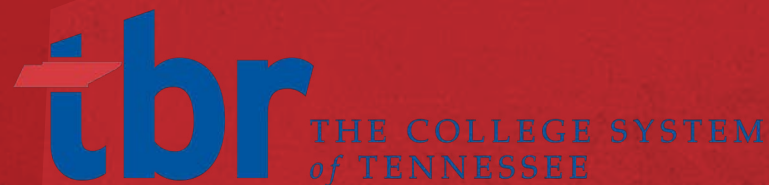


REGIONAL DEMOGRAPHICS AND LABOR MARKETS INFORM ACADEMIC AND FACILITIES PLANNING



*SCUP SOUTHERN REGIONAL CONFERENCE
GEORGIA TECH: OCTOBER 7, 2019*

THIS MORNING'S PRESENTERS

RUSS DEATON



*Tennessee Board of Regents
Executive Vice Chancellor for Policy & Strategy*

russ.deaton@tbr.edu

WOODY GILES



*TSW
Senior Associate
bwgiles@tsw-design.com*

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*

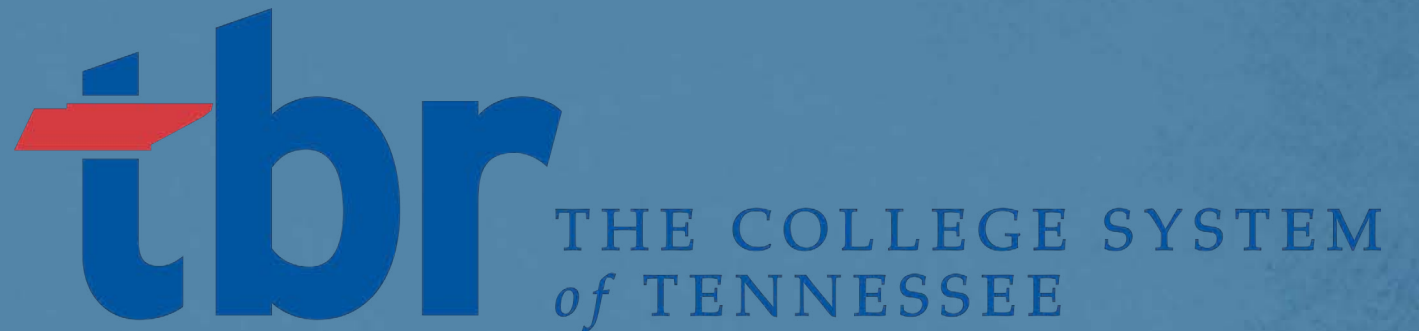
- 13 Community Colleges
- 27 TCATs

★ *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*



TN HIGHER ED COMMISSION GUIDELINES/CRITERIA

- ★ *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)*



LABOR MARKET DATA *(Jobs & Graduates)*

2

DEMOGRAPHIC VARIABLES

*Population
Density*



*Population
Projections*



Poverty



*Educational
Attainment*



*K-12 Student
Projections*



*Participation
Rate*



Unemployment



*Driving
time from
a campus*

DEMOGRAPHIC VARIABLES

*Population
Density*



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*K-12 Student
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DEMAND

Poverty



*Educational
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NEED



Unemployment

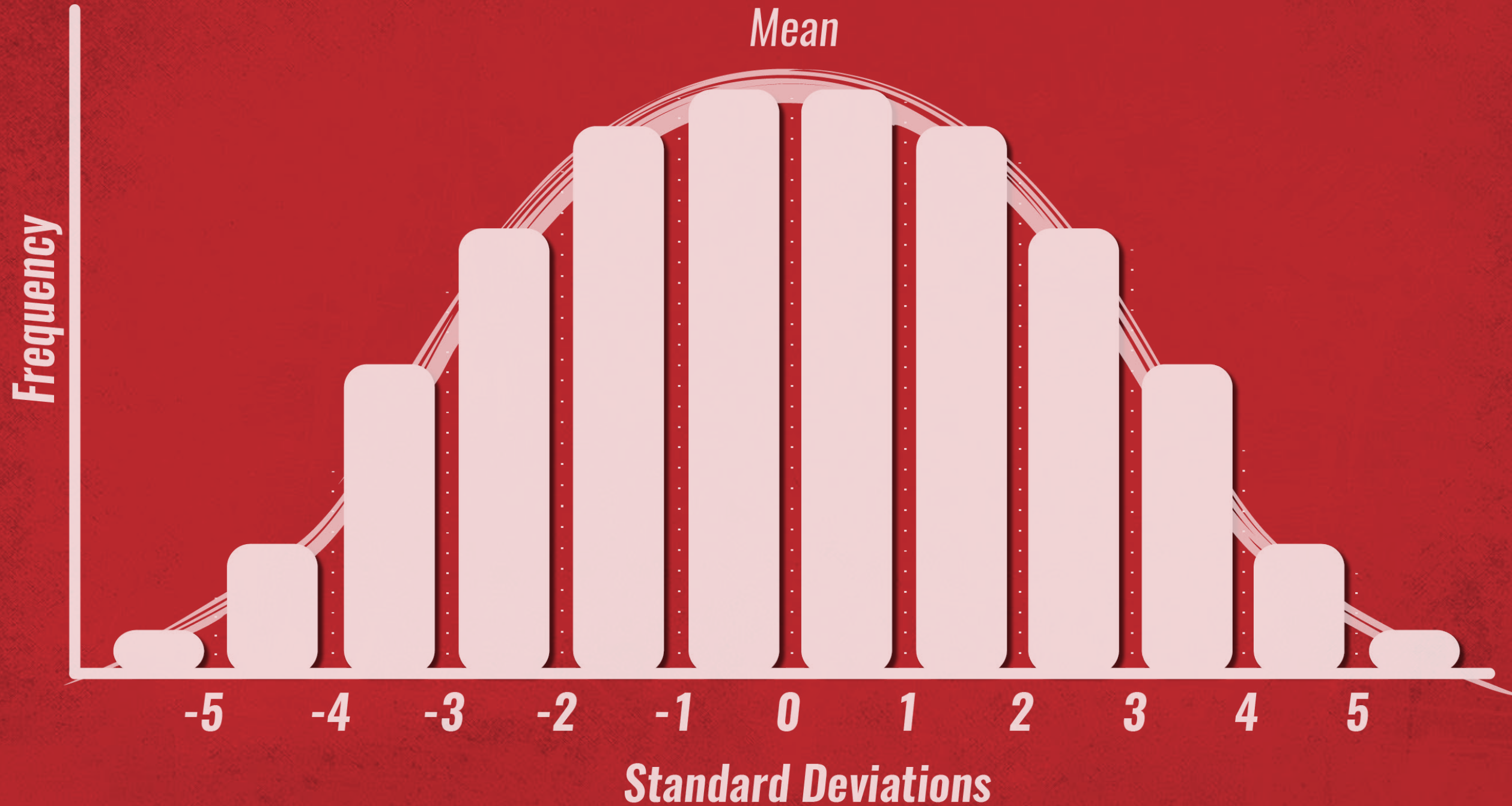


*Driving
time from
a campus*

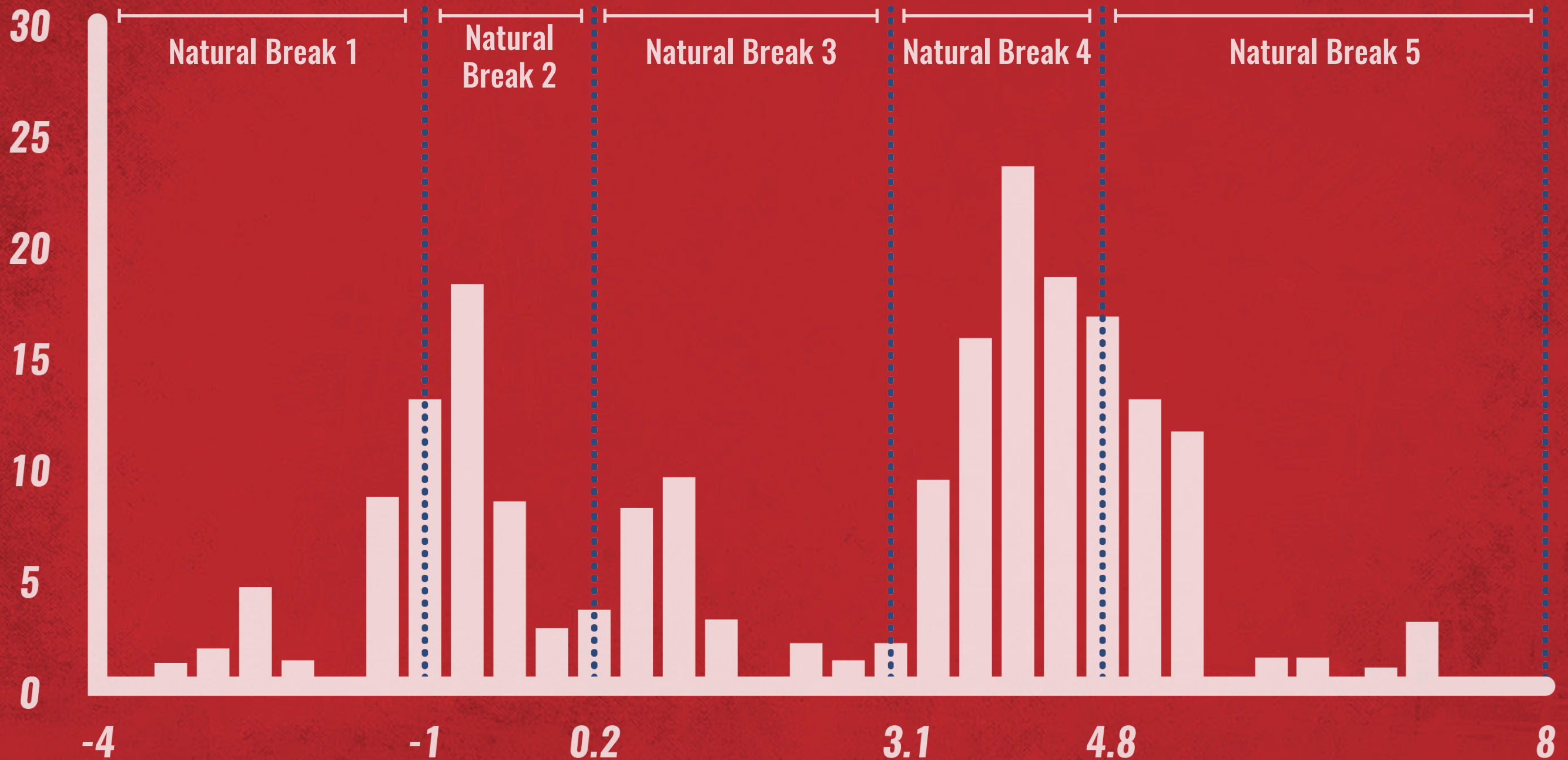
DATA SOURCES UTILIZED

- ★ *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

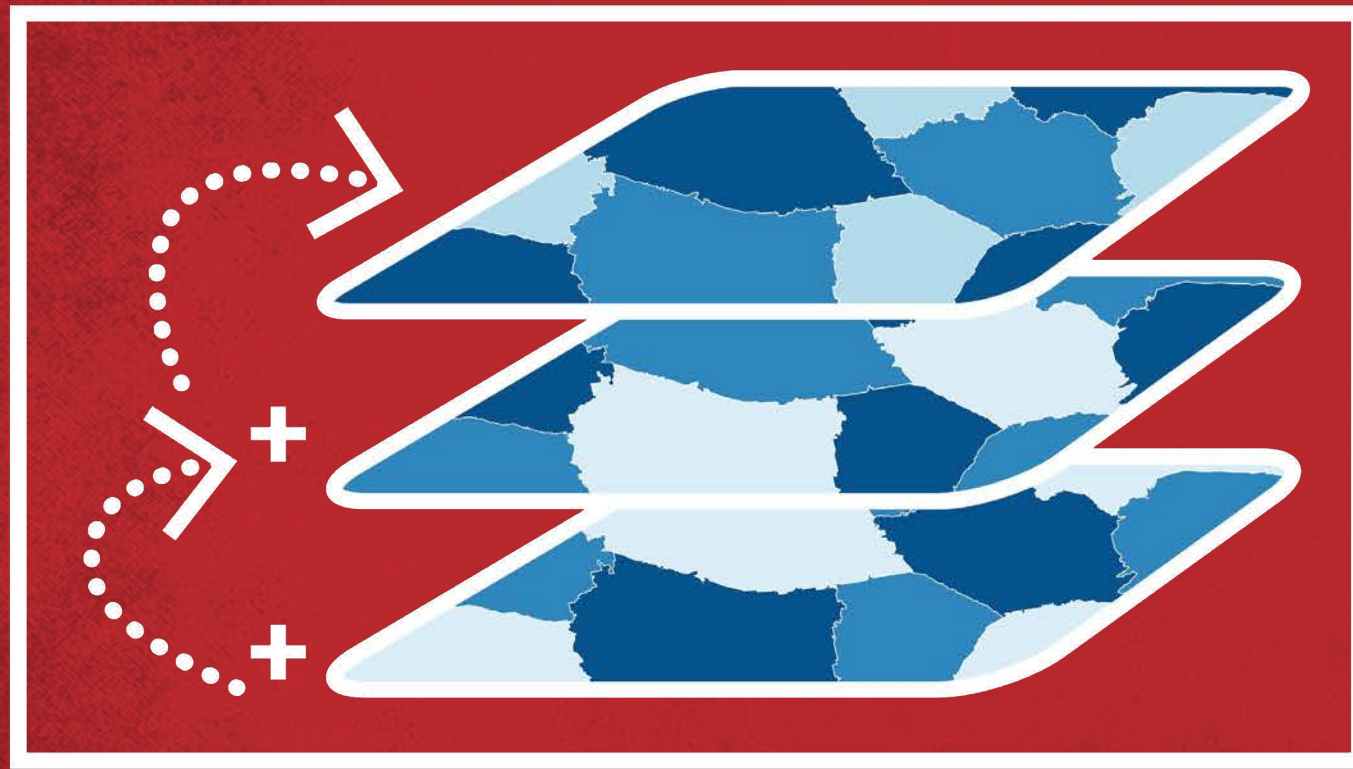
Z SCORE CALCULATED FOR EACH VARIABLE



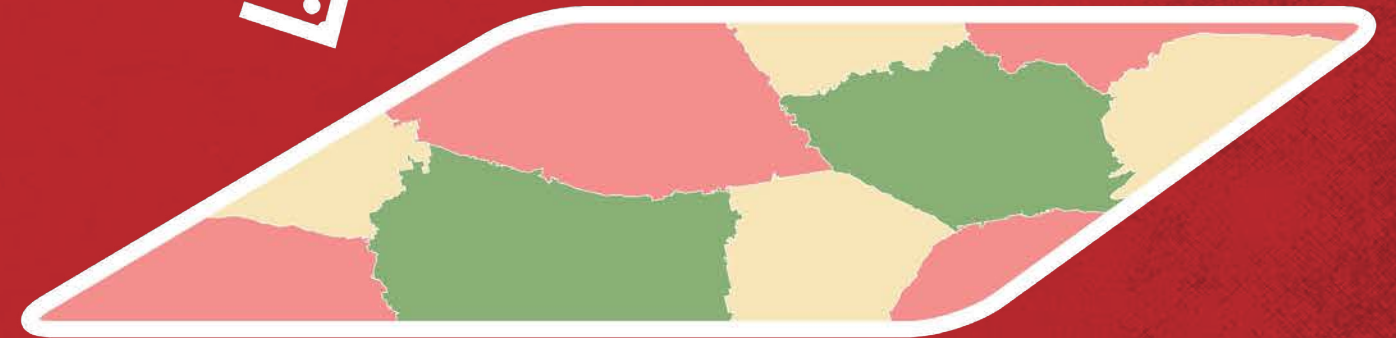
NATURAL BREAKS (JENKS) FOR COMBINED Z SCORES



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



Need for Higher Education

Demand for Higher Education

Job Outlook by Program

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

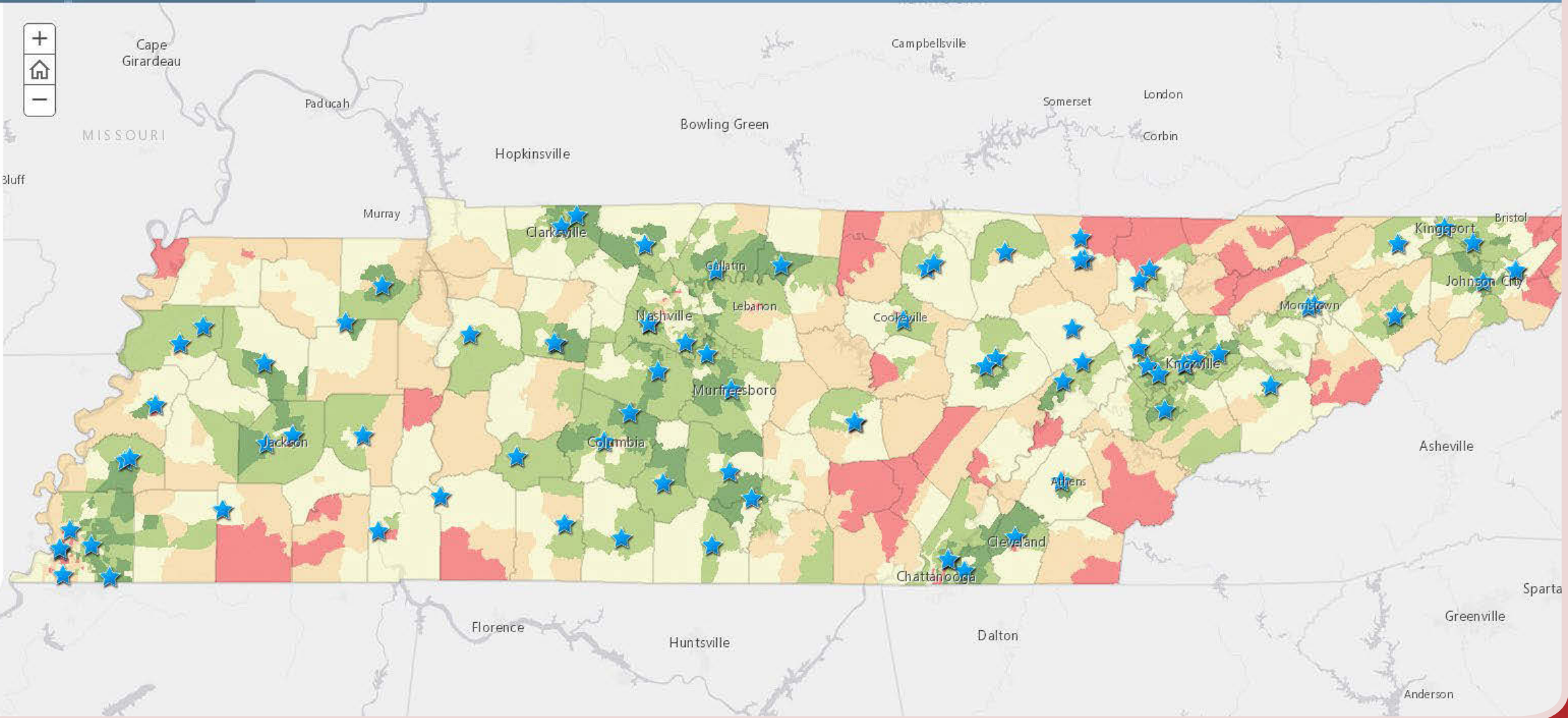
This map shows the estimated need of every census tract in the state, based on existing educational attainment levels, poverty and unemployment rates, distance from an existing college campus, and the proportion of the population already enrolled at a TBR community college or Tennessee Colleges of Applied 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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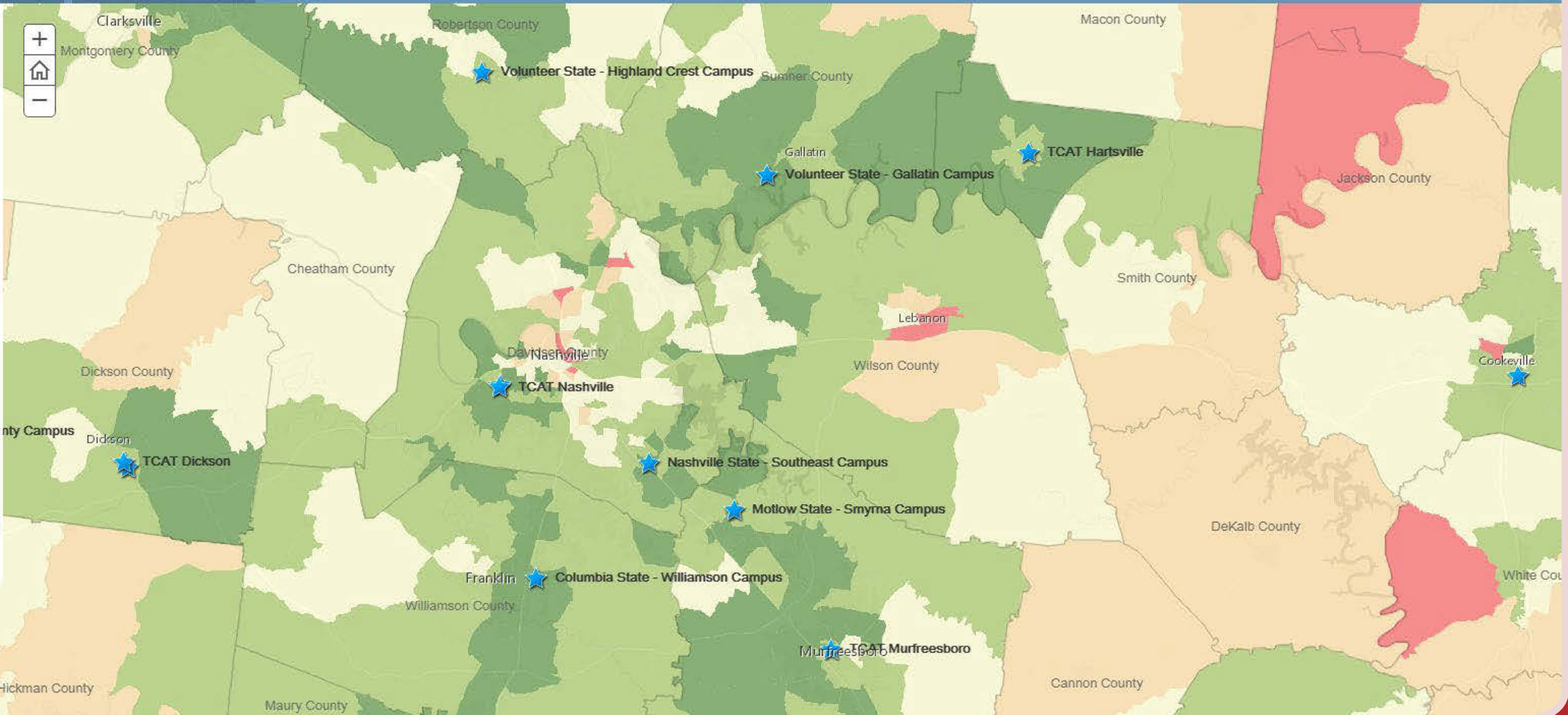
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INTERACTIVE MAPS: NEED AND DEMAND

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Need for Higher Education

Demand for Higher Education

Job Outlook by Program

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

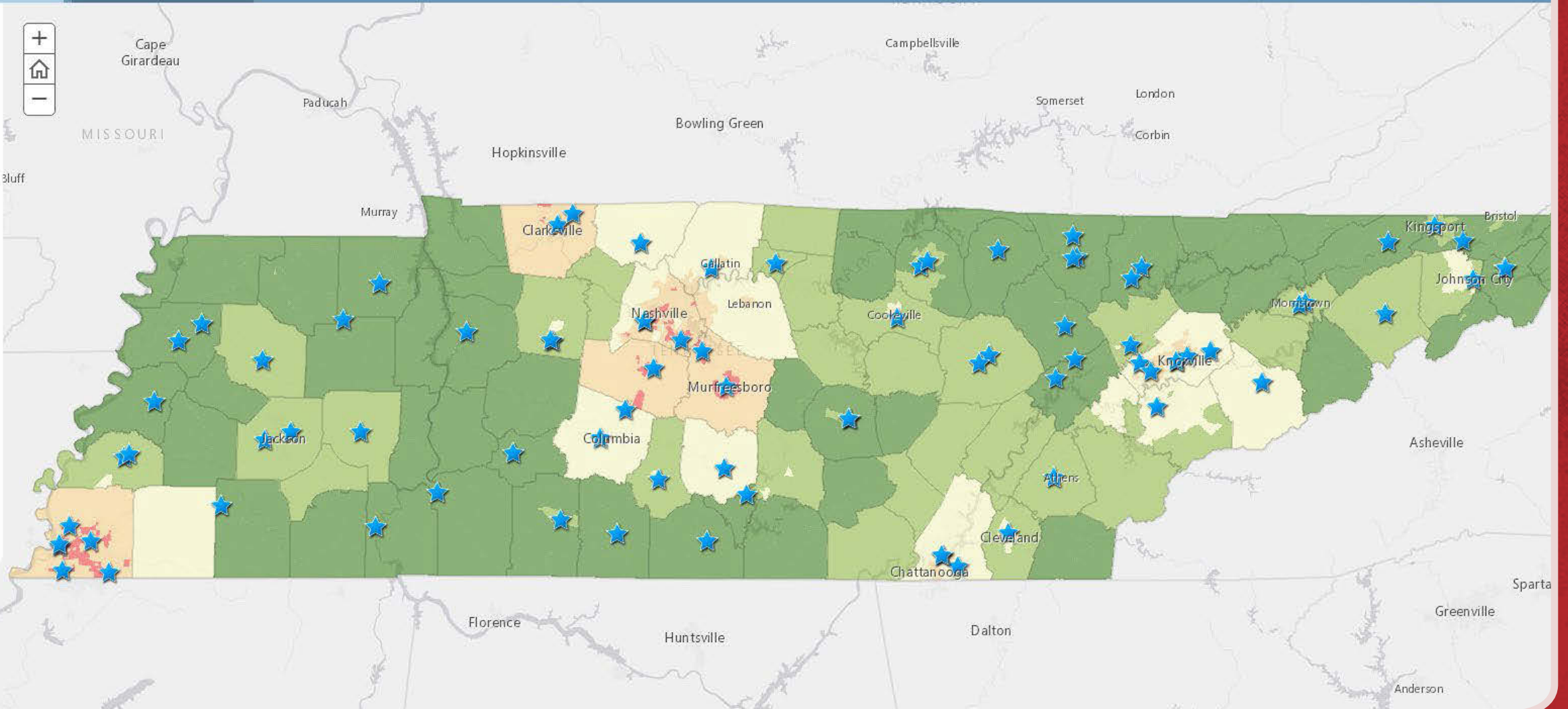
This map shows the estimated future demand of every census tract in the state, based on existing population density, projected population growth over the next decade, and the number of K-12 students projected to graduate over the next decade.

State-Owned TCAT or Community College Campus

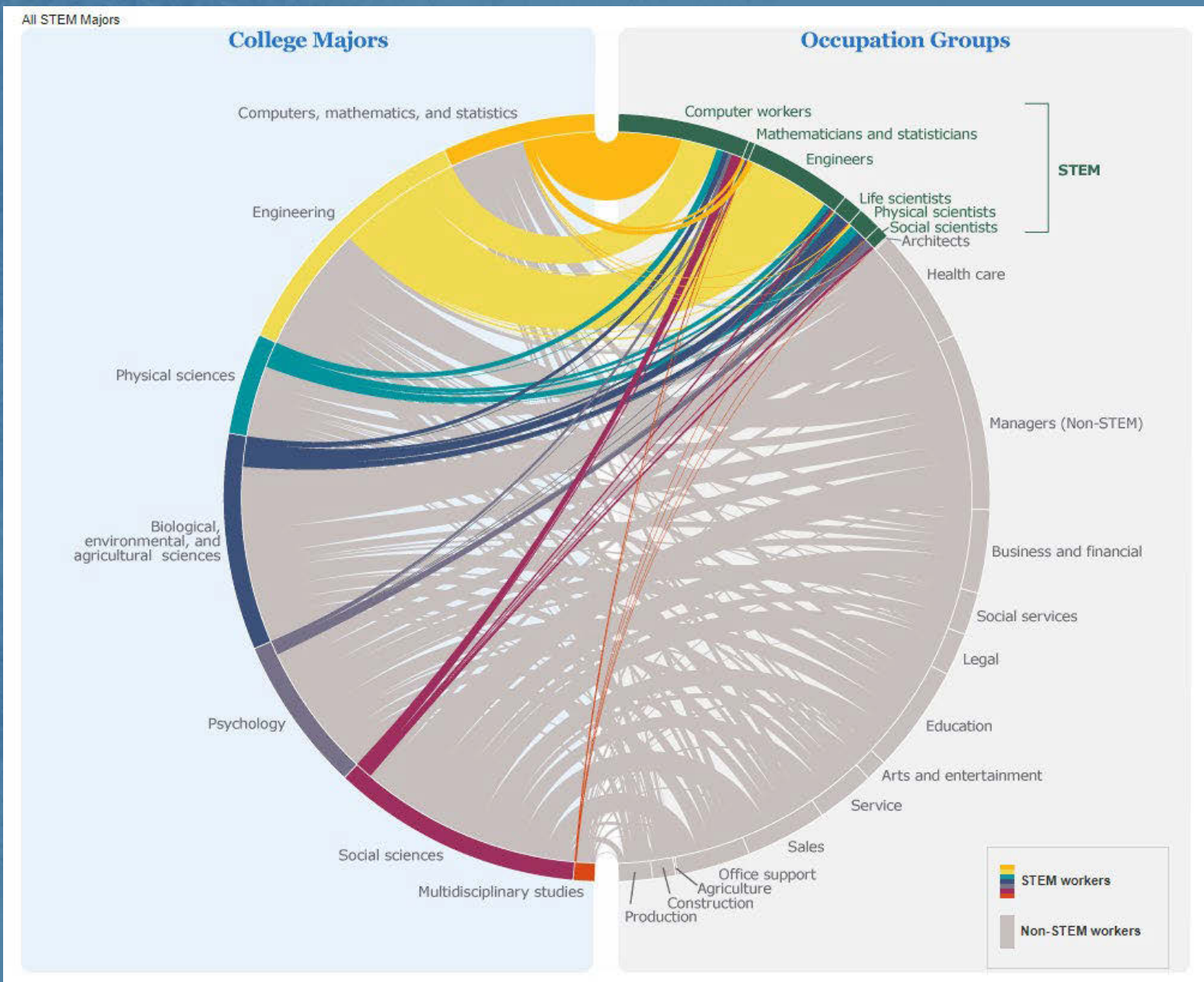


Demand for Higher Education by Census Tract

- High Demand
- Moderately High Demand
- Moderate Demand
- Moderately Low Demand
- Low Demand



CONNECTING JOBS TO GRADS

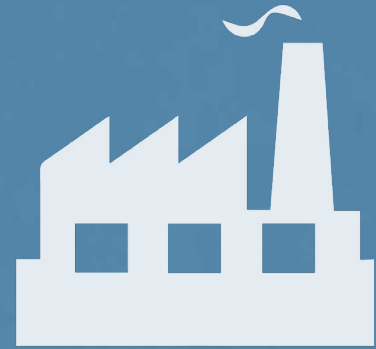


6/12



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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

Menu Home My Dashboard Register/Sign in Services for Individuals Services for Employers Labor Market Analysis Quick Search

Occupational Projections (Long-term) for Multiple Occupations in Tennessee in 2014-2024

[For help click the question mark icon.](#)

Search Options

Area (click to change): [Tennessee](#)

Time Period (click to change): [2014-2024](#)

Occupation (click to change): [Multiple Occupations](#)

Detail Data (click to change): [Employment Figures](#)

[Show Display Options \(includes maps, graphs, and narratives\)](#)

[Show Data Categories \(display more information\)](#)

Projections of occupational employment growth are developed for all States and the nation as a whole. One of the most important uses of the projections is to help individuals make informed career decisions. [Show Full Description](#)

Description

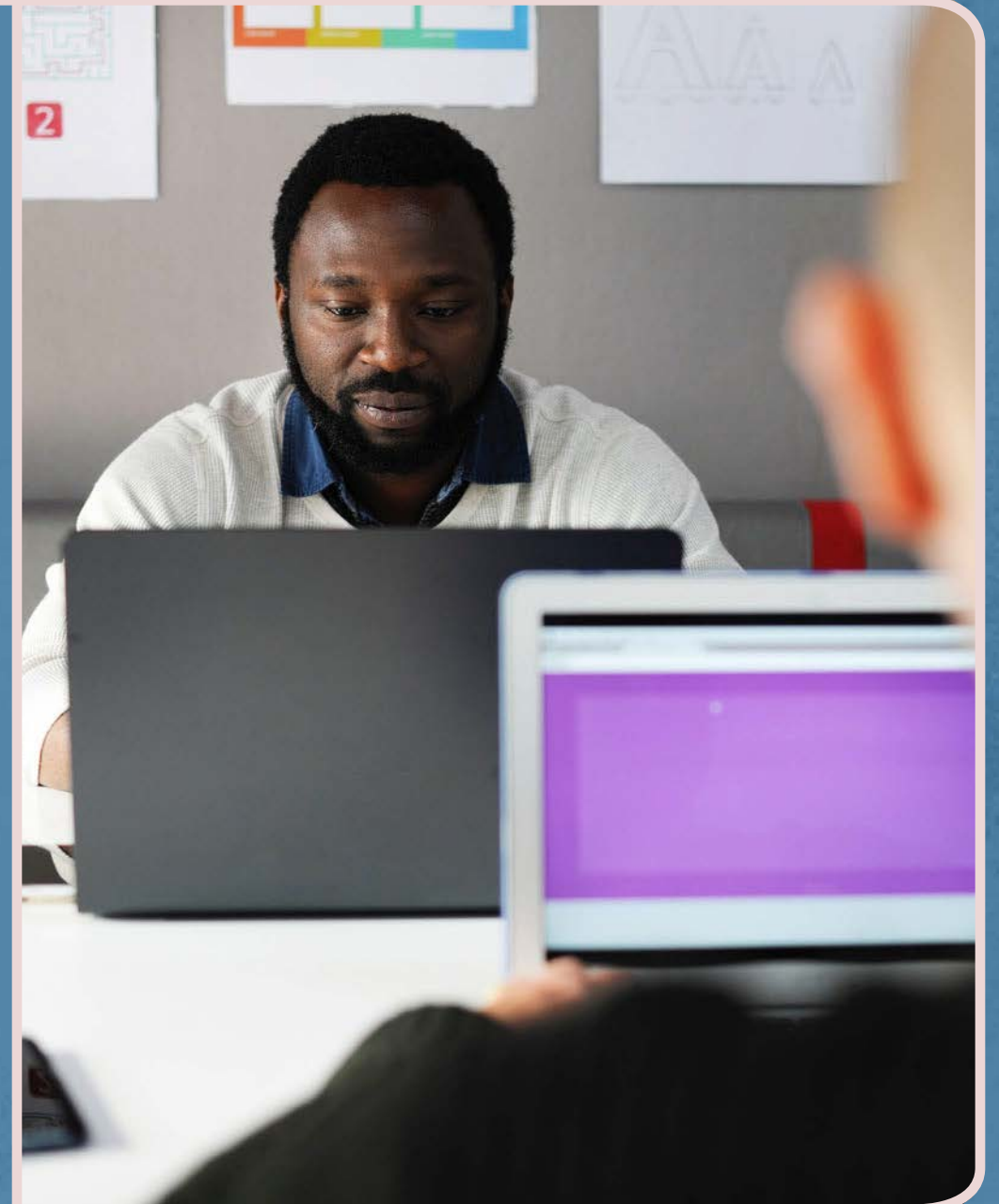
Occupational Projections Table

JOB4TN.GOV

- ★ *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*

CHALLENGES CONNECTING JOBS TO GRADUATES

- ★ *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)*



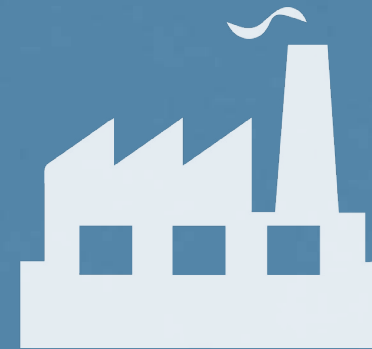
SELECTED ACADEMIC PROGRAMS TO ANALYZE



Healthcare



*Information
Technology*



Manufacturing



*Transportation,
Distribution, &
Logistics*



Business

INTERACTIVE MAPS: JOB OUTLOOK

Job Outlook for Healthcare Graduates

DRAFT July 2018



INDUSTRY OVERVIEW

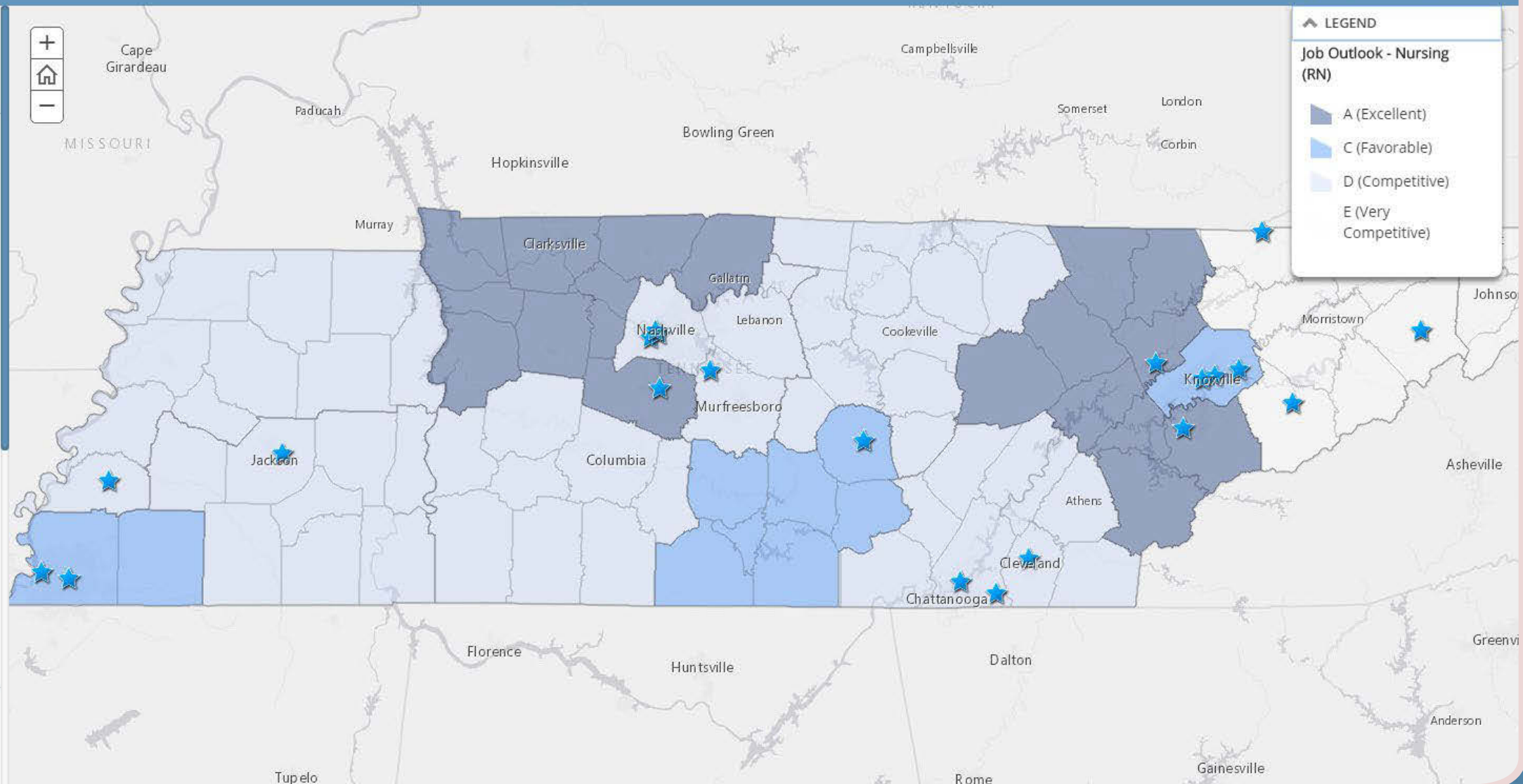
Nursing (RN)

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



INTERACTIVE MAPS: JOB OUTLOOK

Job Outlook for Healthcare Graduates

DRAFT July 2018



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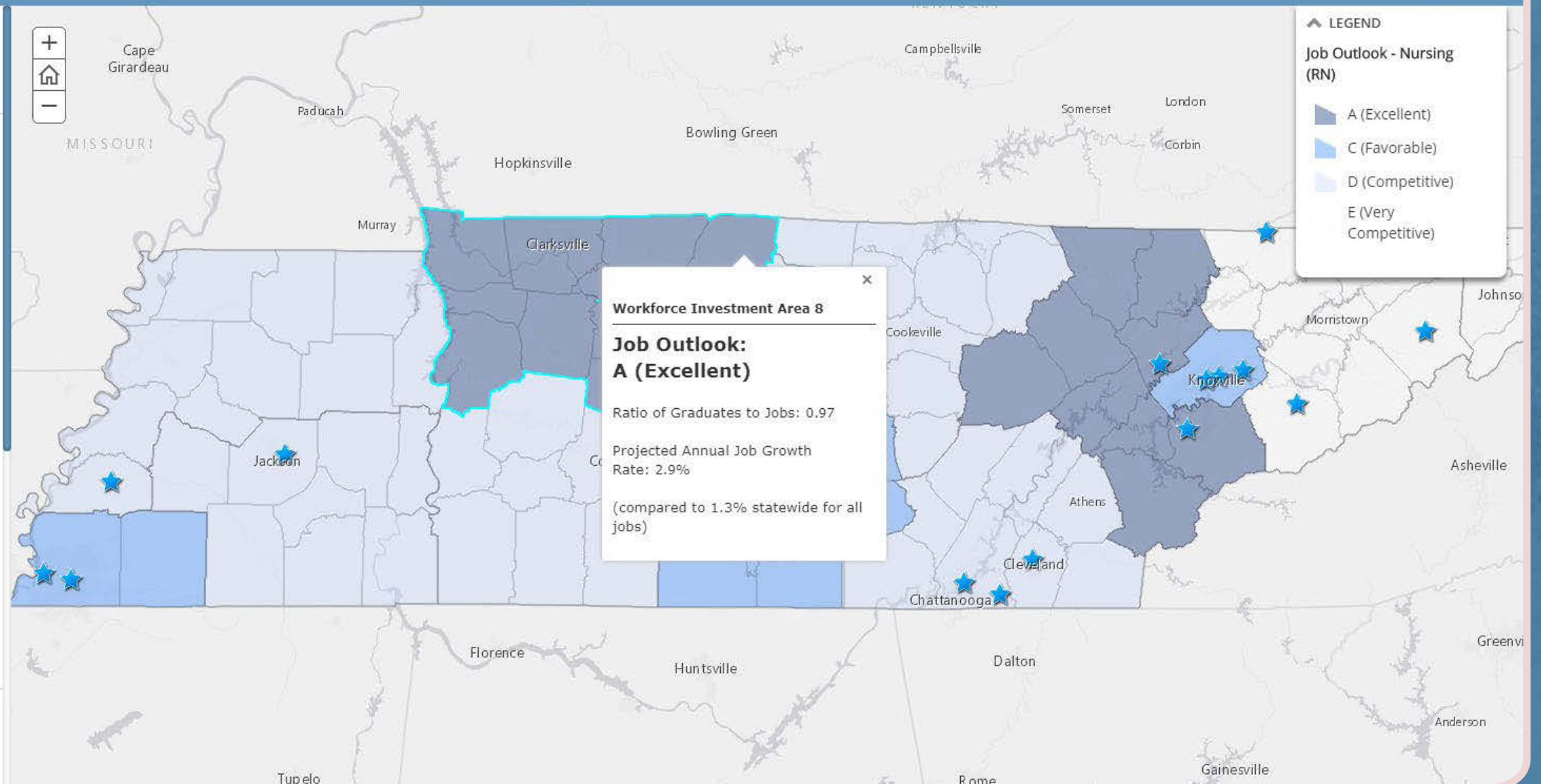
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HOW WILL DATA AND MAPS BE USED?

- ★ *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 CAMPUSES & 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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