



Tennessee Higher
Education Commission

**Academic Supply and
Occupational Demand
in Tennessee**

**Workforce Needs and
Degree Production**

Annual Report

January 15, 2014



TENNESSEE HIGHER EDUCATION COMMISSION

2013 – 2014 COMMISSION MEMBERS

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EXECUTIVE SUMMARY

- **By 2025, higher education institutions in Tennessee will award many more postsecondary degrees.**
 - More degrees of *all levels* will be awarded. The most substantial growth will be in certificates, followed closely by Associate's degrees.
 - As such, many of these degrees will be awarded from Tennessee Colleges of Applied Technology (TCATs) and community colleges across the state.
 - Bachelor's degrees awarded will continue to increase with the historical trend, while Master's and Doctoral degrees will experience more accelerated growth.

- **There is high demand for individuals trained in a variety of career paths across the state.**
 - The most in-demand career paths include construction, transportation and logistics, and medical professions. There is a deficit of individuals trained to work in these areas throughout Tennessee.
 - Occupations in these fields require all levels of postsecondary degrees. Many positions require a certificate or an Associate's degree.

- **Many higher education institutions in Tennessee offer academic programs that can meet the employment needs of these high-demand areas.**
 - Public, private, and proprietary institutions offer degree programs of all levels in areas related to these in-demand fields.
 - Opportunities for training in these areas are available across the State, and are not limited to higher education institutions in a specific geographic area.

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INTRODUCTION

This is the inaugural report prepared pursuant to Tenn. Code Ann. § 49-7-112(b), which directs the Tennessee Higher Education Commission (THEC) to:

“...produce an annual report regarding state workforce need projections and credential production.”

This section of statute, known as the “Skills for Jobs Act,” is provided in its entirety in **Appendix D**.

This report is the result of collaboration between THEC, the Tennessee Department of Labor and Workforce Development, and the University of Tennessee’s Center for Business and Economic Research (CBER). Using historical data from 2000-2011, this report presents projections of academic degrees to be awarded from public, private, and proprietary institutions in Tennessee through the year 2025. These estimates of degree production (*supply*) are then linked to the needs of Tennessee’s workforce (*demand*) to determine whether the output of Tennessee’s higher education system is meeting the needs of employers across the state.

This report is divided into four sections:

Expected awards presents projections of postsecondary certificates and degrees to be awarded by public, private, and proprietary institutions in Tennessee through 2025.

Workforce needs identifies Tennessee’s most immediate workforce deficits and highlights the 25 most in-demand career fields across the state.

Institutions offering programs in high-demand areas lists the public and private institutions across Tennessee that offer degree programs in the top 25 high-demand occupational areas.

Conclusion, limitations, and recommendations discusses what can be learned about Tennessee’s supply of labor and demand for particular career paths, outlines shortcomings of supply and demand analyses, and proposes directions for future work in this area.

METHODOLOGY

Projections of academic degree production and workforce demand were developed independently by CBER and the Tennessee Department of Labor and Workforce Development, respectively. These projections were then linked to analyze labor supply and workforce demand. The discussion below explains the methodology used to develop and link these projections, and addresses important caveats for using these estimates.

Supply projections

Postsecondary awards are projected through 2025.¹ Table 1 presents the types of awards included in these projections. Concentrations and minors are excluded, as these are difficult to link to the education requirements of particular occupations.

Table 1: Types of awards included in analysis

Awards of less than 1 academic year
Awards of at least 1 but less than 2 academic years
Associate's degrees
Awards of at least 2 but less than 4 academic years
Bachelor's degrees
Post baccalaureate certificates
Master's degrees
Post-master's certificates
Doctoral degrees
First-professional degrees
First-professional certificates

Public, private, and proprietary institutions in Tennessee that award postsecondary certificates or higher, participate in federal student financial aid programs, and are included in the Integrated Postsecondary Education Data System (IPEDS) comprise the sample for this analysis (number of institutions = 197). IPEDS is a federal dataset containing a breadth of information about higher education institutions, including student demographics and program offerings. A complete list of these institutions is presented in **Appendix A**.

¹ Data for projections of supply were extracted from IPEDS. These projections are based on historical data for the years 2000-2011. Past trends in degree attainment are significantly related to future growth. If a particular degree type shows growth between 2000 and 2011, for example, it is likely that the number of Tennesseans earning that degree will continue to increase in the future. A caveat, however, is that new degree programs in emerging fields may be difficult to project accurately, as historical data about these programs are limited.

Demand projections

Projections of workforce demand were estimated by the Tennessee Department of Labor and Workforce Development using both the Standard Occupation Classification (SOC) and the North American Industrial Classification (NAIC) systems, as well as employer surveys.²

The linkage between educational requirements and occupations are most accurate for highly specialized fields, such as those requiring a specific certificate or an advanced degree. Conversely, many fields requiring a Bachelor's degree are less clearly defined, as those who hold a Bachelor's degree often have a number of diverse employment opportunities in a variety of fields.

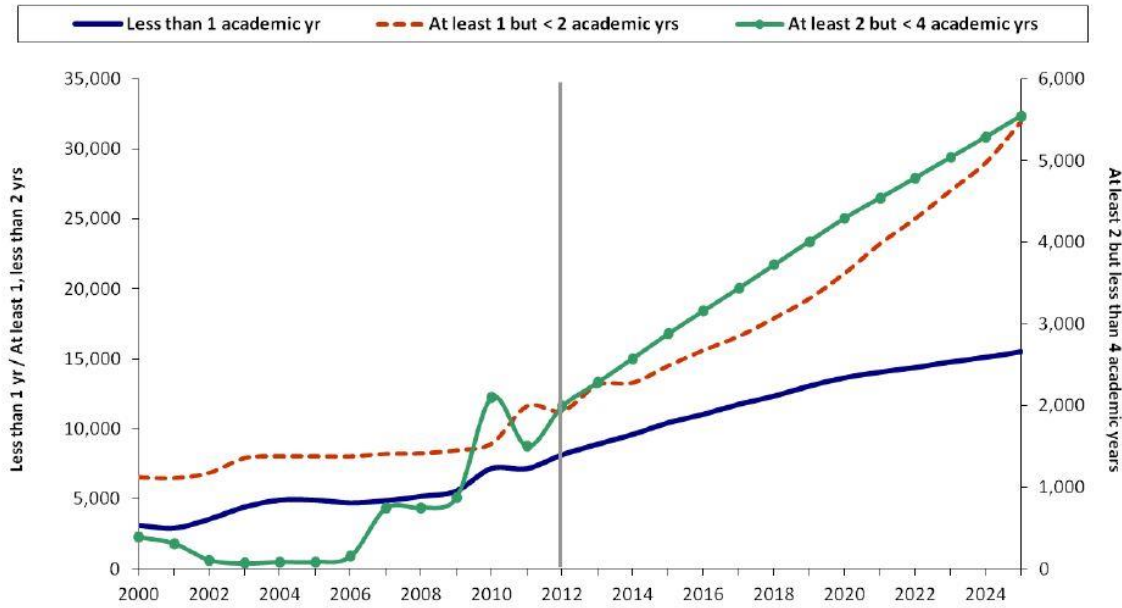
² The SOC system provides information about the minimum education requirement or training required for specific occupations across the state. These education and training requirements reflect what is typically observed for an employee in a given occupation. Certainly, exceptions exist. For example, an individual who holds a Doctoral degree may be employed in a position that requires only a Bachelor's degree.

EXPECTED AWARDS

This section examines projections of the supply of postsecondary certificates and degrees to be awarded by public, private, and proprietary institutions in Tennessee. This analysis forecasts various award levels by institutional sector through the year 2025.³

Figure 1 shows the projections of certificates to be awarded by public, private, and proprietary institutions included in the sample. Certificates are classified into three groups: certificates that require less than one academic year, certificates that require at least one but less than two academic years, and certificates that require at least two but less than four academic years. During the period of interest (AY 2012 – AY 2025), all types of certificate awards are projected to increase appreciably, continuing the historical trend.

Figure 1: Certificates by Academic Year – private, public, and proprietary institutions



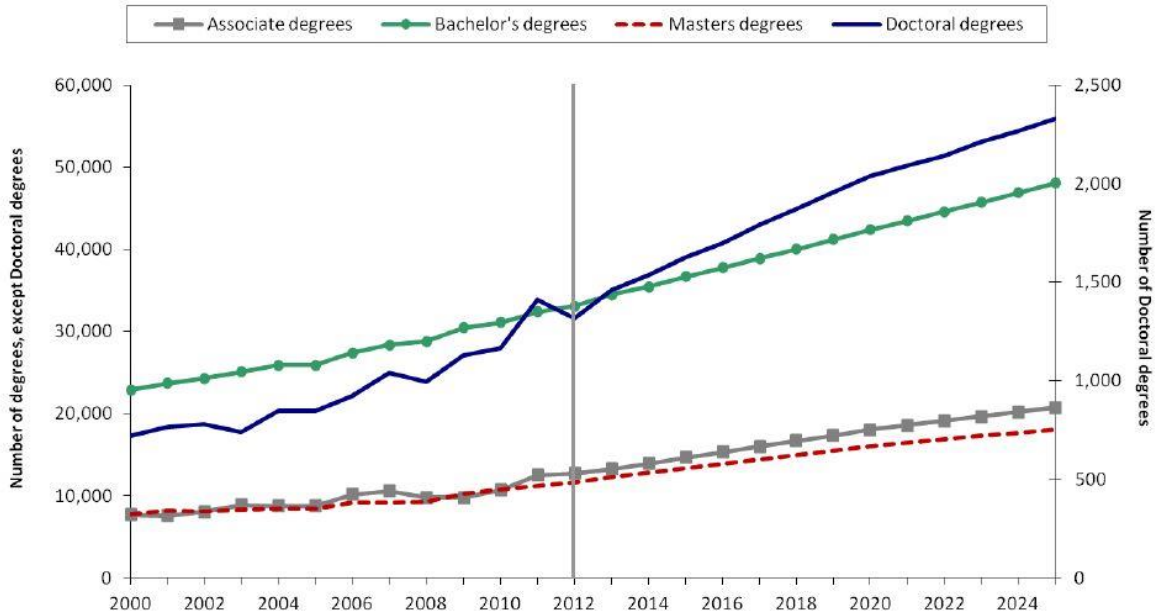
Reproduced with permission from: CBER, *2013 Academic Program Supply and Occupational Demand Projections: 2012–2025* (Figure 2, p.19).

Figure 2 forecasts degree production by award level: Associate’s, Bachelor’s, Master’s, and Doctoral degrees. The number of postsecondary degrees produced by

³ For public institutions, CBER used historical data from IPEDS from academic year (AY) 2000 to AY 2011, and developed projections by institution and award level through AY 2025. For private institutions, THEC used historical supply data from IPEDS from AY 1995 through AY 2012, and calculated projections by institutional sector through AY 2025. Different methodologies were used to construct these forecasts: CBER employed multiple regression, while THEC used the Compound Annual Growth Rate.

public, private, and proprietary institutions of higher education is projected to increase for all award levels through 2025. While Bachelor’s degrees are expected to increase in accordance with the historical trend, Associate’s and Doctoral degrees will experience more accelerated growth.

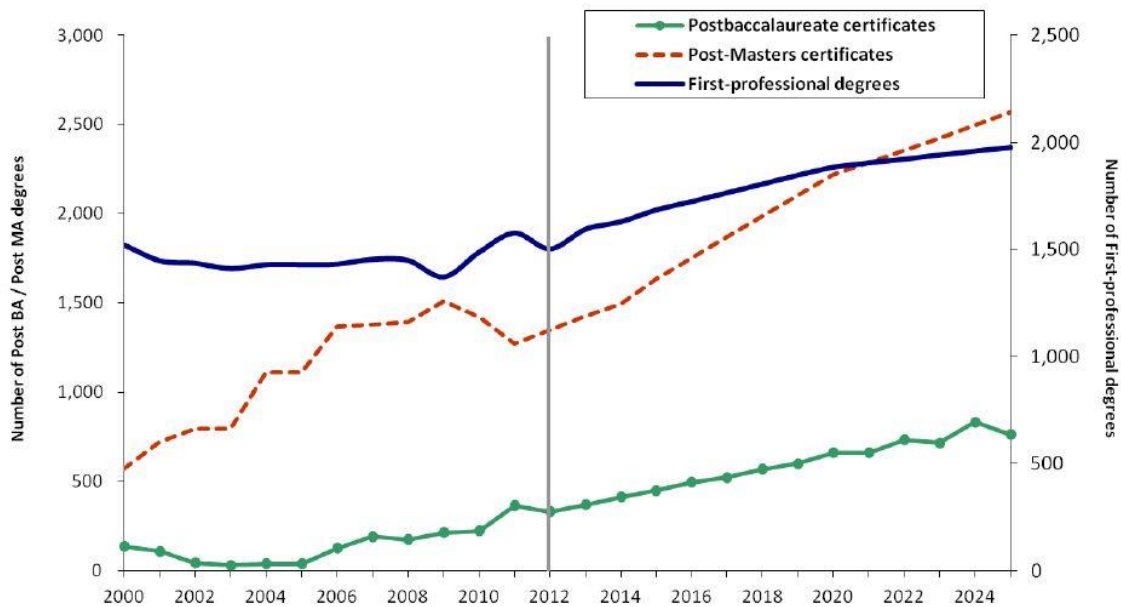
Figure 2: Degrees Awarded by Academic Year



Reproduced with permission from: CBER, *2013 Academic Program Supply and Occupational Demand Projections: 2012–2025* (Figure 3, p.19).

Figure 3 shows projections for post-baccalaureate and post-Master’s certificates and first-professional degrees. All of these awards are projected to grow through 2025, with post-baccalaureate and post-Master’s certificates showing the fastest growth.

Figure 3: Post-BA, Post-MA, and First-Professional Awards by Academic Year



Reproduced with permission from: CBER, *2013 Academic Program Supply and Occupational Demand Projections: 2012–2025* (Figure 4, p.20).

Table 2 displays the number of awards produced by **public** higher education institutions in Tennessee. It includes historical supply data from AY 2000 through AY 2011, and projections of degree production through 2025. Institutions are classified into Tennessee Colleges of Applied Technology (TCATs), community colleges, and public colleges and universities.

Continuing the historical trend, all award types at public institutions are projected to increase through 2025. The fastest growth will occur in certificate awards: certificates requiring more than two but less than four years (249.6 percent growth), any certificates requiring less than two years (121.2 percent), and post-baccalaureate certificates (100.9 percent). In absolute numbers, Bachelor’s degrees will continue to be the dominant award type, followed by less-than-two-year certificates and Associate’s degrees.

Table 3 presents degree production forecasts from Tennessee’s **private** and **proprietary** postsecondary institutions. These projections apply the historical growth rate to degree production estimates from AY 2013 through 2025. The awards in Table 3 include the combined number of certificates and degrees, and are presented separately for private and proprietary institutions.

Although total awards in both the private and proprietary sectors are projected to increase through 2025, awards from proprietary institutions are expected to increase much more quickly. From AY 2012 to 2025, the number of awards awarded by proprietary institutions is projected to increase by 159.2 percent, while degrees awarded from private institutions will experience a gain of 61.1 percent.

Table 2: Number of Awards Produced by Public Institutions in Tennessee: Projections 2013-2025

Type of Institution Level of award	Number of awards																
	History			Forecast													
	2000-2001	2005-2006	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025	2025-2026
TCATs																	
Awards of less than 1 AY	1,109	1,453	1,863	2,117	2,253	2,415	2,568	2,698	2,830	2,957	3,087	3,217	3,268	3,316	3,363	3,420	3,476
Awards of at least 1 but less than 2 AY	3,797	4,199	4,715	4,941	5,477	5,674	6,322	6,323	6,849	7,070	7,530	7,727	8,235	8,740	9,465	10,389	10,989
Awards of at least 2 but less than 4 AY	205	28	940	1,112	1,256	1,411	1,571	1,732	1,895	2,061	2,235	2,404	2,575	2,746	2,923	3,100	3,286
Community colleges																	
Awards of less than 1 AY	912	999	2,082	1,931	2,295	2,391	2,722	2,807	3,077	3,162	3,429	3,524	3,667	3,681	3,820	3,834	3,964
Awards of at least 1 but less than 2 AY	482	430	715	760	881	907	1,064	1,053	1,242	1,177	1,368	1,406	1,540	1,700	1,955	2,121	2,275
Associate's degrees	5,561	5,946	8,125	8,372	8,703	9,098	9,505	9,864	10,230	10,587	10,945	11,307	11,587	11,862	12,140	12,418	12,697
Public, 4+ years																	
Awards of less than 2 AY	16	6	17	20	23	26	30	35	39	43	47	52	56	59	64	68	71
Associate's degrees	248	268	370	370	389	406	424	439	454	470	484	500	508	518	525	533	542
Bachelor's degrees	13,438	14,969	18,530	18,916	19,721	20,187	20,879	21,422	22,054	22,641	23,266	23,886	24,479	25,066	25,681	26,306	26,946
Postbaccalaureate certificates	21	29	248	220	259	289	328	356	383	407	440	467	477	489	506	516	523
Master's degrees	4,319	4,540	5,732	5,804	6,069	6,303	6,540	6,760	6,975	7,191	7,412	7,625	7,797	7,968	8,129	8,300	8,465
Post-master's certificates	111	205	393	381	415	449	480	507	534	560	586	613	631	652	674	698	722
Doctor's degrees	455	468	733	721	758	785	810	839	873	906	941	974	1,005	1,039	1,078	1,112	1,147
First-professional degrees/certificates	825	784	979	993	1,022	1,058	1,091	1,121	1,149	1,178	1,207	1,233	1,249	1,263	1,279	1,294	1,309

Reproduced with permission from: CBER, *2013 Academic Program Supply and Occupational Demand Projections: 2012–2025*.

Table 3: Number of Awards Produced by Private and Proprietary Institutions in Tennessee: Projections 2013-2025

Institutional sector	Number of awards *																	
	Historical data **					Forecast ***												
	1994-1995	1999-2000	2004-2005	2009-2010	2011-2012	2012-2013	2013-2014	2014-2015	2015-2016	2016-2017	2017-2018	2018-2019	2019-2020	2020-2021	2021-2022	2022-2023	2023-2024	2024-2025
Private institutions	10,742	12,822	15,401	18,895	20,891	21,677	22,492	23,337	24,215	25,125	26,070	27,050	28,067	29,123	30,218	31,354	32,533	33,756
Proprietary institutions	3,390	3,972	7,079	11,481	12,681	13,645	14,682	15,798	16,998	18,290	19,680	21,176	22,785	24,517	26,380	28,385	30,542	32,863

Notes:

- * Certificates and degrees combined.
- ** THEC analysis of IPEDS data, AY 1994-95 – AY 2011-12.
- *** Compound Annual Growth Rate is used for award projections.

Appendix C presents all degree levels awarded by **proprietary** institutions operating in Tennessee during AY 2011-12, by program area. The majority of these awards are certificates and diplomas, followed closely by Bachelor's degrees. Students earning many of these certificates and degrees specialized in a small number of fields: transportation and materials moving, mechanic and repair technology, health professions, computer and information sciences, and business, management, and marketing.

Very few proprietary institutions operating in Tennessee (49% of institutions, 16% of locations) are included in the IPEDS dataset. This is because not all of these institutions participate in federal financial aid programs. When all proprietary institutions authorized to operate in Tennessee (191 institutions in 407 locations) are included, as presented in Appendix C, historical trends in degree production at proprietary institutions are presented much more clearly, as the trends at a greater number of institutions are seen.

WORKFORCE NEEDS

Table 4 presents the top 25 postsecondary programs of study for which employment opportunities are growing more rapidly than the supply of educated labor. Stated differently, these programs produce fewer graduates than there are jobs available, so there is a need for Tennesseans to be trained in these areas. This list of programs was compiled by the Tennessee Department of Labor and Workforce Development. These programs of study are offered at public, private, and proprietary institutions across the state, and yield all levels of postsecondary awards. Additional information about the supply of graduates and demand for those trained in these programs can be seen in **Appendix B**.

As construction employment grows throughout the state, thousands of job openings are expected over the next decade. This is the case not only for those trained in general construction, but also for those specializing in design, electrical, plumbing, masonry, and carpentry. Further, there is a great need for skilled employees in transportation, logistics, and distribution.

Individuals trained to work in the medical field continue to be in high demand. Medical and clinical technicians, physical therapy assistants, ultrasound technicians, and occupational therapy assistants, all positions that can be filled by those holding a certificate or Associate's degree, are needed in the Tennessee workforce.

Tennesseans trained in computer programming and web/multimedia management are in high demand. While it is worth noting that those who complete any of these 25 high-need programs have the potential to earn a salary above the statewide median income (approximately \$30,000), those trained as computer programmers or web/media managers are some of the highest earners among those working in these in-demand fields.

Finally, those trained in adult and continuing education are critical to Tennessee's economic vitality, as many adult students are reentering the classroom seeking job retraining or new career options. In order for these Tennesseans to be successful, they must be instructed and supported by those trained to address the unique needs of adult learners.

Table 4: Programs of study with largest growth in employment opportunities across Tennessee

Program of Study	Average Annual Openings	Average Wage
Truck, Bus, Rail, Water Transportation, and Equipment	2,730	\$41,287
Construction - Other	1,980	\$37,339
Accounting Administrative Support	1,420	\$33,518
Web/Multimedia Management, Programming	1,350	\$70,597
Construction - Construction Electrical	1,150	\$42,854
Business Analysis	910	\$71,628
Social Work	700	\$39,912
Pre-K-Early Childhood Education	650	\$30,660
Human Resources	620	\$44,371
Support Services- Adult and Continuing Education	580	\$33,258
Construction - Construction Carpenters	530	\$31,875
Construction - Construction Plumbing	530	\$38,167
Technical Design & Preconstruction	450	\$55,273
Security and Protective Services	430	\$44,383
Fire Fighting	340	\$54,763
Construction - Construction Masonry & Concrete	240	\$30,855
Medical and Clinical Laboratory Technicians	230	\$31,431
Physical Therapy	220	\$77,769
Physical Therapy Assistant	180	\$43,111
Compliance Officers	160	\$49,731
Marketing Research	120	\$46,122
Surveying and Civil Technology	80	\$40,974
Ultrasonic Technician	70	\$52,495
Production Design	70	\$54,620
Occupational Therapy Assistant	60	\$32,177

Source: Tennessee Department of Labor and Workforce Development, 2013

INSTITUTIONS OFFERING PROGRAMS IN HIGH-DEMAND AREAS

The following section presents the academic programs available at public and private institutions in Tennessee that produce graduates who are employable in the aforementioned in-demand areas.

a. Truck, Bus, Rail, Water Transportation, and Heavy Equipment

Careers in this area include truck drivers, bus drivers, locomotive engineers, ship engineers, and boat operators. Typical education requirements for these occupations include moderate on-the-job training, work experience in a related area, and postsecondary vocational training.

Programs leading to careers in this area are available at the following institutions:

Commercial Truck Driving			
System	Institution	Program	Degree
TBR	TCAT Chattanooga	Truck Driving	Certificate/ Diploma
TBR	TCAT Crump	Truck Driving	Certificate/ Diploma
TBR	TCAT Dickson	Truck Driving	Certificate/ Diploma
TBR	TCAT Knoxville	Truck Driving	Certificate/ Diploma
TBR	TCAT Memphis	Truck Driving	Certificate/ Diploma
TBR	TCAT Nashville	Truck Driving	Certificate/ Diploma
TBR	TCAT Oneida	Truck Driving	Certificate/ Diploma
TBR	TCAT Ripley	Truck Driving	Certificate/ Diploma
TBR	TCAT Shelbyville	Truck Driving	Certificate/ Diploma

b. Construction

Careers in this area require a wide range of skills and craftsmanship knowledge. They include paving, carpentry, plumbing, masonry, electrical work, civil engineering, and construction management. Typical educational requirements for these careers range from on-the-job training and some postsecondary vocational training to an Associate's or Bachelor's degree.

Programs leading to careers in this field are available at the following institutions:

Construction			
System	Institution	Program	Degree
TBR	TCAT Chattanooga	Building and Construction Technology	Certificate/ Diploma
TBR	TCAT Livingston	Building and Construction Technology	Certificate/ Diploma
TBR	TCAT Memphis	Building and Construction Technology	Certificate/ Diploma
TBR	TCAT Nashville	Building and Construction Trades	Certificate/ Diploma
TBR	TCAT Chattanooga	Plumbing	Certificate/ Diploma
TBR	TCAT Chattanooga	Masonry	Certificate/ Diploma
TBR	TCAT Memphis	Masonry	Certificate/ Diploma
TBR	TCAT Athens	Electrical Repair	Certificate/ Diploma
TBR	TCAT Chattanooga	Electrical & Power Transmission Installation	Diploma
TBR	Pellissippi State Community College	Electrical Construction & Repair	Technical Certificate
TBR	Southwest Tennessee Community College	Electrical Fundamentals	Technical Certificate
TBR	Pellissippi State Community College	Electrical Systems Technology	Technical Certificate
TBR	Chattanooga State Community College	Electrical Engineering Technology	AAS
TBR	Nashville State Community College	Electrical Engineering Technology	AAS
TBR	Southwest Tennessee Community College	Electrical Engineering Technology	AAS
TBR	Northeast State Community College	Electrical Technology	AAS
TBR	Southwest Tennessee Community College	Architectural Engineering Technician	AAS
TBR	Middle Tennessee State University	Construction Management	BS

c. Accounting Administrative Support

Careers in this area include bookkeeping, accounting, auditing, and payroll and medical billing. Entry into these careers typically requires moderate on-the-job training. However, there are many opportunities throughout the Tennessee for postsecondary education in these fields.

Programs leading to careers in this field are available at the following institutions:

Accounting Administrative Support			
System	Institution	Program	Degree
TBR	Dyersburg State Community College	Medical Coding	Technical Certificate
TBR	Nashville State Community College	Medical Coding	Technical Certificate
TBR	Walters State Community College	Medical Insurance Specialist/Coding	Technical Certificate
TBR	Pellissippi State Community College	Medical Insurance Coding and Reimbursement	Technical Certificate
TBR	Cleveland State Community College	Accounting	Technical Certificate
TBR	Southwest Tennessee Community College	Accounting	Technical Certificate
TBR	Pellissippi State Community College	Accounting Specialist	Technical Certificate
TBR	Nashville State Community College	Accounting Technology	Technical Certificate
TBR	Northeast State Community College	Accounting Technology	Technical Certificate
TBR	Chattanooga State Community College	Accounting Technology	AAS
TBR	Nashville State Community College	Computer Accounting	AAS

d. Web/Multimedia Management and Computer Programming

Careers in this area include information systems managers, computer programmers, database administrators, software developers, and computer science researchers and teachers. Postsecondary education is necessary for entry into all of these career fields. Computer support specialists require an Associate's degree, while more specialized occupations, such as computer and information research scientists, require a Master's or Doctoral degree.

Programs leading to careers in this field are available at the following institutions:

Web/Multimedia Management			
System	Institution	Program	Degree
TBR	TCAT Athens	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Chattanooga	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Covington	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Crossville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Crump	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Dickson	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Elizabethton	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Harriman	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Hartsville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Hohenwald	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Jacksboro	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Livingston	Computer Information Technology	Certificate/ Diploma
TBR	TCAT McKenzie	Computer Information Technology	Certificate/ Diploma
TBR	TCAT McMinnville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Memphis	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Morristown	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Murfreesboro	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Nashville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Oneida	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Paris	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Ripley	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Shelbyville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Whiteville	Computer Information Technology	Certificate/ Diploma
TBR	TCAT Pulaski	Computer Operating Systems	Certificate/ Diploma
TBR	TCAT Memphis	Computer Based Graphic Design	Certificate/ Diploma
TBR	Roane State Community College	Computer Science	Certificate
TBR	Southwest Tennessee Community College	Computer Software Specialist	Certificate
TBR	All Community Colleges (RODP)	Web Page Authoring	Certificate
TBR	Chattanooga State Community College	Web Programming	Certificate
TBR	Chattanooga State Community College	Web Design Tools	Certificate
TBR	Pellissippi State Community College	Web Design Tools	Certificate
TBR	Volunteer State Community College	Web Applications and Development	Certificate
TBR	All Community Colleges (RODP)	Web Technology	AAS
TBR	Dyersburg State Community College	Computer Information Technology	AAS
TBR	Northeast State Community College	Computer and Information Sciences	AAS
TBR	Walters State Community College	Computer and Information Sciences	AAS
TBR	Nashville State Community College	Computer Technology	AAS
TBR	Nashville State Community College	Computer Network Technology	AAS
TBR	Southwest Tennessee Community College	Computer Engineering Technology	AAS
TBR	Southwest Tennessee Community College	Information Technology	AAS
TBR	Walters State Community College	Information Technology	AAS

Web/Multimedia Management - Continued			
System	Institution	Program	Degree
TBR	Austin Peay State University	Computer Science	BS
TICUA	Belmont University	Computer Science/ Web Development	BS
TICUA	Bethel University	Computer Science	BA/BS
TICUA	Christian Brothers University	Computer Science	BS
TICUA	Cumberland University	Computer Information Systems	BBA
TBR	East Tennessee State University	Computer and Information Sciences	MS
TICUA	Freed-Hardeman University	Computer Science/ Digital Design	BS
TICUA	Lane College	Computer Science	BS
TICUA	Lee University	Digital Media/ Information Systems	BA/BS
TICUA	Lipscomb University	Computer Science/ Web Development	BS
TICUA	Maryville College	Computer Science	BS
TBR	Middle Tennessee State University	Computer Science	BS/MS
TICUA	Milligan College	Computer Science / Information Systems	BA/BS
TICUA	Rhodes College	Computer Science	BS
TICUA	Sewanee: University of the South	Computer Science	BS
TICUA	Southern Adventist University	Computer Science/ Information Systems	BA/BS/BBA
TBR	Tennessee State University	Computer Science	BS
TBR	Tennessee Technological University	Computer Science/ Computer Engineering	BS/MS/ BSCMPE
TICUA	Tennessee Wesleyan University	Computer Information Systems	BBA
TICUA	Trevecca Nazarene University	Computing/ Web Development/ IT	BBA/BS
TICUA	Tusculum College	Computer Science/ Graphic Design	BS
TICUA	Union University	Computer Science/ Digital Media/ IT	BS
TBR	University of Memphis	Computer Science/ Computer Engineering	BS/BSCPE/MS/PhD
UT	University of Tennessee, Chattanooga	Computer Science/ Computer Networking	BS/MS
UT	University of Tennessee, Knoxville	Computer Science/ Computer Engineering	BSCS/BSCOME/MS/PhD
UT	University of Tennessee, Martin	Computer Science	BS
TICUA	Vanderbilt University	Computer Science/ Computer Engineering	BS/ MS/ PhD

e. Business Analytics

Careers in this area include business operations specialists, and budget, marketing, and management analysts. Each of these careers requires a Bachelor's or Master's degree. While many of the programs included in the following list are specific to management information systems and management science, degrees in marketing and business also provide a foundation for careers in this field.

Programs leading to careers in this field are available at the following institutions:

Business Analytics			
System	Institution	Program/ Concentration	Degree
TICUA	Belmont University	Management Information Systems	BBA
TICUA	Carson-Newman University	Management Information Systems	BBA
TICUA	Christian Brothers University	Management Information Systems	BSBA
TICUA	Cumberland University	Management Science	BBA
TICUA	Lincoln Memorial University	Management Science	BBA
TICUA	Lee University	Management Information Systems	BA/BS
TICUA	Martin Methodist College	Management Information Systems	BBA
TBR	University of Memphis	Management Information Systems	BBA
UT	University of Tennessee, Knoxville	Management Science	PhD

f. Social Work

This career category includes marriage and family therapists, child and mental health social workers, and social work instructors. Postsecondary training is required for each career in this category, and ranges from Bachelor's degrees for general social workers to doctoral degrees for anyone who might teach social work. The greatest deficit in this area is among those earning a Master's degree in Social Work (MSW), who have a variety of professional options.

Programs leading to careers in this field are available at the following institutions:

Social Work			
System	Institution	Program	Degree
TBR	Nashville State Community College	Social Services	AAS
TBR	Austin Peay State University	Social Work	BSW/MSW
TICUA	Belmont University	Social Work	BSW
TBR	East Tennessee State University	Social Work	BSW/MSW
TICUA	Freed-Hardeman University	Social Work	BSW
TICUA	LeMoyne-Owen College	Social Work	BS
TICUA	Lincoln Memorial University	Social Work	BS
TICUA	Lipscomb University	Social Work	BSW
TBR	Middle Tennessee State University	Social Work	BSW/MSW
TICUA	Southern Adventist University	Social Work	BSW/MSW
TBR	Tennessee State University	Social Work	BSW/MSW
TICUA	Trevecca Nazarene University	Social Work	BS
TICUA	Union University	Social Work	BSW/MSW
TBR	University of Memphis	Social Work	BSW/MSW
UT	University of Tennessee, Chattanooga	Social Work	BSW
UT	University of Tennessee, Knoxville	Social Work	BSSW/MSSW/DSW/PhD
TBR	East Tennessee State University	Family and Marriage Counseling	MA
UT	University of Tennessee, Knoxville	Family and Marriage Counseling	MS

g. Teacher Training Services: Pre-K/Early Childhood Education

Preschool and Kindergarten teachers are included in the Pre-K/Early Childhood Education career category. Vocational training or a Bachelor’s degree is required for a career in this field.

Programs leading to careers in this field are available at the following institutions:

Early Childhood Education			
System	Institution	Program	Degree
TBR	TCAT Crossville	Early Childhood Education	Certificate/ Diploma
TBR	TCAT Hohenwald	Early Childhood Education	Certificate/ Diploma
TBR	TCAT Nashville	Early Childhood Education	Certificate/ Diploma
TBR	TCAT Paris	Early Childhood Education	Certificate/ Diploma
TBR	Chattanooga State Community College	Early Childhood Education	Certificate/AAS
TBR	Cleveland State Community College	Early Childhood Education	Certificate/AAS
TBR	Columbia State Community College	Early Childhood Education	Certificate
TBR	Dyersburg State Community College	Early Childhood Education	Certificate/AAS
TBR	Motlow State Community College	Early Childhood Education	Certificate/AAS
TBR	Nashville State Community College	Early Childhood Education	Certificate/AAS
TBR	Northeast State Community College	Early Childhood Education	Certificate/AAS
TBR	Pellissippi State Community College	Early Childhood Education	Certificate/AAS
TBR	Roane State Community College	Early Childhood Education	Certificate/AAS
TBR	Southwest Tennessee Community College	Early Childhood Education	Certificate/AAS
TBR	Volunteer State Community College	Early Childhood Education	Certificate/AAS
TBR	Walters State Community College	Early Childhood Education	Certificate/AAS
TICUA	Belmont University	Early Childhood Education	BA/BS
TICUA	Carson-Newman University	Early Childhood Education	BA
TBR	East Tennessee State University	Early Childhood Education	BS/MS/PhD
TICUA	Freed-Hardeman University	Early Childhood Education	BA/BS
TICUA	Lee University	Early Childhood Education	BS
TICUA	LeMoyne-Owen College	Early Childhood Education	BA
TBR	Middle Tennessee State University	Early Childhood Education	BS
TICUA	Milligan College	Child and Youth Development	BA
TICUA	Southern Adventist University	Early Childhood Education	AA/BA
TBR	Tennessee State University	Early Childhood Education	BS
TBR	Tennessee Technological University	Early Childhood Education	BS
TICUA	Tennessee Wesleyan College	Early Human Development and Learning	BS
TICUA	Trevecca Nazarene University	Early Childhood Education	BA
TICUA	Tusculum College	Early Childhood Education	BA
UT	University of Tennessee, Chattanooga	Early Childhood Education	BS
TICUA	Vanderbilt University	Early Childhood Education	BS
TICUA	Welch College	Early Childhood Education	BS

h. Human Resources

Careers in this category include human resource specialists and training and development specialists. Those who seek a career in human resource management typically earn a Bachelor's degree in business administration, or a Master's degree in Business Administration.

Programs leading to careers in this field are available at the following institutions:

Human Resource Management			
System	Institution	Program/ Concentration	Degree
TICUA	Christian Brothers University	Human Resource Management	BSBA
TICUA	Lincoln Memorial University	Human Resource Management	BBA
TICUA	Lipscomb University	Human Resource Management	BBA/MHR
TICUA	Maryville College	Human Resource Management	BS
TICUA	Southern Adventist University	Human Resource Management	BBA
TBR	Tennessee Technological University	Human Resource Management	BSBA
TICUA	Tennessee Wesleyan College	Human Resource Management	BSBA
UT	University of Tennessee, Knoxville	Human Resource Management	BSBA
TICUA	Vanderbilt University	Human Resources Development	M.Ed

i. Adult and Continuing Education – Support Services

Careers in this area include adult basic, secondary, and literacy education teachers. The University of Tennessee, Knoxville offers a Master's degree in Educational Psychology with a focus on Adult Education, and also offers a Doctorate in Educational Psychology and Research focusing on Adult Learning.

j. Security and Protective Services Pathway

The Security and Protective Services career category includes correctional officers, detectives and investigators, gaming surveillance, and criminal justice and law enforcement teachers. Educational requirements for each career range from on-the-job training to a Doctoral degree.

Programs leading to careers in this field are available at the following institutions:

Security and Protective Services			
System	Institution	Program	Degree
TBR	TCAT Chattanooga	Law Enforcement Training Academy	Certificate
TBR	Cleveland State Community College	Law Enforcement Training	Certificate
TBR	Dyersburg State Community College	Corrections and Law Enforcement	Certificate
TBR	All Community Colleges (RODP)	Criminal Justice	AAS
TBR	Austin Peay State University	Criminal Justice	BS
TICUA	Bethel University	Criminal Justice (Online)	BS/MS
TICUA	Bryan College	Criminal Justice	BA
TICUA	Christian Brothers University	Cybersecurity & Digital Forensics	BS
TICUA	Cumberland University	Criminal Justice	BA
TBR	East Tennessee State University	Criminal Justice	BA/BS/MA
TICUA	Freed-Hardeman University	Criminal Justice	BS
TICUA	Lane College	Criminal Justice	BA
TICUA	LeMoyne-Owen College	Criminal Justice	BS
TICUA	Lincoln Memorial University	Criminal Justice	BS
TICUA	Martin Methodist College	Criminal Justice	BA/BS
TBR	Tennessee State University	Criminal Justice	BS
TICUA	Tennessee Wesleyan College	Criminal Justice	BA/BS
TICUA	Trevecca Nazarene University	Criminal Justice	BS
TICUA	Tusculum College	Criminal Justice	BS
TBR	University of Memphis	Criminal Justice	BA/MA
UT	University of Tennessee, Chattanooga	Criminal Justice	BS/MS
UT	University of Tennessee, Martin	Criminal Justice	BSCJ
TBR	Middle Tennessee State University	Criminal Justice Administration	BS

k. Firefighting

Careers in this area include fire fighters, fire inspectors, and fire investigators. Educational requirements for this line of work typically involve on-the-job training or work experience in a related occupation.

Programs leading to careers in firefighting are available at the following institutions:

Fire Fighting			
System	Institution	Program	Degree
TBR	Chattanooga State Community College	Fire Science and Technology	AAS
TBR	Southwest Tennessee Community College	Fire Science and Technology	AAS
TBR	Volunteer State Community College	Fire Science and Technology	Certificate/AAS

1. Medical and Clinical Laboratory Technician/Ultrasonic Technician

Medical and clinical lab technicians can specialize in high-need areas such as phlebotomy, ultrasounds, or general laboratory work. Careers in this category require an Associate's degree, and specialized training is available at several universities throughout the state.

Programs leading to careers in this field are available at the following institutions:

Medical and Clinical Laboratory Technicians			
System	Institution	Program	Degree
TBR	Chattanooga State Community College	Diagnostic Medical Sonography	Certificate
TBR	Volunteer State Community College	Diagnostic Medical Sonography	Certificate
TBR	Volunteer State Community College	Medical Lab Technology	AAS
TBR	Southwest Tennessee Community College	Medical Lab Technician	AAS
TBR	Southwest Tennessee Community College	Lab Phlebotomy Technician	Certificate
TBR	Jackson State Community College	Phlebotomy/ Medical Lab Technician	Certificate/ AAS
TBR	Austin Peay State University	Medical Lab Science	BSMLS
UT	University of Tennessee Health Science Center	Medical Lab Science	BSMLS

m. Physical Therapist and Physical Therapy Assistant

The educational requirements for physical therapy assistants and aides range from short-term on-the-job training to an Associate's degree. To practice physical therapy, one must earn a Master's or Doctoral degree.

Programs leading to careers in this field are available at the following institutions:

Physical Therapy			
System	Institution	Program	Degree
TBR	Chattanooga State Community College	Physical Therapy Assistant	AAS
TBR	Jackson State Community College	Physical Therapy Assistant	AAS
TBR	Roane State Community College	Physical Therapy Assistant	AAS
TBR	Southwest Tennessee Community College	Physical Therapy Assistant	AAS
TBR	Volunteer State Community College	Physical Therapy Assistant	AAS
TBR	Walters State Community College	Physical Therapy Assistant	AAS
TICUA	Southern Adventist University	Pre-Physical Therapy	AAS
TICUA	Tennessee Wesleyan College	Pre-Physical Therapy	BS
TICUA	Belmont University	Physical Therapy	DPT
TBR	East Tennessee State University	Physical Therapy	DPT
TBR	Tennessee State University	Physical Therapy	DPT
UT	University of Tennessee, Chattanooga	Physical Therapy	DPT
UT	University of Tennessee Health Science Center	Physical Therapy	MSPT/DPT/ScDPT

n. Compliance Officers

Careers in this area include compliance officers, financial examiners, and transportation inspectors. Educational requirements for these careers include long-term on-the-job training, work experience in a related occupation, or a Bachelor's degree. There are currently no programs offered in Tennessee that train students for this specific career field. However, many compliance officers have a background in finance. Finance degrees are offered at the baccalaureate level at East Tennessee State University, Middle Tennessee State University, Tennessee Technological University, the University of Memphis, the University of Tennessee, Knoxville and the University of Tennessee, Martin, as well as many of the state's private institutions.

o. Marketing Research

Marketing research analysts and marketing specialist positions typically require a Master’s degree. East Tennessee State University, Middle Tennessee State University, Tennessee Technological University, University of Memphis, the University of Tennessee, Knoxville and the University of Tennessee, Martin offer marketing degrees at the baccalaureate level, as do many of the state’s private institutions. Many universities in Tennessee also offer a Master’s of Business Administration degree that allows students to specialize in marketing.

p. Surveying and Civil Technology

Careers in this category include cartographers, photogrammetrists, surveyors, and mapping technicians. Educational requirements for these positions range from moderate on-the-job training to a Bachelor’s degree.

Programs leading to careers in this area are available at the following institutions:

Surveying and Civil Technology			
System	Institution	Program	Degree
TBR	Pellissippi State Community College	Surveying	Certificate
TBR	Cleveland State Community College	Construction Surveying	Certificate
TBR	East Tennessee State University	Surveying and Mapping Science	BS

q. Production Design

Careers in this area include wood model makers and wood pattern makers. Work experience in a related occupation or long-term on-the-job training is necessary for employment in production design. Tennessee Technological University offers a Bachelor’s of Fine Arts with a concentration in Wood Working, which would prepare Tennesseans for careers in this area.

r. Occupational Therapy Assistant

Occupational therapy aides and assistants require short-term on-the-job training or an Associate’s degree to be employable in this field.

Programs leading to careers in this area are available at the following institutions:

Occupational Therapy Assistant			
System	Institution	Program	Degree
TBR	Jackson State Community College	Occupational Therapy Assistant	AAS
TBR	Nashville State Community College	Occupational Therapy Assistant	AAS
TBR	Roane State Community College	Occupational Therapy Assistant	AAS
TBR	Walters State Community College	Occupational Therapy Assistant	AAS

CONCLUSION, LIMITATIONS, AND RECOMMENDATIONS

Conclusion

Projections of the supply of postsecondary degrees to be awarded indicate that all levels of certificates and degrees will increase through 2025. This growth is particularly dramatic for certificates and Associate's degrees, while the number of Bachelor's and graduate degrees will increase with the historic trend.

Construction, transportation and logistics, and medical professions are career paths in great demand – there are more employment opportunities in these areas than skilled workers to fill them. Careers in these fields require all levels of postsecondary certificates and degrees, ranging from certificates earned in less than one year to Doctoral degrees.

Public, private, and proprietary higher education institutions throughout the state offer a number of academic programs to prepare Tennesseans for careers in these high-demand fields. These programs are offered at institutions across the state, providing many opportunities for training for those seeking employment in these in-demand areas.

Limitations

Supply and demand analyses are useful for educators, employers, and policymakers at all levels. However, those who produce such reports acknowledge a number of underlying limitations:

Supply and demand analyses rely on historical data and assumptions about future economic conditions, industry expansion or contraction. For this reason, projections are sometimes incorrect for various occupational fields, particularly emerging fields with limited historical data, and those fields with high supply-to-demand ratios.

Also, the relationship between supply and demand is most direct at the sub-baccalaureate level (certificates and Associate's degrees) and specialized programs at the Doctoral and professional level. As such, it is more straightforward to link those with specialized degrees to specific employment areas. This is not true for those holding more versatile Bachelor's and Master's degrees, as those with these types of degrees are employable in a number of fields.

Recommendations for future research

Future discussions of degrees awarded and the demand for labor in particular areas would benefit from regional and county-specific breakdowns, as opposed to exploring this issue on a statewide scale. In doing so, educators, employers, and policymakers can better determine the education and workforce needs that are unique to a particular area, and can target funds and interventions accordingly.

Further, future work in this area must more fully integrate information about proprietary institutions operating in Tennessee, rather than rely only on the few institutions of this type that are included in the IPEDS dataset. More comprehensive, detailed data are available from the Tennessee Higher Education Commission's Division of Postsecondary School Authorization. Including more information about proprietary institutions, as well as the programs in high-demand areas offered at these institutions, will provide a more complete view of the number and type of degrees being awarded across Tennessee, particularly in high-demand areas.

Finally, future work on labor supply and workforce demand must account for graduates of career and technical high school across Tennessee. A number of Tennesseans are prepared to enter a skilled trade following high school, as they participate in vocational and apprenticeship programs during their secondary schooling. It would be useful to include these programs in the Tennessee Longitudinal Data System (TLDS) to track the education and career trajectories of these individuals.

Appendix A: Higher education institutions included in sample

Public, 4-year or above

Austin Peay State University
East Tennessee State University
Middle Tennessee State University
Tennessee State University
Tennessee Technological University
The University of Tennessee
The University of Tennessee at Chattanooga
The University of Tennessee Health Science Center
The University of Tennessee-Martin
University of Memphis

Public, 2-year

Chattanooga State Community College
Cleveland State Community College
Columbia State Community College
Dyersburg State Community College
Jackson State Community College
Motlow State Community College
Nashville State Community College
Northeast State Community College
Pellissippi State Community College
Roane State Community College
Southwest Tennessee Community College
Southwest Tennessee Community College-Macon
Volunteer State Community College
Walters State Community College

Public, less than 2-year

TN College of Applied Technology - Athens
TN College of Applied Technology - Covington
TN College of Applied Technology - Crossville
TN College of Applied Technology - Crump
TN College of Applied Technology - Dickson
TN College of Applied Technology - Elizabethton
TN College of Applied Technology - Harriman
TN College of Applied Technology - Hartsville
TN College of Applied Technology - Hohenwald
TN College of Applied Technology - Jacksboro
TN College of Applied Technology - Jackson
TN College of Applied Technology - Knoxville

Private not-for-profit, 4-year or above

University American Baptist College
Aquinas College
Baptist Memorial College of Health Sciences
Belmont University
Bethel University
Bryan College-Dayton
Carson-Newman College
Christian Brothers University
Cumberland University
Emmanuel Christian Seminary
Fisk University
Free Will Baptist Bible College
Freed-Hardeman University
Harding University Graduate School of Religion
Hiwassee College
Johnson University
King College
Lambuth University
Lane College
Le Moyne-Owen College
Lee University
Lincoln Memorial University
Lipscomb University
Martin Methodist College
Maryville College
Meharry Medical College
Memphis College of Art
Memphis Theological Seminary
Middle Tennessee School of Anesthesia Inc.
Milligan College
O'More College of Design
Oxford Graduate School
Pentecostal Theological Seminary
Rhodes College
Richmont Graduate University
Sewanee-The University of the South
Southern Adventist University
Southern College of Optometry
Temple Baptist Seminary
Tennessee Temple University

TN College of Applied Technology - Livingston
TN College of Applied Technology - McKenzie
TN College of Applied Technology - McMinnville
TN College of Applied Technology - Memphis
TN College of Applied Technology - Morristown
TN College of Applied Technology - Murfreesboro
TN College of Applied Technology - Nashville
TN College of Applied Technology - Newbern
TN College of Applied Technology - Oneida-Huntsville
TN College of Applied Technology - Paris
TN College of Applied Technology - Pulaski
TN College of Applied Technology - Ripley
TN College of Applied Technology - Shelbyville
TN College of Applied Technology - Whiteville

Private for-profit, 4-year or above

Argosy University-Nashville
Daymar Institute-Clarksville
Daymar Institute-Murfreesboro
Daymar Institute-Nashville
DeVry University's Keller Grad School of Management
DeVry University-Tennessee
Fountainhead College of Technology
Int'l Academy of Design & Technology-Nashville
ITT Technical Institute-Chattanooga
ITT Technical Institute-Cordova
ITT Technical Institute-Knoxville
ITT Technical Institute-Nashville
Nossi College of Art
South College
Strayer University-Tennessee
The Art Institute of Tennessee-Nashville
University of Phoenix-Chattanooga Campus
University of Phoenix-Memphis Campus
University of Phoenix-Nashville Campus
Victory University
Virginia College-School of Business and Health

Private for-profit, 2-year

Anthem Career College-Memphis
Anthem Career College-Nashville
Chattanooga Medical Dental & Technical Careers
Concorde Career College-Memphis

Tennessee Wesleyan College
Trevecca Nazarene University
Tusculum College
Union University
Vanderbilt University
Visible Music College
Watkins College of Art Design & Film
Williamson Christian College

Private not-for-profit, 2-year

John A Gupton College
Methodist Hospital School of Nursing
Remington College-Memphis Campus
William Moore College of Technology

Private not-for-profit, less than 2-year

Franklin Academy

Private for-profit, less than 2-year

Arnolds Beauty School
Buchanan Beauty College
Career Beauty College
Chattanooga Barber College
Elite College of Cosmetology
Empire Beauty School-E Memphis
Empire Beauty School-Nashville
Fayetteville College of Cosmetology Arts and Science
Genesis Career College
Genesis Career College-Lebanon Campus
Institute of Hair Design
International Barber & Style College
Jenny Lea Academy of Cosmetology and Aesthetics
Knoxville Institute of Hair Design
Last Minute Cuts Barbering and Cosmetology
Love Beauty School
Mason Academy of Cosmetology
Memphis Institute of Barbering
Meridian Institute of Surgical Assisting
Mr. Wayne's School of Unisex Hair Design
Nashville Barber and Style Academy
Nashville College of Medical Careers
New Concepts School of Cosmetology
New Directions Hair Academy

Fortis Institute
Fortis Institute-Nashville
Kaplan Career Institute-Nashville
L'Ecole Culinaire
Miller-Motte Technical College-Chattanooga
Miller-Motte Technical College-Clarksville
Miller-Motte Technical College-Madison
Nashville Auto Diesel College
National College of Business and Technology-Nashville
North Central Institute
Remington College-Nashville Campus
Tennessee Career College
Vatterott Career College-Memphis Appling Farms
Vatterott Career College-Memphis Dividend Drive
West Tennessee Business College

New Wave Hair Academy
Paul Mitchell The School-Knoxville
Paul Mitchell the School-Memphis
Paul Mitchell the School-Murfreesboro
Paul Mitchell the School-Nashville
Plaza Beauty School
Pyramid Beauty School
Queen City College
Regency Beauty Institute-Chattanooga
Regency Beauty Institute-Knoxville
Regency Beauty Institute-Nashville
Regency Beauty Institute-North Nashville
SAE Institute of Technology-Nashville
Shear Academy
Southern Institute of Cosmetology
Styles and Profiles Beauty College
Tennessee Academy of Cosmetology LLC-Shelby
Tennessee Academy of Cosmetology LLC-Stage
Tennessee Career Institute
Tennessee Institute of Healing Arts
Tennessee School of Beauty of Knoxville Inc.
The Beauty Institute-Memphis
The Hair Design School-Jackson
The Hair Design School-N Memphis
The Hair Design School-S Memphis
The Massage Institute of Memphis
Volunteer Beauty School-Dyersburg
Volunteer Beauty School-Madison
Volunteer Beauty School-Nashville

Appendix B: Supply and demand projections for the top 25 high-demand fields in Tennessee's workforce, prepared by the Tennessee Department of Labor and Workforce Development

Tennessee

Average Occupational Growth Rate = 1.2

16.1300000 Truck, Bus, Rail, Water Transportation, and Heavy Equipment

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
474061	Rail-Track Laying and Maintenance Equipment Operators	200	200	5	0.0	\$28,234	Moderate-term on-the-job training
531031	First-Line Supervisors of Transportation and Material-Moving Machi	4680	5100	145	1.1	\$49,631	Work experience in a related occupation
533011	Ambulance Drivers and Attendants, Except Emergency Medical Te	150	180	5	2.6	\$21,940	Moderate-term on-the-job training
533021	Bus Drivers, Transit and Intercity	2780	3270	110	2.0	\$16,311	Moderate-term on-the-job training
533032	Heavy and Tractor-Trailer Truck Drivers	61070	69650	2310	1.7	\$40,886	Moderate-term on-the-job training
534011	Locomotive Engineers	750	770	30	0.3		
534012	Locomotive Firers	20	20	0	-0.7		
534013	Rail Yard Engineers, Dinkey Operators, and Hostlers	40	30	0	-0.7	\$29,137	Work experience in a related occupation
534021	Railroad Brake, Signal, and Switch Operators	630	600	20	-0.6	\$47,304	Work experience in a related occupation
534031	Railroad Conductors and Yardmasters	750	760	25	0.3		
534041	Subway and Streetcar Operators	10	10	0	1.3	\$20,230	Work experience in a related occupation
535021	Captains, Mates, and Pilots of Water Vessels	770	920	45	2.3	\$89,079	Work experience in a related occupation
535022	Motorboat Operators	0	0	0	0.0	\$42,017	Moderate-term on-the-job training
535031	Ship Engineers	250	300	15	2.2	\$62,486	Post-secondary vocational training
537121	Tank Car, Truck, and Ship Loaders	330	370	15	1.3	\$39,000	Moderate-term on-the-job training
TOTAL		72430	82180	2725	1.3		

SUPPLY DATA

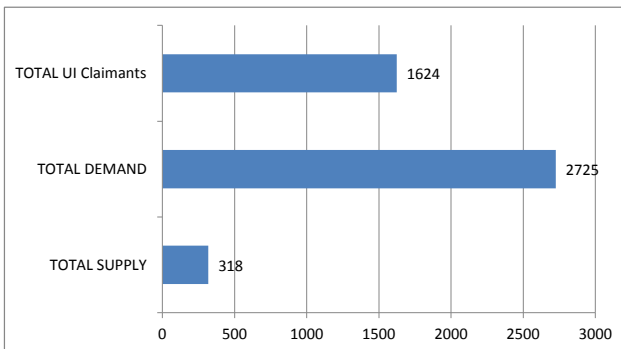
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
490205	Truck and Bus Driver/Commercial Vehicle Operation.		0	318	0	0	0	0	
Total		318	0	318	0	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
533011	Ambulance Drivers and Attendants, Except Emergency	13
535031	Ship Engineers	23
535022	Motorboat Operators	3
535021	Captains, Mates, and Pilots of Water Vessels	8
534041	Subway and Streetcar Operators	2
534031	Railroad Conductors and Yardmasters	7
534013	Rail Yard Engineers, Dinkey Operators, and Hostler	1
534011	Locomotive Engineers	1
533021	Bus Drivers, Transit and Intercity	8
537121	Tank Car, Truck, and Ship Loaders	12
531031	First-Line Supervisors/Managers of Transportation	106
474061	Rail-Track Laying and Maintenance Equipment Operat	5
533032	Truck Drivers, Heavy and Tractor-Trailer	1435
TOTAL		1624

TOTAL SUPPLY	318
TOTAL DEMAND	2725
TOTAL UI Claimants	1624
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	0.7

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

02.270000 All Other Construction

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
471011	First-Line Supervisors of Construction Trades and Extraction Workers	9890	11810	460	2.2	\$49,925	Work experience in a related occupation
472041	Carpet Installers	440	490	15	1.3	\$37,178	Moderate-term on-the-job training
472042	Floor Layers, Except Carpet, Wood, and Hard Tiles	260	270	5	0.3	\$29,133	Moderate-term on-the-job training
472043	Floor Sanders and Finishers	120	140	5	1.7	\$31,063	Moderate-term on-the-job training
472053	Terrazzo Workers and Finishers	50	50	0	0.8	\$22,157	Long-term on-the-job training
472071	Paving, Surfacing, and Tamping Equipment Operators	1260	1500	55	2.2	\$34,473	Moderate-term on-the-job training
472072	Pile-Driver Operators	120	150	5	3.2	\$32,212	Moderate-term on-the-job training
472073	Operating Engineers and Other Construction Equipment Operators	5440	6550	265	2.3	\$34,628	Moderate-term on-the-job training
472081	Drywall and Ceiling Tile Installers	1110	1360	60	2.6	\$36,276	Moderate-term on-the-job training
472082	Tapers	220	280	15	3.2	\$55,130	Moderate-term on-the-job training
472121	Glaziers	1010	1360	80	3.9	\$31,721	Long-term on-the-job training
472131	Insulation Workers, Floor, Ceiling, and Wall	510	600	30	1.9	\$31,845	No category defined
472132	Insulation Workers, Mechanical	520	650	35	2.9	\$37,881	No category defined
472141	Painters, Construction and Maintenance	5560	6400	220	1.8	\$33,141	Moderate-term on-the-job training
472142	Paperhangers	60	70	0	2.0	\$29,313	Moderate-term on-the-job training
472161	Plasterers and Stucco Masons	340	420	15	2.8	\$30,476	Long-term on-the-job training
472171	Reinforcing Iron and Rebar Workers	140	190	10	4.2	\$29,920	Long-term on-the-job training
472181	Roofers	2370	2700	85	1.7	\$30,043	Moderate-term on-the-job training
472211	Sheet Metal Workers	3970	4620	145	1.9	\$35,370	Moderate-term on-the-job training
472221	Structural Iron and Steel Workers	1360	1560	50	1.8	\$35,279	Long-term on-the-job training
474031	Fence Erectors	290	350	15	3.0	\$22,965	Moderate-term on-the-job training
474041	Hazardous Materials Removal Workers	1170	1350	50	1.8	\$26,942	Moderate-term on-the-job training
474051	Highway Maintenance Workers	3850	4320	160	1.4	\$22,635	Moderate-term on-the-job training
474071	Septic Tank Servicers and Sewer Pipe Cleaners	640	710	25	1.3	\$30,335	Moderate-term on-the-job training
474799	Construction and Related Workers, All Other	1000	1180	55	2.1		
475021	Earth Drillers, Except Oil and Gas	400	440	10	1.1	\$44,818	Moderate-term on-the-job training
499095	Manufactured Building and Mobile Home Installers	170	170	0	-0.1	\$30,179	Moderate-term on-the-job training
537021	Crane and Tower Operators	690	810	35	2.0	\$38,682	Moderate-term on-the-job training
537031	Dredge Operators	50	40	0	-1.3	\$47,140	Moderate-term on-the-job training
537032	Excavating and Loading Machine and Dragline Operators	1230	1420	60	1.8	\$52,043	Moderate-term on-the-job training
537041	Hoist and Winch Operators	90	110	5	2.3		
TOTAL		44320	52070	1970	1.7		

SUPPLY DATA

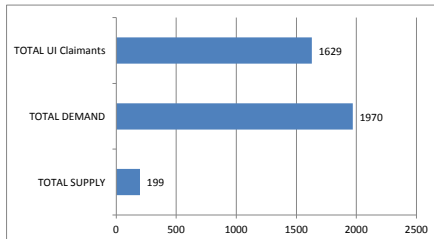
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
469415	Building Construction Technology		0	15	0	0	0	0	
469999	Construction Trades, Other		0	158	0	0	0	0	
4699CH	Construction Core		26	0	0	0	0	0	5730
Total		199	26	173	0	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
474041	Hazardous Materials Removal Workers	25
537041	Hoist and Winch Operators	34
537032	Excavating and Loading Machine and Dragline Operat	11
537031	Dredge Operators	1
537021	Crane and Tower Operators	14
499095	Manufactured Building and Mobile Home Installers	17
475021	Earth Drillers, Except Oil and Gas	10
474099	Construction and Related Workers, All Other	161
474051	Highway Maintenance Workers	48
474031	Fence Erectors	3
472221	Structural Iron and Steel Workers	118
472211	Sheet Metal Workers	214
472181	Roofers	61
472171	Reinforcing Iron and Rebar Workers	41
472042	Floor Layers, Except Carpet, Wood, and Hard Tiles	10
474071	Septic Tank Servicers and Sewer Pipe Cleaners	7
472041	Carpet Installers	3
472161	Plasterers and Stucco Masons	6
472071	Paving, Surfacing, and Tamping Equipment Operators	24
472072	Pile-Driver Operators	4
472073	Operating Engineers and Other Construction Equipme	297
472081	Drywall and Ceiling Tile Installers	57
472121	Glaziers	15
472131	Insulation Workers, Floor, Ceiling, and Wall	4
472132	Insulation Workers, Mechanical	48
472141	Painters, Construction and Maintenance	179
472142	Paperhangers	1
472082	Tapers	4
471011	First-Line Supervisors/Managers of Construction Tr	212

TOTAL	1629
TOTAL SUPPLY	199
TOTAL DEMAND	1970
TOTAL UI Claimants	1629
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	0.9

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

04.212000 Accounting Administrative Support

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
433021	Billing and Posting Clerks	10920	12670	410	1.9	\$31,262	Moderate-term on-the-job training
433031	Bookkeeping, Accounting, and Auditing Clerks	33580	37300	845	1.3	\$33,942	Moderate-term on-the-job training
433051	Payroll and Timekeeping Clerks	4410	4960	160	1.5	\$36,766	Moderate-term on-the-job training
439111	Statistical Assistants	250	260	5	0.6	\$40,842	Moderate-term on-the-job training
TOTAL		49160	55190	1420	1.2		

SUPPLY DATA

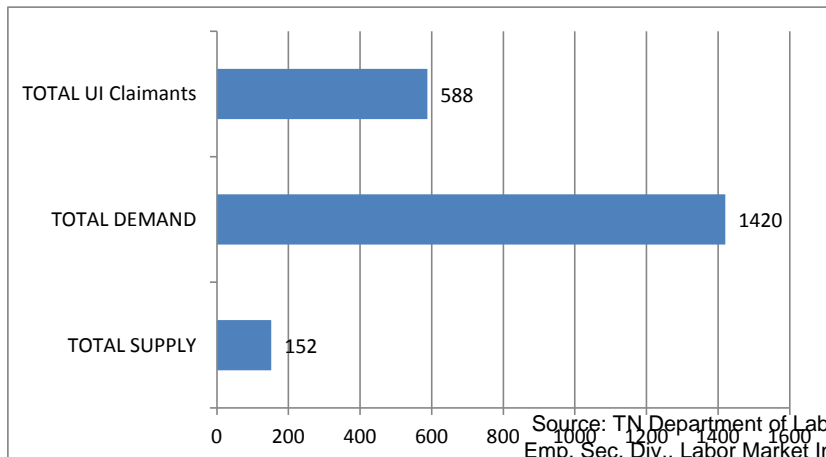
CODE	PROGRAM TITLE	Totals	COMPLETERS					CT CODE
			Secondary Concentrators	Cert	Assoc	Bach	Grad	
510714	Medical Insurance Specialist/Medical Biller.		0	14	3	0	0	0
520302	Accounting Technology/Technician and Bookkeeping.		0	37	74	0	0	0
520399	Accounting and Related Services, Other.		0	0	0	0	0	0
5203BH	Accounting II		24	0	0	0	0	0 3780 3702
	Total	152	24	51	77	0	0	0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
439111	Statistical Assistants	11
433051	Payroll and Timekeeping Clerks	34
433021	Billing and Posting Clerks and Machine Operators	131
433031	Bookkeeping, Accounting, and Auditing Clerks	412
TOTAL		588

TOTAL SUPPLY	152
TOTAL DEMAND	1420
TOTAL UI Claimants	588
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	0.5

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

11.3400000 Web/Multimedia Management, Programming

Statewide Only Cluster

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
113021	Computer and Information Systems Managers	4870	5540	155	1.6	\$93,205	Work experience, plus bachelor's degree
151111	Computer and Information Research Scientists	260	290	10	1.2	\$90,259	Doctor's degree
151121	Computer Systems Analysts	7980	9080	285	1.6	\$62,306	Bachelor's degree
151131	Computer Programmers	5930	6440	200	1.0	\$62,365	Bachelor's degree
151132	Software Developers, Applications	4120	4840	130	2.0	\$74,182	Bachelor's degree
151133	Software Developers, Systems Software	2680	3440	120	3.2	\$74,661	Bachelor's degree
151141	Database Administrators	1530	1910	75	2.8	\$66,496	Bachelor's degree
151150	Computer Support Specialists	8630	9710	365	1.5		
151151	Computer User Support Specialists	90	100	0	1.4	\$40,506	Associate degree
251021	Computer Science Teachers, Postsecondary	580	610	15	0.7	\$52,129	Master's degree
TOTAL		36670	41960	1355	1.4		

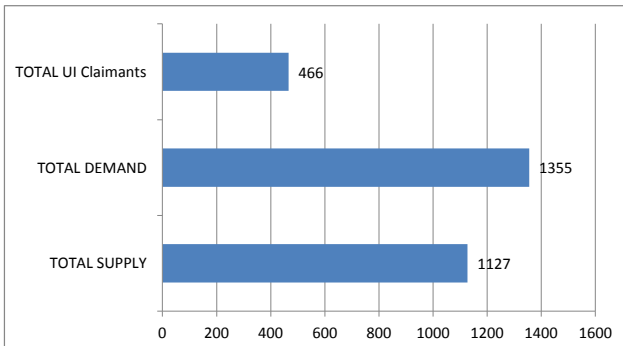
SUPPLY DATA

CODE	PROGRAM TITLE	Totals	COMPLETERS						
			Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
010106	Agricultural Business Technology.		0	0	0	0	0	0	0
110101	Computer and Information Sciences, General.		0	12	160	163	17	0	0
110103	Information Technology.		0	4	39	65	29	0	0
110199	Computer and Information Sciences, Other.		0	0	0	2	0	0	0
110201	Computer Programming/Programmer, General.		0	0	34	12	0	0	0
110401	Information Science/Studies.		0	0	9	14	5	0	0
110501	Computer Systems Analysis/Analyst.		0	0	0	8	0	0	0
110701	Computer Science.		0	0	0	195	69	0	0
111004	Web/Multimedia Management and Webmaster.		0	0	0	1	0	0	0
111006	Computer Support Specialist.		0	0	7	0	0	0	0
111099	Computer/Information Technology Services Administration andM		0	0	0	0	3	0	0
119999	Computer and Information Sciences and Support Services, Othe		0	2	11	6	0	0	0
151202	Computer Technology/Computer Systems Technology.		0	0	71	0	0	0	0
521201	Management Information Systems, General.		0	0	25	162	2	0	0
Total		1127	0	18	356	628	125	0	0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
151041	Computer Support Specialists	219
151032	Computer Software Engineers, Systems Software	52
151061	Database Administrators	32
113021	Computer and Information Systems Managers	16
151021	Computer Programmers	58
151051	Computer Systems Analysts	89
TOTAL		466
TOTAL SUPPLY		1127
TOTAL DEMAND		1355
TOTAL UI Claimants		466
SUPPLY/DEMAND RATIO		0.8
SUPPLY+UI/DEMAND RATIO		1.2

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Average Occupational Growth Rate = 1.2

02.210000 Construction Pathway - Construction Electrical

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
472111	Electricians	12730	15050	620	2.1	\$42,257	Long-term on-the-job training
473013	Helpers--Electricians	2420	2990	135	2.7	\$27,667	Short-term on-the-job training
474021	Elevator Installers and Repairers	360	390	15	0.9	\$43,187	Long-term on-the-job training
492095	Electrical and Electronics Repairers, Powerhouse, Substation, and I	670	640	15	-0.6	\$50,791	Post-secondary vocational training
492098	Security and Fire Alarm Systems Installers	1420	1920	90	3.8	\$32,688	Post-secondary vocational training
499012	Control and Valve Installers and Repairers, Except Mechanical Doo	850	910	25	0.9	\$49,224	Moderate-term on-the-job training
499051	Electrical Power-Line Installers and Repairers	3930	4330	190	1.2	\$56,411	Long-term on-the-job training
499052	Telecommunications Line Installers and Repairers	2010	2170	60	1.0	\$51,007	Long-term on-the-job training
TOTAL		24390	28400	1150	1.6		

SUPPLY DATA

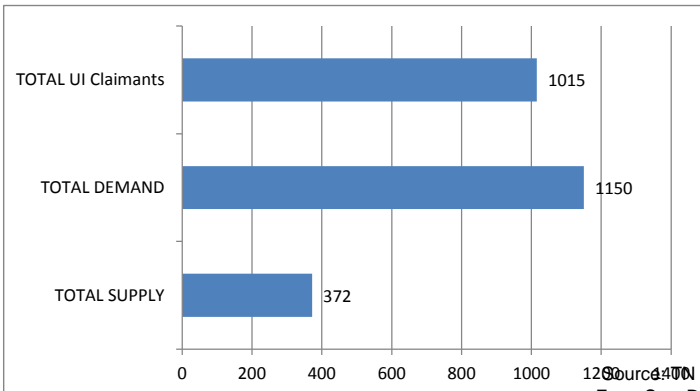
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS				CT CODE
						Bach	Grad	WIA		
460301	Electrical and Power Transmission Installation/Installer, Ge		0	44	0	0	0	0		0
460302	Electrician.		0	234	13	0	0	0		0
4603AH	Electrical I		27	0	0	0	0	0		0 5733 5228
4603BH	Residential Electricity II		50	0	0	0	0	0		0 5734 5229
470110	Security System Installation, Repair, and Inspection Technol		0	3	1	0	0	0		0
Total		372	77	281	14	0	0	0		0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
499052	Telecommunications Line Installers and Repairers	49
472111	Electricians	829
473013	Helpers--Electricians	55
474021	Elevator Installers and Repairers	5
492095	Electrical and Electronics Repairers, Powerhouse,	19
492098	Security and Fire Alarm Systems Installers	10
499012	Control and Valve Installers and Repairers, Except	4
499051	Electrical Power-Line Installers and Repairers	44
TOTAL		1015

TOTAL SUPPLY	372
TOTAL DEMAND	1150
TOTAL UI Claimants	1015
SUPPLY/DEMAND RATIO	0.3
SUPPLY+UI/DEMAND RATIO	1.2

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

04.400000 Business Analysis

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
131111	Management Analysts	9250	10580	305	1.7	\$71,408	Work experience, plus bachelor's degree
131161	Market Research Analysts and Marketing Specialists	0	0	0	3.1	\$59,600	Bachelor's degree
131199	Business Operations Specialists, All Other	15750	17810	540	1.5	\$72,844	Bachelor's degree
132031	Budget Analysts	670	760	25	1.5	\$50,059	Bachelor's degree
152031	Operations Research Analysts	840	940	40	1.5	\$69,727	Master's degree
TOTAL		26510	30090	910	1.4		

SUPPLY DATA

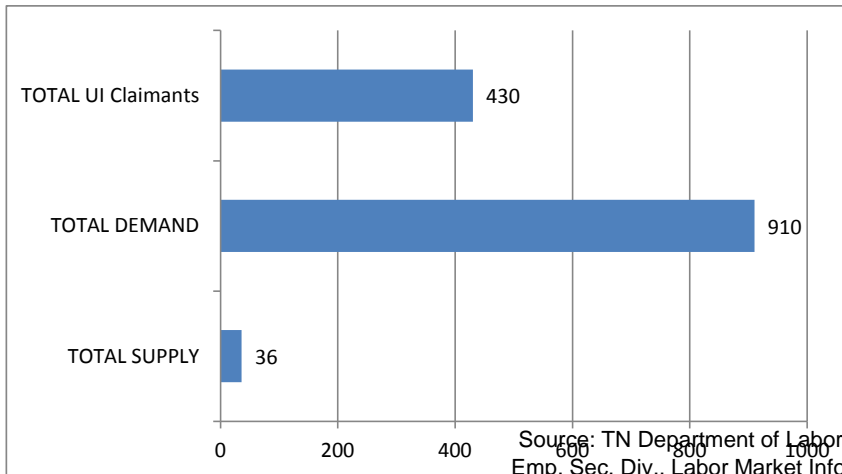
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS Bach	Grad	WIA	CT CODE
521201	Management Information Systems, General.			0	36	0	0	0	0
	Total	36	0	36	0	0	0	0	0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
131199	Business Operations Specialists, All Other	369
132031	Budget Analysts	11
152031	Operations Research Analysts	4
131111	Management Analysts	46
TOTAL		430

TOTAL SUPPLY	36
TOTAL DEMAND	910
TOTAL UI Claimants	430
SUPPLY/DEMAND RATIO	0.0
SUPPLY+UI/DEMAND RATIO	0.5

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

10.3110000 Social Work

Statewide Only Cluster

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
211013	Marriage and Family Therapists	520	720	35	4.2	\$36,769	Master's degree
211021	Child, Family, and School Social Workers	5590	6270	220	1.5	\$35,423	Bachelor's degree
211022	Healthcare Social Workers	3000	3800	180	3.0	\$52,803	Bachelor's degree
211023	Mental Health and Substance Abuse Social Workers	2310	2840	130	2.7	\$34,637	Master's degree
211029	Social Workers, All Other	900	980	35	1.1	\$58,289	No category defined
211092	Probation Officers and Correctional Treatment Specialists	2050	2510	100	2.5	\$28,128	Bachelor's degree
251113	Social Work Teachers, Postsecondary	190	190	5	0.0	\$60,272	Doctor's degree
TOTAL		14560	17310	705	1.9		

SUPPLY DATA

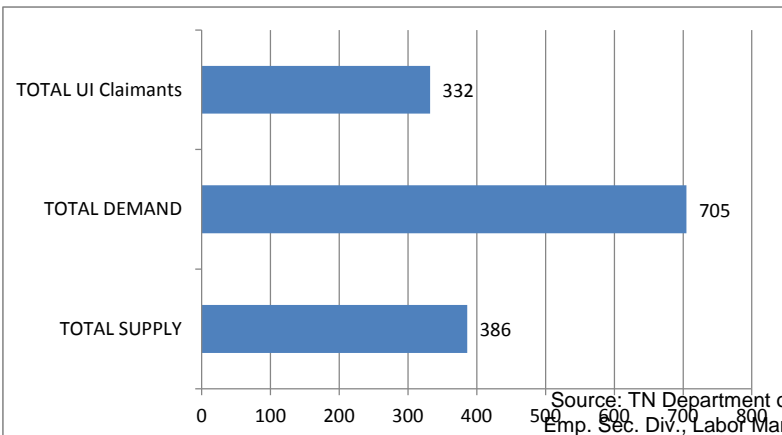
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
190707	Family and Community Services.		0	0	0	0	3	0	
440701	Social Work.		0	0	0	0	315	0	
511505	Marriage and Family Therapy/Counseling.		0	0	0	24	44	0	
Total		386	0	0	0	24	362	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
211092	Probation Officers and Correctional Treatment Spec	27
211023	Mental Health and Substance Abuse Social Workers	45
211022	Medical and Public Health Social Workers	22
211013	Marriage and Family Therapists	25
211021	Child, Family, and School Social Workers	213
TOTAL		332

TOTAL SUPPLY	386
TOTAL DEMAND	705
TOTAL UI Claimants	332
SUPPLY/DEMAND RATIO	0.5
SUPPLY+UI/DEMAND RATIO	1.0

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Tennessee

Average Occupational Growth Rate = 1.2

05.2110000 Teacher Training Services- Pre-K-Early Childhood Education

DEMAND DATA

SOC CODE	SOC TITLE	Statewide Only Cluster				Annual Median Salary	Usual Education Requirement
		Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth		
252011	Preschool Teachers, Except Special Education	9510	10970	425	1.8	\$19,329	Post-secondary vocational training
252012	Kindergarten Teachers, Except Special Education	5510	6170	225	1.4	\$51,967	Bachelor's degree
TOTAL		15020	17140	650	1.4		

SUPPLY DATA

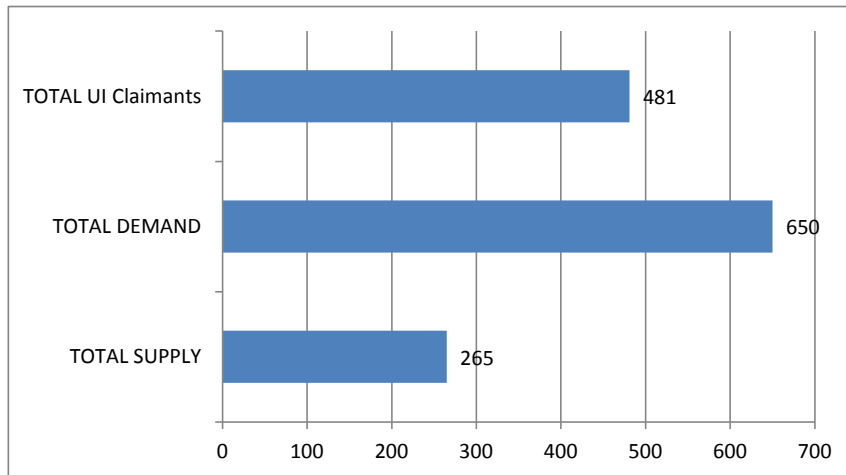
CODE	PROGRAM TITLE	Totals	COMPLETERS						CT CODE
			Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	
131209	Kindergarten/Preschool Education and Teaching.		0	0	0	0	0	0	
131210	Early Childhood Education and Teaching.		0	33	2	218	12	0	
Total		265	0	33	2	218	12	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
252011	Preschool Teachers, Except Special Education	440
252012	Kindergarten Teachers, Except Special Education	41
TOTAL		481

TOTAL SUPPLY	265
TOTAL DEMAND	650
TOTAL UI Claimants	481
SUPPLY/DEMAND RATIO	0.4
SUPPLY+UI/DEMAND RATIO	1.1

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Tennessee

Average Occupational Growth Rate = 1.2

04.3000000 Human Resources

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
131071	Human Resources Specialists	50	60	0	1.6	\$39,810	Bachelor's degree
131078	Human Resources, Training, and Labor Relations Specialists, All C	5840	7130	255	2.5		
131141	Compensation, Benefits, and Job Analysis Specialists	1520	1590	35	0.6	\$52,436	Bachelor's degree
131151	Training and Development Specialists	4640	5730	210	2.7	\$46,930	Bachelor's degree
434161	Human Resources Assistants, Except Payroll and Timekeeping	3300	3550	125	0.9	\$37,958	Short-term on-the-job training
TOTAL		15350	18060	625	1.8		

SUPPLY DATA

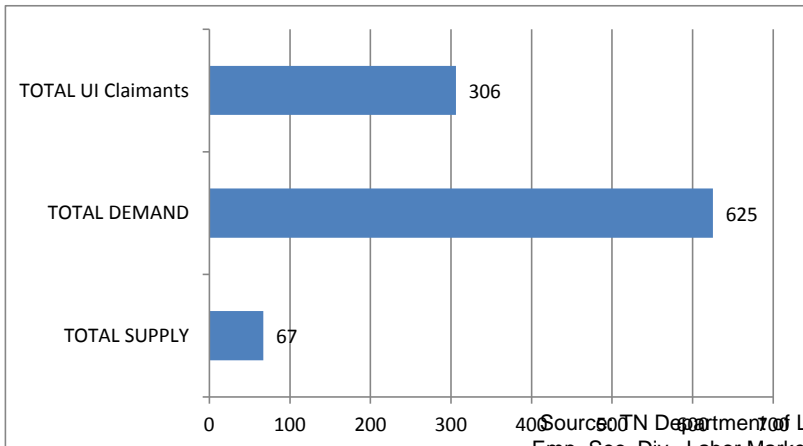
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS			CT CODE
						Bach	Grad	WIA	
521003	Organizational Behavior Studies.			0	0	6	55		0
521005	Human Resources Development.			0	0	0	6		0
Total		67		0	0	6	61		0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
434161	Human Resources Assistants, Except Payroll and Tim	52
113040	Human Resources Managers	45
131071	Employment, Recruitment, and Placement Specialists	53
131072	Compensation, Benefits, and Job Analysis Specialis	13
131073	Training and Development Specialists	27
131079	Human Resources, Training, and Labor Relations Spe	116
TOTAL		306

TOTAL SUPPLY	67
TOTAL DEMAND	625
TOTAL UI Claimants	306
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	0.6

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = **1.2**

05.114000 Support Services- Adult and Continuing Education

DEMAND DATA

		Statewide Only Cluster				Annual Median Salary	Usual Education Requirement
SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth		
253011	Adult Basic and Secondary Education and Literacy Teachers and Ir	1280	1420	35	1.3	\$39,668	Bachelor's degree
253021	Self-Enrichment Education Teachers	3100	3800	135	2.6	\$31,574	Work experience in a related occupation
253999	Teachers and Instructors, All Other	14320	15800	405	1.2		
TOTAL		18700	21020	575	1.2		

SUPPLY DATA

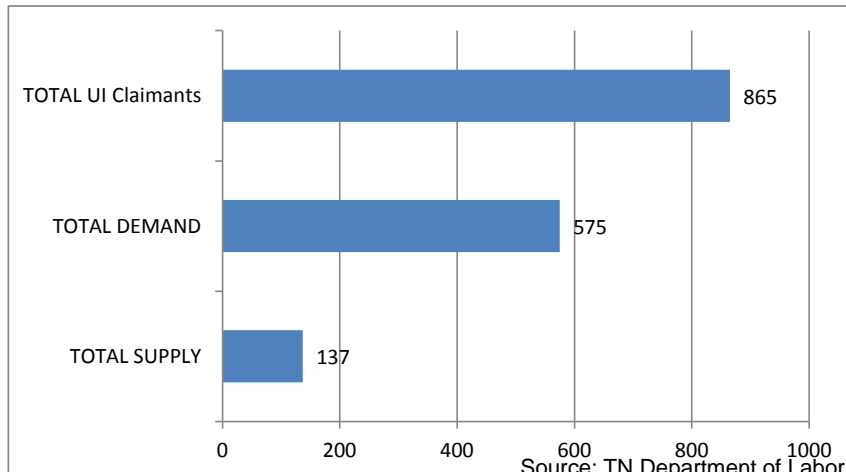
CODE	PROGRAM TITLE	Totals	COMPLETERS						CT CODE
			Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	
131201	Adult and Continuing Education and Teaching.		0	0	0	1	29	0	
131502	Adult Literacy Tutor/Instructor.		0	0	0	1	0	0	
320101	Basic Skills, General.		0	35	0	0	0	0	
320111	Workforce Development and Training.		0	0	71	0	0	0	
Total		137	0	35	71	2	29	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
253021	Self-Enrichment Education Teachers	289
253099	Teachers and Instructors, All Other	576
TOTAL		865

TOTAL SUPPLY	137
TOTAL DEMAND	575
TOTAL UI Claimants	865
SUPPLY/DEMAND RATIO	0.2
SUPPLY+UI/DEMAND RATIO	1.7

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

02.2600000 Construction Pathway - Construction Carpenters

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
472031	Carpenters	13530	15520	525	1.7	\$31,875	Long-term on-the-job training
TOTAL		13530	15520	525	1.5		

SUPPLY DATA

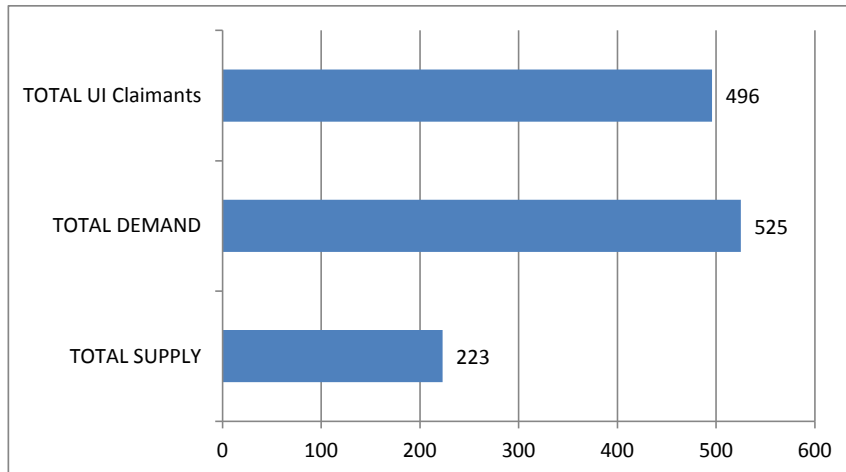
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS				CT CODE
						Bach	Grad	WIA		
4602AH	Carpentry I		89	0	0	0	0	0	0	5731 5226
4602BH	Carpentry II		134	0	0	0	0	0	0	5732 5227
Total		223	223	0	0	0	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
472031	Carpenters	496
TOTAL		496

TOTAL SUPPLY	223
TOTAL DEMAND	525
TOTAL UI Claimants	496
SUPPLY/DEMAND RATIO	0.4
SUPPLY+UI/DEMAND RATIO	1.4

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

02.2300000 Construction Pathway - Construction Plumbing

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
472151	Pipelayers	2240	2640	115	2.1	\$32,672	Moderate-term on-the-job training
472152	Plumbers, Pipefitters, and Steamfitters	8020	9550	415	2.2	\$39,673	Long-term on-the-job training
TOTAL		10260	12190	530	1.9		

SUPPLY DATA

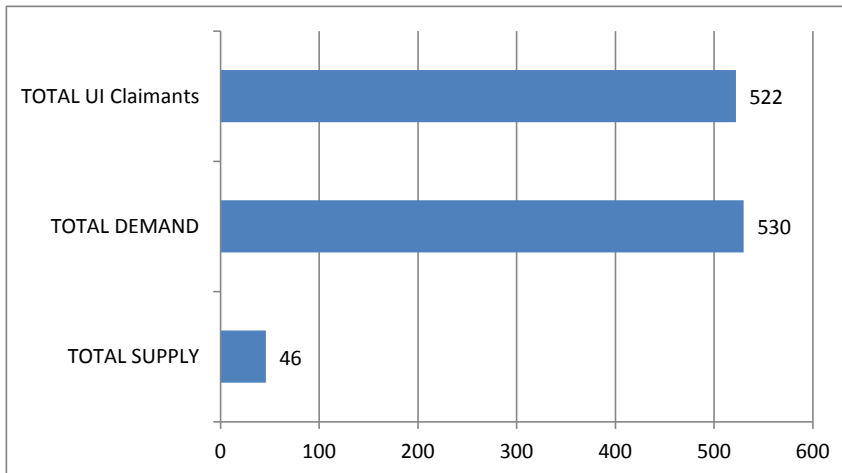
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS			WIA	CT CODE
						Bach	Grad			
460502	Pipefitting/Pipefitter and Sprinkler Fitter.		0	30	0	0	0	0	0	
4605AH	Plumbing I		11	0	0	0	0	0	0	5739 5234
4605BH	Plumbing II		5	0	0	0	0	0	0	5740 5235
Total		46	16	30	0	0	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
472151	Pipelayers	1
472152	Plumbers, Pipefitters, and Steamfitters	521
TOTAL		522

TOTAL SUPPLY	46
TOTAL DEMAND	530
TOTAL UI Claimants	522
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	1.1

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

02.122000 Technical Design & Preconstruction

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
119021	Construction Managers	11270	12880	260	1.7	\$62,360	Bachelor's degree
131051	Cost Estimators	1716	2160	86	2.9	\$54,620	Work experience in a related occupation
173022	Civil Engineering Technicians	1060	1190	35	1.4	\$36,641	Associate degree
474011	Construction and Building Inspectors	1450	1680	70	1.8	\$39,567	Work experience in a related occupation
TOTAL		15496	17910	451	1.6		

SUPPLY DATA

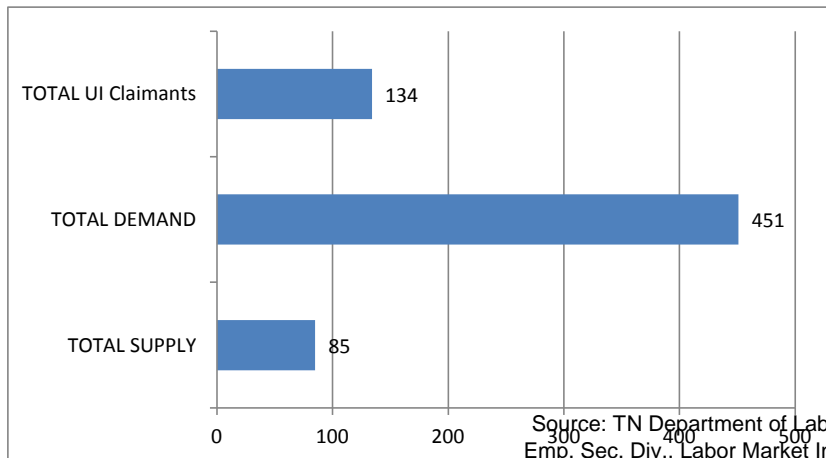
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
150101	Architectural Engineering Technology/Technician.		0	17	7	0	0	0	0
150201	Civil Engineering Technology/Technician.		0	0	0	0	0	0	0
151001	Construction Engineering Technology/Technician.		0	3	1	0	0	0	0
522001	Construction Management.		0	0	0	57	0	0	0
Total		85	0	20	8	57	0	0	0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
474011	Construction and Building Inspectors	41
119021	Construction Managers	82
131051	Cost Estimators	10
173022	Civil Engineering Technicians	1
TOTAL		134

TOTAL SUPPLY	85
TOTAL DEMAND	451
TOTAL UI Claimants	134
SUPPLY/DEMAND RATIO	0.2
SUPPLY+UI/DEMAND RATIO	0.5

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

12.3000000 Security and Protective Services Pathway

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
151142	Network and Computer Systems Administrators	350	430	16	2.6	\$60,123	Bachelor's degree
251111	Criminal Justice and Law Enforcement Teachers, Postsecondary	200	200	5	0.3	\$62,049	Doctor's degree
331011	First-Line Supervisors of Correctional Officers	660	750	35	1.6	\$31,908	Work experience in a related occupation
333012	Correctional Officers and Jailers	9950	11310	340	1.6	\$42,180	Moderate-term on-the-job training
339021	Private Detectives and Investigators	710	890	35	2.9	\$67,073	Work experience in a related occupation
339031	Gaming Surveillance Officers and Gaming Investigators	0	0	0	0.0	\$15,089	Moderate-term on-the-job training
TOTAL		11870	13580	431	1.4		

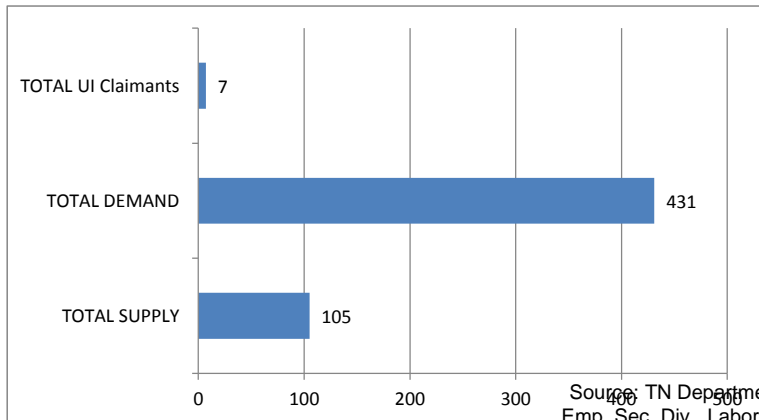
SUPPLY DATA

SOC CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS			CT CODE
						Bach	Grad	WIA	
430109	Security and Loss Prevention Services.		0	0	0	0	0	0	
430199	Corrections and Criminal Justice, Other.		0	0	7	0	0	0	
4301AH	Legal and Protective Service Careers I		5	0	0	0	0	0	5330
4301BH	Legal and Protective Service Careers II		32	0	0	0	0	0	5331
4301CH	Criminal Justice III		51	0	0	0	0	0	5342
4301DH	Criminal Justice II/III		8	0	0	0	0	0	5343
439999	Security and Protective Services, Other.		0	2	0	0	0	0	
Total		105	96	2	7	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
151071	Network and Computer Systems Administrators	0
331011	First-Line Supervisors/Managers of Correctional Of	0
333012	Correctional Officers and Jailers	7
339021	Private Detectives and Investigators	0
TOTAL		7
TOTAL SUPPLY		105
TOTAL DEMAND		431
TOTAL UI Claimants		7
SUPPLY/DEMAND RATIO		0.2
SUPPLY+UI/DEMAND RATIO		0.3

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

12.4140000 Fire Fighting

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
274013	Radio Operators	0	0	0	0.0		
331021	First-Line Supervisors of Fire Fighting and Prevention Workers	1080	1220	70	1.6	\$75,539	Work experience in a related occupation
332011	Firefighters	5570	6360	255	1.7	\$49,617	Long-term on-the-job training
332021	Fire Inspectors and Investigators	270	300	10	1.6	\$54,531	Work experience in a related occupation
332022	Forest Fire Inspectors and Prevention Specialists	80	90	5	1.4	\$15,309	Work experience in a related occupation
TOTAL		7000	7970	340	1.4		

SUPPLY DATA

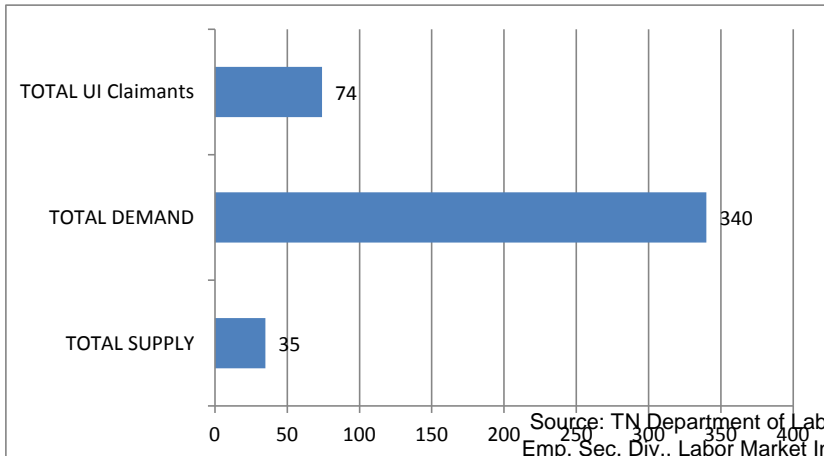
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
430203	Fire Science/Fire-fighting.			0	6	29	0	0	0
	Total	35	0	6	29	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
332021	Fire Inspectors and Investigators	3
131061	Emergency Management Specialists	4
332022	Forest Fire Inspectors and Prevention Specialists	8
274013	Radio Operators	26
332011	Fire Fighters	32
331021	First-Line Supervisors/Managers of Fire Fighting a	1
TOTAL		74

TOTAL SUPPLY	35
TOTAL DEMAND	340
TOTAL UI Claimants	74
SUPPLY/DEMAND RATIO	0.1
SUPPLY+UI/DEMAND RATIO	0.3

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Source: TN Department of Labor and Workforce Development, Emp. Sec. Div., Labor Market Information: (615) 741-3639, 2013

Tennessee

Average Occupational Growth Rate = 1.2

02.2200000 Construction Pathway - Construction Masonry & Concrete

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
472021	Brickmasons and Blockmasons	1200	1530	65	3.1	\$41,930	Long-term on-the-job training
472022	Stonemasons	150	170	5	1.3	\$23,708	Long-term on-the-job training
472044	Tile and Marble Setters	410	460	15	1.5	\$33,817	Long-term on-the-job training
472051	Cement Masons and Concrete Finishers	2320	2900	105	2.8	\$26,947	Moderate-term on-the-job training
473011	Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and I	650	910	50	4.3	\$24,514	Short-term on-the-job training
499045	Refractory Materials Repairers, Except Brickmasons	60	60	0	-0.2	\$38,388	Moderate-term on-the-job training
TOTAL		4790	6030	240	2.6		

SUPPLY DATA

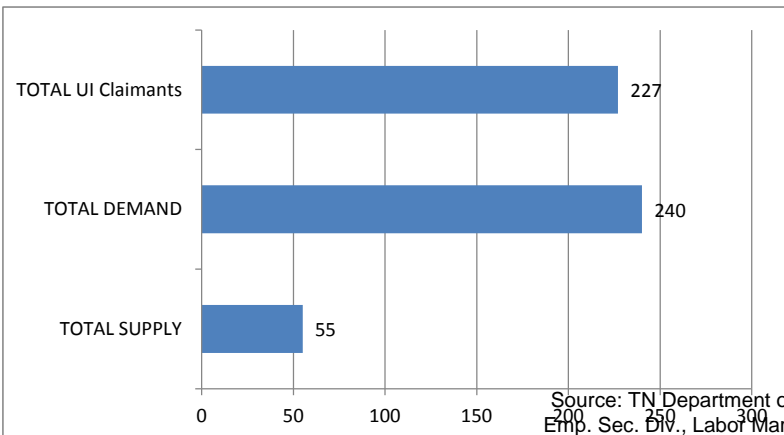
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS			WIA	CT CODE
						Bach	Grad			
460101	Mason/Masonry.		0	23	0	0	0	0	0	
4601AH	Masonry I		17	0	0	0	0	0	0 5735 5232	
4601BH	Masonry II		15	0	0	0	0	0	0 5736 5233	
Total		55	32	23	0	0	0	0		

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
499045	Refractory Materials Repairers, Except Brickmasons	1
473011	Helpers--Brickmasons, Blockmasons, Stonemasons, an	23
472051	Cement Masons and Concrete Finishers	67
472044	Tile and Marble Setters	12
472021	Brickmasons and Blockmasons	108
472022	Stonemasons	16
TOTAL		227

TOTAL SUPPLY	55
TOTAL DEMAND	240
TOTAL UI Claimants	227
SUPPLY/DEMAND RATIO	0.2
SUPPLY+UI/DEMAND RATIO	1.2

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

08.222000 Medical and Clinical Laboratory Technicians

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
292012	Medical and Clinical Laboratory Technicians	6070	6890	225	1.6	\$31,431	Associate degree
TOTAL		6070	6890	225	1.4		

SUPPLY DATA

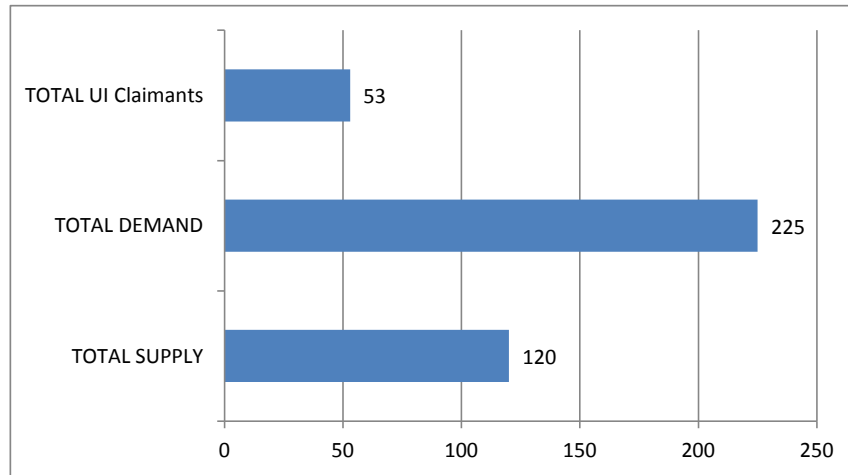
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
510802	Clinical/Medical Laboratory Assistant.		0	39	0	0	0	0	
511001	Blood Bank Technology Specialist.		0	31	0	0	0	0	
511004	Clinical/Medical Laboratory Technician.		0	0	50	0	0	0	
	Total	120	0	70	50	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
292012	Medical and Clinical Laboratory Technicians	53
TOTAL		53

TOTAL SUPPLY	120
TOTAL DEMAND	225
TOTAL UI Claimants	53
SUPPLY/DEMAND RATIO	0.5
SUPPLY+UI/DEMAND RATIO	0.8

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

08.117000 Physical Therapy

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
291123	Physical Therapists	5150	6340	215	2.6	\$77,769	Master's degree
TOTAL		5150	6340	215	2.3		

SUPPLY DATA

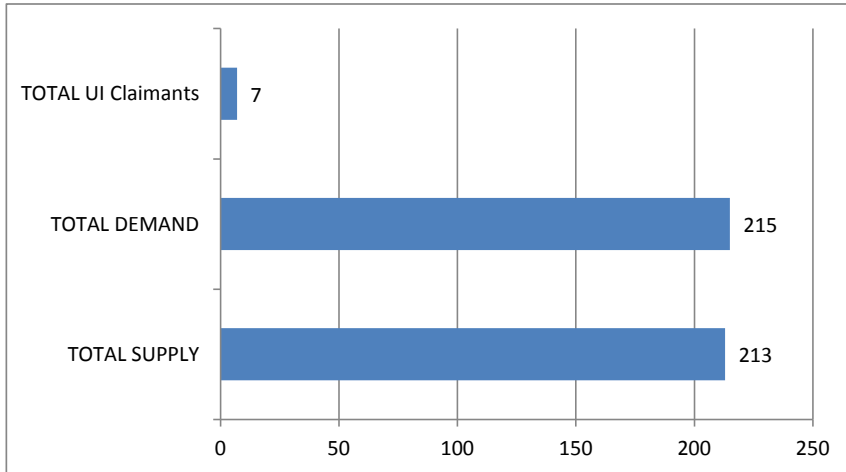
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
512308	Physical Therapy/Therapist.		0	0	12	7	194	0	
	Total	213	0	0	12	7	194	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
291123	Physical Therapists	7
TOTAL		7

TOTAL SUPPLY	213
TOTAL DEMAND	215
TOTAL UI Claimants	7
SUPPLY/DEMAND RATIO	1.0
SUPPLY+UI/DEMAND RATIO	1.0

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Tennessee

Average Occupational Growth Rate = 1.2

08.1130000 Physical Therapy Assistant

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
312021	Physical Therapist Assistants	2640	3300	125	2.8	\$53,018	Associate degree
312022	Physical Therapist Aides	1030	1340	55	3.3	\$21,732	Short-term on-the-job training
TOTAL		3670	4640	180	2.6		

SUPPLY DATA

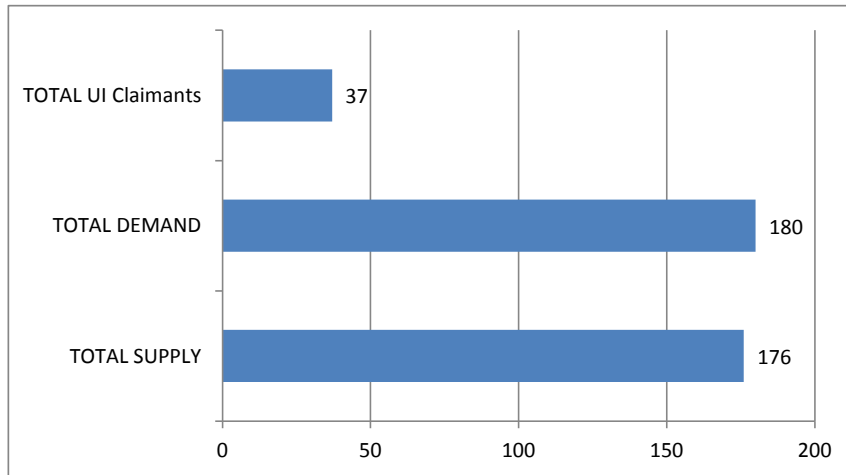
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
510806	Physical Therapist Assistant.		0	0	176	0	0	0	
	Total	176	0	0	176	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
312021	Physical Therapist Assistants	18
312022	Physical Therapist Aides	19
TOTAL		37

TOTAL SUPPLY	176
TOTAL DEMAND	180
TOTAL UI Claimants	37
SUPPLY/DEMAND RATIO	1.0
SUPPLY+UI/DEMAND RATIO	1.2

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

07.7120000 Compliance Officers

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
131041	Compliance Officers	3970	4570	125	1.8	\$40,320	Long-term on-the-job training
132061	Financial Examiners	470	560	20	2.2	\$80,458	Bachelor's degree
536051	Transportation Inspectors	400	440	15	1.1	\$83,093	Work experience in a related occupation
TOTAL		4840	5570	160	1.5		

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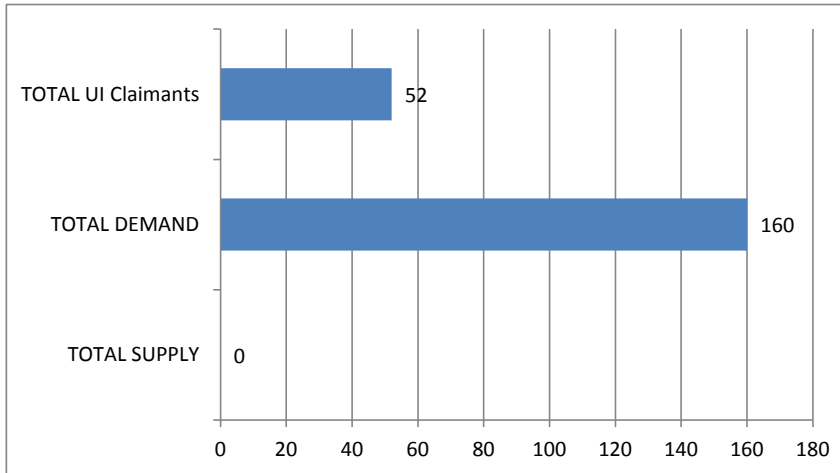
PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS				CT CODE
					Bach	Grad	WIA		
Total	0	0	0	0	0	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
131041	Compliance Officers, Except Agriculture, Construct	23
132061	Financial Examiners	6
536051	Transportation Inspectors	23
TOTAL		52

TOTAL SUPPLY	0
TOTAL DEMAND	160
TOTAL UI Claimants	52
SUPPLY/DEMAND RATIO	0.0
SUPPLY+UI/DEMAND RATIO	0.3

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

14.500000 Marketing Research

DEMAND DATA

SOC CODE	SOC TITLE	Statewide Only Cluster				Annual Median Salary	Usual Education Requirement
		Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth		
131161	Market Research Analysts and Marketing Specialists	2025	2590	125	3.1	\$46,122	Master's degree
TOTAL		2025	2590	125	2.8		

SUPPLY DATA

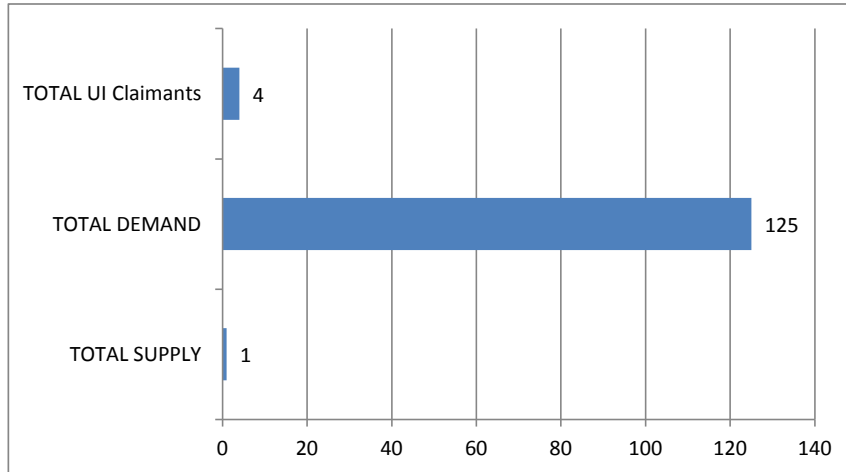
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	COMPLETERS					CT CODE
				Cert	Assoc	Bach	Grad	WIA	
521499	Marketing, Other.		0	0	1	0	0	0	
	Total	1	0	0	1	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
193021	Market Research Analysts	4
TOTAL		4

TOTAL SUPPLY	1
TOTAL DEMAND	125
TOTAL UI Claimants	4
SUPPLY/DEMAND RATIO	0.0
SUPPLY+UI/DEMAND RATIO	0.0

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year.. Statewide Only Cluster



Tennessee

Average Occupational Growth Rate = 1.2

15.125000 Surveying and Civil Technology

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
171021	Cartographers and Photogrammetrists	170	200	5	1.6	\$32,371	Bachelor's degree
171022	Surveyors	740	880	35	2.2	\$46,330	Bachelor's degree
173031	Surveying and Mapping Technicians	1080	1190	35	1.2	\$37,389	Moderate-term on-the-job training
TOTAL		1990	2270	75	1.4		

SUPPLY DATA

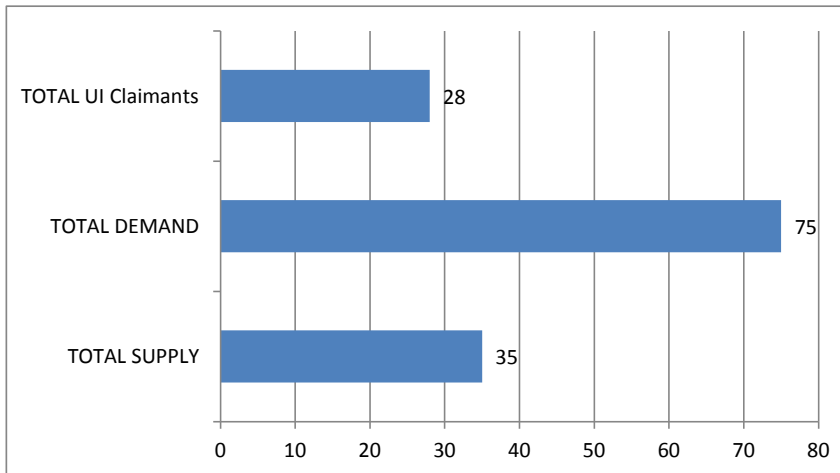
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
151102	Surveying Technology/Surveying.		0	1	0	10	0	0	
450702	Cartography.		0	8	8	8	0	0	
	Total	35	0	9	8	18	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
171021	Cartographers and Photogrammetrists	5
171022	Surveyors	18
173031	Surveying and Mapping Technicians	5
TOTAL		28

TOTAL SUPPLY	35
TOTAL DEMAND	75
TOTAL UI Claimants	28
SUPPLY/DEMAND RATIO	0.5
SUPPLY+UI/DEMAND RATIO	0.8

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

08.2110000 Ultrasonic Technician

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
292032	Diagnostic Medical Sonographers	1160	1570	75	3.9	\$52,495	Associate degree
TOTAL		1160	1570	75	3.5		

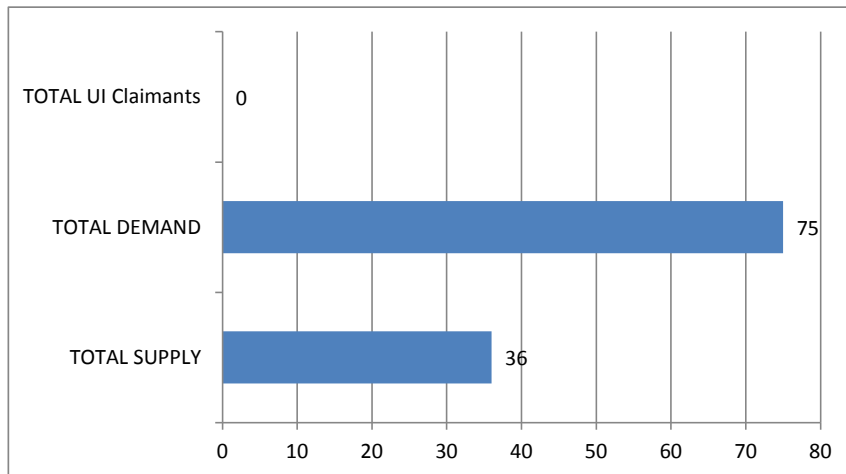
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CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
510910	Diagnostic Medical Sonography/Sonographer and Ultrasound Tec		0	27	0	9	0	0	
	Total	36	0	27	0	9	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
	TOTAL	0
	TOTAL SUPPLY	36
	TOTAL DEMAND	75
	TOTAL UI Claimants	0
	SUPPLY/DEMAND RATIO	0.5
	SUPPLY+UI/DEMAND RATIO	0.5

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

13.210000 Production Design

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
131051	Cost Estimators	1294	1630	64	2.9	\$54,620	Work experience in a related occupation
517031	Model Makers, Wood	10	10	0	-2.3	\$36,441	Long-term on-the-job training
517032	Patternmakers, Wood	20	20	0	0.6	\$28,796	Long-term on-the-job training
TOTAL		1324	1660	64	2.5		

SUPPLY DATA

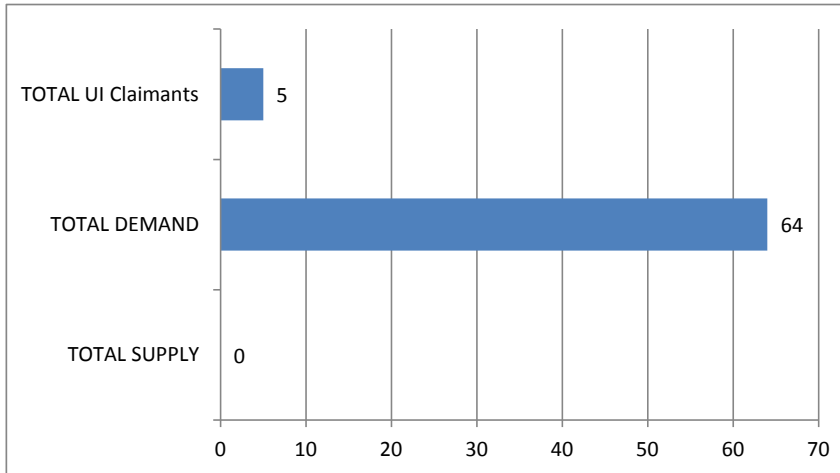
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	COMPLETERS			
						Bach	Grad	WIA	CT CODE
	Total	0	0	0	0	0	0	0	0

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
517031	Model Makers, Wood	1
517032	Patternmakers, Wood	1
131051	Cost Estimators	3
TOTAL		5

TOTAL SUPPLY	0
TOTAL DEMAND	64
TOTAL UI Claimants	5
SUPPLY/DEMAND RATIO	0.0
SUPPLY+UI/DEMAND RATIO	0.1

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



Tennessee

Average Occupational Growth Rate = 1.2

08.112000 Occupational Therapy Assistant

DEMAND DATA

SOC CODE	SOC TITLE	Estimated Employment	Projected Employment	Average Annual Openings	Average Annual Growth	Annual Median Salary	Usual Education Requirement
312011	Occupational Therapy Assistants	860	1150	50	3.7	\$34,227	Associate degree
312012	Occupational Therapy Aides	140	190	10	3.8	\$19,106	Short-term on-the-job training
TOTAL		1000	1340	60	3.4		

SUPPLY DATA

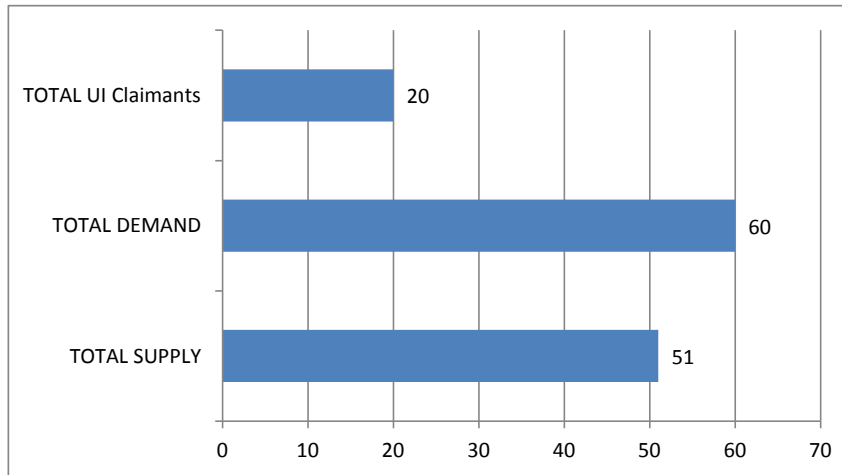
CODE	PROGRAM TITLE	Totals	Secondary Concentrators	Cert	Assoc	Bach	Grad	WIA	CT CODE
510803	Occupational Therapist Assistant.		0	0	51	0	0	0	
	Total	51	0	0	51	0	0	0	

UI CLAIMS DATA

SOC CODE	SOC TITLE	CLAIMANTS Totals
312011	Occupational Therapist Assistants	15
312012	Occupational Therapist Aides	5
TOTAL		20

TOTAL SUPPLY	51
TOTAL DEMAND	60
TOTAL UI Claimants	20
SUPPLY/DEMAND RATIO	0.9
SUPPLY+UI/DEMAND RATIO	1.2

Cluster Grade = A
 The outlook for this cluster is Excellent.
 The GROWTH rate is above the average for all occupations across the state.
 There are more job openings expected annually than there were training completers in a recent year..



APPENDIX C

THEC Division of Postsecondary School Authorization

Credentials Awarded to Program Completers for Authorized Institutions, FY 2011-12

	All Awards		Certificates		Diplomas		Associates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
All Programs	19,899	3,346	7,800	1,459	5,057	729	4,081	199
	86%	14%	84%	16%	87%	13%	95%	5%
Administrative and Clerical Support	35	35	6	0	9	0	20	0
Aeronautics and Aviation	289	310	213	0	13	0	63	0
Agriculture Operations and Related Sciences	-	1	0	0	0	0	0	1
Bartending and Hospitality	651	651	638	0	0	0	4	0
Biological and Biomedical Sciences	10	10	0	0	0	0	1	0
Business, Management, Marketing and Related Services	1,197	1,426	13	0	4	0	353	32
Certified Nurse Assistant (CNA) or Certified Nurse Technician (CNT)	383	438	383	55	0	0	0	0
Communications Technologies and Support Services	4	4	0	0	0	0	0	0
Communications, Journalism and Related Fields	12	12	0	0	0	0	3	0
Computer and Information Sciences and Support Services	1,630	1,784	578	84	3	0	752	41
Construction Trades	778	924	286	37	359	109	110	0
Counseling/Social Work	59	93	0	0	0	0	0	0
Criminal Justice	474	570	0	0	0	0	281	84
Culinary Services	463	463	0	0	189	0	252	0

THEC Division of Postsecondary School Authorization

Credentials Awarded to Program Completers for Authorized Institutions, FY 2011-12

	All Awards		Certificates		Diplomas		Associates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
Education	457	883	23	16	0	3	43	0
Engineering	114	114	0	0	0	0	92	0
English Language and Literature/Letters	2	12	0	0	0	0	0	0
Family and Consumer Sciences/Human Sciences	-	1	0	0	0	0	0	0
Finance, Accounting and Economics	261	272	7	0	3	0	74	0
Health Professionals and Related Clinical Sciences	6,383	7,247	1,929	344	2,719	476	1,400	12
History	2	2	0	0	0	0	0	0
Human Resources and Human Sciences	141	156	1	0	0	0	49	0
Law, Legal Services and Legal Studies	128	128	21	0	0	0	77	0
Mechanic and Repair Technology	1,418	1,423	31	0	1,248	1	139	4
Medical Billing and Coding	511	620	47	0	385	109	79	0
Multi/Interdisciplinary Studies	45	45	0	0	0	0	25	0
Physical Sciences	2	2	0	0	0	0	0	0
Protective Services	12	43	0	31	0	0	2	0
Psychology	257	261	0	0	0	0	39	1
Public Administration and Services	28	28	0	0	0	0	0	0

THEC Division of Postsecondary School Authorization

Credentials Awarded to Program Completers for Authorized Institutions, FY 2011-12

	All Awards		Certificates		Diplomas		Associates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
Science Technologies/Technicians	6	6	0	0	0	0	6	0
Social Sciences	25	28	0	0	0	0	0	0
Taxation and Tax Preparation	655	655	655	0	0	0	0	0
Theological Studies and Religious Vocations	13	282	0	36	0	30	0	23
Transportation and Materials Moving Services	2,827	2,907	2,819	80	0	0	3	0
Visual and Performing Arts	546	546	74	0	123	0	211	0
Other	81	863	76	776	2	1	3	1

Notes: Data year spans July 1, 2011 through June 30, 2012.

Source: THEC Division of Postsecondary School Authorization

APPENDIX C

THEC Division of Postsecondary Schools and Districts Credentials Awarded to Program Categories

	Bachelors		Graduate Certificates		Masters		Doctorates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
All Programs	1,768	362	17	24	1,131	566	45	7
	83%	17%	41%	59%	67%	33%	87%	13%
Administrative and Clerical Support	0	0	0	0	0	0	0	0
Aeronautics and Aviation	0	14	0	0	0	7	0	0
Agriculture Operations and Related Sciences	0	0	0	0	0	0	0	0
Bartending and Hospitality	7	0	0	0	2	0	0	0
Biological and Biomedical Sciences	9	0	0	0	0	0	0	0
Business, Management, Marketing and Related Services	447	126	3	0	373	71	4	0
Certified Nurse Assistant (CNA) or Certified Nurse Technician (CNT)	0	0	0	0	0	0	0	0
Communications Technologies and Support Services	4	0	0	0	0	0	0	0
Communications, Journalism and Related Fields	9	0	0	0	0	0	0	0
Computer and Information Sciences and Support Services	250	15	1	0	44	14	2	0
Construction Trades	23	0	0	0	0	0	0	0
Counseling/Social Work	0	0	0	0	56	33	3	1
Criminal Justice	161	11	0	0	32	1	0	0
Culinary Services	22	0	0	0	0	0	0	0

**THEC Division of Postsecondary Sch
 Credentials Awarded to Program Con**

	Bachelors		Graduate Certificates		Masters		Doctorates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
Education	67	43	5	24	288	340	31	0
Engineering	22	0	0	0	0	0	0	0
English Language and Literature/Letters	2	0	0	0	0	10	0	0
Family and Consumer Sciences/Human Sciences	0	0	0	0	0	1	0	0
Finance, Accounting and Economics	103	11	3	0	71	0	0	0
Health Professionals and Related Clinical Sciences	221	12	0	0	112	20	2	0
History	2	0	0	0	0	0	0	0
Human Resources and Human Sciences	47	5	5	0	39	10	0	0
Law, Legal Services and Legal Studies	28	0	0	0	2	0	0	0
Mechanic and Repair Technology	0	0	0	0	0	0	0	0
Medical Billing and Coding	0	0	0	0	0	0	0	0
Multi/Interdisciplinary Studies	20	0	0	0	0	0	0	0
Physical Sciences	2	0	0	0	0	0	0	0
Protective Services	6	0	0	0	4	0	0	0
Psychology	146	3	0	0	72	0	0	0
Public Administration and Services	2	0	0	0	26	0	0	0

**THEC Division of Postsecondary School
 Credentials Awarded to Program Categories**

	Bachelors		Graduate Certificates		Masters		Doctorates	
	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit	For-Profit	Not-For-Profit
Science Technologies/Technicians	0	0	0	0	0	0	0	0
Social Sciences	15	3	0	0	7	0	3	0
Taxation and Tax Preparation	0	0	0	0	0	0	0	0
Theological Studies and Religious Vocations	10	115	0	0	3	59	0	6
Transportation and Materials Moving Services	5	0	0	0	0	0	0	0
Visual and Performing Arts	138	0	0	0	0	0	0	0
Other	0	4	0	0	0	0	0	0

Notes: Data year spans July 1, 2011 through June 30, 2012

Source: THEC Division of Postsecondary School Authorizations

Appendix D: Tennessee Code Annotated § 49-7-112



State of Tennessee

PUBLIC CHAPTER NO. 88

HOUSE BILL NO. 566

By Representatives Love, Hardaway

Substituted for: Senate Bill No. 618

By Senators Tate, Finney, Ford, Bowling, Harper, Norris

AN ACT to amend Tennessee Code Annotated, Title 49, relative to workforce assessment.

BE IT ENACTED BY THE GENERAL ASSEMBLY OF THE STATE OF TENNESSEE:

SECTION 1. Tennessee Code Annotated, Title 49, Chapter 7, Part 1, is amended by adding the following language as a new section:

49-7-1__

(a) This section shall be known and may be cited as the "Skills for Jobs Act".

(b) To the extent practicable within available resources and subject to the availability of data currently collected by and accessible to state agencies, the Tennessee higher education commission, in consultation with the department of labor and any other entity the commission deems appropriate, shall produce an annual report regarding state workforce need projections and credential production. The report shall:

(1) Indicate the state's anticipated workforce needs and the number of degrees, certificates, and other credentials that public and private institutions of higher education, including schools authorized under the Postsecondary Authorization Act, compiled in chapter 7, part 20, expect to issue;

(2) To the extent provided by sources external to the commission, indicate the state's anticipated number of degrees, certificates, and other credentials that high school career and technical programs, apprenticeship programs, and other public or private workforce training programs expect to issue;

(3) Identify any workforce needs, including areas of specialization within a particular vocation, that may not be met by the education, training, and apprenticeship programs; and

(4) Identify institutions, public or private, that may meet projected workforce needs.

(c) The department of labor and workforce development shall provide data on the state's anticipated workforce needs and other information, as requested by the Tennessee higher education commission, that is necessary to produce the report under subsection (b) by October 1, 2013, and by October 1 of each year thereafter.

(d) The commission, by January 15, 2014, and by January 15 of each year thereafter, shall provide a copy of the report to the Education Committees of the House of Representatives and the Senate, the Business and Utilities Committee of the House of Representatives, the Commerce and Labor Committee of the Senate and the Governor. The

HB 566

commission shall send the report to the board of regents, the University of Tennessee board of trustees and the Tennessee Independent Colleges and Universities Association. The commission shall work with the department of education to provide the report to the state's public school districts and private elementary, middle, and high schools. The report may be provided electronically.

SECTION 2. This act shall take effect upon becoming a law, the public welfare requiring it.

HOUSE BILL NO. 566

PASSED: MARCH 21, 2013

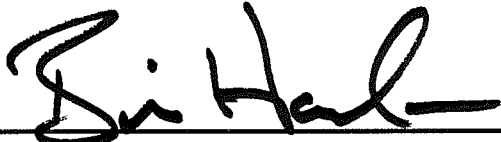


BETH HARWELL, SPEAKER
HOUSE OF REPRESENTATIVES



RON RAMSEY
SPEAKER OF THE SENATE

APPROVED this 8th day of April 2013



BILL HASLAM, GOVERNOR