

EXECUTIVE HIGHLIGHTS



LABOR MARKET OPPORTUNITIES IN THE NASHVILLE ECONOMIC MARKET AREA

an Assessment of the Region's Labor Force Demand and Supply

The Nashville region has enjoyed population, employment and economic growth for many years. To continue its record of success, the region must ensure that it maintains a tangible workforce advantage. Achieving this goal means investing in education and training to prepare an ever more competitive workforce. It also means maintaining a competitive edge in attracting the “best and brightest” talent from around the country. This study provides a detailed snapshot of the region’s current workforce by examining industry’s demand for a future workforce, examining the workforce needs of those industries serving as regional economic development priorities, and identifying areas where investment in education and training can pay optimal dividends for the future.

Leaders in the Nashville region commissioned this study to address several key questions:

- Who are the workers and potential workers that will fill the region’s jobs of tomorrow?
- What are the region’s current and future industry needs?
- How do these labor market opportunities relate to the region’s economic development priorities?
- Does the region’s education and training system have the capacity to meet anticipated needs?
- What are the implications for workforce education and training policy?

The 10-county Nashville Economic Market Area with slightly fewer than 1.25 million working-age people currently has about 853,000 people participating in the labor force. In late 2007, slightly more than 34,000 people were seeking work in the region, representing an unemployment rate of about 4 percent. As one of the nation’s large and emerging growth markets, Nashville’s understanding of the dynamics of this workforce is an increasingly important matter.

FINDINGS

For the Nashville region to compete effectively in the future, leaders will need to continue preparing the workforce for the rapidly emerging knowledge economy while maintaining graduation and skill levels commensurate with all types of occupational needs.

Key findings from this analysis include:

POPULATION AND ECONOMIC GROWTH TRENDS

- The Nashville Economic Market Area added people at an annual rate of 2.1 percent during the past several years. **This outpaces traditional comparable metros Memphis and Louisville, but significantly trails the growth rate of several Sunbelt cities such as Austin, Atlanta and Charlotte.**
- The region’s job growth slightly exceeded its population growth, having grown at a pace of 2.4 percent annually and added 126,000 new jobs between 2002 and 2007. **Future job growth is projected to slow to about 1 percent annually over the next decade due to several national economic trends.** This growth will mirror the projected U.S. rate of 1 percent.

- Davidson County remains the region’s primary population and employment center. In recent years, the region added a large share of new jobs in southern suburbs. Growth was somewhat slower in the other counties of the region, though still remarkably vibrant.
- Proprietorships and entrepreneurs are relatively much more important to the Nashville economy than many other comparable metro areas and the US as a whole. **Nearly 21 percent of total regional employment is due to proprietorships, much higher than most other U.S. metro areas.** Proprietors are particularly important to certain parts of the economy such as the region’s music and entertainment, health care, information technology, and other industries.

WORKFORCE SUPPLY TRENDS

- More than 15 percent of the region’s workforce is aged 55 and older. **This means that one in six people currently of working age will pass the traditional retirement age of 65 during the next decade.** Pre-retirees (age 55 to 64) comprise about 82,500 workers currently in the labor force. The region should expect this group to largely leave the labor force by 2017. (See Figure 1.)

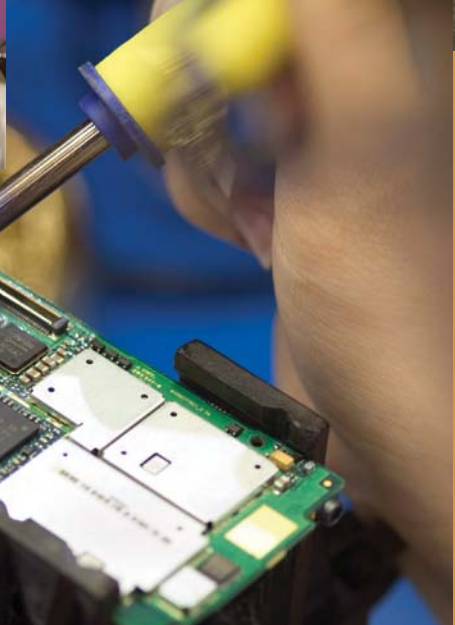
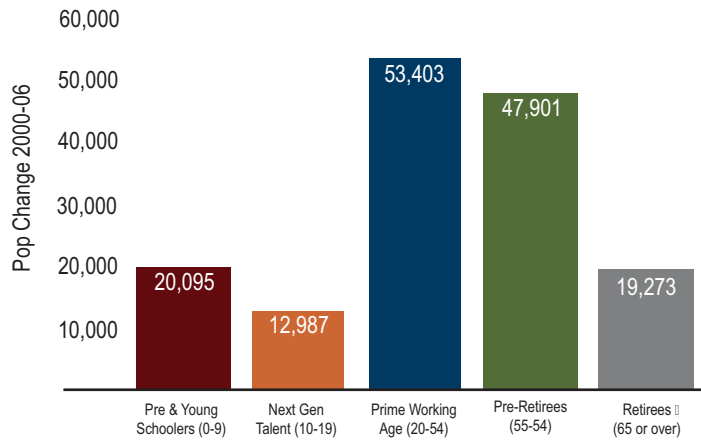


Figure 1: Change in Population by Age Cohort, 2000-2006



Source: US Census Bureau Population Estimates

- The central question is whether enough young people will join the labor force to replace this retiring cohort. Preliminary estimates suggest that the region can expect 97,000 new-to-entry workers—enough to replace the cohort, **but not enough to fill all the new jobs being created.** (See Figure 2.)
- The region’s ability to attract in-migrants is the only alternative to addressing this potential worker shortage. **The region will need substantial in-migration to meet its workforce needs.**
- The share of the Nashville Economic Market Area population that is Hispanic is relatively smaller than that of the U.S. as a whole, accounting for 5 percent in the region, but 14.4 percent nationally. Though relatively small, **the Hispanic population is increasing at a much more rapid rate than other groups.** The number of Hispanics in the region grew by more than 8 percent annually since 2000. This represents an increase of 30,600 people between 2000 and 2006.
- The Nashville area’s educational attainment level is somewhat similar to the U.S., but certain parts of the region – Williamson and Davidson – have a relatively high concentration of workers with a bachelor’s degree or higher. **Many of the less populous parts of the Nashville region must overcome lower rates of bachelor’s degree attainment among their population.**
- Between 2001 and 2006, the Nashville Economic Market Area grew on average by 31,351 people annually. The bulk of that net increase occurred through migration. For instance, between 2005 and 2006, the region gained 26,293 net new migrants. Nashville is a magnet for in-migrants, particularly attractive to those locating from the nation’s largest

metro areas, including New York, Los Angeles and Chicago. **Most new residents to the region typically move to Davidson County across a wide range of occupations and skill sets.**

- The Nashville region must tailor educational offerings and maintain quality-of-life and business growth to attract potential workers around the nation and the world. It is an urgent requirement for the decade ahead.
- The data suggests that internal migration within the region tends to be from Davidson County to the southern suburbs, especially Rutherford and Williamson Counties, as area residents start families.

Figure 2: Estimates of Annual Worker Supply and Demand in the Nashville Economic Market Area

Projected Population Growth*	285,938
Projected Working Age Pop. Growth (20 to 64)	142,699
Labor Force Participation Rate	68%
Projected New Workers	97,178
Net New Jobs**	120,052
Total Need (2007-2017)	22,874
Average Annual Need	2,287

*Population numbers based on TN State Data Center Projections, and adjusted figures for Davidson County**EMSI Strategic Advantage Employment Projections

WORKER DEMAND TRENDS

INDUSTRY DEMAND TRENDS

- **Almost two-thirds of nearly 126,000 net new jobs between 2002 and 2007 were created in four “supersectors”**—Wholesale & Retail Trade, Professional & Business Services, Education & Health Services, and Leisure & Hospitality. The largest growth occurred in Education & Health Services, which gained 27,617 net new jobs. (See Figure 3.)
- The largest source of new high-wage jobs can be found in industries such as colleges, universities, professional schools, offices of physicians, management of companies and enterprises, insurance-related activities, and accounting and bookkeeping services. **These industries all have average earnings above the regional average earnings of \$46,382.**

- The region’s manufacturing sector, due in large part to the presence of the automotive industry, is more highly concentrated and more globally competitive than in other areas. **Manufacturing will remain a significant component of the future economy**, even though many production activities are curtailing job growth through process efficiencies.

OCCUPATIONAL DEMAND TRENDS

- The region’s five largest occupational groupings are: (1) office and administrative support; (2) sales and related; (3) management; (4) production; and (5) transportation and material moving. Management is the only one of these occupational groups that has average earnings above the regional average. **Many of the region’s fastest growing occupations are found in fields related to health care, education and retail and wholesale trade.**
- **The fastest-growing occupations offering above-average wages include registered nurses, postsecondary teachers, general and operations managers, chief executives, and business operations specialists.** In addition, a variety of fields require managers, including construction, financial services, and administrative occupations. Computer-related occupations that are in greatest demand include systems analysts, applications engineers, systems managers, network administrators, and systems engineers. There is also a substantial need for personal financial advisors, sales managers and representatives (especially for services or technical products) as well as maintenance supervisors.

Figure 3: Change in Employment of Industrial Supersectors in the Nashville Economic Market Area, 2002-2007

Supersector	2002 Jobs	2007 Jobs	Change 02-07	Nashville Annual Growth Rate	National Annual Growth Rate
Wholesale & Retail Trade	147,262	166,669	19,407	2.5%	1.1%
Professional & Business Services	141,186	161,802	20,616	2.8%	3.2%
Education & Health Services	115,311	142,928	27,617	4.4%	2.9%
Leisure & Hospitality	98,565	113,699	15,134	2.9%	2.2%
Government	99,521	109,969	10,448	2.0%	0.8%
Manufacturing	98,486	96,116	-2,370	-0.5%	-1.6%
Financial Activities	81,141	89,424	8,283	2.0%	2.6%
Other Services	58,531	65,048	6,517	2.1%	1.4%
Construction	57,188	70,060	12,872	4.1%	3.3%
Transportation & Utilities	37,052	45,029	7,977	4.0%	0.8%
Information	25,926	25,845	-81	-0.1%	-0.5%
Natural Resources & Mining	19,051	18,504	-547	-0.6%	-0.6%
Total	979,220	1,105,093	125,873	2.4%	1.6%

Source: EMSI – Complete Employment

Figure 4: Greater Education leads to Greater Earnings

NASHVILLE

Educational Band	Emp 2007	Net New Jobs (07-17)	Average Earnings 2007	% Total Emp (2007)	% New Jobs (07-17)
Advanced Degree	37,641	6,527	\$68,399	3.3%	5.3%
4-year College Degree	188,596	26,789	\$54,901	16.5%	21.8%
Tech-Some Post	107,666	17,652	\$37,273	9.4%	14.4%
GED Some Experience	179,721	19,935	\$36,416	15.7%	16.2%
GED/Entry	254,937	17,595	\$30,918	22.3%	14.3%
Below GED	376,317	34,264	\$20,331	32.9%	27.9%

NATIONAL

Educational Band	Emp 2007	Net New Jobs (07-17)	Average Earnings 2007	% Total Emp (2007)	% New Jobs (07-17)
Advanced Degree	6,841,490	966,690	\$73,736	3.8%	5.4%
4-year College Degree	31,218,522	4,310,787	\$62,415	17.4%	24.1%
Tech-Some Post	16,586,635	2,620,076	\$38,219	9.2%	14.7%
GED Some Experience	27,727,675	2,583,378	\$41,165	15.5%	14.5%
GED/Entry	34,633,541	2,008,158	\$31,846	19.3%	11.2%
Below GED	62,402,522	5,366,315	\$21,017	34.8%	30.1%

Source: EMSI

- **The region’s fastest declining occupations are those that are most affected by technology and automation** (more so than global competition). Those occupations include clerks, couriers, meter readers and low-skill production workers.

EDUCATIONAL DEMAND WITHIN THE WORKFORCE

- Jobs demanding higher education are more apt to pay better. Over a 40-year career, an average worker employed in **a job requiring a two-year degree will earn about \$640,000 more in total wages and benefits than a worker employed in a job requiring only a high school degree.**
- **Jobs that require higher educational levels are growing at a rate that is much faster than other parts of the economy.** As a result, workers will increasingly need to continue their education in order to find good employment opportunities. (See Figure 4.)

- **Workers employed in jobs requiring a four-year degree are competing against an increasingly national and international labor pool.** Employers report that Nashville’s amenities, cost-of-living, and perceived quality of life currently offer a competitive advantage to attracting and keeping high-skill talent from higher-cost urban areas.

INDUSTRY AND OCCUPATIONAL TREND FOR TARGETED INDUSTRY CLUSTERS

- The region has several vital economic development targets—headquarters operations, health care administration, music and entertainment, advanced manufacturing, and distribution and logistics, as

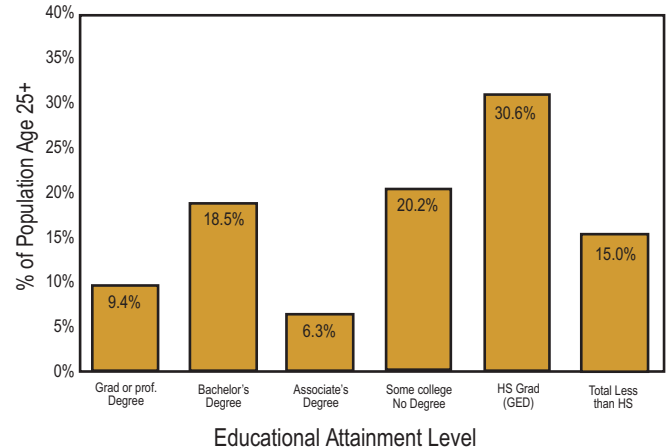
well as other areas of interest including financial services and data centers.

- Among these targets, the high-wage, high-demand occupations include general and operations managers, financial managers, business operations specialists, computer systems analysts and industrial engineers.

BRIDGING THE GAP IN SUPPLY AND DEMAND

- **The region could experience a shortage of about 2,300 or more workers per year during the next decade**, as new job creation outpaces the number of people available to work. This suggests that the **labor market could get even tighter and the region must focus its attention on ensuring that strategically important jobs are filled.** (See Figure 5.)
- Key areas where **the educational system is not meeting the existing and projected demand** include a number of technical, information technological, and engineering occupations, various management jobs, industrial engineers, post secondary and secondary school teachers — particularly for STEM disciplines.
- The region’s economic development program goals include efforts to modestly increase the local labor force participation rate by 2011. This effort recognizes the need for **businesses to explore ways to retain older workers and employ those with disabilities, low-income women with children, former military and immigrants.** This initiative could be vital for the Nashville area to sustain its growth as it encounters likely future worker shortages.
- **The region’s higher education institutions struggle to meet nursing job demands.** Other allied health occupations are also left short. As a result, the region’s programs are not large enough to meet the expected demand for specific occupations such as nursing aides, medical lab techs, licensed practical nurses, and registered nurses. **Currently, almost 400 more degree or award completers each year are needed to fill available LPN/VPN and related allied health care jobs.**
- **At the four-year and advanced degree levels, the region is experiencing an annual shortfall of almost 1,700 graduates.** The shortages are occurring in several occupational groupings that are critically

Figure 6: Educational Attainment for the Nashville Economic Market Area, 2006 estimated



Source: US Census Bureau American Community Survey

Figure 5: Estimated Need in Select Occupational Groupings

Occupational Group	Est Annual Demand	Avg Annual Supply#	Est Annual Need
Management, Business, Financial, & Administration Occupations			
4-year & Advanced Degree	3,436	1,538	1,898
Tech-Some Post	219	346	-127
Computer & Mathematics Occupations			
4-year & Advanced Degree	470	261	209
Tech-Some Post	119	182	-62
Architecture & Engineering Occupations			
4-year & Advanced Degree	202	228	-26
Tech-Some Post	112	108	4
Life, Physical, & Social Science Occupations			
4-year & Advanced Degree	181	1,022	-841
Tech-Some Post	49	65	-16
Community, Social Services, Personal Care Occupations			
4-year & Advanced Degree	410	158	251
Tech-Some Post	260	437	-177
Legal Occupations			
4-year & Advanced Degree	32	130	-98
Tech-Some Post	57	108	-51
Education, Training, and Library Occupations			
4-year & Advanced Degree	1,559	714	845
Tech-Some Post	177	73	105
Healthcare Practitioners, Support, & Technical Occupations			
4-year & Advanced Degree	410	485	-74
Tech-Some Post	1,939	1,810	130
Arts & Entertainment Occupations			
4-year & Advanced Degree	519	912	-394
Tech-Some Post	42	70	-29
Sales & Related Occupations			
4-year & Advanced Degree	220	10	210
Tech-Some Post	362	84	278
Production, Installation, Maintenance, & Repair Occupations			
4-year & Advanced Degree	0	0	0
Tech-Some Post	479	1,361	-881
ALL OCCUPATIONS			
4-year & Advanced Degree	7,219	5,525	1,694
Tech-Some Post	3,472	4,672	-1,200

*Assume 80 percent of completers enter the workforce
 #Assume 60 percent of 4-year and advanced degree completers stay in the region
 Source: EMSI

important to many Nashville-area employers. These key occupational groupings include management-related occupations and computer and mathematics-related occupations. Other occupational groupings experiencing an annual shortfall of workers with four-year and advanced degrees include sales and related occupations, education, training and library occupations, and community, social services and personal care occupations.

- Area higher education institutions appear to be meeting most of the region's aggregate demand for people with two-year degrees and postsecondary certifications. There are, however, **modest to severe shortages in several broad occupational groupings in fields related to education, health care and sales.**
- **The Nashville area's share of population with a bachelor's degree is somewhat higher than the U.S. level, but the region has a lower proportion of its population with an associate's degree.** At slightly higher than 20 percent of the population, Nashville

does better than both the U.S. (at 19.5 percent) and Tennessee (at 19.2 percent) for the proportion of people with some college. **Only 23.4 percent of regional students in higher education were enrolled in two-year institutions versus 40 percent and higher nationally.** (See Figure 6.)

- The need for postsecondary training (including two-year degrees and certifications) is likely understated in this analysis since companies are increasingly demanding higher skills and more formal education and training for jobs that once required moderate- or long-term on-the-job training.
- **About 15 percent of the region's workforce does not have a high school degree. This is slightly less than the U.S. (at 15.9 percent) and much lower than the rest of Tennessee where about 19 percent of the population dropped out of school and have never completed their general education degree equivalency.**

CONCLUSIONS

Of particular note, there are several educational programs in which the area should pay particularly close attention. Clearly, two-year allied health programs are important. Although the region has made strides in expanding available registered nursing programs, many other health care-related career and technical occupations are experiencing notable shortages. Furthermore, the region does not have enough area graduates from two-year or certificate programs in technical sales fields, industrial maintenance apprenticeships, and supervisory training in many career and technical fields. Significantly, the data shows the region needs more graduates with four-year computer network and systems degrees to serve a variety of business sectors.

In many fields, area colleges and universities are actually graduating enough candidates for the jobs available, particularly in some of the high-demand occupations. A key challenge, however, is to develop strategies to keep more university and advanced degree candidates in the region. The shortages identified in several occupations are due in large part to an assumption based on research suggesting that 40 percent of area college graduates leave the region when they finish their education. If more of these individuals were retained in Nashville, many "shortage" areas, especially at the four-year degree level could be addressed. Yet, clearly many Nashville-region colleges and universities serve national needs for workers.

Consequently, there are programs that cannot and should not be tailored entirely for the local needs. Instead the Nashville region largely must either expand program offerings in number, type and volume for increased local enrollment or recruit more external students to enroll in programs serving Nashville job market needs, or both. Research indicates a strong need for policymakers to proactively encourage students early in their decision-making to remain in-state for higher education. Students who remain in-state for higher education related to high demand occupations are much more likely to remain in-state to achieve their career goals.

Nashville is in a potentially very strong position to respond to its workforce needs if adaptations occur. The region has the institutional infrastructure to meet its needs. With guidance from this industry and occupational research, area education and training institutions can better align their curricula and emphases with the region's emerging economic challenges and opportunities. The urgency for policymakers and educators in responding to these shifting national and regional workforce patterns could not be greater. Increasingly, the significant number of future retirees combined with continued technological innovation and expanding global trade will heighten the already fierce competition for work-ready creative talent. ♦

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