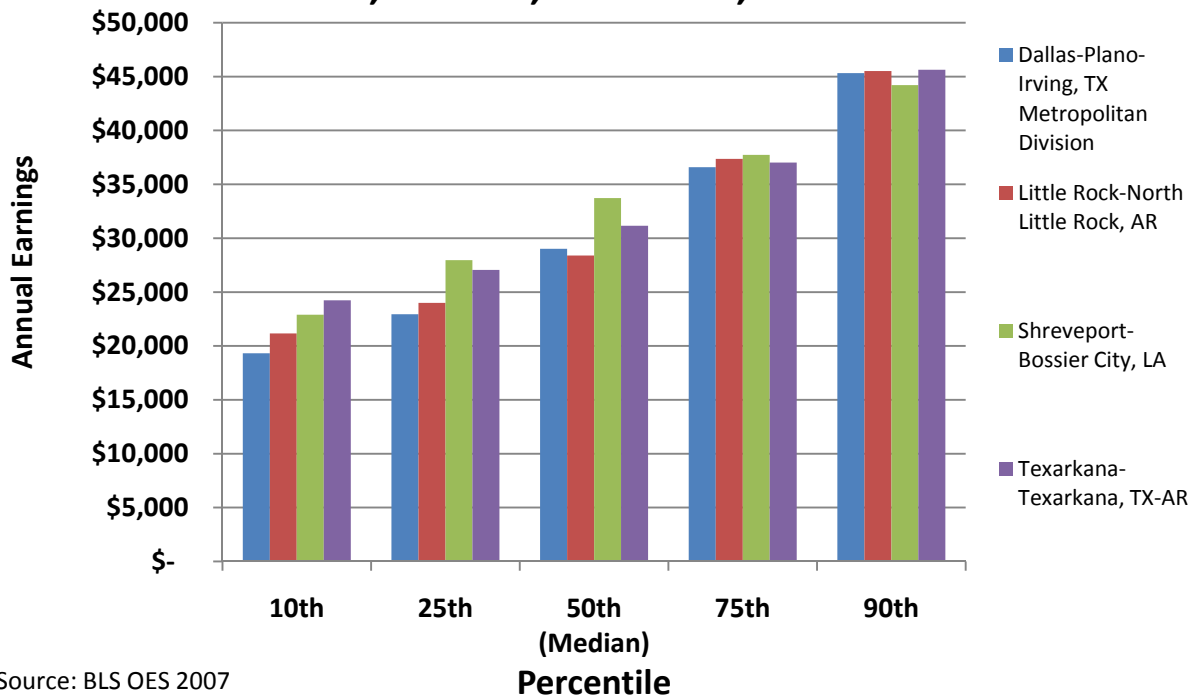
Source: BLS OES 2007

## Maintenance and repair workers, general



Source: BLS OES 2007

## Welders, cutters, solderers, and brazers



Source: BLS OES 2007