REGIONAL DEMOGRAPHICS AND LABOR MARKETS INFORM ACADEMIC AND FACILITIES PLANNING

SCUP SOUTHERN REGIONAL CONFERENCE
GEORGIA TECH: OCTOBER 7, 2019
THIS MORNING’S PRESENTERS

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THE TENNESSEE HIGHER EDUCATION LANDSCAPE

- University of Tennessee System
- Locally Governed Institutions (LGIs)
- Tennessee Board of Regents (TBR): Community Colleges and Tennessee College of Applied Technology (TCATs)
TENNESSEE BOARD OF REGENTS FACTS

- **40 Institutions**
  - 13 Community Colleges
  - 27 TCATs

- **Total Headcount Enrollment**
  - 110,000+ Community College Students (Summer 2018-Spring 2019)
  - 30,000+ TCAT Students (Summer 2018-Spring 2019)

- **Degree Programs**
  - 260+ at Community Colleges
  - Nearly 100 at TCATs

- **Total Awards (2017-18)**
  - 15,548 Associates Degrees
  - 10,911 Certificates & Diplomas
ACADEMIC PROGRAM APPROVAL PROCESS

- Regional/local labor dynamics and needs
- Specific employer needs
- Student interest
CAPITAL INVESTMENT APPROVAL PROCESS

★ Capital outlay and maintenance appropriations in Tennessee
★ Campuses originate proposals annually
★ Proposals submitted to TBR System office for review and prioritization
★ TBR submits to THEC for review and prioritization with LGIs and UT request
★ THEC submits recommendations to Governor for inclusion in state budget
State goals and Drive to 55
Strategic plan and campus master plan
Project description and impact on campus
Space needs
External funding
WHY A STATEWIDE DEMOGRAPHIC ANALYSIS?

★ Aggregate disparate information/data
★ Recognition of need for coordinated approach
to academic and capital investment
★ Accessible and publicly available tool (maps)
PARTNERS IN THE PROCESS

- Tennessee Board of Regents (TBR)
- Tennessee Higher Education Commission (THEC)
- Tennessee Department of Labor and Workforce Development
- Tennessee Department of Education (K-12)
- Other state entities
- University of Tennessee Boyd Center for Business and Economic Research
- Institutional President focus groups
TWO COMPONENTS OF ANALYSIS

1. DEMOGRAPHIC DATA
   (Need & Demand)

2. LABOR MARKET DATA
   (Jobs & Graduates)
DEMOGRAPHIC VARIABLES

- Population Density
- Population Projections
- Poverty
- Participation Rate
- Educational Attainment
- K-12 Student Projections
- Driving time from a campus
- Unemployment
DATA SOURCES UTILIZED

- Population density: U.S. Census
- Population projections: UT Boyd Center
- High school graduates projections: TN Department of Education
- Percent of population below poverty line: U.S. Census data
- Percent of adults with no college credentials: U.S. Census data
- Participation rate: U.S. Census & TBR
- Percent of labor force unemployed: U.S. Census data
- Drive time from an existing campus: TBR
Z SCORE CALCULATED FOR EACH VARIABLE

Graph showing frequency distribution of standard deviations with a mean.
NATURAL BREAKS (JENKS) FOR COMBINED Z SCORES

- Natural Break 1
- Natural Break 2
- Natural Break 3
- Natural Break 4
- Natural Break 5
WEIGHTING & COMBINING Z SCORES

individual variables calculated for each census tract

summed to create combined need and demand maps
INTERACTIVE MAPS: NEED AND DEMAND

Statewide Demographic & Labor Market Analysis

DRAFT June 2018

Which parts of Tennessee have the most need for additional higher education credentials?

This map shows the estimated need of every census tract in the state, based on existing educational attainment levels, poverty and unemployment rates, distance from an existing college campus, and the proportion of the population already enrolled at a TBR community college or Tennessee Colleges of Applied Technology (TCATs).

State-Owned TCAT or Community College Campus

Need for Higher Education by Census Tract:
- High Need
- Moderately High Need
- Moderate Need
- Moderately Low Need
- Low Need
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INTERACTIVE MAPS: NEED AND DEMAND

Statewide Demographic & Labor Market Analysis
DRAFT June 2018

Which parts of Tennessee will have the most future demand for higher education credentials?

This map shows the estimated future demand of every census tract in the state, based on existing population density, projected population growth over the next decade, and the number of K-12 students projected to graduate over the next decade.

State-Owned TCAT or Community College Campus

Demand for Higher Education by Census Tract
- High Demand
- Moderately High Demand
- Moderate Demand
- Moderately Low Demand
- Low Demand
DATA ON JOBS AND GRADUATES

Regional Data on Jobs
Standard Occupational Classification (SOC) code
Source: TN Dept. of Labor

Regional Data on Graduates
Classification of Instructional Programs (CIP) code
Source: TBR, IPEDS
Labor data divided into clusters by workforce investment area

Each cluster and WIA includes data on
- Projected average annual job openings
- Projected average number of graduates with related degrees
- Ratio of graduates to jobs

Each cluster receives a letter grade for job outlook

Dataset is for 2014-2024 projections

Some data not available for small job sectors

Some data only available at statewide level
Some fields in job data include jobs that do not require college degrees (e.g. manufacturing)

Some fields include jobs that require bachelors or other higher degrees (e.g. business)

Some fields are split into multiple groups (e.g. information technology)

Some fields include multiple degrees (e.g. industrial engineering)
SELECTED ACADEMIC PROGRAMS TO ANALYZE

- Healthcare
- Information Technology
- Manufacturing
- Transportation, Distribution, & Logistics
- Business
INTERACTIVE MAPS: JOB OUTLOOK

Job Outlook for Healthcare Graduates
DRAFT July 2018

INDUSTRY OVERVIEW

Nursing (RN)

This map shows the outlook for Registered Nurses (RN) jobs, as well as all colleges that currently offer RN programs. A ratio of graduates to jobs above 1.0 indicates that there are more graduates with RN degrees in that workforce investment area than RN jobs in that workforce investment area.

Image courtesy: Germanna CC

Nursing Assistants and Home Health
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Nursing Assistants and Home Health

LEGEND

Job Outlook - Nursing (RN)

A (Excellent)
B (Very Favorable)
C (Favorable)
D (Competitive)
E (Very Competitive)

Workforce Investment Area B

Job Outlook: A (Excellent)

Ratio of Graduates to Jobs: 0.97
Projected Annual Job Growth Rate: 3.4%
(compared to 1.3% statewide for all jobs)
INTERACTIVE MAPS: JOB OUTLOOK

Job Outlook for Healthcare Graduates
DRAFT July 2018

Pharmacy Assisting

This map shows the outlook for Pharmacy Assistant or Pharmacy Technician jobs, as well as all colleges that currently offer Pharmacy Assistant or Pharmacy Technician programs. A ratio of graduates to jobs above 1.0 indicates that there are more graduates with Pharmacy Assistant or Technician degrees in that workforce investment area than Pharmacy Assistant or Technician jobs in that workforce investment area.

A job outlook of 0 (Ungraded) means that within that workforce investment area, there are 10 or fewer jobs in this field, no graduates in this program, or a negative job growth rate.

Emergency Medical Tech.
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Nursing Assistants and Home Health
HOW WILL DATA AND MAPS BE USED?

- Granular (census tract) information that goes beyond county or state level data
- Campus development of new academic program proposals
- Evaluate whether current academic program array matches regional labor needs
- Campus development of capital project requests
- TBR and THEC prioritization of institution and governing board capital priorities
- Evaluation of new off-campus sites and centers
- Identifying educational needs within an institution’s geographic service area
INTENDED AUDIENCE OF MAPS AND RESULTS

★ Tennessee Board of Regents
★ Other state agencies
★ Individual campuses within TBR system and beyond
★ Legislators and other decision makers

Visit our website to explore the maps!
www.tbr.edu/policy-strategy/tn-education-and-workforce-maps
CRITERIA FOR NEW CAMPUSSES & PROGRAMS

- Academic programs proposed
- Distance to nearest location of other campus with same academic program (both public and private institutions)
- Workforce outlook for graduates with this degree
- Success of students with this degree (placement rates)
- Demographic factors in region
- Near existing student body
- Leased vs. purchase space
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