VOLUNTEER STATE COMMUNITY COLLEGE

MASTER PLAN

Prepared by TSW // **August 2017**

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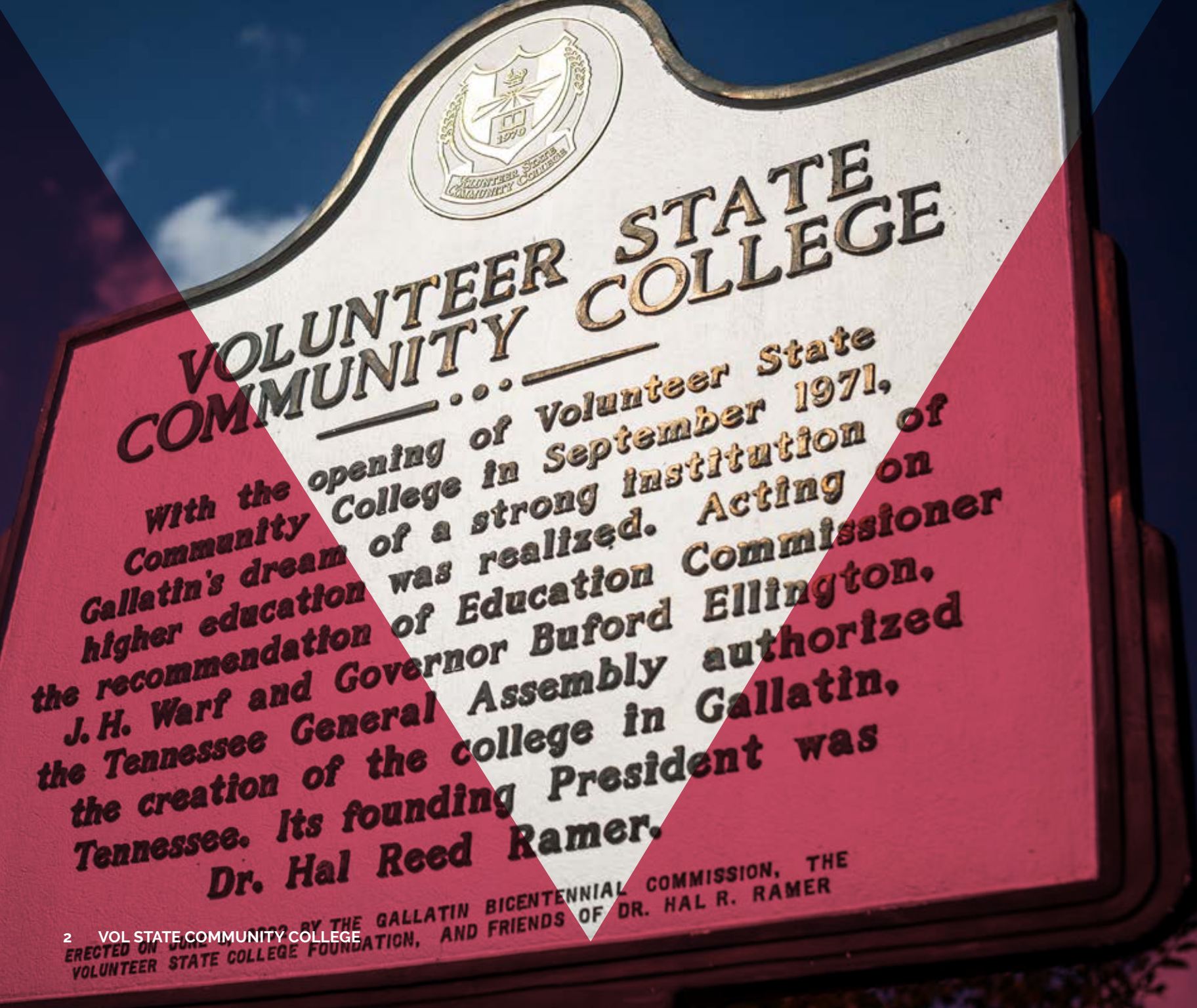
SBC PROJECT NO. 166/025-01-2013

THE PLANNING TEAM WOULD LIKE TO THANK:

All of the Volunteer State Community College administrators, staff, faculty, and students who contributed to this Master Plan.

SSR Engineers who conducted the facilities analysis.


VOLUNTEER STATE COMMUNITY COLLEGE
With the opening of Volunteer State Community College in September 1971, Gallatin's dream of a strong institution of higher education was realized. Acting on the recommendation of Education Commissioner J. H. Warf and Governor Buford Ellington, the Tennessee General Assembly authorized the creation of the college in Gallatin, Tennessee. Its founding President was Dr. Hal Reed Ramer.
ERECTED ON JUNE 1, 2000 BY THE GALLATIN BICENTENNIAL COMMISSION, THE VOLUNTEER STATE COLLEGE FOUNDATION, AND FRIENDS OF DR. HAL R. RAMER

// CONTENTS

00 // EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Volunteer State Community College, founded in 1971, had the second largest full-time equivalent enrollment of all Tennessee community colleges in Fall 2016 (5,852 students). Headcount enrollment was 9,504 students. The college offers more than 90 academic programs, including transfer degrees, two-year degrees, and technical certificates.

This Master Plan addresses all four state-owned Vol State campuses, shown on the map on the following page, but focuses primarily on the Main Campus in Gallatin, about 20 miles northeast of downtown Nashville.

The new Steinhauer-Rogan-Black (SRB) Humanities Building on the Gallatin Campus has provided modern, high-quality spaces for teaching, offices, and other uses. This new facility means that no significant space deficits were identified on the Gallatin Campus. Classroom and lab utilization is low after 3:00 p.m. Station occupancy is above the THEC standard for classrooms but below the standard for labs.

The outdoor realm on the Gallatin Campus is a very well maintained and landscaped environment that students frequently take advantage of to study and recreate. Recent improvements have added circular mini plazas, landscaping, trees, and updated signage that create a true collegiate feel. No significant concerns were identified with regard to site issues, vehicular/pedestrian conflicts, or stormwater. Athletic facilities are in good condition with the exception of the tennis courts.

DEMOGRAPHIC CONTEXT

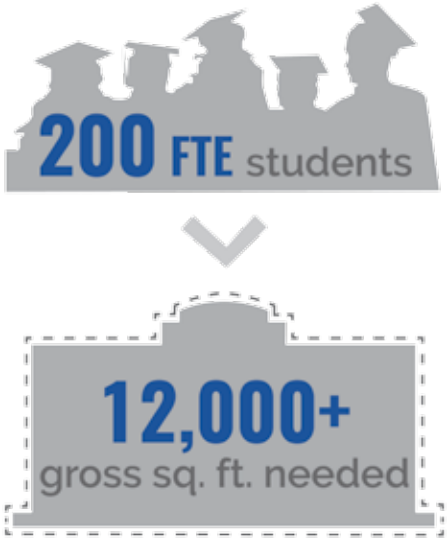
A detailed demographic and labor market analysis is provided on pages 20-34. Key findings are as follows:

- Projected population growth is concentrated in Nashville metro counties and Putnam County
- Participation rate is low in Wilson County, as shown on the map below, although population density is high in the same area
- Population growth could increase enrollment 14% over the next decade
- Areas of high educational need are in more rural portions in the center of service area
- Many areas are beyond a half-hour drive of existing campuses

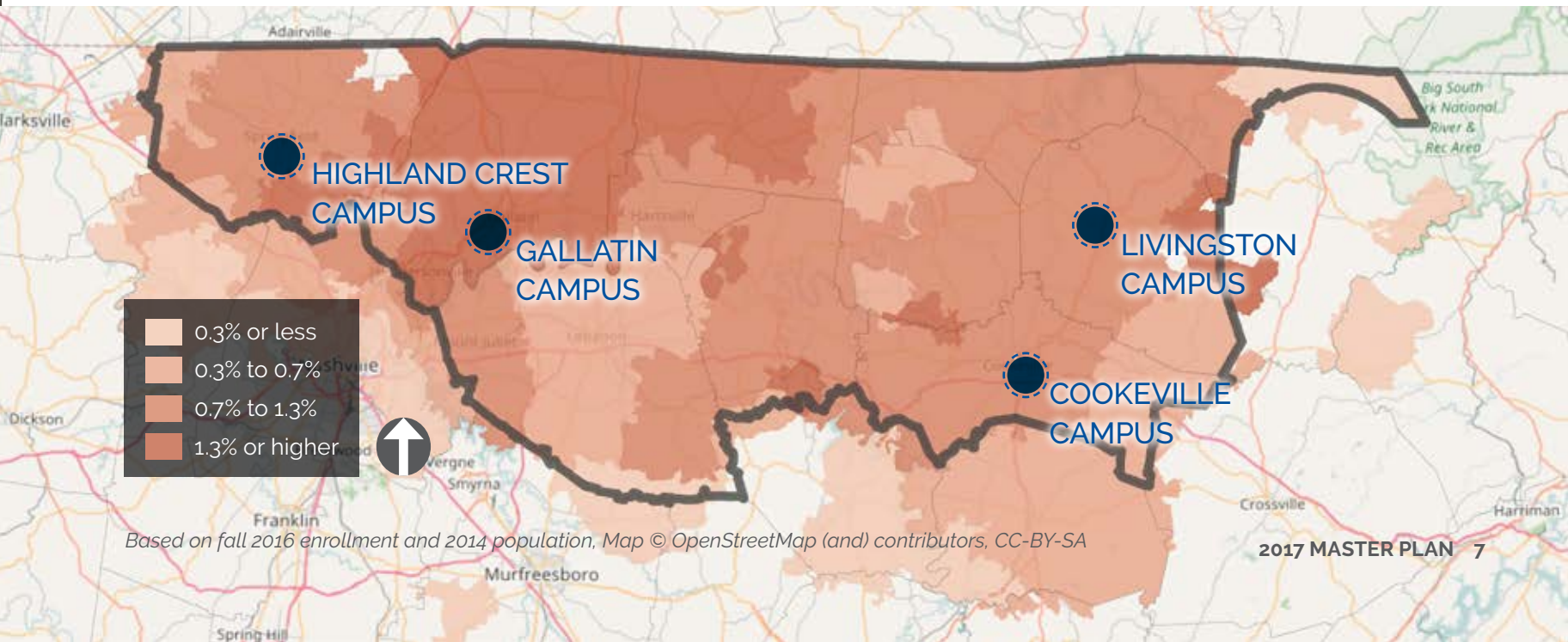
NEW WILSON COUNTY CAMPUS

In order to meet the needs identified by the demographic study, this Master Plan recommends the creation of a new campus in Wilson County, either in leased or state-owned space. For more details, see page 88.

PROPOSED WILSON CO. CAMPUS: ENROLLMENT BENCHMARK 2



>> REGIONAL PARTICIPATION RATE



Based on fall 2016 enrollment and 2014 population, Map © OpenStreetMap (and) contributors, CC-BY-SA

GALLATIN CAMPUS MASTER PLAN OVERVIEW

The Gallatin Campus is a well-maintained, successful, and attractive campus with true collegiate amenities. Surveys show that students and faculty are happy with the campus. The following recommendations seek to build on existing successes to visually enhance the campus, make it more usable and modern, and better attract and retain students.

A. WARF BUILDING IMPROVEMENTS

A 6,000 square foot addition should be constructed to provide space for the Mechatronics program. A major renovation of aging labs and the entire building is also necessary.

B. DINING HALL IMPROVEMENTS

This aging and underutilized amenity should be updated with new furniture, finishes, and lighting.

C. LIBRARY IMPROVEMENTS

Minor improvements such as group study rooms, new teaching spaces, and furniture and lighting upgrades will increase utilization and retention.

D. QUADRANGLE IMPROVEMENTS

Simple landscaping and grading improvements, combined with the creation of pedestrian plazas, will transform the heart of campus.

E. TERRACED GARDENS AND BIOSWALE

New lighting and plantings will improve safety and the feel of this area.

F. FRONT LAWN IMPROVEMENTS

New entrance gateways and fencing will make all entrances consistent and establish a more collegiate feel.

G. PARKING EXPANSION & LOOP ROAD REALIGNMENT

Additional parking will be needed as enrollment grows. Construction of the new lot will provide an opportunity to relocate the loop road to reduce the number of unsafe crosswalks.

H. EAST CAMPUS DEMOLITION

These aging buildings have a variety of costly maintenance needs and a significant amount of underutilized space. In the long term they should be demolished, with existing functions relocated to the main portion of campus.

FACILITIES IMPROVEMENTS

A number of upgrades to building systems not covered by the major renovations and other projects described here. These are detailed on page 86.

SUSTAINABILITY IMPROVEMENTS

A number of items are recommended to further expand Vol State's extensive sustainability initiatives. These are detailed on page 87.

01 // HISTORY & OVERVIEW

>> 2007 MASTER PLAN

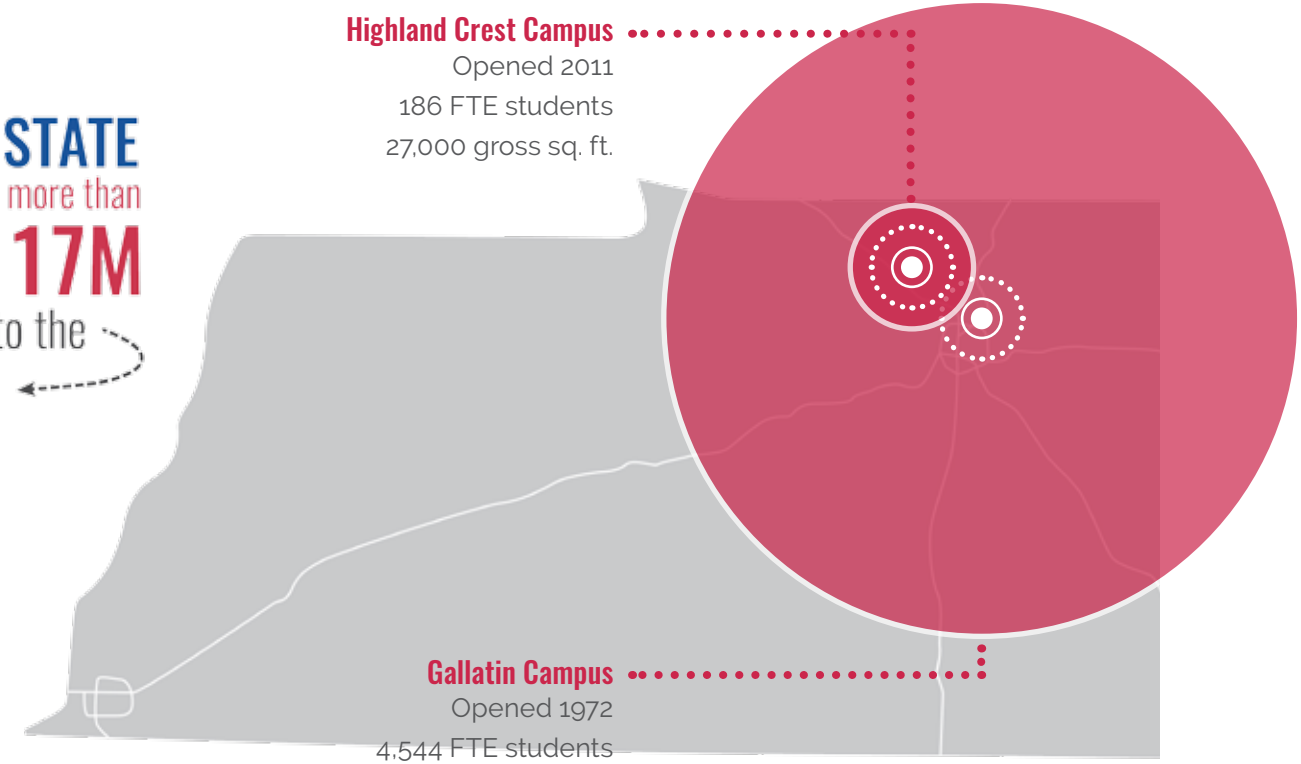
>> DEGREE PROGRAMS OFFERED

>> DEMOGRAPHIC CONTEXT

>> REGIONAL JOB PROJECTIONS

QUICK FACTS

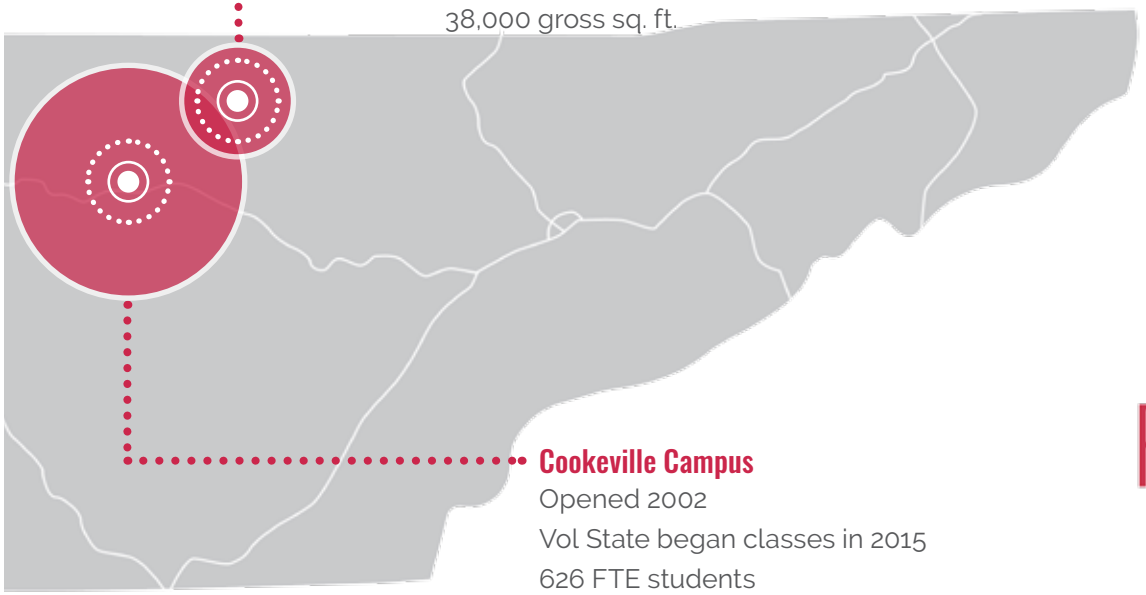
Highland Crest Campus
Opened 2011
186 FTE students
27,000 gross sq. ft.



Gallatin Campus
Opened 1972
4,544 FTE students
520,000 gross sq. ft.

has the **lowest** PERCENTAGE of **STUDENTS IN REMEDIAL COURSES**

$4,105
annual tuition and fees



Livingston Campus
Opened 1995
154 FTE students
38,000 gross sq. ft.

Cookeville Campus
Opened 2002
Vol State began classes in 2015
626 FTE students
52,000 gross sq. ft.

~ 1 hour drive

94%

THIRD highest PERCENTAGE OF **Programs ACCREDITED** among Tennessee Community Colleges

COLLEGE HISTORY -

In 1967, a unified proposal for a community college in Sumner County was presented to the Tennessee Higher Education Commission by the combined efforts of civic leaders, state officials, and local citizens. After choosing a 100 acre tract of land on Nashville Pike, construction began in 1970, and Volunteer State opened for classes in 1972.

Vol State's main campus was heavily damaged by a tornado on April 7, 2006. The Ramer Administration building and Caudill Hall suffered direct hits and over 80 vehicles were damaged, but only minor injuries were reported.

GROUND-BREAKING CEREMONY // **NOVEMBER 1970**

TORNADO DAMAGE // **APRIL 2006**

2007 MASTER PLAN

The most recent master plan for Vol State was prepared by RM Plan Group, Inc. in 2007. This plan put forth a long-term vision for the future of the Gallatin Campus that included the following recommendations.

- Construct a new Humanities Building and convert existing road to a pedestrian area
- Construct an additional Academic Building
- Demolish the Science Field Station and construct a Corporate Training Center on that site
- Redesign entry drive to better access north parking
- Construct a security building/visitor center
- Add a crosswalk across Nashville Pike
- Expand parking lots
- Create a new access drive to Gap Boulevard and what is now called Enterprise Drive

According to the previous Master Plan, Fall 2006 enrollment was 3,182 daytime FTE students. The Fall 2016 projection was 5,000 daytime FTE students.

DEGREE PROGRAMS OFFERED

TWO YEAR DEGREES

- Business
- Computer Information Tech.
- Criminal Justice
- Early Childhood Education
- Entertainment Media Production
- Fire Science
- Health Information Management
- Health Sciences
- Mechatronics Technology
- Medical Informatics
- Medical Laboratory Tech.
- Ophthalmic Technician
- Paralegal Studies
- Physical Therapist Assistant
- Radiologic Technology
- Respiratory Care Technology
- Veterinary Technology

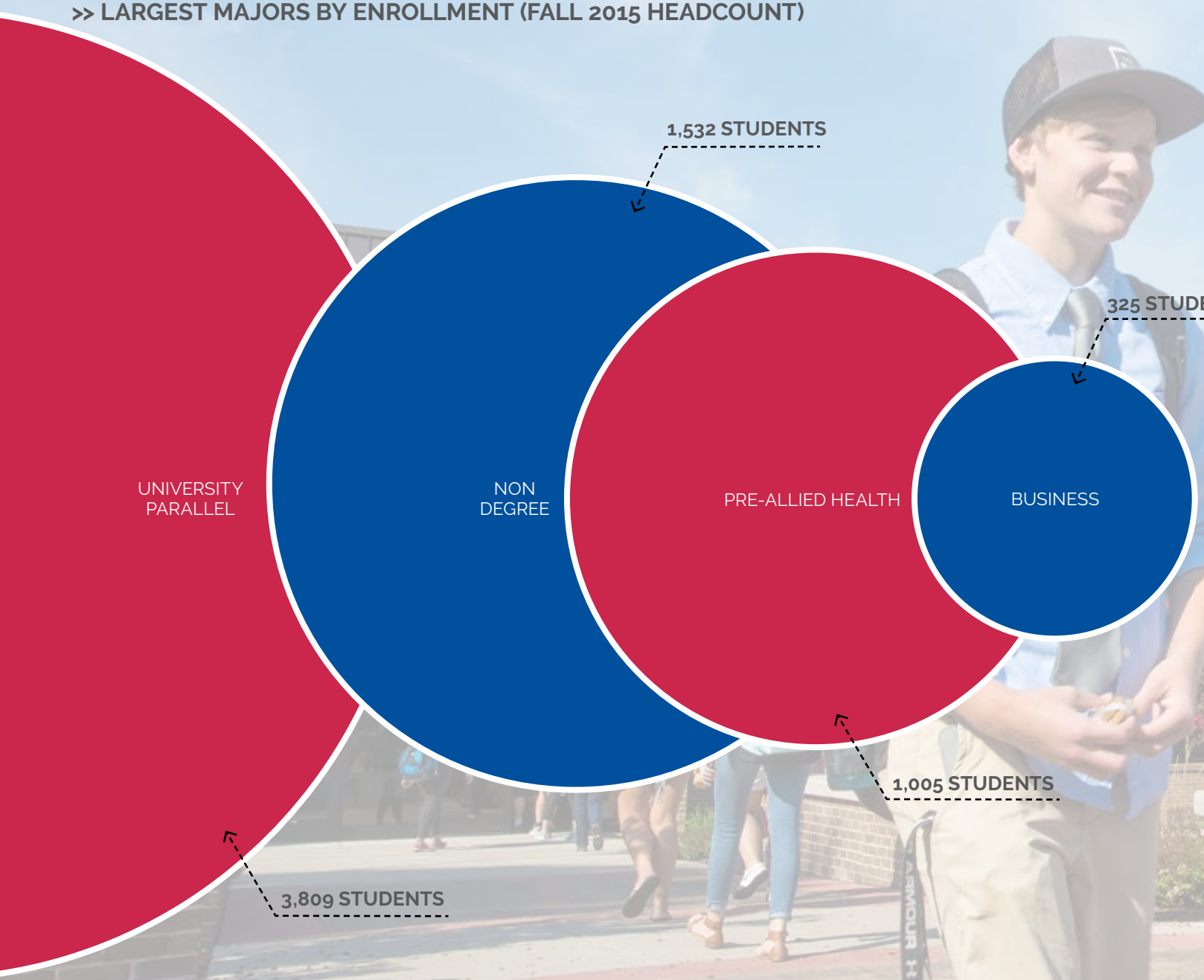
TRANSFER DEGREES

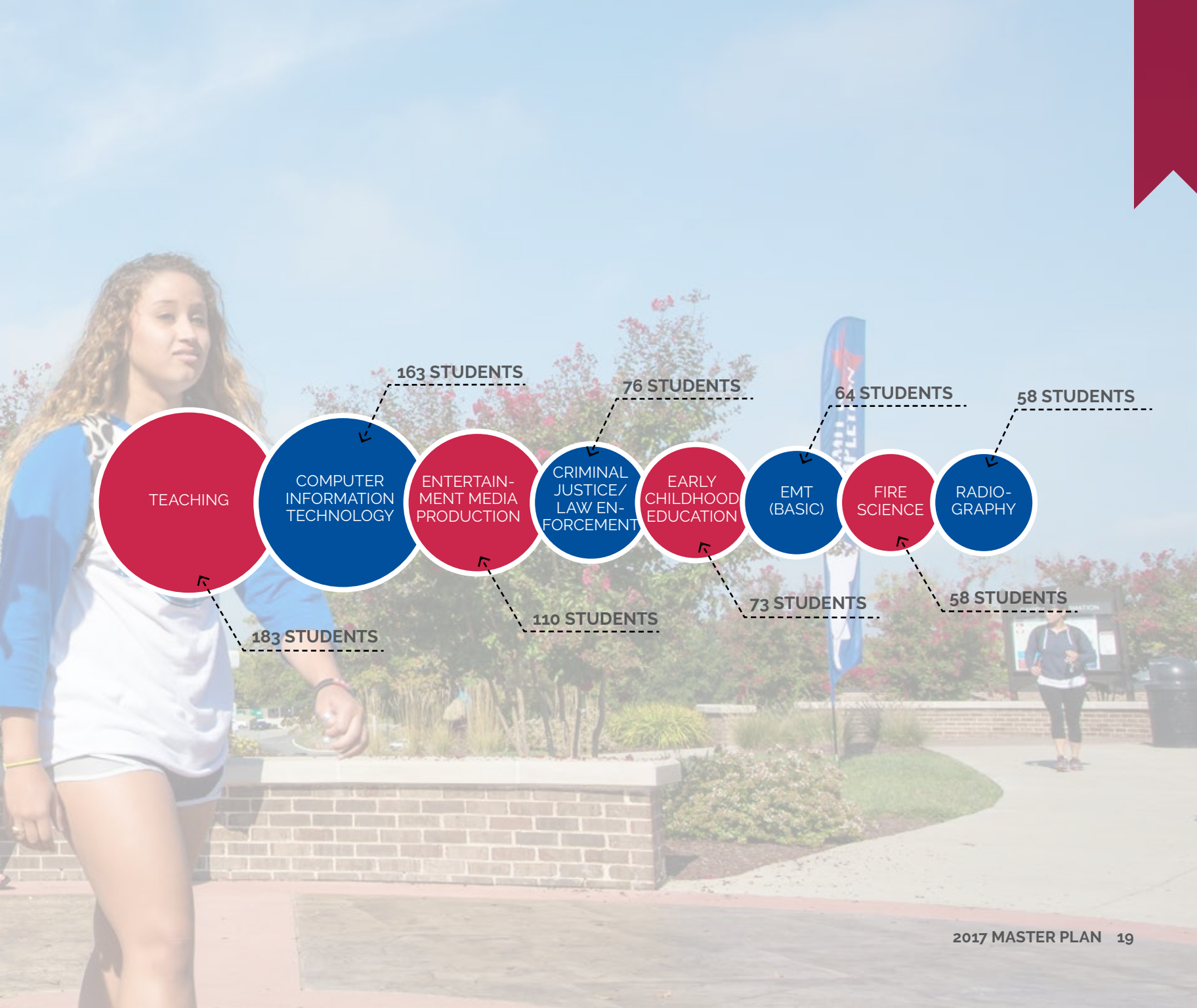
- Accounting
- Art (Studio)
- Agriculture
- Biology
- Business Administration
- Chemistry
- Civil Engineering
- Communication (Radio/TV)
- Communication (Journalism)
- Computer Science
- Criminal Justice
- Economics
- Electrical Engineering
- Elementary Education
- English
- Environmental Science
- Finance
- Foreign Language
- Geosciences
- Health, Phys. Ed., & Sports Medicine
- Health Sciences
- History
- Human Services
- Information Systems
- International Affairs
- Liberal Arts
- Management
- Marketing
- Mass Communication
- Mathematics and Science
- Mechanical Engineering
- Music
- Paralegal Studies
- Philosophy
- Physics
- Political Science
- Pre-Clinical Laboratory Sciences
- Pre-Dental Hygiene
- Pre-Health Professions
- Pre-Law
- Pre-Nursing
- Pre-Occupational Therapy
- Pre-Physical Therapy
- Psychology
- Recording Industry Management
- Secondary Education
- Social Science and Education
- Sociology
- Special Education
- Speech Communication
- Sports & Leisure Management
- Teaching
- Theatre Arts
- University Studies

CERTIFICATES

- Advanced Emergency Medical Tech.
- Criminal Justice
- Dental Assistant
- Diagnostic Medical Sonography
- Early Childhood Education
- Emergency Medical Technician
- Environmental Technology
- Fire Science
- Foundations of Environmental Tech.
- Logistics & Supply Chain Mgmt.
- Medical Coding
- Paralegal Studies
- Paramedic
- Sleep Diagnostic Technology
- Veterinary Assistant

>> LARGEST MAJORS BY ENROLLMENT (FALL 2015 HEADCOUNT)




TEACHING
183 STUDENTS
COMPUTER INFORMATION TECHNOLOGY
163 STUDENTS
ENTERTAIN-MENT MEDIA PRODUCTION
110 STUDENTS
CRIMINAL JUSTICE/ LAW EN-FORCEMENT
76 STUDENTS
EARLY CHILDHOOD EDUCATION
73 STUDENTS
EMT (BASIC)
64 STUDENTS
FIRE SCIENCE
58 STUDENTS
RADIO-GRAPHY
58 STUDENTS

DEMOGRAPHIC CONTEXT

Master planning should not occur in isolation, but should be informed by an institution's regional context and demographic trends. First among these is the forecasted population growth in the service area.

The map on the following page shows the projected population growth over the next decade by county in Vol State's service area.

Not surprisingly, the projected growth is concentrated in the Metro Nashville counties and in Putnam County where the Cookeville Campus is located. Vol State's eleven-county service area is projected to add more than 81,000 new residents over the next decade.

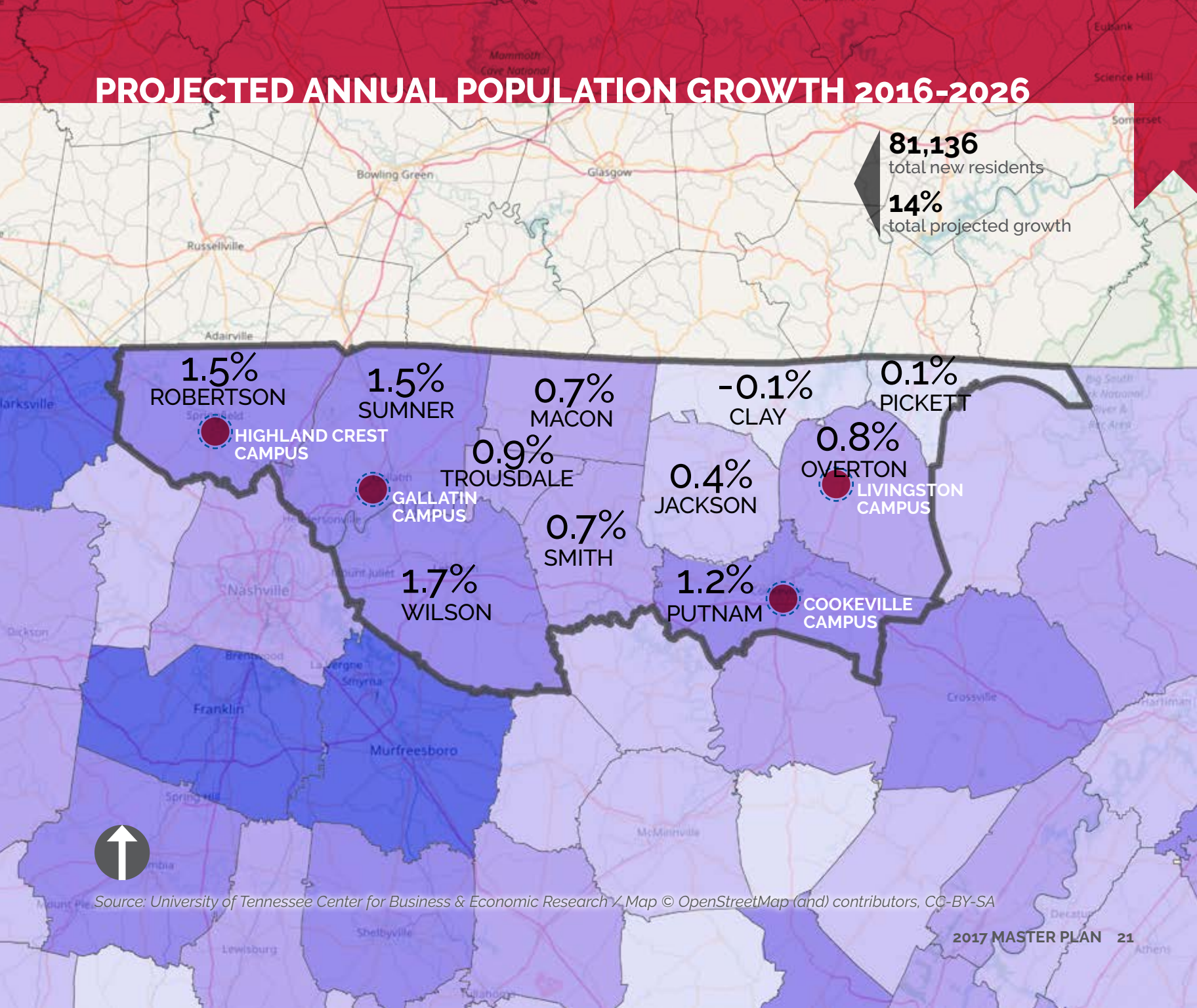
This represents a 14% total growth in population over this period. Assuming that Vol State's participation rate remains constant, enrollment could be expected to grow 14% over this same period.

POPULATION DISTRIBUTION

The map on page 22 shows existing concentrations of residents within the region. This shows the significantly higher density in the Nashville metropolitan area and near Cookeville, with the center of the service area remaining rural and low density. This suggests that existing campuses are well located to serve a large portion (but not all) of existing residents.

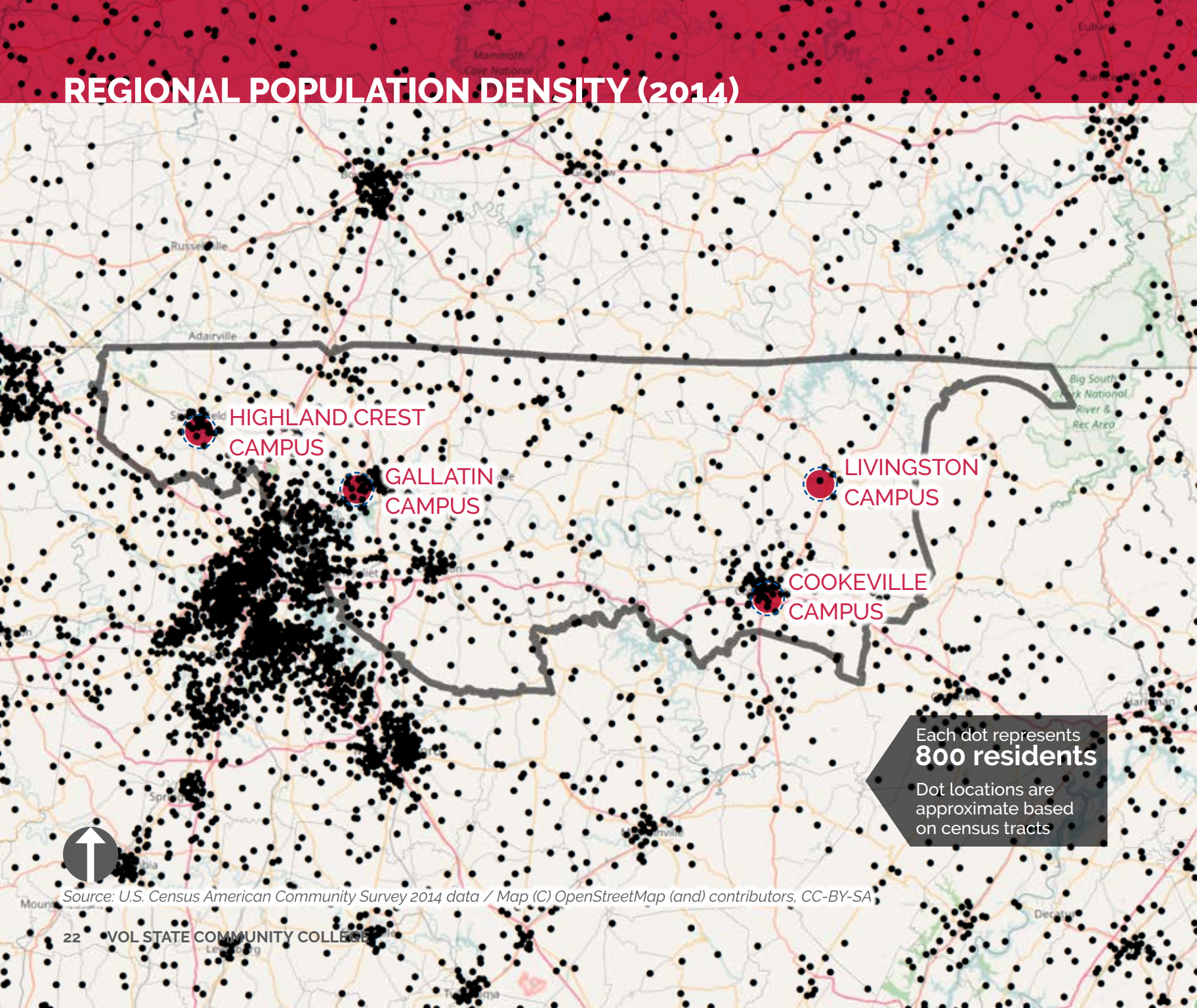
>> RELATIONSHIP OF MASTER PLAN TO REGIONAL CONTEXT

PROJECTED ANNUAL POPULATION GROWTH 2016-2026



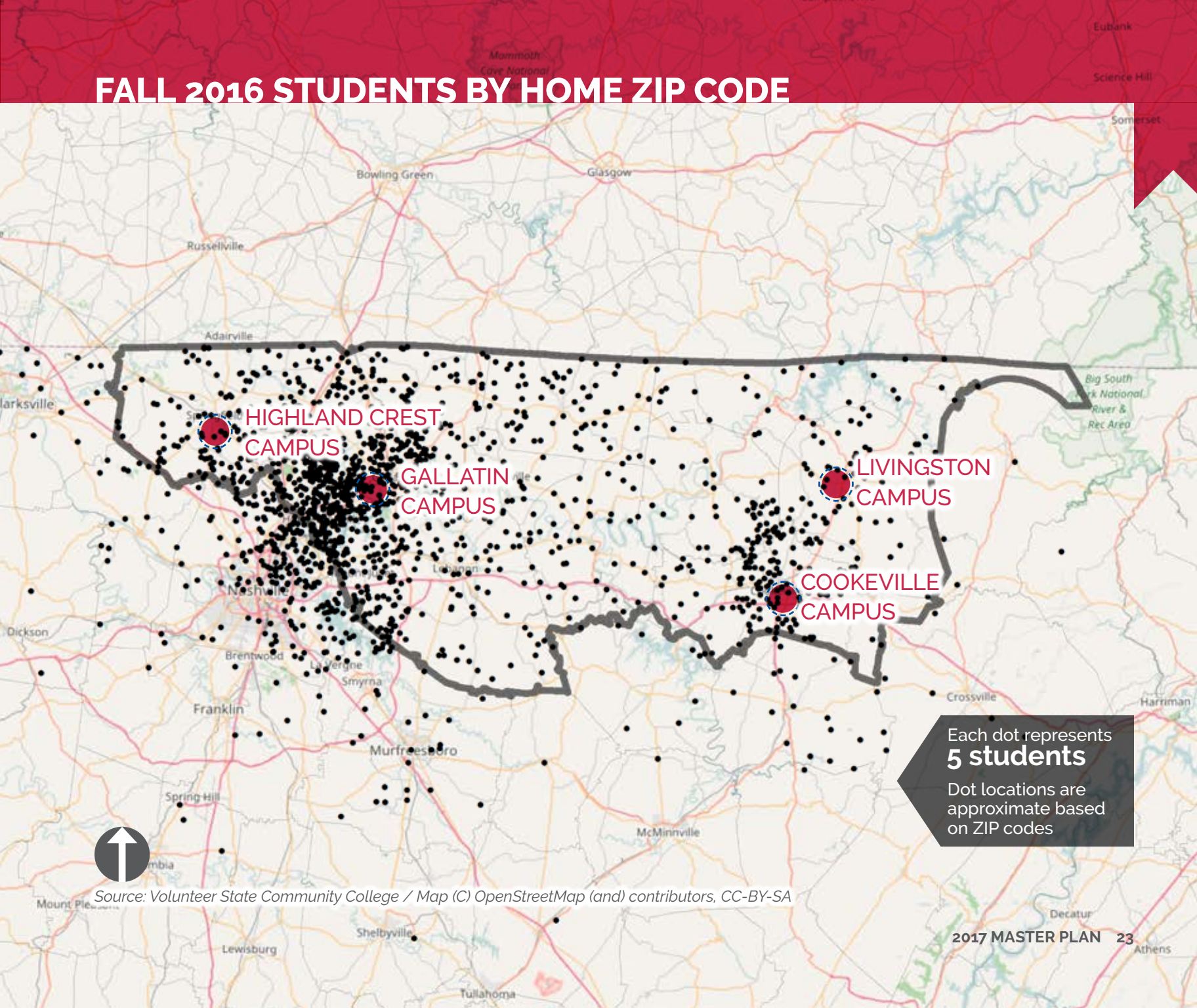
Source: University of Tennessee Center for Business & Economic Research / Map © OpenStreetMap (and) contributors, CC-BY-SA

REGIONAL POPULATION DENSITY (2014)



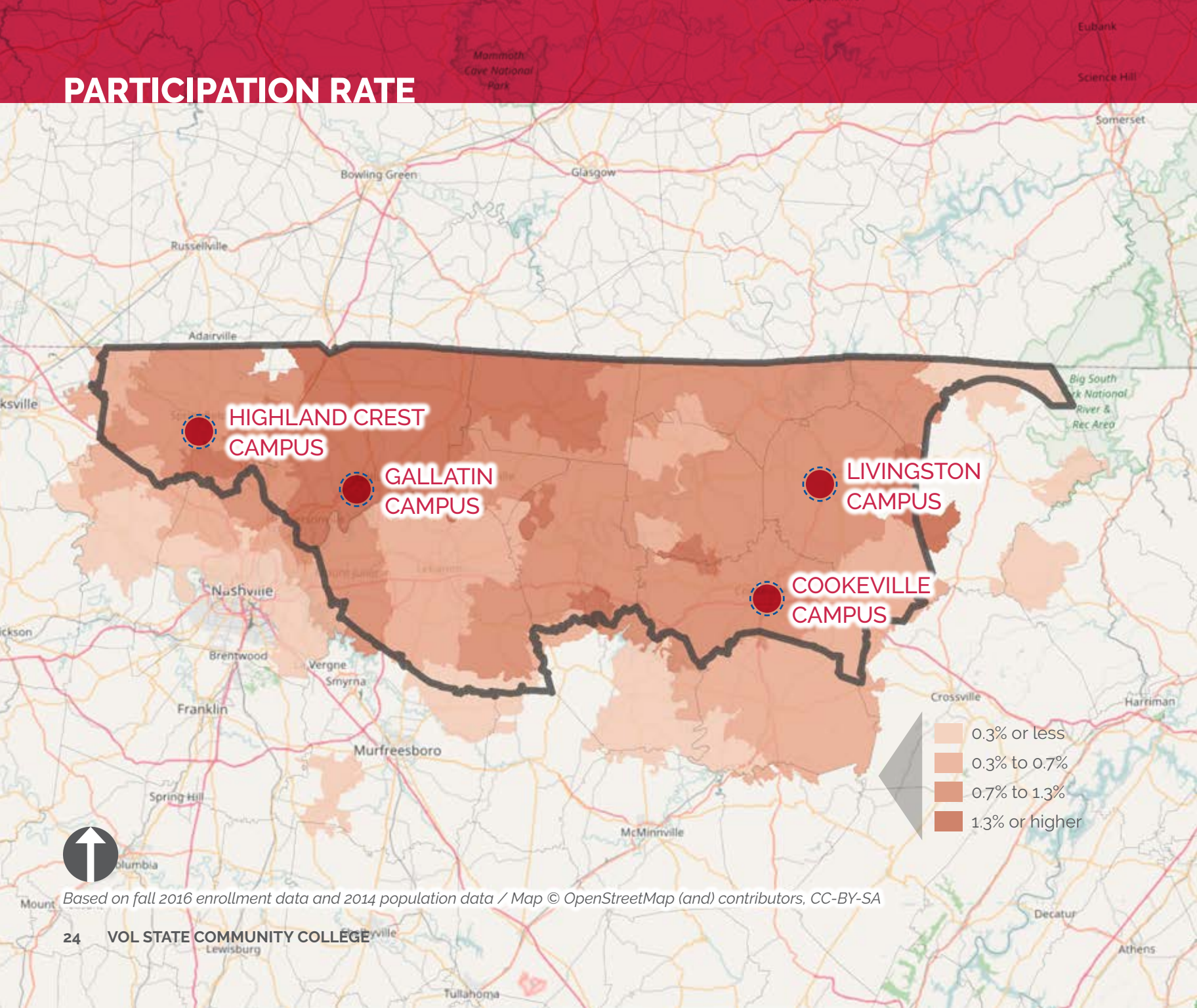
Source: U.S. Census American Community Survey 2014 data / Map (C) OpenStreetMap (and) contributors, CC-BY-SA

FALL 2016 STUDENTS BY HOME ZIP CODE



Source: Volunteer State Community College / Map (C) OpenStreetMap (and) contributors, CC-BY-SA

PARTICIPATION RATE



Based on fall 2016 enrollment data and 2014 population data / Map © OpenStreetMap (and) contributors, CC-BY-SA

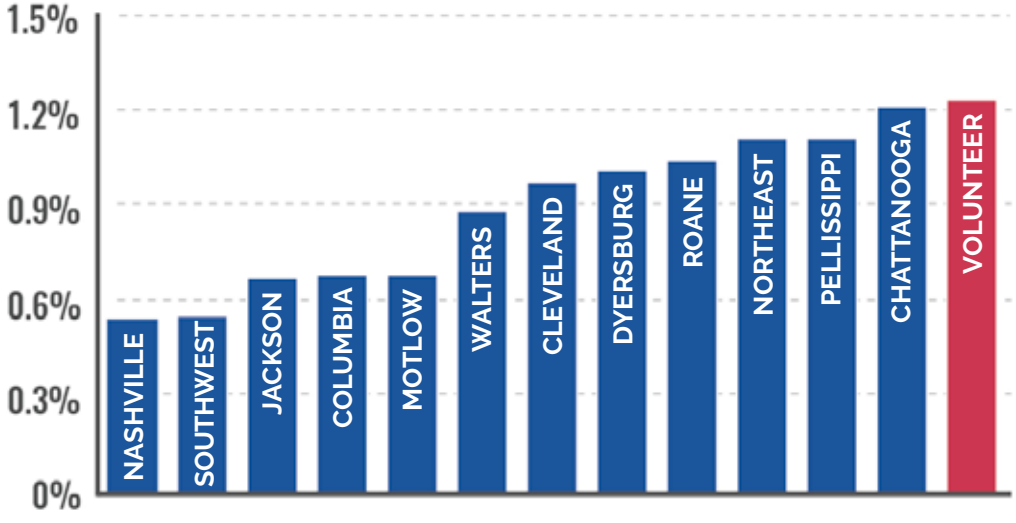
PARTICIPATION RATE

An institution's participation rate is a measure of its market penetration and is expressed as its total full-time equivalent enrollment divided by the percentage of the population in its service area. The actual number is less important than where the college stands in comparison to its peers, and how the participation rate varies throughout the service area.

Vol State has the highest participation rate in the Tennessee Board of Regents community college system. This indicates that the college has done an outstanding job of recruiting and serving the population of their region.

Geographically, participation rates are lower in Wilson County, some rural areas in the middle of the service area, and east of Cookeville. This indicates that, particularly in Wilson County, the existing population is not being fully reached, so there is potential for enrollment growth.

>> PARTICIPATION RATE COMPARISON



Source: 2015 U.S. Census population estimates, Tennessee Board of Regents Fall 2016 full-time equivalent enrollment

Participation rates are low in portions of Wilson County, indicating the potential for future enrollment growth.

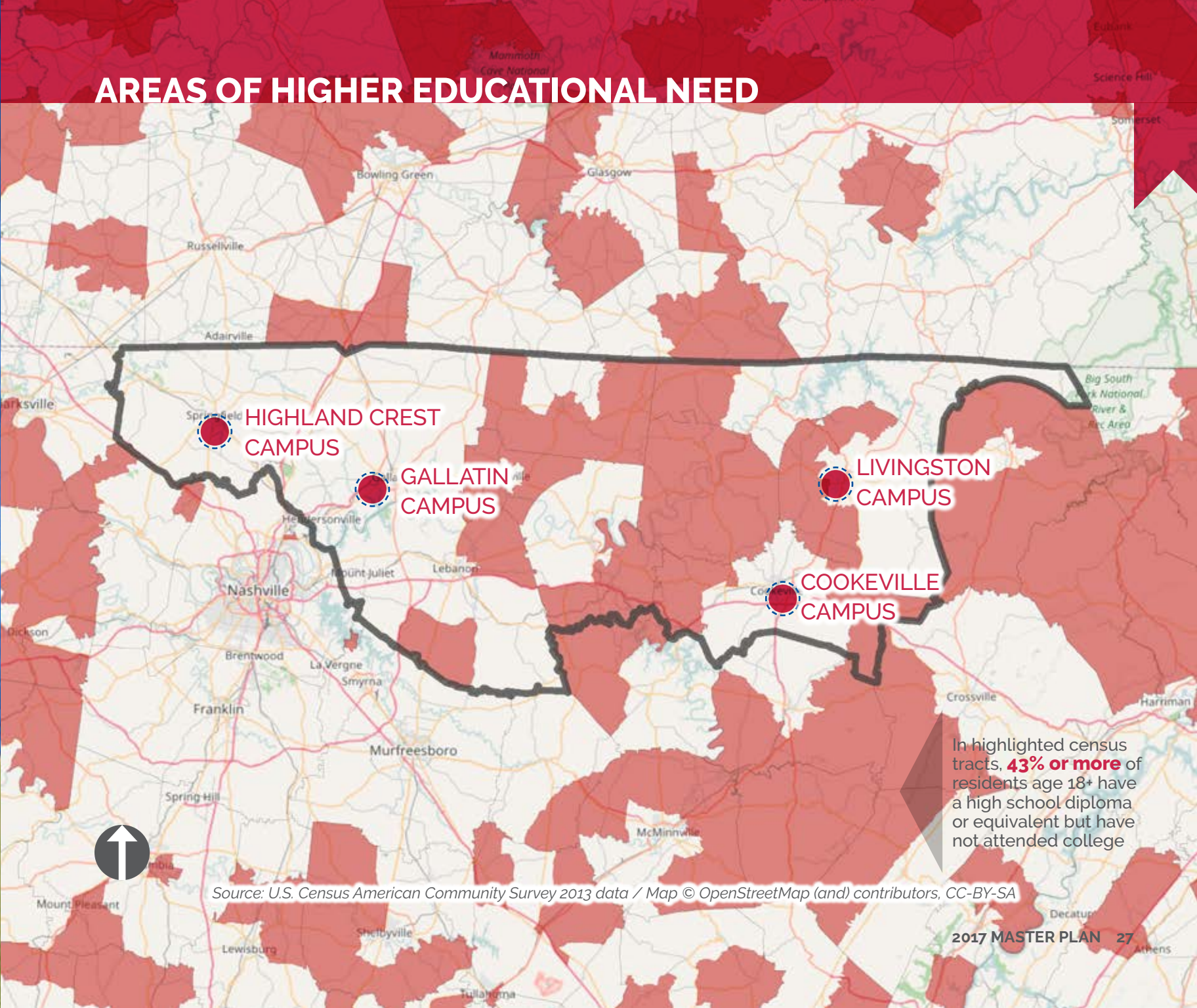
REGIONAL NEED FOR HIGHER EDUCATION

It is difficult to define or measure the "need" for postsecondary educational credentials in a given area. Diverse factors contribute to the need for higher education.

Perhaps the single best measure of need for higher education is the percentage of residents who have graduated high school or have a GED, but have not yet started college. The map on the following page shows areas of high need for higher education, indicating the potential for additional market capture by Volunteer State.

The highest areas of need within Vol State's service area are primarily in the central rural counties, but also outside Cookeville and Livingston. These areas may be difficult to serve because of their low population density.

AREAS OF HIGHER EDUCATIONAL NEED



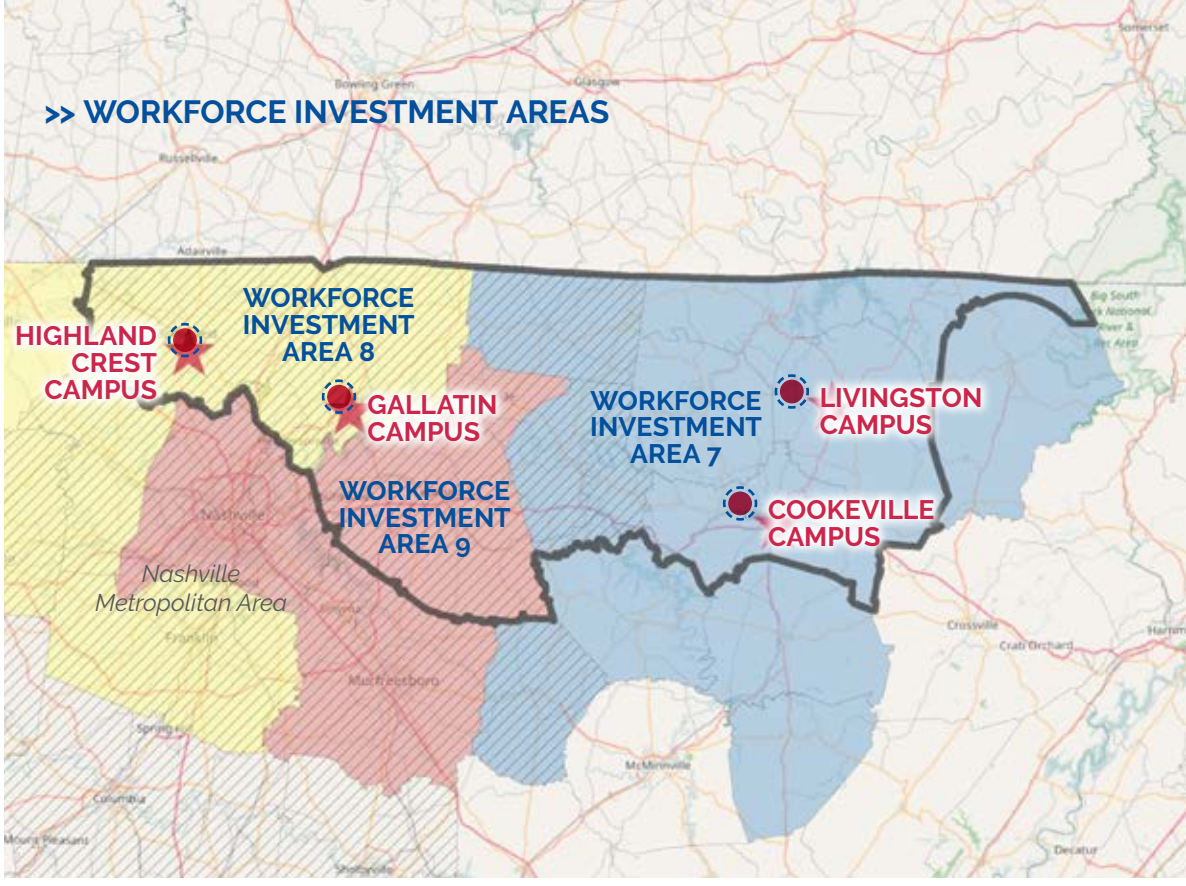
In highlighted census tracts, **43% or more** of residents age 18+ have a high school diploma or equivalent but have not attended college

Source: U.S. Census American Community Survey 2013 data / Map © OpenStreetMap (and) contributors, CC-BY-SA

REGIONAL JOB PROJECTIONS

An important part of any college Master Plan is understanding the regional job market, particularly for community colleges, because a significant percentage of their students enter the workforce immediately after graduation.

Modern labor markets function at the regional scale, so data is analyzed for the three Workforce Investment Areas designated by the State of Tennessee that intersect Volunteer State's service area. Most of the students and regional population with the service area fall within Workforce Investment Area 8 (Robertson and Sumner Counties) and Workforce Investment Area 9 (Wilson County), which are more strongly influenced by the Nashville economy. Workforce Investment Area 7 covers the eastern half of the service area.



REGIONAL LABOR DATA

The Tennessee Department of Labor provides job outlook grade levels for each Workforce Investment Area in the state. These are broken down by industry clusters, which consist of jobs in closely related fields. Data for some industry clusters is only available at the statewide level.

This Master Plan correlates these industry clusters with every non-transfer degree and certificate program currently taught by Vol State. Detailed data is provided in the Appendix. The letter grade job outlook in all industry clusters takes into consideration the following factors:

- Growth rate in the industry cluster relative to the statewide growth rate for that industry cluster
- Number of annual job openings
- Supply/demand ratio (the ratio of graduates in related academic programs to the number of relevant job openings)

While the regional job projections are based on solid data, it is important to note that they may not correspond exactly with the specific jobs that Volunteer State graduates pursue. This is because of how jobs are grouped, as well as the fact that some of the data on graduates and job openings may be related to four-year programs and not directly relate to the demand for those with certificates or Associate's degrees.

Furthermore, economies are constantly in flux, and localized data such as potential growth in specific industries or expansions of major employers may not be captured here. For this reason, the ultimate recommendations of this Master Plan are based on a larger picture of job outlook based on online surveys and interviews conducted with Volunteer State faculty and administrators.

Job sectors shown below have a significantly greater share of the regional job base than the statewide average

Source: U.S. Census OnTheMap 2014 data

REGIONAL EMPLOYMENT PROJECTIONS

In general, most workforce clusters in the region have an excellent, very good, or favorable job outlook, indicating that the regional economy is growing and that Vol State graduates are entering fields with job growth and with more jobs than college graduates. Almost all of the programs with competitive job markets are based on statewide data because regional data are not available, and so may not be relevant for Vol State graduates looking for employment in the area.

Determining the job outlook for graduates of transfer programs is more difficult, since graduates go on to pursue a wide range of degrees that may lead to an even wider range of employment options. For this reason, it is not possible to correlate transfer degrees with regional industry clusters. In order to provide an idea of the job prospects for graduates of transfer programs, this Master Plan uses a study on nationwide earnings and employment rates for graduates of four-year programs, and then correlates those programs to Volunteer State's two-year programs.

>> WIA 7 REGIONAL JOB OUTLOOK 2-YEAR DEGREES & CERTIFICATES

EXCELLENT

- Business
- Early Childhood Education*
- Fire Science
- Medical Coding
- Teaching*

FAVORABLE

- Computer Information Tech*
- Medical Informatics*

COMPETITIVE

- Criminal Justice*
- Entertainment Media Production*

VERY COMPETITIVE

- Ophthalmic Tech

UNGRADED

- Adv Emergency Medical Tech
- Dental Assistant
- Diagnostic Medical Sonography
- Emergency Medical Tech
- Environmental Tech
- Health Information Management
- Logistics & Supply Chain Mgmt
- Medical Laboratory Tech
- Paralegal Studies
- Paramedic
- Physical Therapist Assistant
- Radiologic Tech
- Respiratory Care Tech
- Veterinary Assistant
- Veterinary Tech

>> WIA 8 REGIONAL JOB OUTLOOK
2-YEAR DEGREES & CERTIFICATES

EXCELLENT

- Business
- Early Childhood Education*
- Fire Science
- Medical Laboratory Tech
- Ophthalmic Tech
- Medical Coding
- Teaching*
- Veterinary Assistant
- Veterinary Tech

FAVORABLE

- Adv Emergency Medical Tech
- Computer Information Tech*
- Dental Assistant
- Emergency Medical Tech
- Health Information Management
- Medical Informatics*
- Paralegal Studies
- Paramedic
- Physical Therapist Assistant
- Radiologic Tech

COMPETITIVE

- Criminal Justice*
- Entertainment Media Production*

UNGRADED

- Diagnostic Medical Sonography
- Environmental Tech
- Foundations of Environmental Tech
- Logistics & Supply Chain Management
- Respiratory Care Tech

Source: Tennessee Department of Labor & Workforce Development
Note: Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area.
**All data for this workforce cluster is based on statewide projections, since regional data is not available.*

>> WIA 9 REGIONAL JOB OUTLOOK
2-YEAR DEGREES & CERTIFICATES

EXCELLENT

Adv Emergency Medical Tech
Business
Diagnostic Medical Sonography
Early Childhood Education*
Emergency Medical Tech
Environmental Tech
Fire Science*
Logistics & Supply Chain Mgmt
Medical Coding
Medical Laboratory Tech
Paralegal Studies
Paramedic
Physical Therapist Assistant
Respiratory Care Tech
Teaching*
Veterinary Assistant
Veterinary Tech

FAVORABLE

Computer Information Tech*
Medical Informatics*

COMPETITIVE

Criminal Justice*
Dental Assistant
Entertainment Media Production*
Health Information Management*

VERY COMPETITIVE

Ophthalmic Tech

UNGRADED

Radiologic Tech

Source: Tennessee Department of Labor & Workforce Development

Note: Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area.

**All data for this workforce cluster is based on statewide projections, since regional data is not available.*

>> POTENTIAL JOB OUTLOOK
TRANSFER DEGREES

EXCELLENT

Electrical Engineering
Mechanical Engineering

FAVORABLE

Accounting
Biology
Business Administration
Chemistry
Communication (Journalism)
Economics
Foreign Language
Liberal Arts
Management
Mass Communication
Theatre Arts

COMPETITIVE

Communication (Radio/TV)
Criminal Justice
English
History
Information Systems
Philosophy
Political Science
Psychology
Sociology

VERY GOOD

Civil Engineering
Computer Science
Elementary Education
Finance
Marketing
Mathematics & Science

UNGRADED

Agriculture
Environmental Science
Geosciences
Health, Phys. Ed., & Sports Med
Human Services
International Affairs
Paralegal Studies
Physics
Pre-Clinical Lab Sciences
Pre-Dental Hygiene
Pre-Health Professions
Pre-Law
Pre-Nursing
Pre-Occupational Therapy
Pre-Physical Therapy
Recording Industry Management
Secondary Education
Social Science & Education
Special Education
Speech Communication
Sports & Leisure Management
Studio Art
University Studies

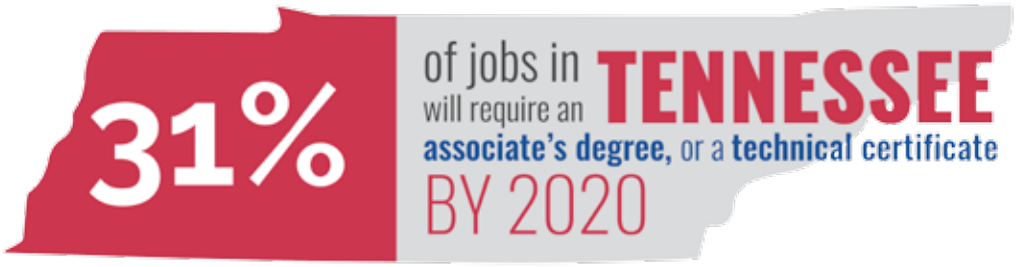
Source: Hard Times: College Majors, Unemployment & Earnings, Georgetown University Center for Education & Workforce, 2013

THE AGING WORKFORCE

A driving factor in higher education demand is the large number of baby boomers, many of whom are nearing retirement age. This wave of retirements will create millions of job openings that require associate's degrees or technical certificates. For this reason, it is critical that Volunteer State Community College continue to educate young people in order to fill these positions with qualified individuals.

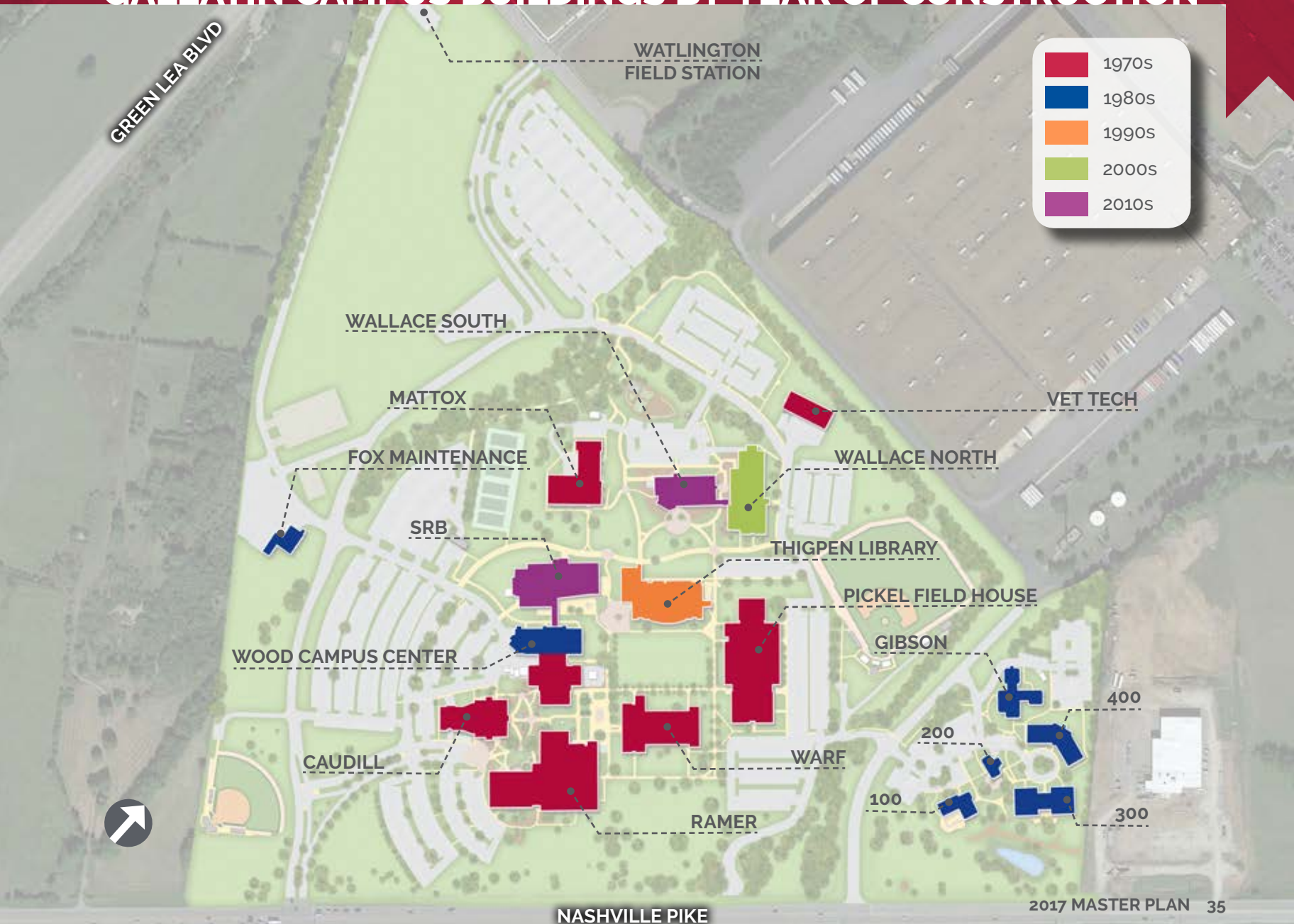
8.5M workers in the **U.S. TODAY** are age 65 or older

Source: Bureau of Labor Statistics



Source: Georgetown University Public Policy Institute
"Recovery: Job Growth and Education Requirements Through 2020"
photo courtesy tec_estromberg

GALLATIN CAMPUS BUILDINGS BY YEAR OF CONSTRUCTION



02 // GOAL FORMULATION

>> INSTITUTIONAL VISION

>> EXISTING ORGANIZATIONAL STRUCTURE

>> FACULTY & STAFF SURVEY RESULTS

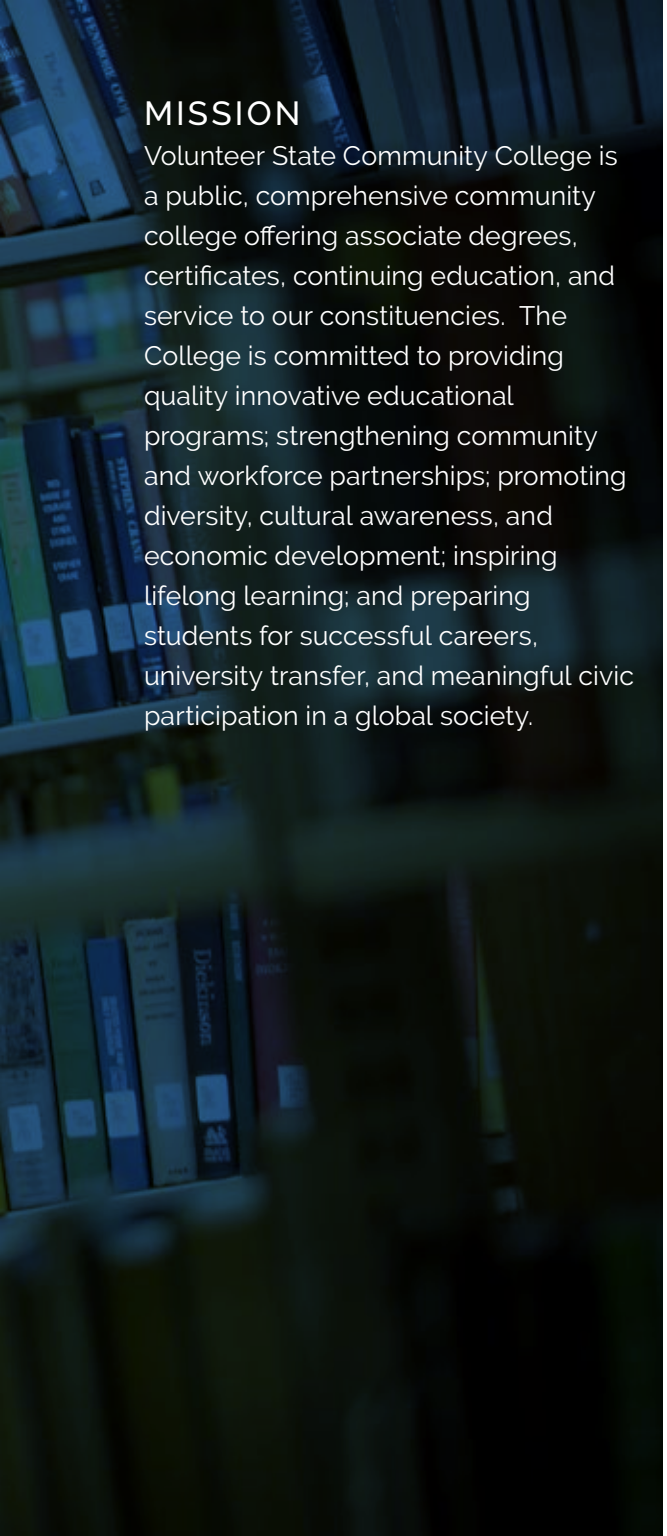
>> STUDENT SURVEY RESULTS

STRATEGIC PLAN

The following summarizes the vision, mission, and goals of the Volunteer State 2015 Strategic Plan.

INSTITUTIONAL VISION

Volunteer State Community College will be the premier provider of higher education, training, and service meeting the diverse needs of our communities within the eleven county service area.



MISSION

Volunteer State Community College is a public, comprehensive community college offering associate degrees, certificates, continuing education, and service to our constituencies. The College is committed to providing quality innovative educational programs; strengthening community and workforce partnerships; promoting diversity, cultural awareness, and economic development; inspiring lifelong learning; and preparing students for successful careers, university transfer, and meaningful civic participation in a global society.

CORE VALUES

WE BELIEVE STUDENTS MATTER //

Students invest in Vol State to meet their individual needs. Our goal is to help them realize their potential.

WE ARE LEARNERS //

We aspire to continuously increase our knowledge to improve ourselves and those we serve.

WE ARE EDUCATORS //

Faculty are educators within and beyond the classroom; staff and administrators are educators outside the classroom.

WE ARE RESOURCEFUL //

We use our skills, abilities, and technology to develop creative and innovative solutions.

WE ARE PART OF A GLOBAL COMMUNITY //

We are all responsible for supporting the communities where we live and work.

COLLEGE GOALS

GOAL 1 // ACCESS

Volunteer State Community College will increase the rate and diversity of student participation in post-secondary education and workforce development through more effective use of technology, learning partnerships, and physical resources.

- Increase in unduplicated fall term headcount enrollment for the following subpopulations: Low Income, African Americans, Males, Veterans, Health Program Students, Adults, and Learning Support.
- Establish learning partnerships with business and industry addressing the education and training needs of the workforce.
- Expand partnerships with Tennessee secondary schools to enhance student preparedness and early college opportunities.
- Expand higher education partnerships to enhance transfer opportunities.
- Extend degree and certificate program offerings to additional locations within the College service area.

GOAL 2 // STUDENT SUCCESS

Volunteer State Community College will increase student academic achievement and persistence to degree, certificate, and credential attainment by utilizing innovative student success initiatives leading to completion of career and transfer programs.

- Increase the number of associate degrees and certificates awarded.
- Fully implement prior learning assessment including portfolio credit, credit by exam, and credit for professional certification.
- Increase fall to fall retention rate and fall to spring persistence rate.
- Increase the success rates (C or higher) in the 30 critical courses.
- Increase the number of students earning 12, 24, or 36 hours at the end of spring semester.
- Increase the 3-year graduation rate.
- Score at or above the peer mean for 30 questions on the Survey of Entering Student Engagement.
- Score at or above the peer mean for 38 questions on the Community College Survey of Student Engagement.

GOAL 3 // QUALITY

Volunteer State Community College will embrace continuous improvement processes to ensure quality in all educational programs, support services, and community/public space.

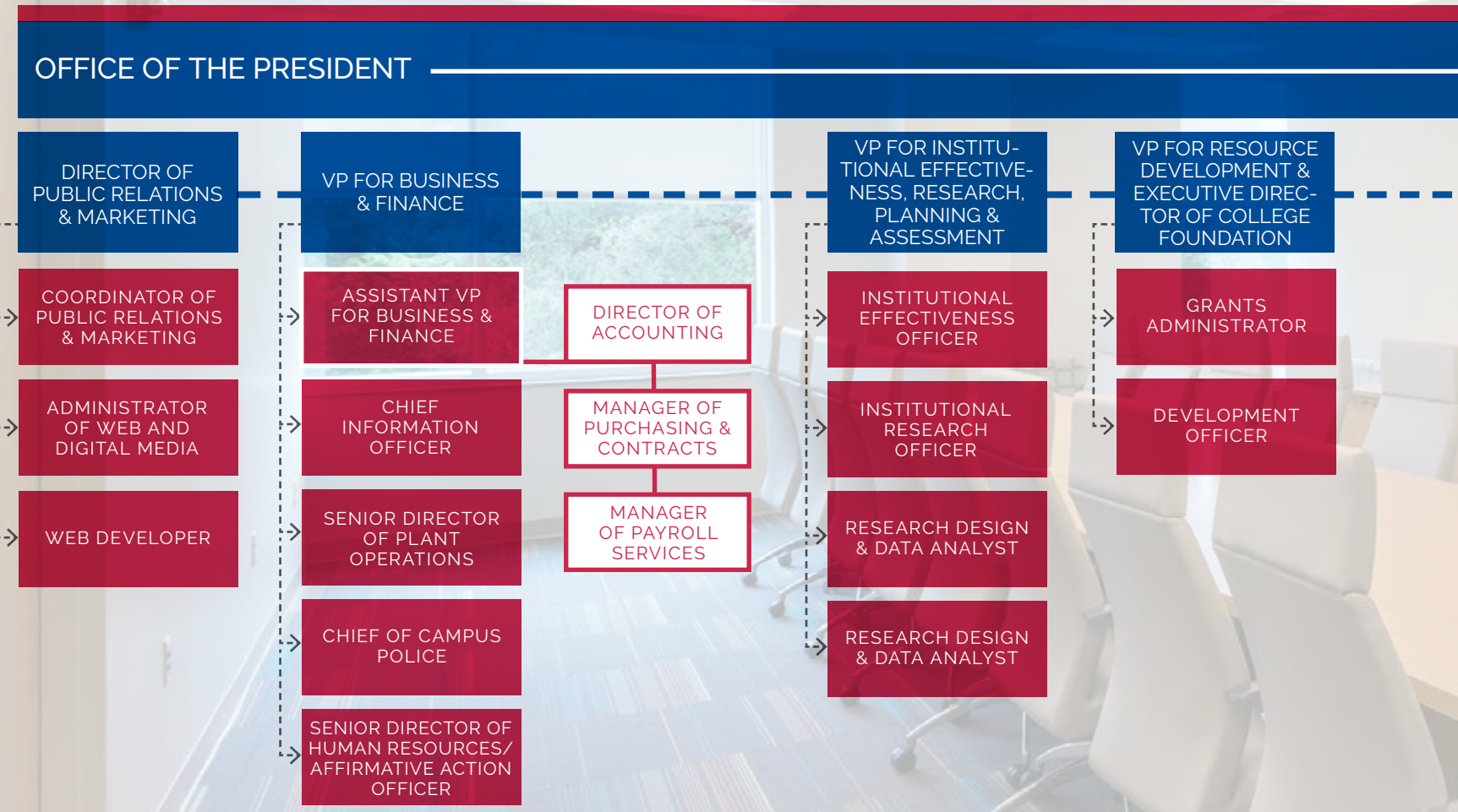
- Implement an Alumni sponsored day for community service participation.
- Expand creative and cultural opportunities for students and community members.
- 95% of all first-time freshmen licensure and/or certification test takers will pass on first attempt.
- 100% of all graduates sitting for an academic program exit exam will score 85% or higher on the exam.
- 100% of accreditable programs will receive and maintain full accreditation.
- Exceed the national norm on the Educational Testing Service (ETS) Proficiency Profile exam.
- 100% of all AAS and certificate programs will earn satisfactory rating on the Graduate Satisfaction Survey.
- All programs and services will provide evidence of continuous improvement.
- 100% of programs required to conduct an academic audit will complete and implement the recommendations.
- Implement yearly listening sessions.
- Develop and implement Employee Salary Plan.
- Faculty will participate in career furthering activities.

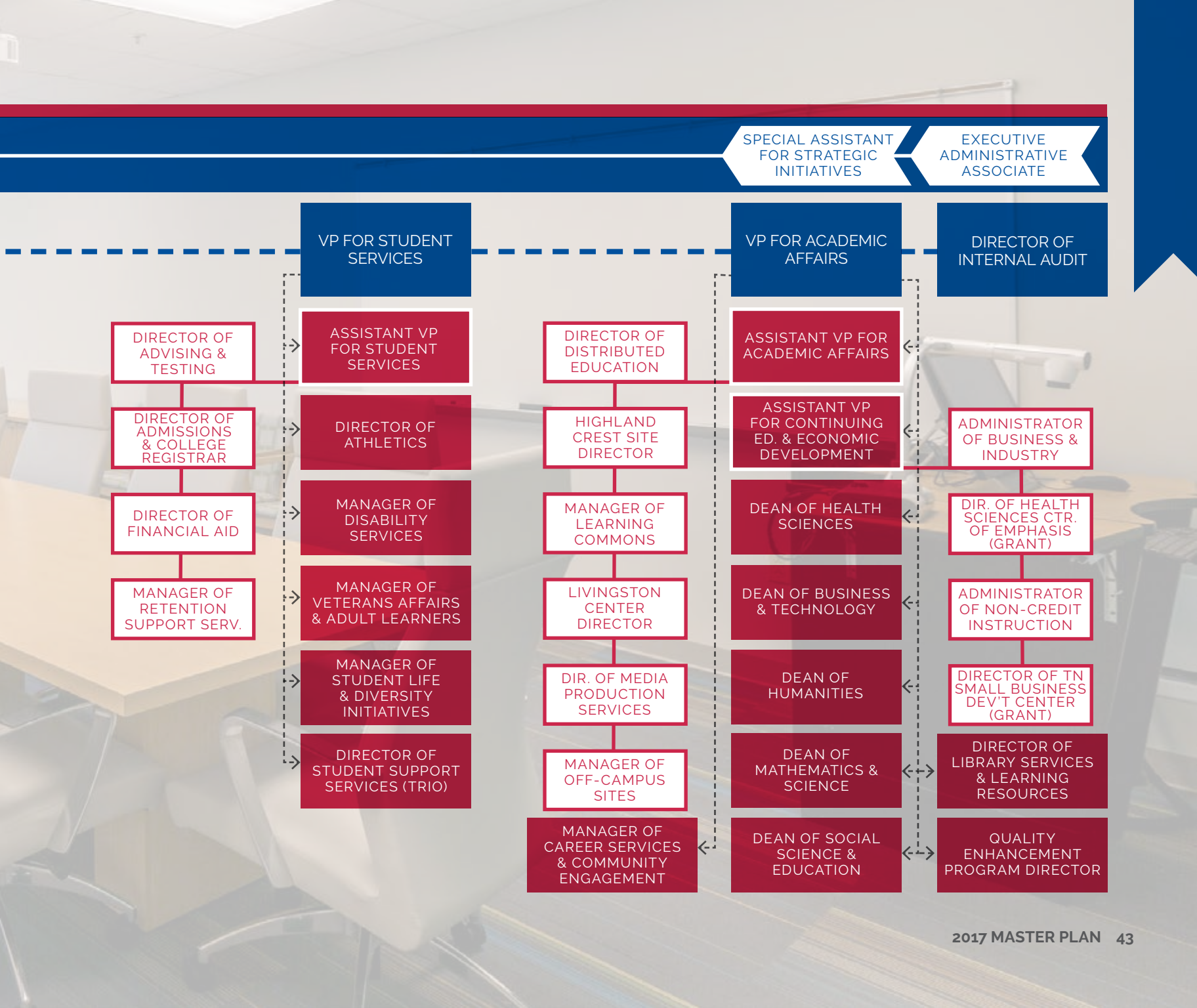
GOAL 4 // RESOURCEFULNESS AND EFFICIENCY

Volunteer State Community College will achieve its mission through strategic development and prudent management of resources, utilization of benchmarks, and adoption of best practices.

- Increase in the total amount of outside revenue.
- Implement strategies to improve operational efficiencies.
- Completion of SRB Building and Backfill use of space.
- Increase the number of workforce development hours.
- Meet or exceed the expected performance standards for the composite financial index and ratios.
- Fully implement the Instructional Cost Index.

EXISTING ORGANIZATIONAL STRUCTURE




SPECIAL ASSISTANT FOR STRATEGIC INITIATIVES
EXECUTIVE ADMINISTRATIVE ASSOCIATE
VP FOR STUDENT SERVICES
VP FOR ACADEMIC AFFAIRS
DIRECTOR OF INTERNAL AUDIT
DIRECTOR OF ADVISING & TESTING
DIRECTOR OF ADMISSIONS & COLLEGE REGISTRAR
DIRECTOR OF FINANCIAL AID
MANAGER OF RETENTION SUPPORT SERV.
ASSISTANT VP FOR STUDENT SERVICES
DIRECTOR OF ATHLETICS
MANAGER OF DISABILITY SERVICES
MANAGER OF VETERANS AFFAIRS & ADULT LEARNERS
MANAGER OF STUDENT LIFE & DIVERSITY INITIATIVES
DIRECTOR OF STUDENT SUPPORT SERVICES (TRIO)
DIRECTOR OF DISTRIBUTED EDUCATION
HIGHLAND CREST SITE DIRECTOR
MANAGER OF LEARNING COMMONS
LIVINGSTON CENTER DIRECTOR
DIR. OF MEDIA PRODUCTION SERVICES
MANAGER OF OFF-CAMPUS SITES
MANAGER OF CAREER SERVICES & COMMUNITY ENGAGEMENT
ASSISTANT VP FOR ACADEMIC AFFAIRS
ASSISTANT VP FOR CONTINUING ED. & ECONOMIC DEVELOPMENT
DEAN OF HEALTH SCIENCES
DEAN OF BUSINESS & TECHNOLOGY
DEAN OF HUMANITIES
DEAN OF MATHEMATICS & SCIENCE
DEAN OF SOCIAL SCIENCE & EDUCATION
ADMINISTRATOR OF BUSINESS & INDUSTRY
DIR. OF HEALTH SCIENCES CTR. OF EMPHASIS (GRANT)
ADMINISTRATOR OF NON-CREDIT INSTRUCTION
DIRECTOR OF TN SMALL BUSINESS DEV'T CENTER (GRANT)
DIRECTOR OF LIBRARY SERVICES & LEARNING RESOURCES
QUALITY ENHANCEMENT PROGRAM DIRECTOR

FACULTY & STAFF SURVEY RESULTS

A number of outreach efforts were conducted as a part of this Master Plan in order to ensure that the plan reflects the needs and desires of students, faculty, administrators, and staff.

One-on-one interviews and focus groups were supplemented with input from an online survey that allowed all faculty and administrators on the Gallatin campus to share their input.

The images at right were among the highest ranked images in the online survey and show the types of spaces that faculty and staff survey participants would like to see in the future.

>> HIGHEST RANKED SURVEY IMAGES

CLASSROOMS WITH FLEXIBLE FURNITURE ARRANGEMENTS

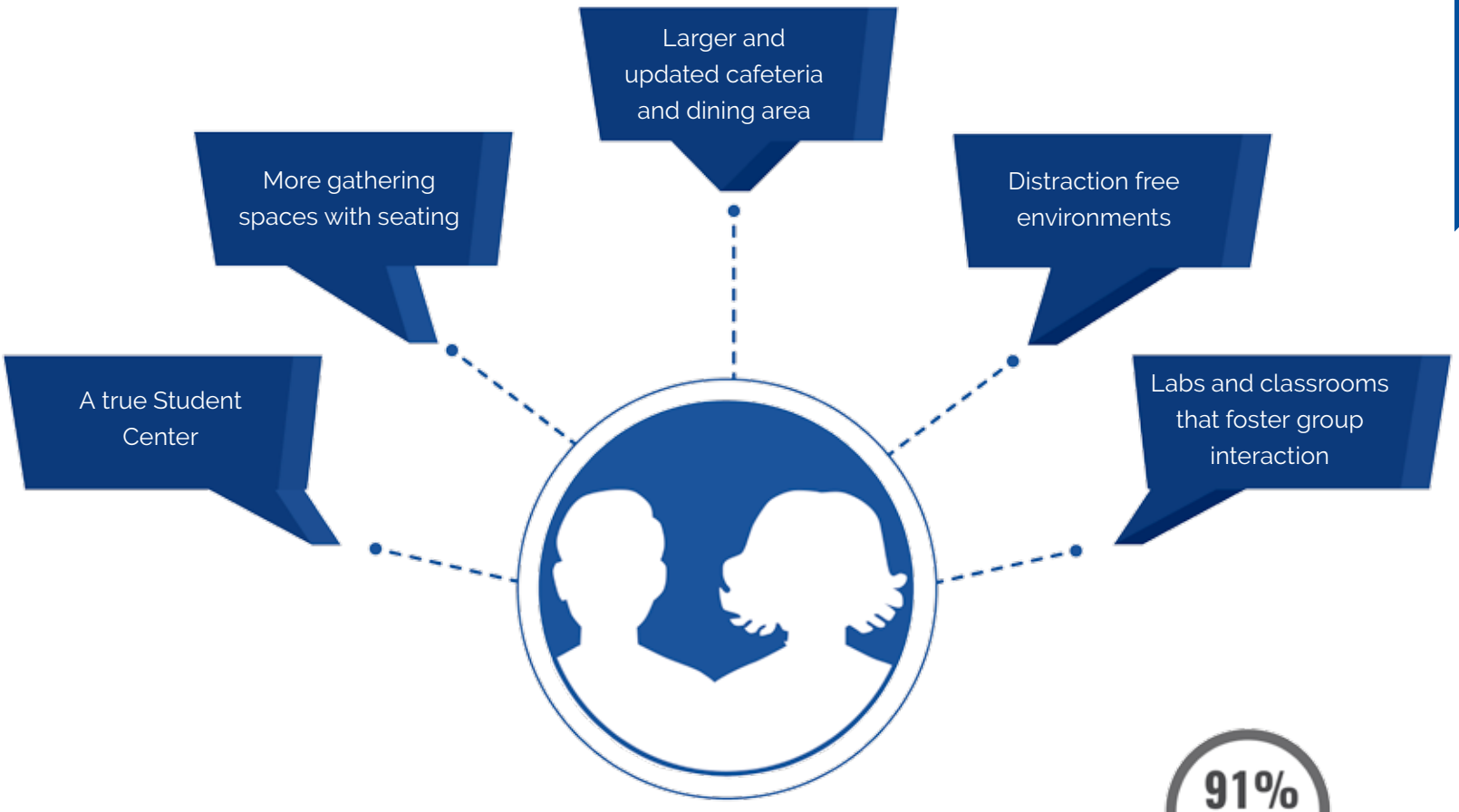
FLEXIBLE COMPUTER LAB SPACE THAT FACILITATES BETTER GROUP ENGAGEMENT

TRADITIONAL PRIVATE OFFICE WITH INDIVIDUAL STORAGE AND MEETING SPACE

FORMAL OUTDOOR SEATING PLAZA AND OUTDOOR DINING AREAS THAT OFFER SHADE AND MOVABLE FURNITURE

198 FACULTY & STAFF took the SURVEY

>> GALLATIN CAMPUS FACULTY AND STAFF SURVEY COMMENTS



STUDENT SURVEY RESULTS

A web-based survey invited students to share their thoughts on the quality of classrooms, labs, and other indoor and outdoor spaces, as well as provide input on safety, parking, and other general issues.

A summary of the results from the student survey is shown on the following pages.

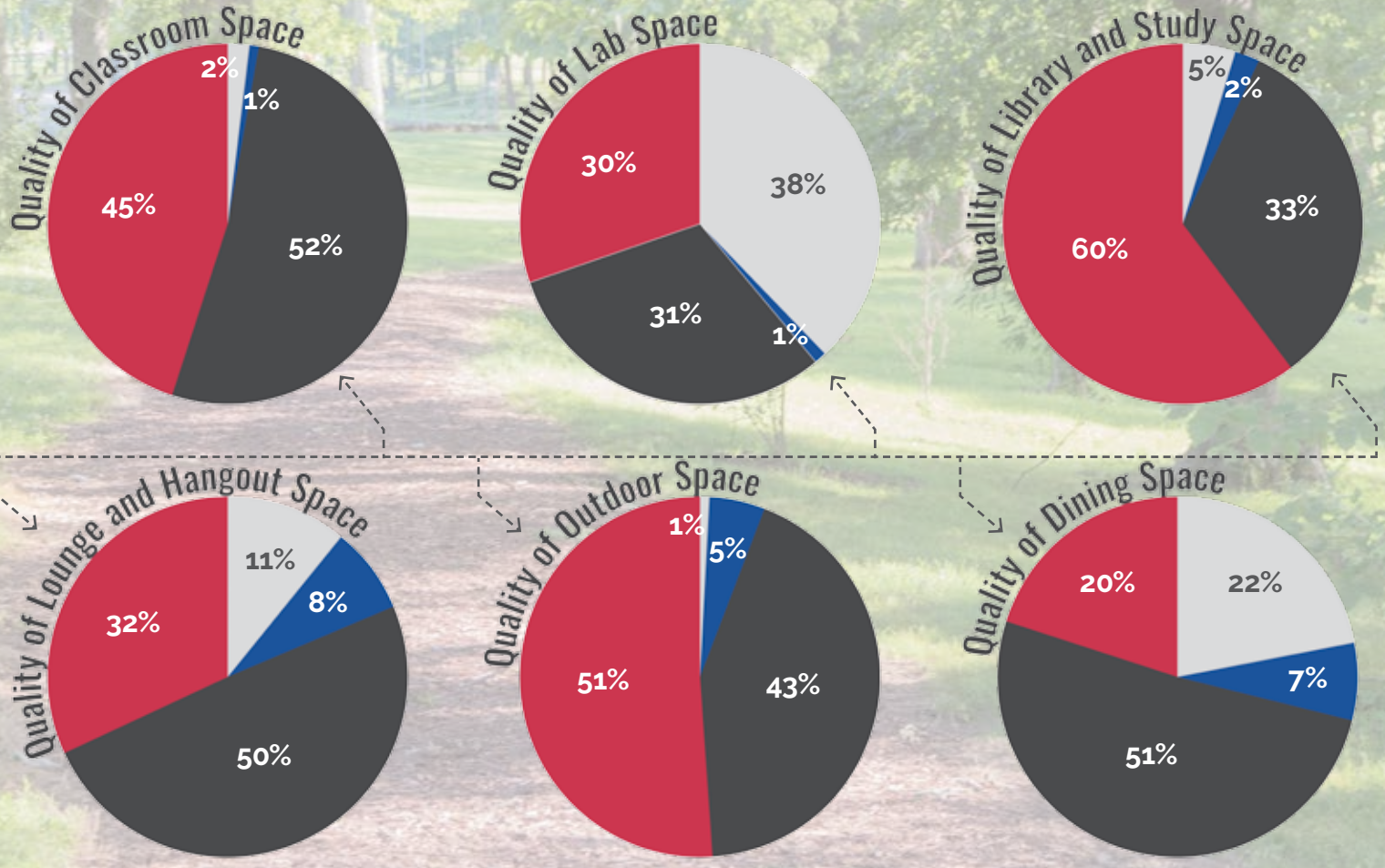
308 STUDENTS took the SURVEY

Q. WHAT ONE WORD WOULD YOU USE TO DESCRIBE THE PHYSICAL CAMPUS TODAY?

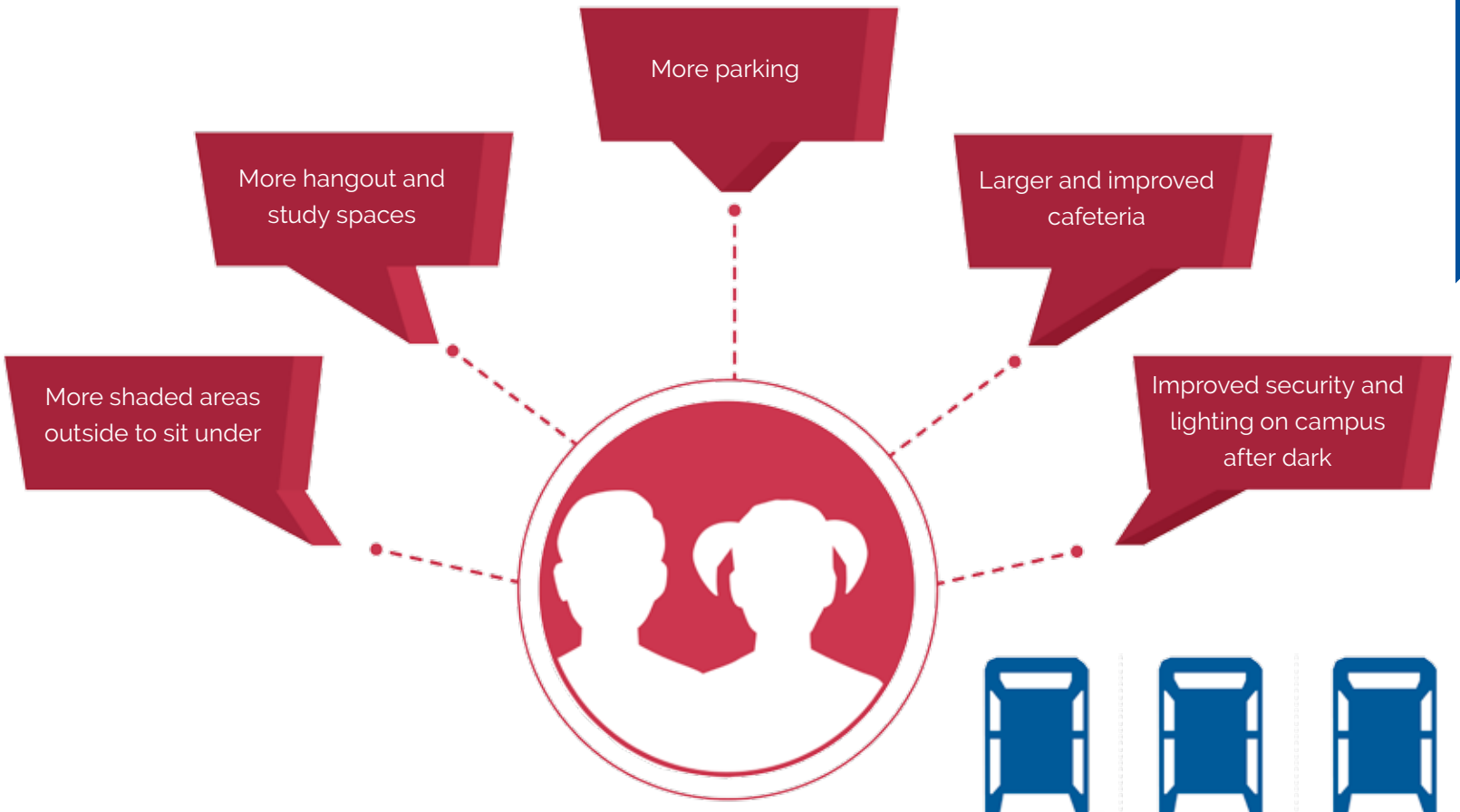
Q. WHAT ONE WORD WOULD YOU USE TO DESCRIBE WHAT IT COULD BECOME IN THE FUTURE?

Q. HOW WOULD YOU DESCRIBE THE QUALITY OF EACH OF THE FOLLOWING TYPES OF SPACES ON THE GALLATIN CAMPUS?

EXCELLENT / VERY GOOD
GOOD / FAIR
POOR
DON'T KNOW



>> GALLATIN CAMPUS STUDENT SURVEY COMMENTS



50% of students feel **SAFE** or **VERY SAFE** ON THE GALLATIN CAMPUS AFTER DARK

34% of students have trouble finding a **PARKING SPACE** (not necessarily a convenient space) EVERY DAY

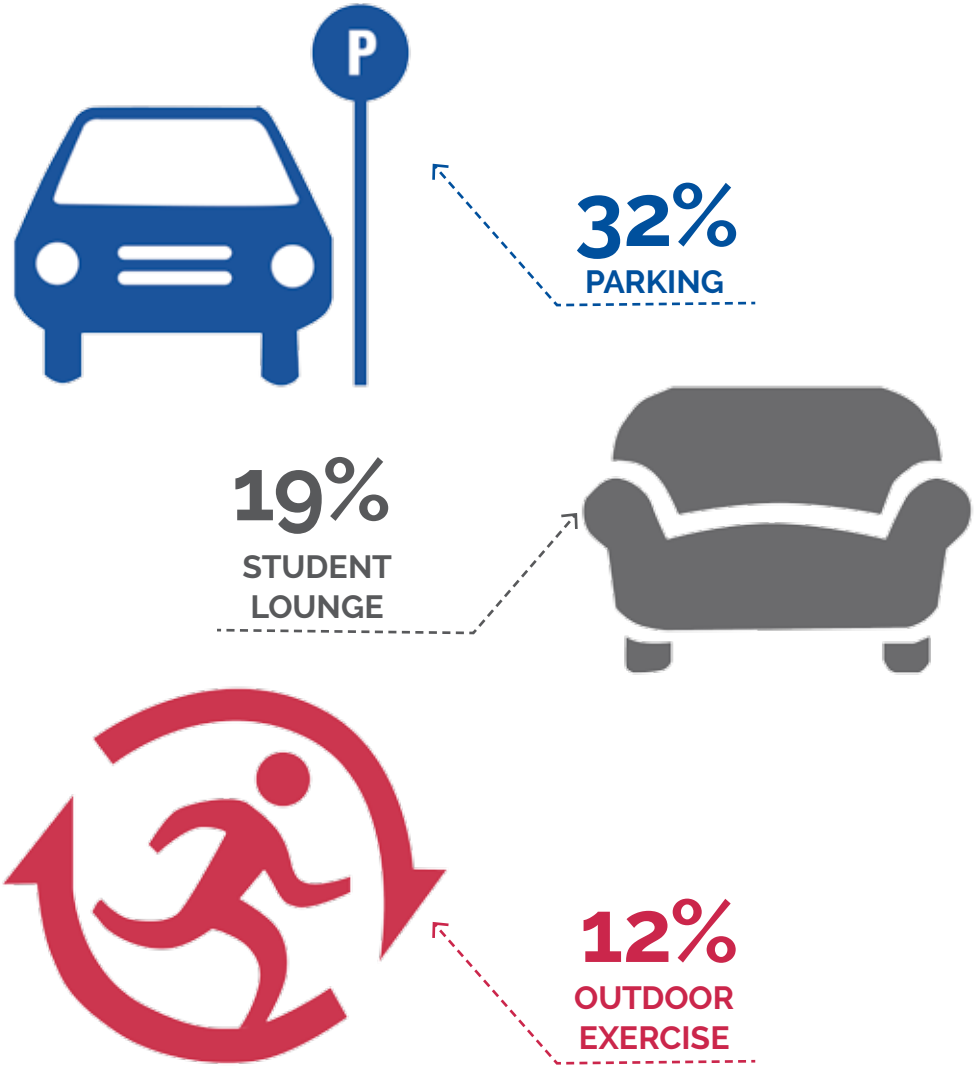

VOL STATE MASTER PLAN
What's your priority for the Master Plan? Tell
a dot ne
elow.
VOL STATE
COMMUNITY COLLEGE
Renovated Labs
Improvements to Quad
Gathering Spaces
Student Lounge
Group Study Areas
Crosswalks
Sidewal
Other
(write below)

STUDENT ENGAGEMENT

On April 7, 2016, the master planning team conducted a student focus group to solicit comments about the Gallatin Campus and ideas for the future. Comments included ideas for improvements to the quad, better integration of academic departments, more parking, cafeteria improvements, enhancements to the campus frontage along Nashville Pike, and more study spaces.

On September 20, 2016, the master planning team returned to the Gallatin Campus and used an idea wall in the Wood Campus Center to solicit input from students. More than 120 students participated. They used dots to indicate their top three improvements for priorities on the Gallatin Campus. The three highest ranking categories are shown at right.

Q. WHAT'S YOUR PRIORITY FOR THE MASTER PLAN?



03 // EXISTING CONDITIONS

>> GALLATIN CAMPUS

>> COOKEVILLE HIGHER EDUCATION CENTER

>> LIVINGSTON CAMPUS

>> HIGHLAND CREST CAMPUS

GALLATIN CAMPUS

Volunteer State Community College's Main Campus is located approximately 3.5 miles southwest of downtown Gallatin near Old Hickory Lake, and about 20 miles northeast of downtown Nashville. The campus is in a suburban setting, with adjacent retail, restaurants, and car dealerships. A 3,000,000 square foot Gap distribution center is located northeast of the campus.

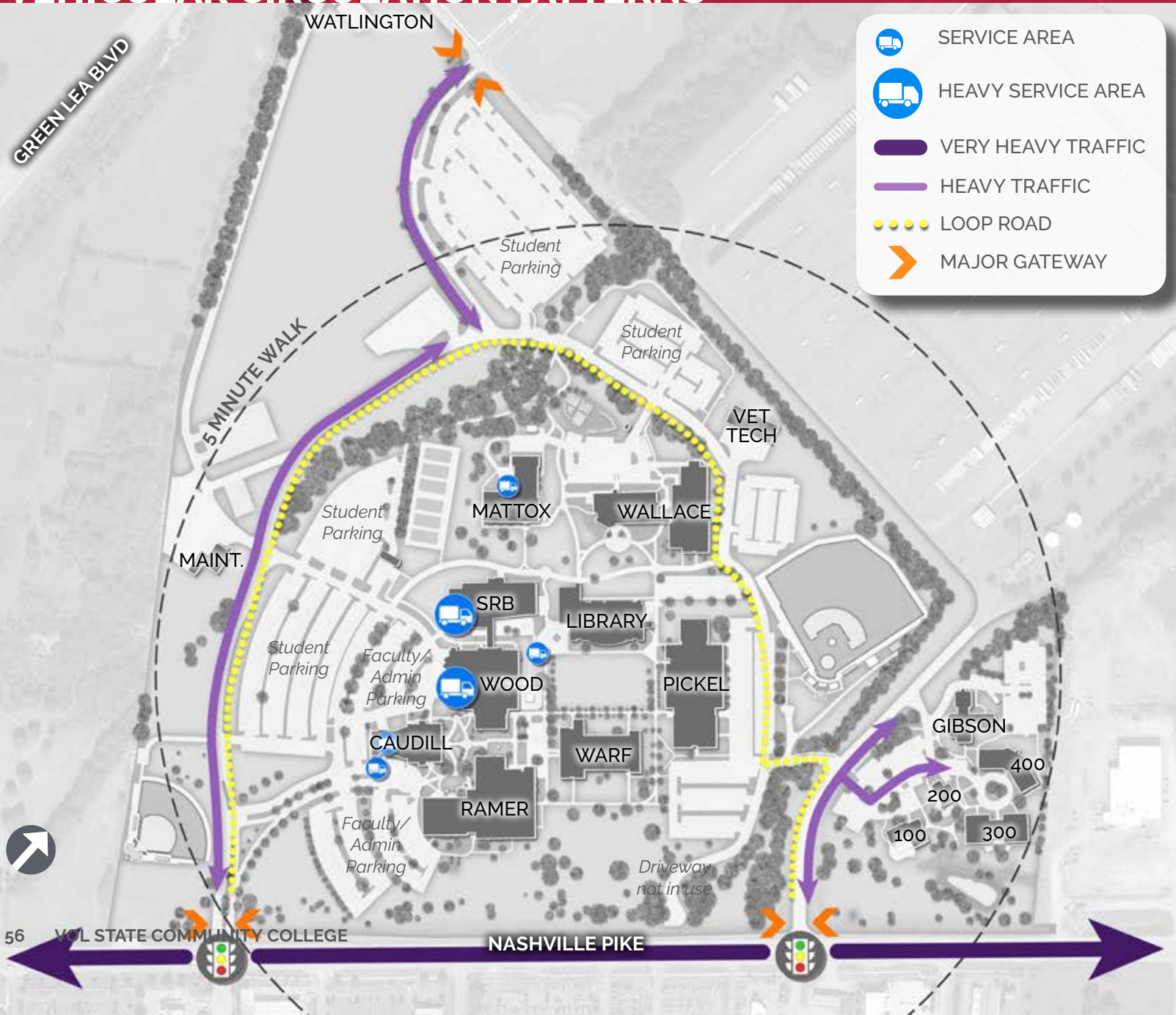
LANDSCAPE

The Gallatin Campus has a simple palette of ornamental and canopy trees, with grass and shrubs placed strategically where impact and color are desired. Some shrubs and denser evergreen trees, such as those on the quad, create maintenance concerns and affect security by reducing sight lines.

The Gallatin Campus is not well shaded in its interior or in its parking lots. Students seek shaded areas to gather or rest, but many gathering spaces and mini plazas are not shaded, even those that are well used, such as the plaza in front of the Library's main entrance.

GALLATIN CAMPUS CONTEXT

VEHICULAR CIRCULATION PATTERNS



STORMWATER AND DRAINAGE

Detailed survey information is not available for the Gallatin Campus to be able to perform a drainage analysis, but no major concerns were identified.

The campus sits on a high point at 520 feet above sea level, with drainage generally flowing either southwest or southeast out from the quad to several retention areas. Water flows either to Station Camp Creek to the west or East Camp Creek to the east, both of which flow to Old Hickory Lake (the Cumberland River) to the south.

Topography slopes downward north of the Library and south of Ramer and Warf, with drainage flowing to the parking lots.

VEHICULAR CIRCULATION

Vehicular circulation is efficient on the Gallatin Campus. Two traffic lights on Nashville Pike allow drivers to enter the campus easily, and these two intersections are connected by a loop road through campus. A third entry point on the north side of campus from Enterprise Drive improves access to the north parking lots.

Most building service areas are located adjacent to or within parking lots, such as with the SRB Building and Wood Campus Center, which experience frequent service traffic. The pick-up and drop-off circle between Caudill Hall and the Ramer Building is used frequently and functions as a major pedestrian gateway.

PARKING

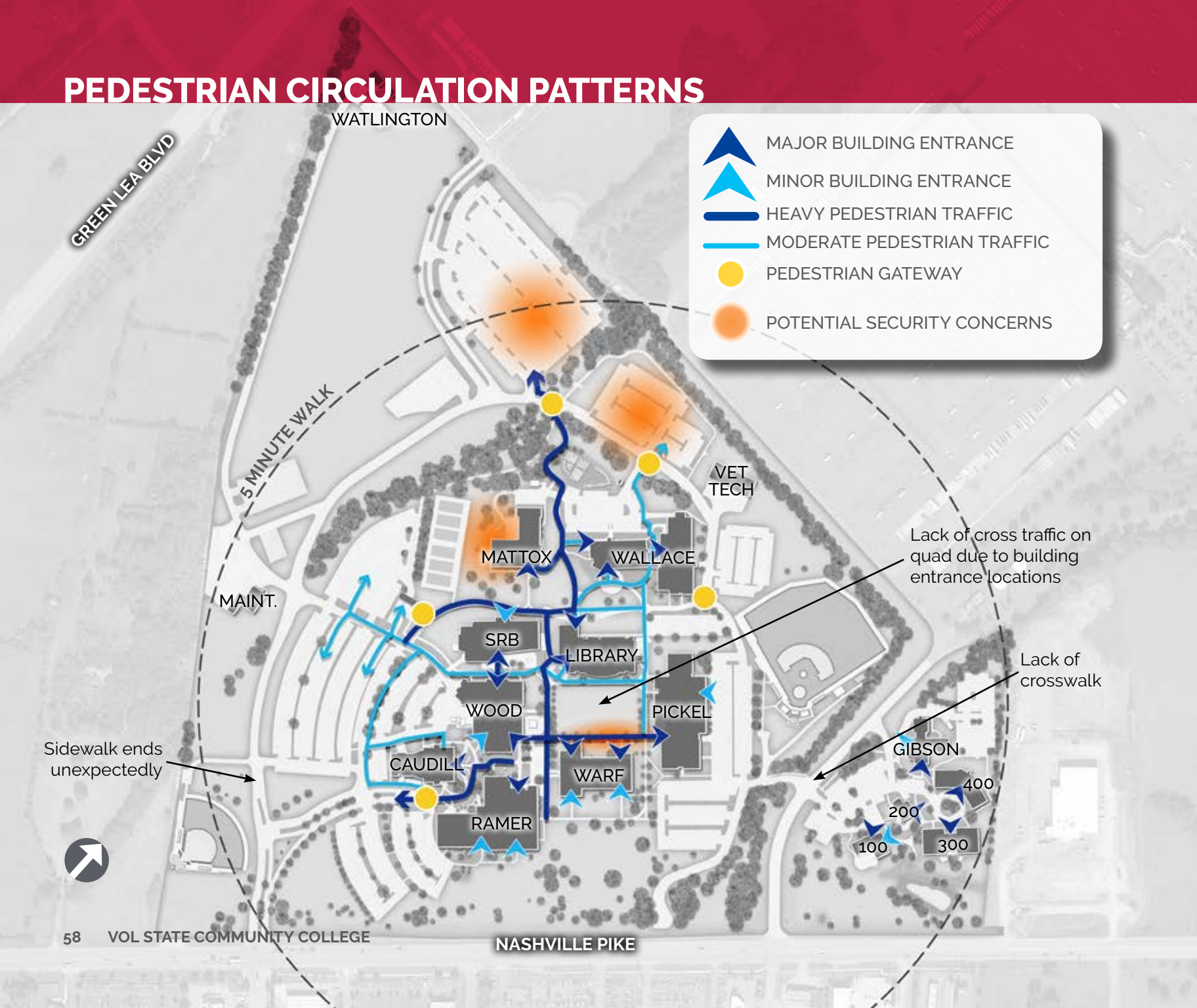
The majority of parking spaces are located within a five-minute walk of the heart of campus. Faculty and staff parking is located closest to the buildings. Parking lots are consistently full throughout the day. A steady stream of students enters the campus from both the western and northern parking lots.

PEDESTRIAN CIRCULATION

Pedestrian paths throughout the campus are well located, and students follow them rather than creating their own paths. The highest concentration of sidewalk use is shown by the darker lines on the following page.

Major building entry points are shown on the following page. There are few primary building entrances from the quad. The main entrances to other buildings are not well identified, except for the library, the SRB building, and the Wallace South building. The campus is active between classes with many students walking around and interacting, but once classes start, outdoor activity decreases significantly.

PEDESTRIAN CIRCULATION PATTERNS



Little to no pedestrian circulation occurs between west and east campus (the area east of Gap boulevard), since nearly everyone drives to Gibson Hall and Buildings 100-400.

SECURITY

No major security concerns were identified. Paths and sidewalks are lined with pedestrian light fixtures, and police officers are present throughout campus. The north parking lots could be less secure in the evening because of their remote location, but no security issues have been reported there. Sight lines are generally clear, except along the walkway by the tall evergreen trees on the south side of the quad.

ATHLETICS AND RECREATION

The Main Campus has a baseball field, softball field, six tennis courts, an indoor basketball court/gymnasium, and an indoor recreation center. With the exception of the tennis courts, these facilities are adequate and in good condition, although indoor facilities have a dated feel.

OUTDOOR GATHERING SPACES

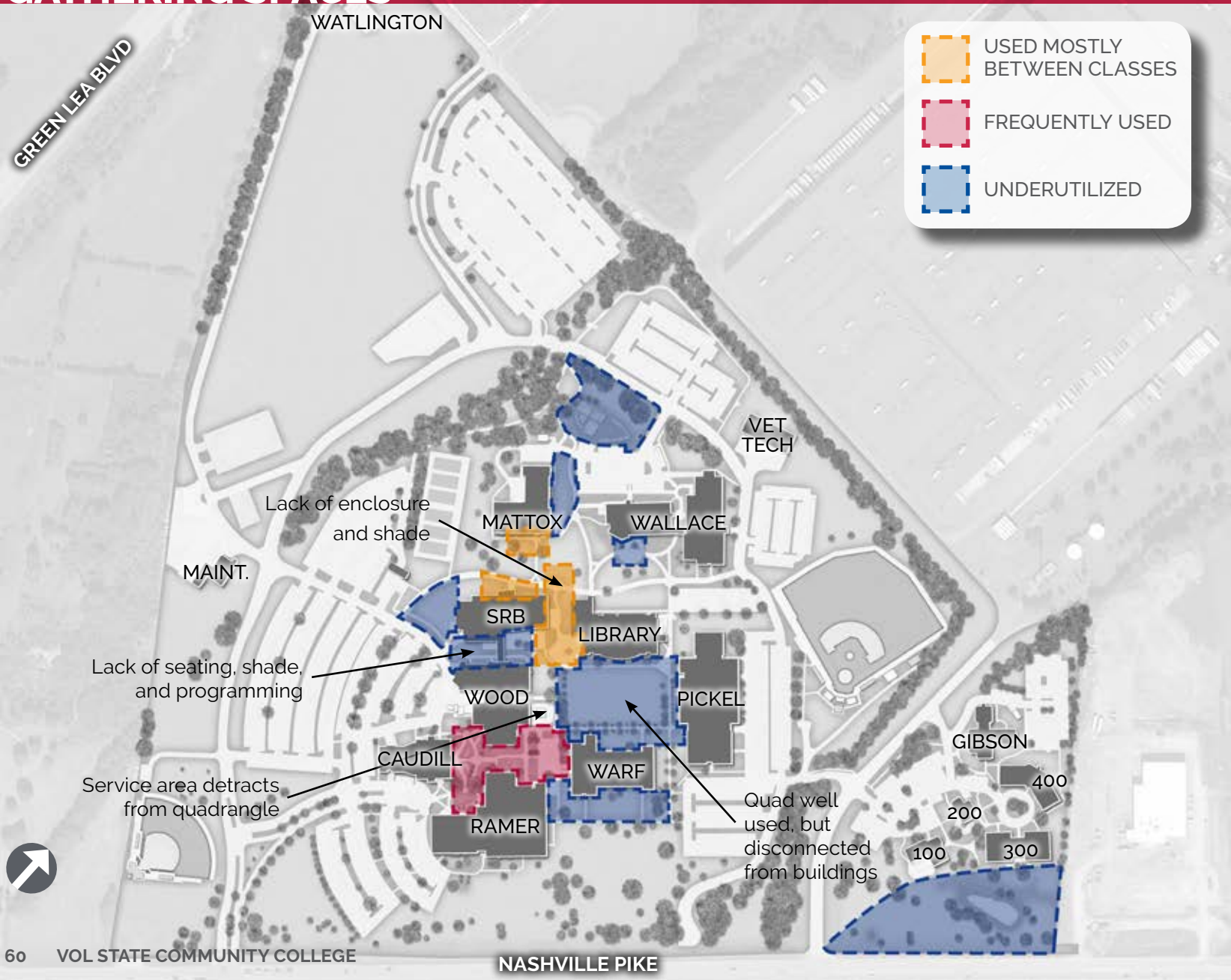
The circular mini plazas throughout campus form a successful gathering space typology. In general, those outdoor spaces with shade, seating, and a sense of enclosure are used most regularly. For example, the spaces between the Wood Campus Center, Caudill Hall, and the Ramer building have shade trees, tables, and chairs, so students linger here. There are a number of areas, however, where students gather but do not linger:

- Plaza between the Mattox Building, SRB Building, and the Library (lack of shade or enclosure)
- Heavily trafficked plaza at main entrance to Library
- Plaza and amphitheater between SRB building and Wood Campus Center (adjacent paths, elevated walkway, and balcony are used, but not the plaza due to lack of seating, shade, and programming)

INDOOR GATHERING PLACES

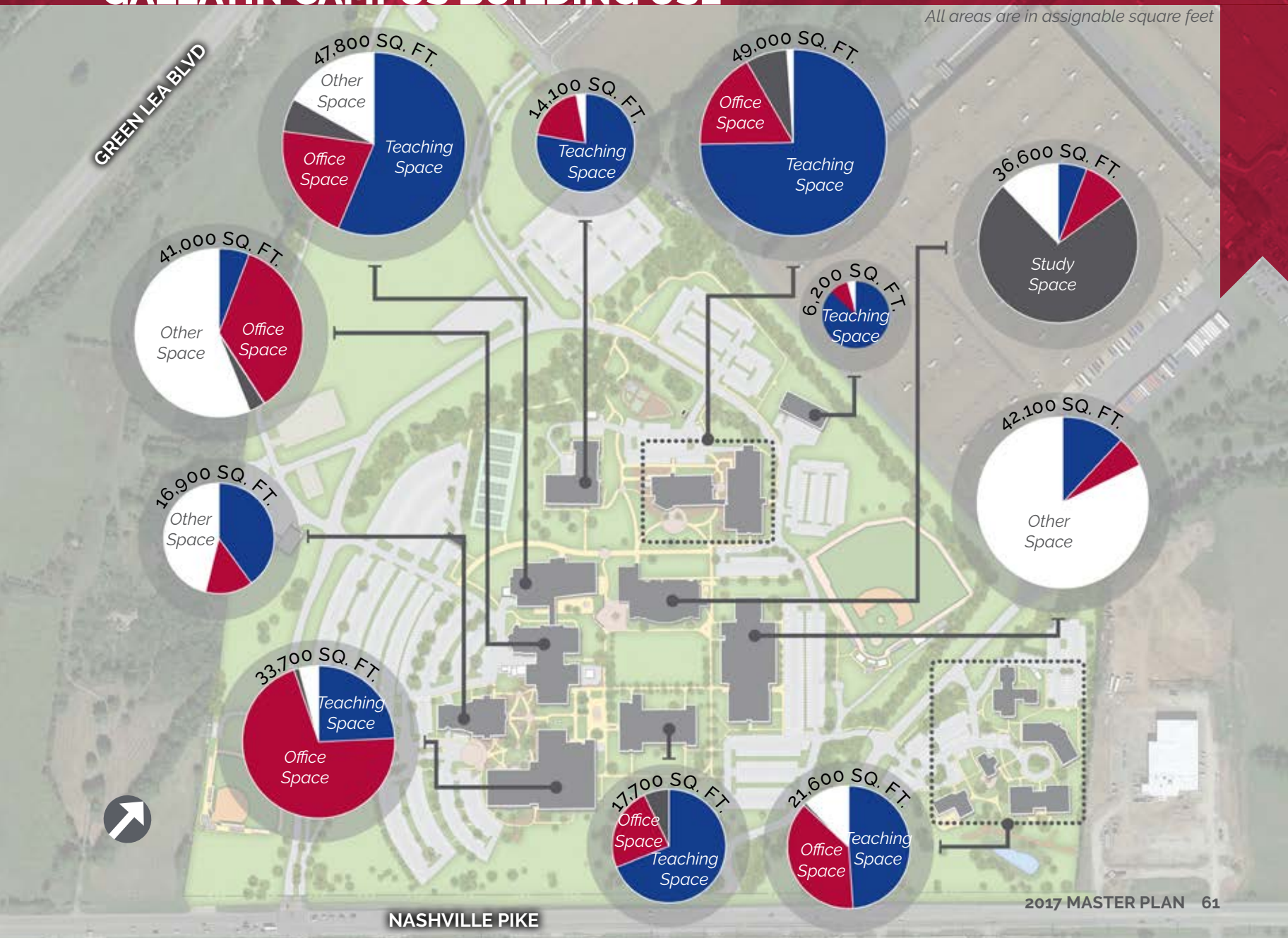
The Main Campus has several very successful indoor gathering spaces, especially the sunlit areas of the SRB Building, the Library, the open computer lab in the Wallace Building, and the Cafeteria, even though the cafeteria lacks modern finishes.

GATHERING SPACES

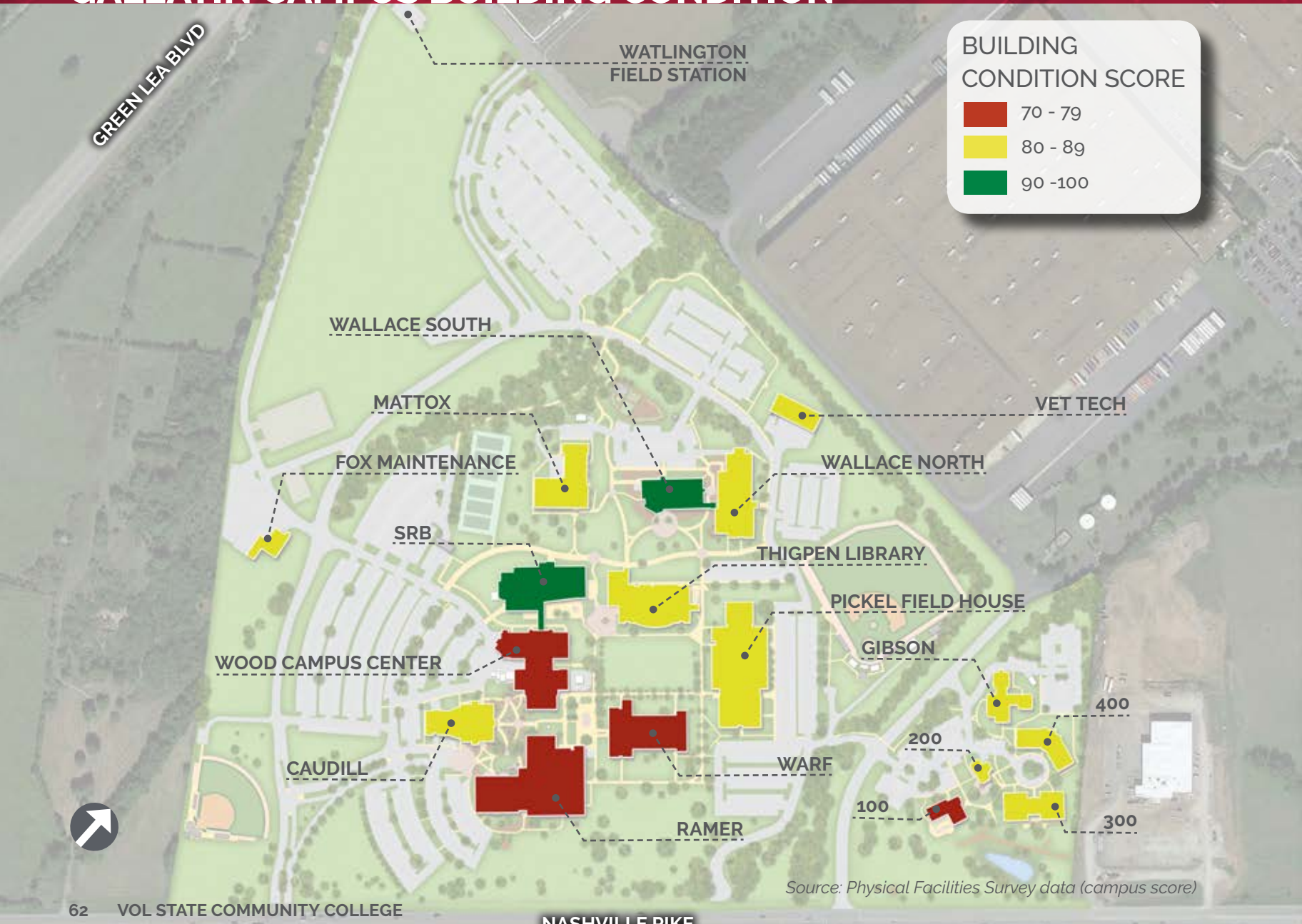


GALLATIN CAMPUS BUILDING USE

All areas are in assignable square feet



GALLATIN CAMPUS BUILDING CONDITION



Source: Physical Facilities Survey data (campus score)

BUILDING CONDITION

The following summarizes the deficiencies identified during the detailed survey of all building systems.

RAMER ADMINISTRATION BUILDING // Basement air handlers are original to the building and have reached the end of their useful life. HVAC controls are also troublesome. Electrical panels are original and lack room for expansion. Building has a fire alarm system but only a tiny portion of the building is equipped with fire sprinklers.

WARF BUILDING // Electrical panels are original and lack room for expansion. Building has a fire alarm but is not equipped with fire sprinklers.

PICKEL FIELD HOUSE // Electrical panels are original and lack room for expansion. Building has a fire alarm but only a tiny portion of the building is equipped with fire sprinklers.

THIGPEN LIBRARY // Roof is aging and in need of replacement.

WOOD CAMPUS CENTER // HVAC unit, air handler, and controls are original to the building and have reached the end of their useful life. Electrical system is also original and has reached the end of its useful life. Building has a fire alarm.

CAUDILL HALL // HVAC system is original to the building and has reached the end of its useful life. Transformers, electrical receptacles, and lighting panels have reached the end of their useful lives. Building has a fire alarm but only the auditorium and backstage areas are equipped with fire sprinklers.

MATTOX BUILDING // Electrical panels are original and lack room for expansion.

WALLACE HEALTH SCIENCES BUILDING // Electrical panels are currently at capacity. Building has a fire alarm but is not equipped with fire sprinklers.

WALLACE HEALTH SCIENCES BUILDING SOUTH // No significant issues were identified.

VET TECH BUILDING // Toilet fixtures are not ADA compliant. Electrical system is original to the building and has reached the end of its useful life. Building has a fire alarm but is not equipped with fire sprinklers.

WATLINGTON SCIENCE FIELD STATION // No significant issues were identified.

GIBSON HALL AND BUILDINGS 100-400 // Some buildings' HVAC systems have reached the end of their useful life. Buildings have fire alarms but are not equipped with fire sprinklers.

SRB BUILDING // No significant issues were identified.

COOKEVILLE HIGHER EDUCATION CENTER // Roof is aging and in need of replacement. HVAC system is original to the building and nearing the end of its useful life.

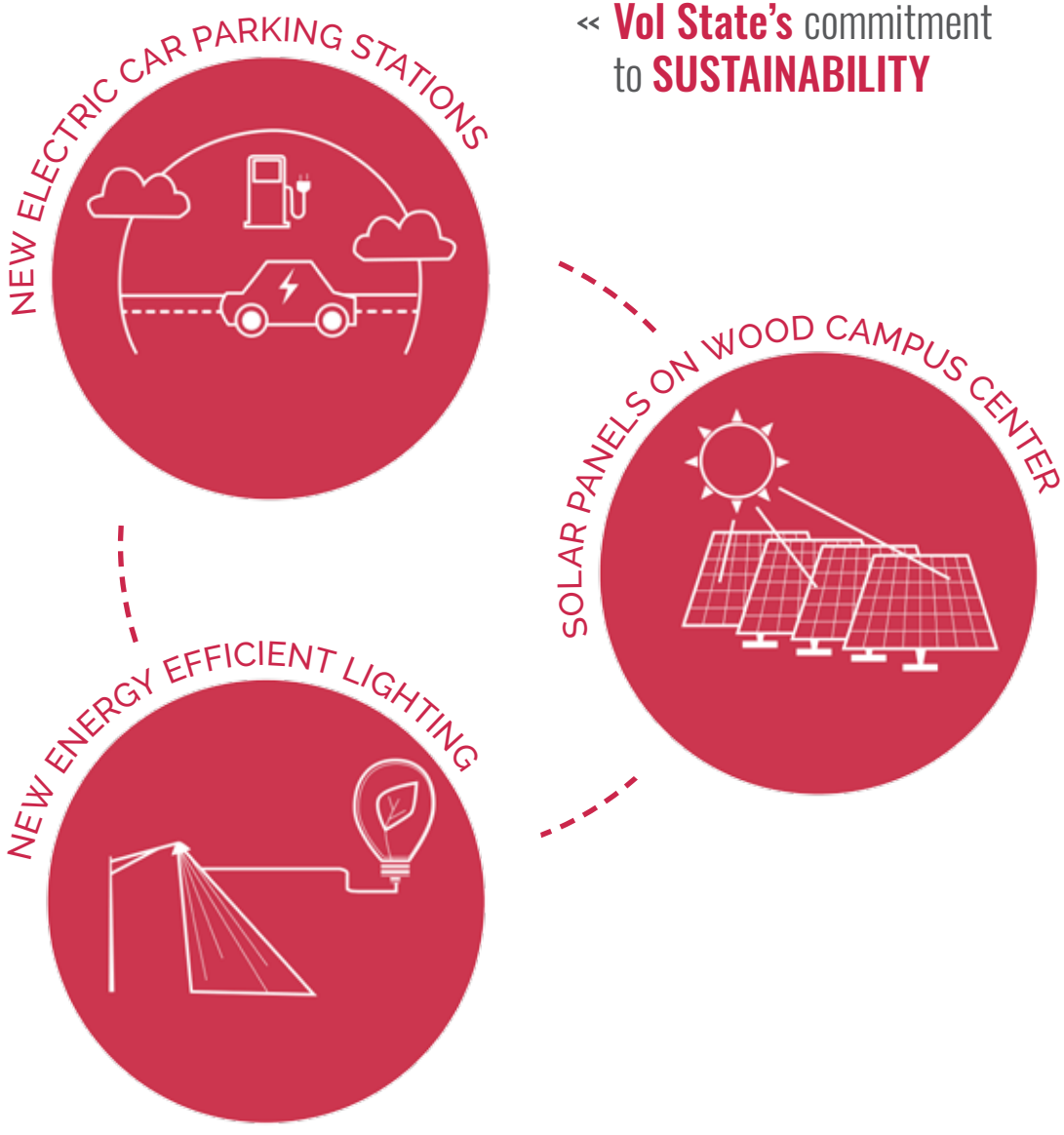
LIVINGSTON CAMPUS // HVAC DX units in the original portion of building have reached the end of their useful life. Electrical panels lack room for expansion.

HIGHLAND CREST CAMPUS // Issues were noted with the HVAC system that require updating. Electrical panels lack room for expansion.

SUSTAINABILITY

Vol State has taken significant strides toward sustainability, particularly on the Gallatin Campus, including the following initiatives.

- Individual electrical meters for each building allow for focused energy tracking and significant savings.
- LED lighting and occupancy sensors significantly reduce campus energy use for lighting
- Solar panels on the Wood Campus Center provide renewable energy
- The campus garden provides educational opportunities for students as well as bee habitat
- Recycling bins (made of recycled materials) are located throughout the campus
- Hydration stations encourage students to bring reusable bottles
- Sustainable landscaping and native plantings provide bee, butterfly, and wildlife habitat
- The new SRB Building was built to LEED standards
- Other recently constructed buildings have incorporated sustainable features



COOKEVILLE HIGHER EDUCATION CENTER

Volunteer State's Cookeville Campus is about 1¼ hours by car east of the Gallatin Campus. It opened in 2002, but until Fall 2016, it was under the purview of Nashville State Community College. It is now led by Vol State, with some spaces used by Tennessee Technological University and the Tennessee College of Applied Technology Livingston.

This campus offers a variety of courses. It is possible to complete a degree with courses offered here and at the Livingston Campus, without going to the Main Campus in Gallatin. At 626 full-time equivalent students in Fall 2016, it is Vol State's second largest campus in terms of enrollment.

This campus consists of a single building. There is currently a need for study and gathering spaces, some sort of food service, and updated technology in classrooms. Otherwise, no major issues were identified with regard to the quality of space, circulation, parking, or other amenities.

LIVINGSTON CAMPUS

Volunteer State's Livingston Campus is located 25 minutes by car north of the Cookeville Campus, and 1½ hours east of the Main Campus in Gallatin. It opened in 1995 and in Fall 2016 served approximately 154 full-time equivalent students. Building additions were completed in 2006 and 2010.

This campus focuses on General Education courses but does offer two complete degrees. A chemistry or physics lab would be necessary to offer the courses required for many degrees.

This campus consists of two interconnected buildings. There is currently a need for a secure front counter, a police office, large meeting space, and improvements in the courtyard. Otherwise, no major issues were identified with regard to the quality of space, circulation, parking, or other amenities.

A use has yet to be determined for the newly purchased McCormick Building, immediately adjacent to this campus. Given the surplus of space on campus today, it might best be used for a future academic program.

HIGHLAND CREST CAMPUS

Volunteer State's Highland Crest Campus is located in Springfield, 45 minutes by car northwest of the Main Campus in Gallatin, and 30 minutes by car (without traffic) north of downtown Nashville. It opened in 2011 and in Fall 2016 served approximately 186 full-time equivalent students. This building is shared with Austin Peay State University, which only offers upper level courses. Teaching spaces are jointly scheduled.

This campus focuses on General Education courses as well as pre-Allied Health courses and Emergency Medical Technician (EMT) courses.

The single building on this campus is beautifully designed and sited. Its three wings frame a comfortable courtyard and create a true collegiate feel. The existing biology lab could be improved to allow microbiology courses to be taught. Otherwise, no major issues were identified with regard to the quality of space, circulation, parking, or other amenities.

04 // FUTURE REQUIREMENTS

>> ENROLLMENT BENCHMARKS

>> PROPOSED ACADEMIC PROGRAMS

>> STATION OCCUPANCY

>> ROOM UTILIZATION

>> SPACE NEEDS

ENROLLMENT BENCHMARKS

Since 1979, Vol State's enrollment has grown 3% on average per year. Fall 2016 enrollment exceeded the previous peak in Fall 2010 during the Great Recession. Over the past decade, Vol State has been the fourth fastest growing public community college in Tennessee. The Tennessee Promise has contributed significantly to Vol State's enrollment growth.

Enrollment at the Cookeville Higher Education Campus began to count toward Vol State rather than Nashville State in Fall 2016, and so provided a significant bump to overall enrollment growth. This campus is within Vol State's service area and is shared with Tennessee Technological University and TCAT Livingston. Enrollment at the Livingston Campus has declined significantly since 2012.

Many factors can affect future enrollment growth, some of which (such as national economic trends) are difficult to project. For this reason, this Master Plan has established two growth benchmarks. If growth occurs as expected, Benchmark 1 may occur in the short term. Benchmark 2 is a longer term projection. Faculty and staff are assumed to grow at the same rate as the student body, to preserve Vol State's small class sizes.

>> PROJECTED ENROLLMENT GROWTH BY CAMPUS

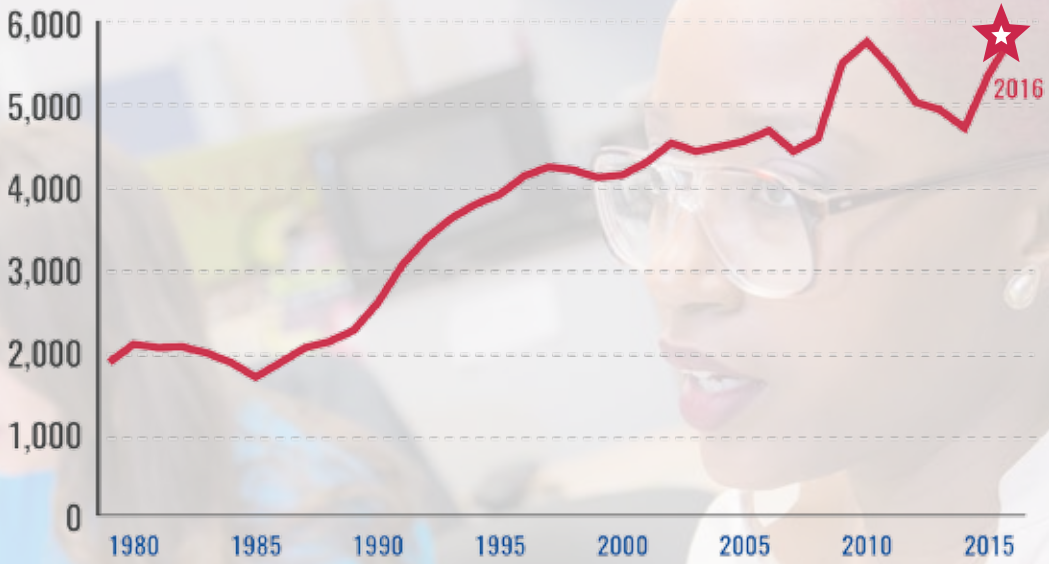
FTE	GALLATIN	COOKEVILLE	LIVINGSTON	HIGHLAND CREST	WILSON COUNTY	TOTAL
Fall 2016	4,544	626	154	186	0	5,512
Benchmark 1	4,750	700	159	196	100	5,905
Benchmark 2	5,000	775	164	206	200	6,345
HEADCOUNT						
Fall 2016	6,905	1,019	315	336	0	8,414
Benchmark 1	7,397	1,139	321	376	200	9,433
Benchmark 2	7,786	1,261	331	396	400	10,173

PROPOSED ACADEMIC PROGRAMS

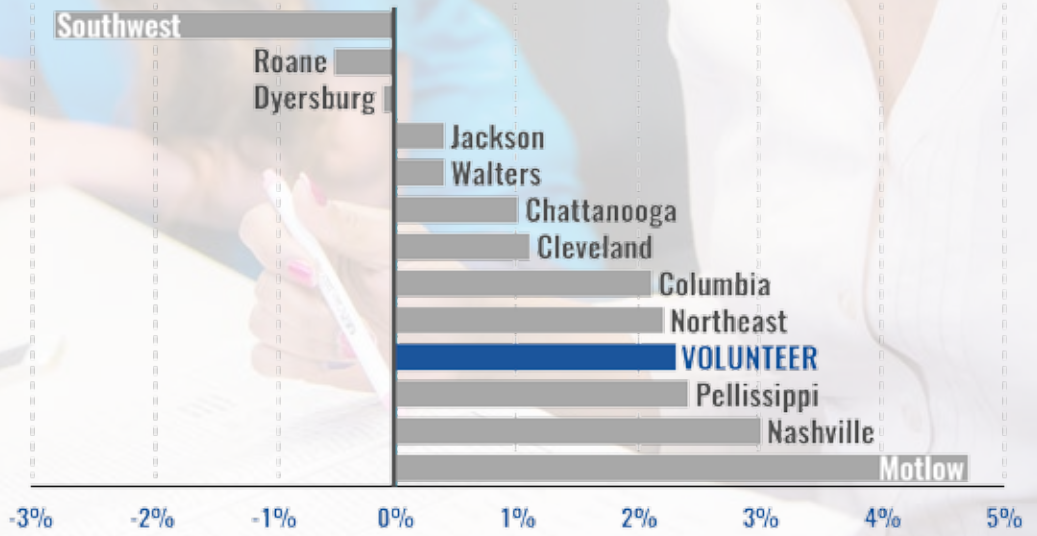
Enrollment growth is expected to be driven by population growth, the demand for higher education, marketing efforts, and other factors. The following academic programs are proposed to be created at Vol State to attract new students, meet workforce needs, and increase enrollment:

- Health Sciences
- Viticulture
- Environmental Technology
- Graphic Arts

>> HISTORIC INSTITUTION WIDE ENROLLMENT GROWTH (FTE)



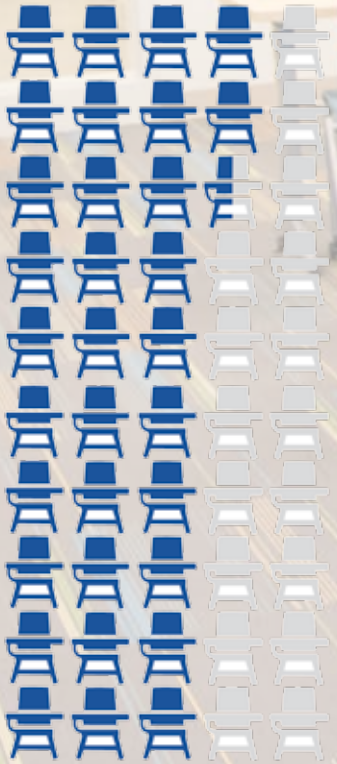
>> 2006 - 2016 AVERAGE ANNUAL FTE ENROLLMENT GROWTH



STATION OCCUPANCY

Station occupancy shows the number of seats or lab stations filled based on the course schedule. On the Gallatin Campus, classroom occupancy exceeds the THEC standard, but labs are below the standard. This is likely due to specialized disciplines with smaller section sizes.

>> AVERAGE CLASSROOM STATION OCCUPANCY
(GALLATIN CAMPUS FALL 2016)



65%
of seats are
OCCUPIED

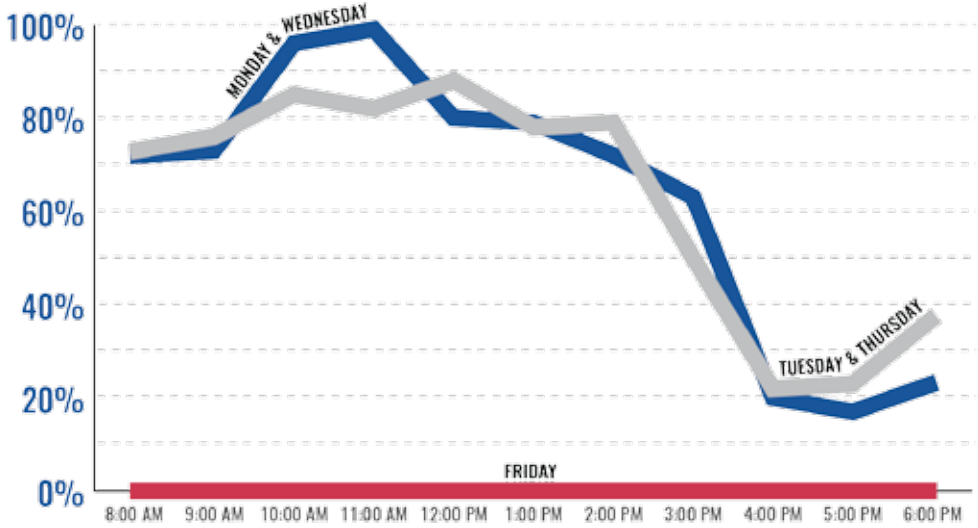
THEC Standard
60%

>> AVERAGE LAB STATION OCCUPANCY
(GALLATIN CAMPUS FALL 2016)

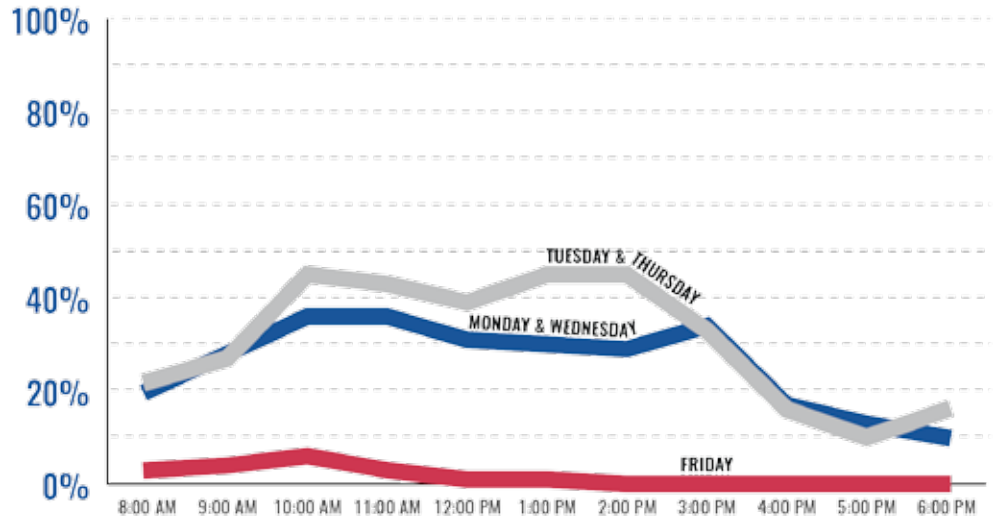
66%
of seats are
OCCUPIED

THEC Standard
80%

>> PERCENT OF CLASSROOMS ON GALLATIN CAMPUS WITH SCHEDULED COURSES



>> PERCENT OF LABS ON GALLATIN CAMPUS WITH SCHEDULED COURSES

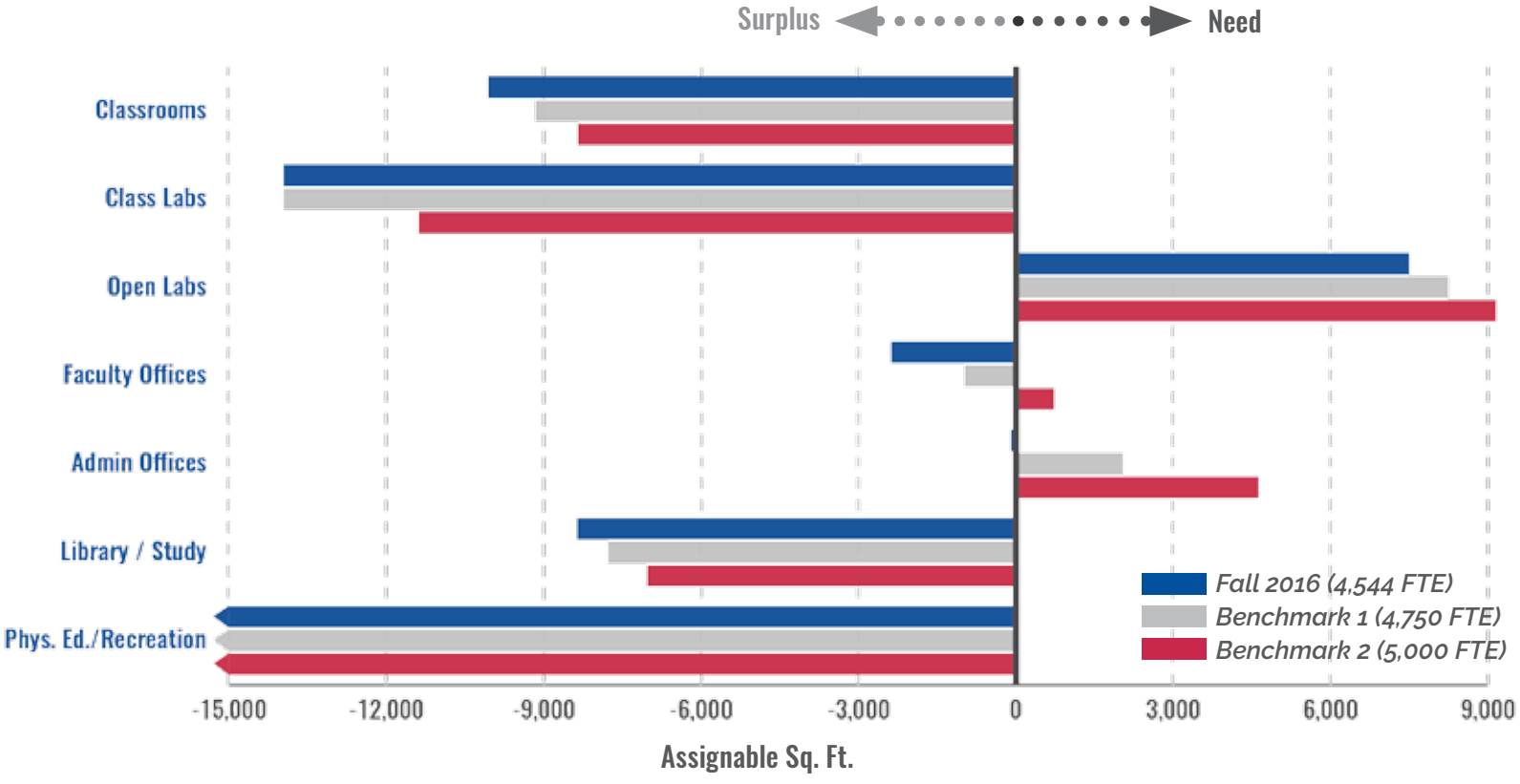


ROOM UTILIZATION

While there is no THEC standard for what percent of classrooms and labs should be scheduled, utilization numbers are high for classrooms, and low for labs. Vol State, for the most part, does not schedule courses on Fridays.

Classroom utilization is highest in the mornings and early afternoon, but drops off after 3:00 p.m.

Lab utilization also decreases after 3:00 p.m., but even at its morning peak, only 45% of labs on campus are in use, indicating significant room for growth in scheduling, as well as the fact that some specialized labs are difficult to schedule all day due to a limited number of sections.



SPACE MODELING AS A TOOL

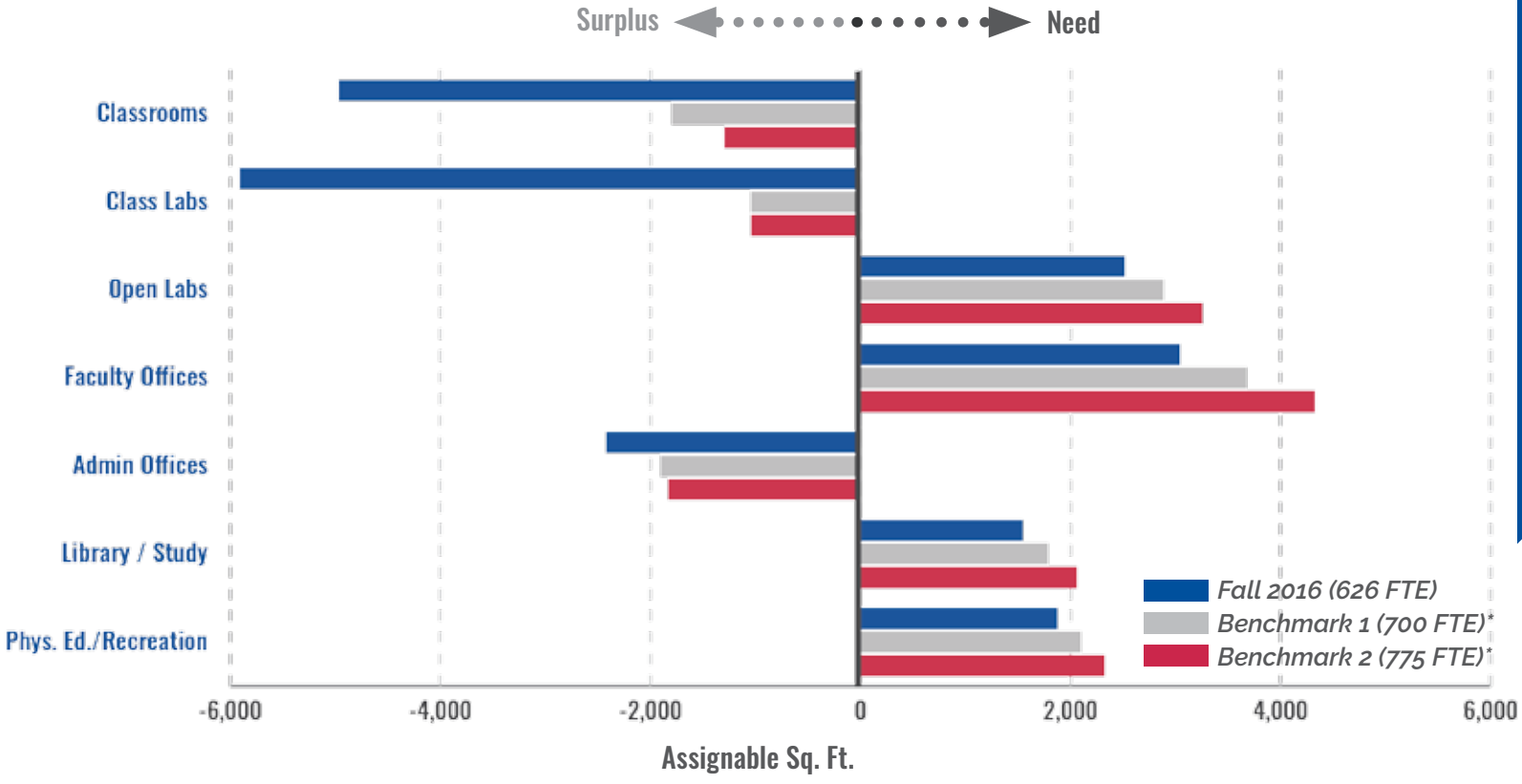
Any space model should be understood as a tool for understanding current and future space needs, not as a precise indicator of exact needs. For the sake of this Master Plan, results of the model are considered alongside information gleaned during interviews with the campus community.

All areas are shown in net assignable square feet, which does not include spaces such as hallways and restrooms that are necessary to serve assignable spaces.

SPACE NEEDS

In general, the new SRB Building on the Gallatin Campus has provided ample room to grow, and no additional teaching spaces are expected to be needed by Benchmark 2. The THEC model shows a need for additional open lab space, but no such needs

>> SPACE NEEDS: COOKEVILLE CAMPUS

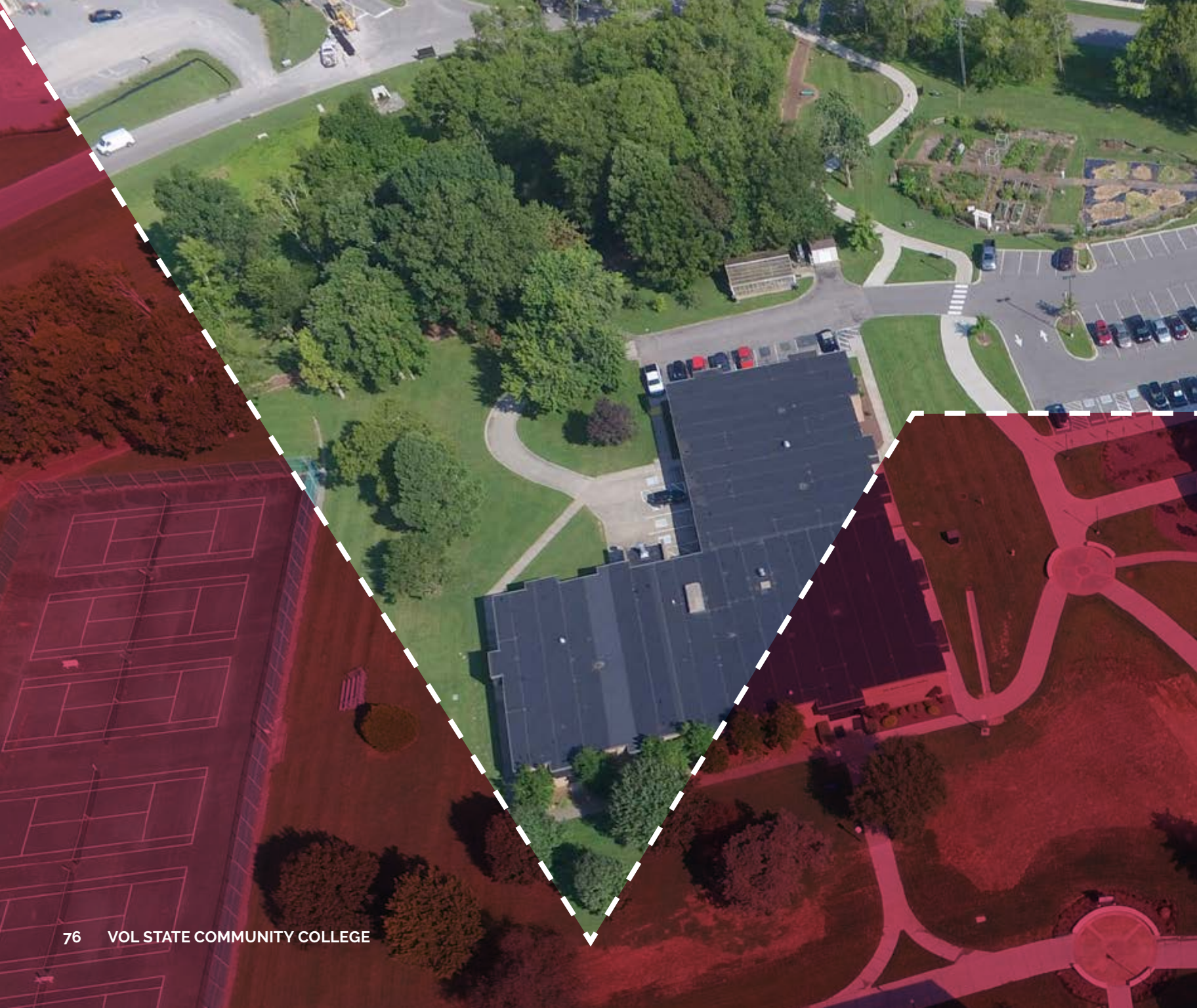


**Beginning in spring 2017, additional spaces were in use by TTU and the TCAT and were not available for use by Vol State. Benchmarks 1 and 2 reflect the loss of these spaces.*

were expressed by the campus, so this may be due to an outdated THEC standard. The amount of library space is adequate. There will be a need for additional office space in the future, and the campus indicated a need for additional conference room space, as well as for ITV classrooms.

There is also room to grow in Cookeville, as shown above, although the assignment of spaces to TTU and the TCAT mean that future growth space for Vol State will be limited.

No significant space needs were identified at the Livingston and Highland Crest campuses, so those space calculations are not shown here.



05 // MASTER PLAN

>> MASTER PLAN OVERVIEW

>> LAND ACQUISITION

STAYING RELEVANT

Community colleges must deal with a complex calculus as they manage their institutions. On the one hand, educating and graduating students is the top priority, but community colleges must also keep a pulse on their community's needs, more so than universities. They must equip students for jobs that require more than a high school diploma or for additional education at four-year institutions.

A significant challenge for Tennessee's community colleges is how to stay relevant to students in 2017 when they were founded in the 1970s. Tennessee has seen major economic and demographic shifts in the last 50 years, including an explosion of advanced manufacturing, health care, information, and entertainment jobs. Many former small towns now host large, diverse populations. Rural main campuses such as those at Motlow and Columbia State are being eclipsed by "satellite" campuses in rapidly growing suburban areas.

Because community colleges must serve their community's needs, new campuses must be opened in high growth areas to be in close proximity to potential students.

Updated facilities ensure that a college will be able to continue to attract and retain students on all campuses. Students must feel they are in an environment that allows them to attain academic excellence, but buildings from the 1970s and 80s often have inadequate common spaces and learning spaces compared to modern facilities.

Retrofitting older buildings is a challenge, but facilities must incorporate natural light, color, and appropriate teaching and gathering spaces to remain relevant and student centered. Building and landscape design are vital to keep students on campus and allow them to form the bonds with faculty and fellow students that are central to the college experience. In this case, Vol State excels at creating vibrant outdoor spaces.

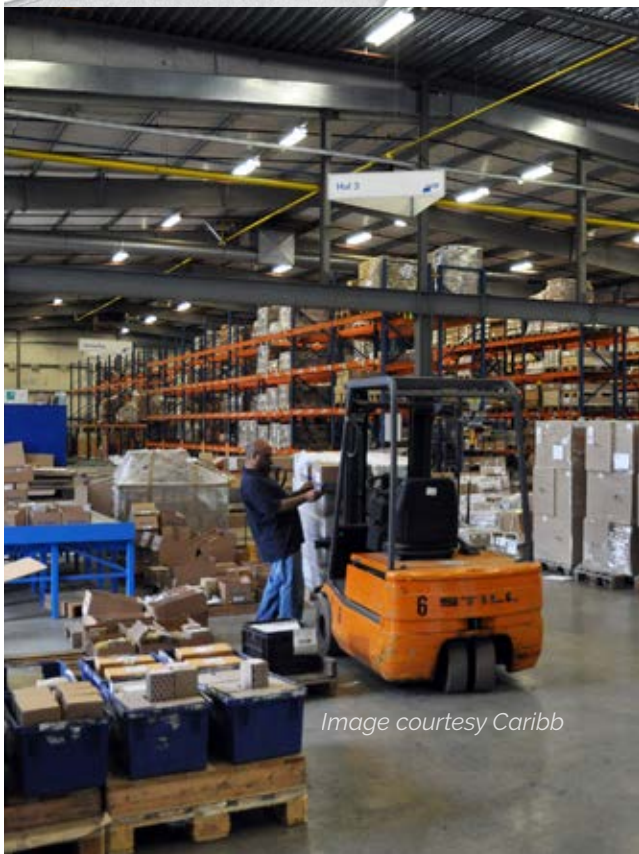


Image courtesy Caribb

GALLATIN CAMPUS MASTER PLAN OVERVIEW

A. WARF BUILDING IMPROVEMENTS

MECHATRONICS ADDITION

The existing Mechatronics program does not have dedicated space on the Gallatin campus. A 6,000 square foot addition to the Warf Building will provide lab, classroom, and support spaces for this program and a new front entrance to the Warf Building that has a more noticeable presence from the highway.

MAJOR RENOVATION

The science labs in the Warf Building are the most dated spaces on campus, yet they are crucial for students' education. A comprehensive renovation of these labs and the entire building should be undertaken to include new finishes, infrastructure, lighting, flooring, equipment, seating, furniture, ventilation, and storage. This will ensure that students and faculty have the highest quality labs, classrooms, and offices. These renovations could occur in a rolling fashion to minimize disruptions to the course schedule.

B. DINING HALL IMPROVEMENTS

In the student survey, the quality of dining space was ranked lower than any other space on the Gallatin Campus. This dated space is a major gathering place and the hub of the Wood Campus Center, but is not inviting and could be better utilized.

A number of improvements could transform this space and allow it to become a focal point for students, faculty, administrators, and visitors to the campus. Renovations to the serving area, student dining area, and faculty/staff dining area should be guided by the following principles:

- Think restaurant, not cafeteria
- Focus on community and interaction
- Connect to the outdoor patio
- Use flexible space and furniture
- Provide spaces to charge devices
- Design for acoustics and lighting
- Make it uniquely Vol State

Image courtesy Goethe-uni

Image courtesy Dabuosba1

Image courtesy VCU Libraries

Image courtesy Virginia Tech

C. LIBRARY IMPROVEMENTS

Learning needs and library design have evolved significantly since the library was constructed. A number of minor improvements could create an updated look, provide more usable spaces, and emphasize the library as the core of the campus. HVAC upgrades and a new roof are also necessary.

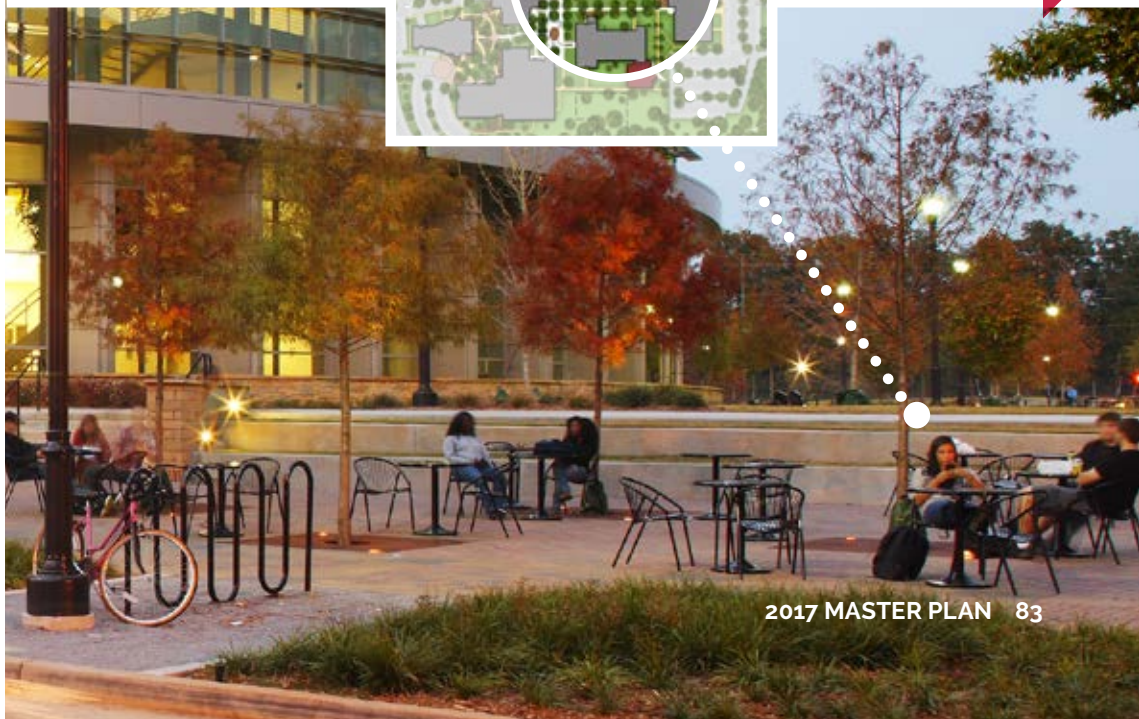
- Construct additional group study rooms (recent usage data show that group study rooms are overutilized)
- Provide spaces for small courses to meet, which could also be used by students for group work
- Update furniture throughout the library to be more collaborative, flexible, and mobile
- Improve lighting
- Consolidate service/help desks to provide a central point for questions and make efficient use of staff
- Continue to archive materials to free up stack space for other uses
- Consider the inclusion of a coffee station or small food service area

D. QUADRANGLE IMPROVEMENTS

Students use the quad today for recreation and study, but a design update could make it more popular and accommodate today's needs.

- Replace the juniper trees along the south side of the quad with deciduous hardwoods to improve visibility and provide shade (these same trees should also be planted throughout the quad)
- Add seating areas with moveable chairs in front of the Pickel Field House
- Once the HVAC equipment between the Wood Campus Center and the quad has reached the end of its life, relocate the equipment and convert this area to a plaza with seating (in the short term walkways here could be widened to create a linear plaza)
- Widen walkways to provide more space for circulation
- Regrade the green to improve drainage, and allow for informal athletics and other events

Image courtesy Jonathan Lines



E. TERRACED GARDENS & BIOSWALE

The existing landscaping north of the SRB Building is successful, but some issues were identified in this area with regard to safety, drainage, and aesthetics.

- Install additional lighting for safety
- Create terraced gardens with a variety of colorful, low maintenance grasses and flowering plants
- Construct a bioswale in the existing low lying area to capture rainwater and beautify the area

F. FRONT LAWN IMPROVEMENTS

Additional landscaping along the front of the campus could help improve its curb appeal. An elegant solution could be to add brick columns with metal fencing, giving the campus a more collegiate feel. The existing entry signage and landscaping on Enterprise Drive should be replicated at the southeastern entrance to campus along Nashville Pike.

G. PARKING EXPANSION & LOOP ROAD REALIGNMENT

Additional parking spaces will be needed as enrollment grows on the Gallatin campus. Parking lot design should include adequate tree canopy to provide shade and reduce the urban heat island effect. Bioswales, pervious pavement, and other elements should also be considered. When the lot is constructed, the loop road should be realigned to the north so that pedestrians do not have to cross it when walking to the campus.

H. EAST CAMPUS DEMOLITION

Buildings 100, 200, 300, 400 and Gibson Hall are aging buildings with a variety of costly maintenance needs and a significant amount of underutilized space. Of their 43,000 gross square feet, only 20% is used for teaching. Interviewees complained about the area feeling isolated and underutilized.

Existing non academic functions in these buildings include Career Placement, Resource Development, IT, and space leased to Tennessee State University. Academic spaces include Allied Health and Dental Hygiene.

In the long term, these buildings should be demolished and space should be found for academic and non-academic functions on the main part of campus, either in existing buildings or a new building on the location of the tennis courts or in front of the Warf Building. East Campus could then be used for athletic fields, with the pond and landscaping remaining. Gibson Hall could potentially remain for a community related use.

FACILITIES IMPROVEMENTS

A number of upgrades to building systems are also recommended to buildings not covered by the major renovations and other projects above.

RAMER BUILDING

Major renovations and upgrades, to include replacement of chilled water air handling units and VAV controls, as well as electrical system upgrades, and lighting upgrades.

THIGPEN LIBRARY

In addition to the library renovations described above, a number of upgrades to the HVAC system were identified. The roof is also aging and should be replaced.

MATTOX BUILDING

Electrical system upgrades are required.

WALLACE HEALTH SCIENCES BUILDING

Electrical system upgrades are required.

PICKEL FIELD HOUSE

Lighting, electrical system, and fire protection system upgrades should be implemented. Finishes and furniture are aging and should be refreshed.

WOOD CAMPUS CENTER

The HVAC system has reached the end of its useful life and is in need of replacement. Electrical system upgrades are also needed, as are lighting, finishes, and furniture.

CAUDILL HALL

The HVAC system has reached the end of its useful life and is in need of replacement. Electrical system upgrades are also needed.

EAST CAMPUS BUILDINGS

A number of facilities issues were identified for Buildings 100-400 and Gibson Hall. These include the need for fire protection system upgrades and the replacement of aging or failing window systems, if demolition is not deemed desirable in the medium term.

ACCESSIBILITY UPGRADES

A number of minor ADA accessibility issues were identified with regard to restrooms (especially in the Wood Campus Center) and other indoor facilities, as well as outdoor facilities.

PAVEMENT UPGRADES

Aging asphalt on campus is a concern in several areas and should be repaved.

SUBTERRANEAN UTILITIES

The underground electrical loop is original to the campus and in need of upgrades.

WAYFINDING SIGNAGE

Significant upgrades have been made to building signage and campus maps, but wayfinding can still be difficult for new students and visitors. Signage on buildings should be upgraded, and additional signage should be provided to direct pedestrians.

SUSTAINABILITY IMPROVEMENTS

Volunteer State is already a leader in Tennessee in terms of sustainability and has lower energy usage than its peers, as well as a community garden, a solar farm, and energy efficient lighting and building systems. The recommendations below will ensure that Vol State remains a sustainable institution and makes responsible use of public funds.

- Natural gas sub meters should be added to allow each building's usage to be independently monitored
- All lighting fixtures should be upgraded to LED with occupancy sensors where appropriate
- The existing photovoltaic solar panels should be expanded to provide additional energy capacity
- Trees and bioswales should be added to existing and proposed parking lots and at other locations
- A "green commuter" program should be established to encourage carpooling and alternative transportation
- Composting facilities should be provided on campus

NEW WILSON COUNTY CAMPUS

In order to capture the existing and future demand for higher education, this Master Plan recommends the creation of a new Vol State campus in Wilson County. This campus could be housed in leased or owned space. Space needs are shown below based on the proposed enrollment benchmarks. The preferred location is in the Highway 70/I-40 corridor, in an accessible location near population and/or job centers.

>> FTE ENROLLMENT BY ACADEMIC PROGRAM

ACADEMIC PROGRAM	BENCHMARK 1	BENCHMARK 2
University Parallel	50	100
Computer Information Technology	10	20
Health Sciences	10	20
EMT (Basic Certificate)	10	20
EMT (Advanced Certificate)	10	20
Paramedic Certificate	10	20
Total Proposed FTE Enrollment	**100**	**200**

PREFERRED CAMPUS LOCATION AREA

>> ESTIMATED SPACE NEEDS

SPACE TYPE	BENCHMARK 1	BENCHMARK 2
Total Classroom Space Needed	1,250 sq. ft.	2,500 sq. ft.
Total Lab Space Needed	1,635 sq. ft.	3,270 sq. ft.
Total Office Space Needed	964 sq. ft.	1,928 sq. ft.
Total Other Space Needed	1,300 sq. ft.	1,700 sq. ft.
Total Estimated Net Space Needed	**5,149 sq. ft.**	**9,398 sq. ft.**
Assumed Grossing Factor	30%	30%
Total Estimated Gross Space Needed	**6,694 sq. ft.**	**12,217 sq. ft.**

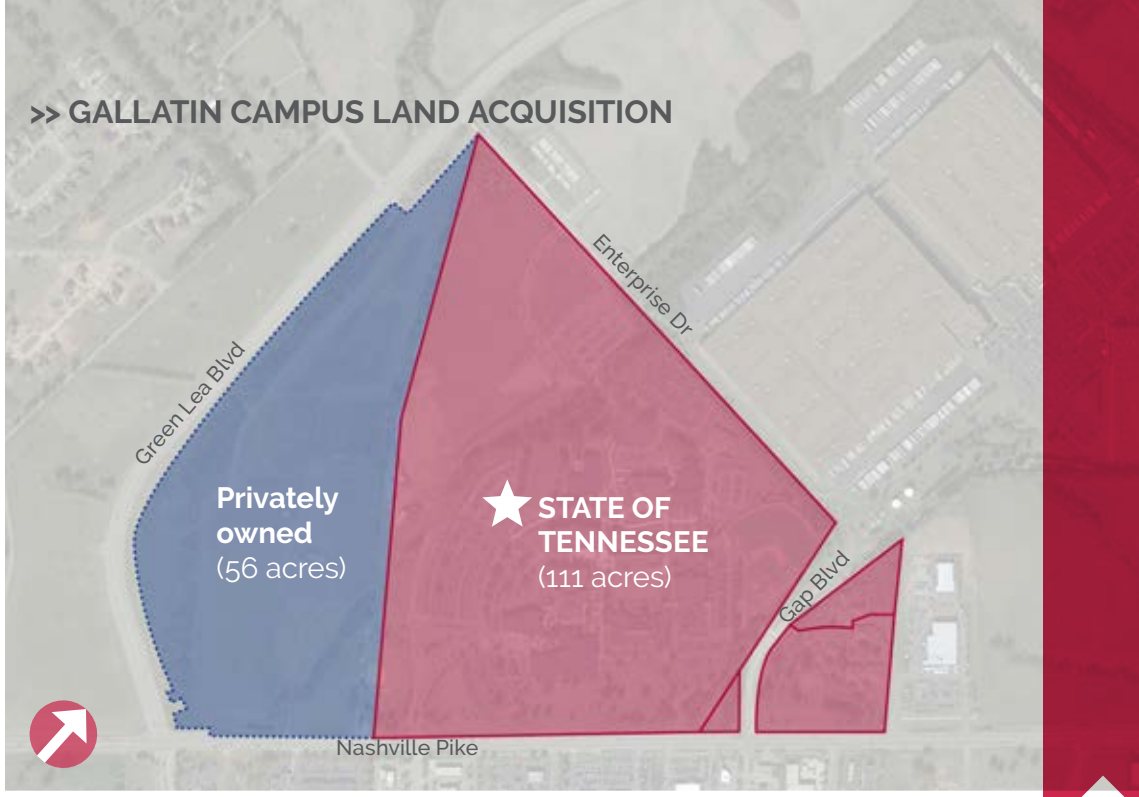
LAND ACQUISITION

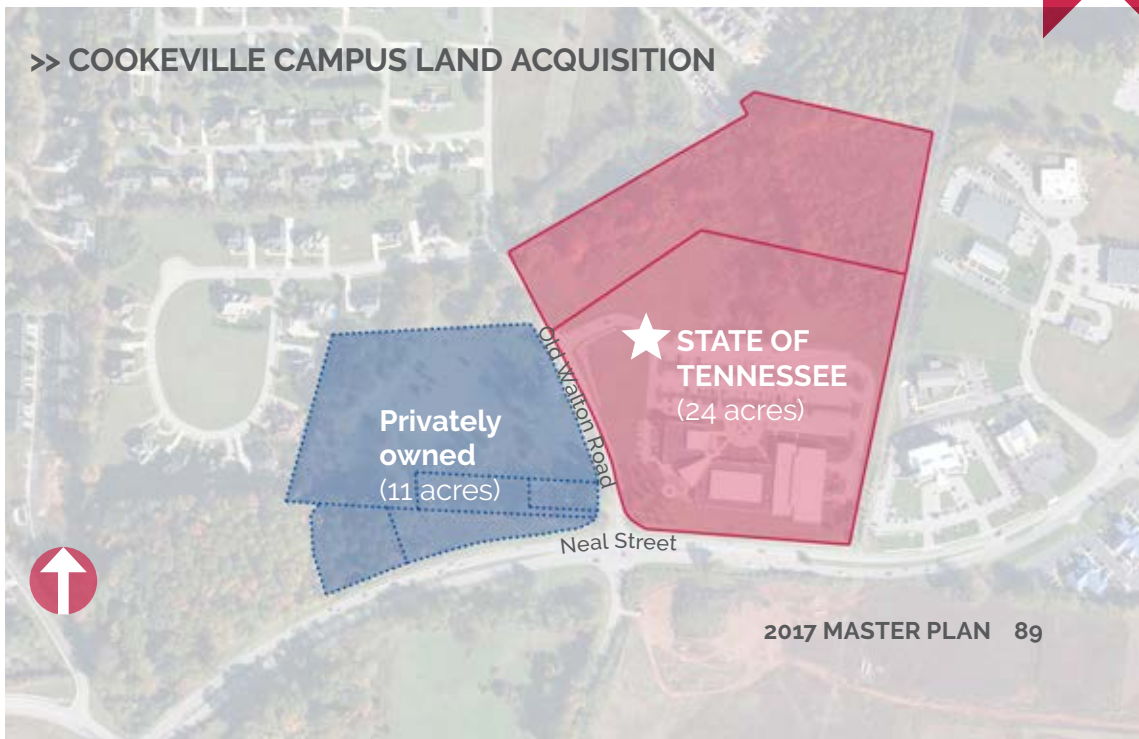
GALLATIN CAMPUS

The Main Campus in Gallatin has an adequate amount of land for its operations today, but additional land should be acquired to provide space for expansions of parking, facilities, and athletics. Acquisition of the parcel shown at right would also allow the college to control all land to Green Lea Boulevard in order to protect the views on all approaches to campus. The valuable commercial frontage along Nashville Pike could be sold for private development, preserving the bulk of the parcel for use by the college.

COOKEVILLE CAMPUS

This campus is shared between Tennessee Technological University, Vol State, and TCAT Livingston. Land should be acquired across Old Walton Road from the campus. If additional parking or buildings are constructed, the sinkhole north of the existing parking lots may make expansions difficult. Acquiring additional land would provide a better location for new facilities.






CAMPUS INFORMATION

06 // IMPLEMENTATION

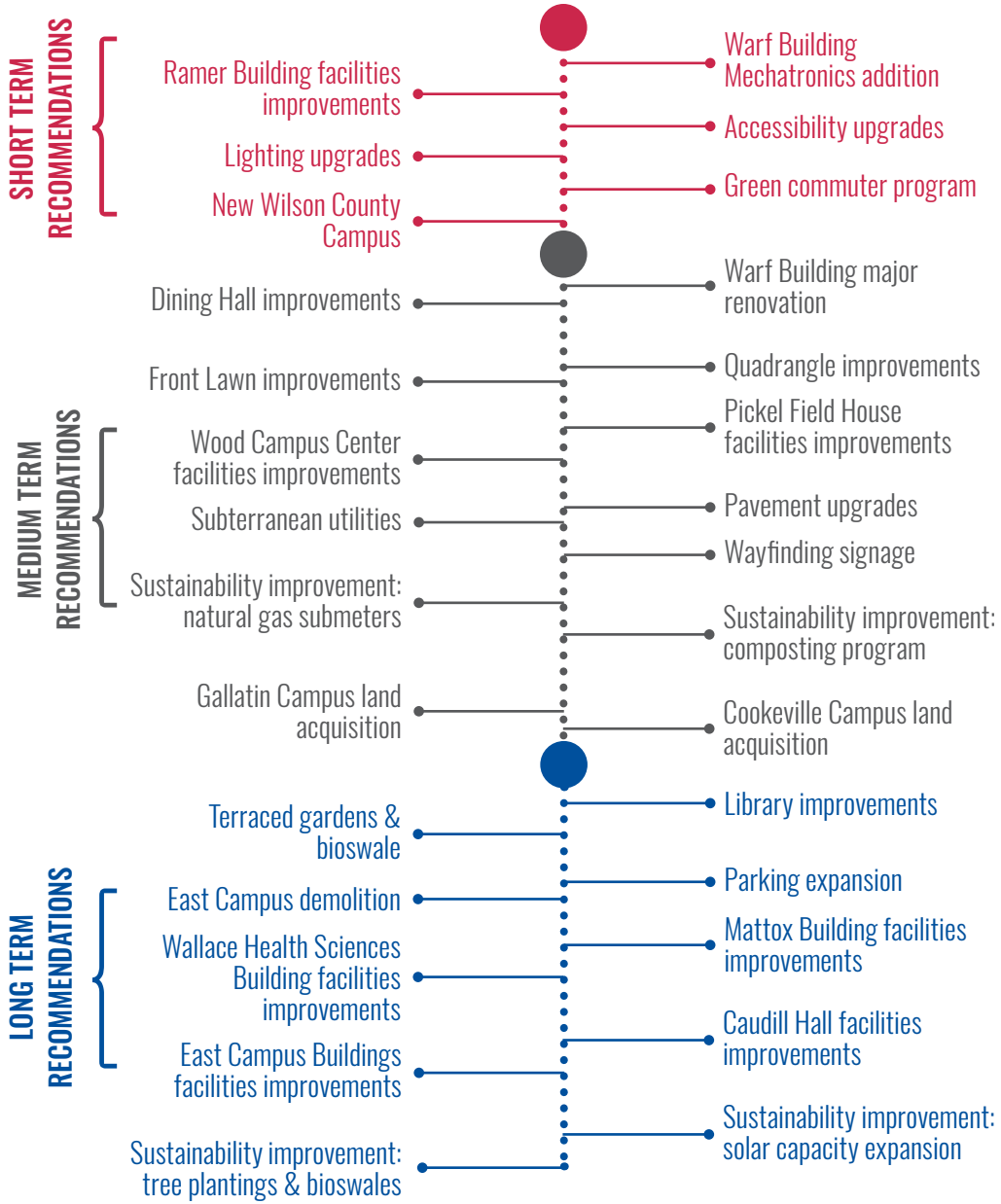
>> IMPLEMENTATION CHECKLIST

IMPLEMENTATION CHECKLIST

The implementation checklist on the following pages provides cost estimates and a rough timeline for each of the recommendations described above. It is intended to serve as an overview of the capital improvements required to implement the Volunteer State Community College Master Plan.

Recommended projects are based on a long-term vision for the future and were developed through conversations with college administrators and the Tennessee Board of Regents, as well as input from students and faculty. Cost estimates are based on industry standards.

Priorities and the details of implementation may change based on future realities, as long as they remain within the general needs and plan outlined in this Master Plan.



>> IMPLEMENTATION CHECKLIST AND COST ESTIMATES

GALLATIN CAMPUS RECOMMENDED PROJECT	PRIORITY	ROUGH COST ESTIMATE*	FUNDING SOURCES
A1. Warf Building Mechatronics Addition	Short Term	$1.6M	State Capital Outlay, Vol State
A2. Warf Building Major Renovation	Medium Term	$4.6M	State Capital Maintenance, Vol State
B. Dining Hall Improvements	Medium Term	$1M	State Capital Maintenance, Vol State
C. Library Improvements	Long Term	$900,000	State Capital Maintenance, Vol State
D. Quadrangle Improvements	Medium Term	$900,000	Vol State
E. Terraced Gardens & Bioswale	Long Term	$600,000	Vol State
F. Front Lawn Improvements	Medium Term	$260,000	Vol State
G. Parking Expansion	Long Term	$575,000	State Capital Outlay, Vol State
H. East Campus Demolition	Long Term	$650,000	State Capital Outlay, Vol State
Facilities Improvements: Ramer Building	Short Term	$980,000	State Capital Maintenance, Vol State
Facilities Improvements: Mattox Building	Long Term	$188,000	State Capital Maintenance, Vol State
Facilities Improvements: Wallace Health Sciences Bldg.	Long Term	$276,000	State Capital Maintenance, Vol State
Facilities Improvements: Pickel Field House	Medium Term	$1.2M	State Capital Maintenance, Vol State
Facilities Improvements: Wood Campus Center	Medium Term	$2.1M	State Capital Maintenance, Vol State

**Rough total project cost based on 2017 dollars*

>> IMPLEMENTATION CHECKLIST AND COST ESTIMATES (CONTINUED)

GALLATIN CAMPUS RECOMMENDED PROJECT	PRIORITY	ROUGH COST ESTIMATE*	FUNDING SOURCES
Facilities Improvements: Caudill Hall	Long Term	$900,000	State Capital Maintenance, Vol State
Facilities Improvements: East Campus Buildings	Long Term	$690,000	State Capital Maintenance, Vol State
Accessibility Upgrades	Ongoing	$310,000	State Capital Maintenance, Vol State
Pavement Upgrades	Medium Term	$730,000	State Capital Maintenance, Vol State
Subterranean Utilities	Medium Term	$250,000	Vol State, Gallatin Electric
Wayfinding Signage	Medium Term	$30,000	Vol State
Sustainability Improvement: Natural gas submeters	Medium Term	$50,000	Vol State
Sustainability Improvement: Lighting upgrades	Ongoing	$150,000	Vol State
Sustainability Improvement: Solar capacity expansion	Long Term	$10,000	Vol State, Gallatin Electric
Sustainability Improvement: Tree plantings & bioswales	Long Term	$70,000	Vol State
Sustainability Improvement: Green commuter program	Short Term	$5,000	Vol State, Nashville Area MPO
Sustainability Improvement: Composting program	Medium Term	$5,000-$10,000 annually	Vol State
New Wilson County Campus	Short Term	TBD	State Capital Outlay, Grants, Vol State
Land Acquisition: Gallatin Campus	Medium Term	Market Value	Vol State
Land Acquisition: Cookeville Campus	Medium Term	Market Value	Vol State

**Rough total project cost based on 2017 dollars*

>> IMPLEMENTATION FUNDING SOURCES


J. Howard Wart Building

07 // APPENDIX

>> TSW SPACE MODEL RESULTS

>> THEC MODEL DETAILED RESULTS

>> DETAILED LABOR DATA

TSW SPACE MODEL RESULTS

While the Tennessee Higher Education Commission (THEC) space model is considered the authority for the sake of this Master Plan, space needs were also calculated using a proprietary space model developed by master planning consultants TSW, in order to verify and provide an additional perspective on THEC model results.

Data for the proprietary model was provided by the College, and edited to remove evening and weekend classes, courses with an enrollment of only 1 or 2, and online classes. Growth benchmarks the same as those shown on page 70.

Both models confirm the existing surplus of teaching space on the Gallatin Campus, both of classrooms and labs. While the THEC model shows a significant need for more open lab space, the TSW model shows that the amount of existing space is adequate, given the fact that many students today bring their own devices.

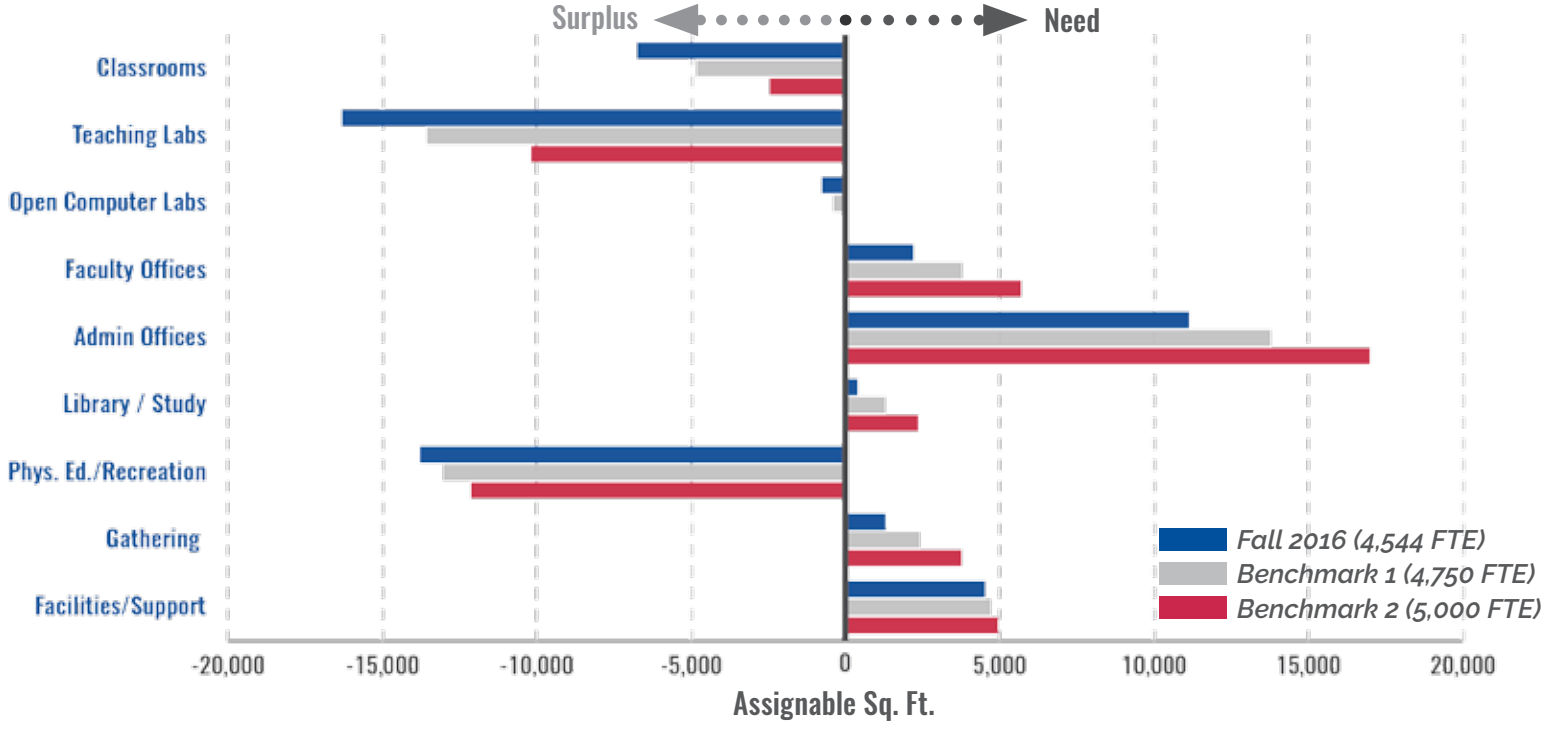
The TSW model shows a more significant need for additional office space. It also shows a need for more library/study space, perhaps indicating not the need for a larger library, but more informal study spaces scattered throughout campus.

The TSW model also addresses two categories not included in the THEC model. In indicates a shortage of gathering spaces on the Gallatin Campus. These include assembly, food service, student lounge, bookstore, meeting rooms, and other similar spaces. It also indicates a surplus of facilities/support space, which includes maintenance shop areas, central storage areas, and vehicle garages.

TSW MODEL SPACE NEEDS - GALLATIN CAMPUS (NET ASSIGNABLE SQUARE FEET)

	CLASSROOMS	TEACHING LABS	OPEN COMPUTER LABS	FACULTY OFFICES
Fall 2016 Space Needs	42,814	61,065	8,256	35,503
Fall 2016 Space Available	49,565	77,376	9,015	33,301
Net Space Needed: Fall 2016	-6,751	-16,311	-759	2,202
Net Space Needed: Growth Benchmark 1	-4,814	-13,548	-385	3,779
Net Space Needed: Growth Benchmark 2	-2,459	-10,189	69	5,696

>> TSW MODEL SPACE NEEDS - GALLATIN CAMPUS



ADMIN. OFFICES	LIBRARY	PHYS. ED. / RECREATION	GATHERING SPACES	FACILITIES/ SUPPORT
58,338	27,552	21,512	38,470	20,106
47,198	27,154	35,286	37,162	15,584
11,140	398	-13,774	1,308	4,522
13,780	1,285	-13,027	2,415	4,709
16,989	2,363	-12,118	3,762	4,936

THEC MODEL DETAILED RESULTS

The table below shows the detailed results of the THEC model, which are shown in graphic form on pages 74-75. Needs for Cookeville only include those spaces that are available to Vol State on this shared campus. Future benchmarks reflect the decrease in Cookeville space available to Vol State after Fall 2016.

THEC MODEL SPACE NEEDS - GALLATIN CAMPUS (NET ASSIGNABLE SQUARE FEET)

	CLASS-ROOMS	LAB / STUDIO	OPEN LAB	OFFICE	LIBRARY	PHYS. ED.
Fall 2016 Space Needs	39,512	63,419	16,513	78,038	18,797	9,907
Fall 2016 Space Available	49,565	77,376	9,015	80,499	27,154	35,286
Net Space Needed: Fall 2016	-10,053	-13,957	7,498	-2,461	-8,357	-25,379
Net Space Needed: Growth Benchmark 1	-9,153	-13,957	8,245	1,071	-7,773	-24,930
Net Space Needed: Growth Benchmark 2	-8,341	-11,368	9,153	5,366	-7,018	-24,385

THEC MODEL SPACE NEEDS - COOKEVILLE CAMPUS (NET ASSIGNABLE SQUARE FEET)

	CLASS-ROOMS	LAB / STUDIO	OPEN LAB	OFFICE	LIBRARY	PHYS. ED.
Fall 2016 Space Needs	39,512	63,419	16,513	78,038	18,797	9,907
Fall 2016 Space Available	49,565	77,376	9,015	80,499	27,154	35,286
Net Space Needed: Fall 2016	-10,053	-13,957	7,498	-2,461	-8,357	-25,379
Net Space Needed: Growth Benchmark 1	-9,153	-13,957	8,245	1,071	-7,773	-24,930
Net Space Needed: Growth Benchmark 2	-8,341	-11,368	9,153	5,366	-7,018	-24,385

DETAILED LABOR DATA

The tables on the following pages show detailed employment projection data, which is summarized above on pages 28-33.

Many workforce clusters include jobs that require more than an Associates degree and may reflect the larger job field beyond those jobs for which Vol State graduates are eligible.

Transfer degree programs are not included in this list because graduates go on to continue their education rather than immediately entering the workforce.

WORKFORCE INVESTMENT AREA 7: EMPLOYMENT PROJECTIONS (ASSOCIATE'S DEGREES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Business	Administrative & Information Support	1.4%	0.42	A - Excellent
Computer Information Tech	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Entertainment Media Production	Dramatic Arts	0.9%†	2.68†	D - Competitive†
Fire Science	Fire Fighting	1.4%	n/a	A - Excellent
Health Information Management	Medical Records Tech	2.1%	n/a	U - Ungraded*
Health Sciences	various	varies	varies	varies
Medical Informatics	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Medical Laboratory Tech	Medical & Clinical Laboratory Technicians	3.1%	3.00	U - Ungraded*

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
***The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%*
†All data for this workforce cluster is based on statewide projections, since regional data is not available

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Ophthalmic Tech	Medical Assistants	2.3%	4.40	E - Very Competitive
Paralegal Studies	Legal Assisting	5.2%	n/a	U - Ungraded*
Physical Therapist Assistant	Physical Therapy Assistant	2.8%	0.2	U - Ungraded*
Radiologic Tech	Radiation Therapy	n/a	n/a	U - Ungraded*
Respiratory Care Tech	Respiratory Therapy	1.8%	n/a	U - Ungraded*
Teaching	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Veterinary Tech	Veterinary Tech	-3.5%	n/a	U - Ungraded*

WORKFORCE INVESTMENT AREA 8: EMPLOYMENT PROJECTIONS (ASSOCIATE'S DEGREES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Business	Administrative & Information Support	2.4%	0.11	A - Excellent
Computer Information Tech	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Entertainment Media Production	Dramatic Arts	0.9%†	2.68†	D - Competitive†
Fire Science	Fire Fighting	2.3%	0.97	A - Excellent
Health Information Management	Medical Records Tech	5.4%	1.25	C - Favorable
Health Sciences	various	varies	varies	varies
Medical Informatics	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Medical Laboratory Tech	Medical & Clinical Laboratory Technicians	5.7%	0.45	A - Excellent

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
***The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%*
†All data for this workforce cluster is based on statewide projections, since regional data is not available

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Ophthalmic Tech	Medical Assistants	5.8%	0.84	A - Excellent
Paralegal Studies	Legal Assisting	3.8%	1.33	C - Favorable
Physical Therapist Assistant	Physical Therapy Assistant	4.6%	2.04	C - Favorable
Radiologic Tech	Radiation Therapy	n/a	0.56	C - Favorable (adjusted)
Respiratory Care Tech	Respiratory Therapy	2.3%	3.3	U - Ungraded*
Teaching	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Veterinary Tech	Veterinary Tech	3.1%	0.22	A - Excellent

WORKFORCE INVESTMENT AREA 9: EMPLOYMENT PROJECTIONS (ASSOCIATE'S DEGREES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Business	Administrative & Information Support	1.8%	0.2	A - Excellent
Computer Information Tech	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Entertainment Media Production	Dramatic Arts	0.9%†	2.68†	D - Competitive†
Fire Science	Fire Fighting	2.2%	n/a	A - Excellent
Health Information Management	Medical Records Tech	2.7%	1.55	D - Competitive
Health Sciences	various	varies	varies	varies
Medical Informatics	Web/Multimedia Management Programming	1.3%†	1.01†	C - Favorable†
Medical Laboratory Tech	Medical & Clinical Laboratory Technicians	1.9%	0.32	A - Excellent

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
***The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%*
†All data for this workforce cluster is based on statewide projections, since regional data is not available

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Ophthalmic Tech	Medical Assistants	2.3%	3.12	E - Very Competitive
Paralegal Studies	Legal Assisting	5.4%	0.75	A - Excellent
Physical Therapist Assistant	Physical Therapy Assistant	3.1%	n/a	A - Excellent
Radiologic Tech	Radiation Therapy	2.6%	3.00	U - Ungraded*
Respiratory Care Tech	Respiratory Therapy	1.9%	0.83	A - Excellent
Teaching	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Veterinary Tech	Veterinary Tech	1.6%	0.05	A - Excellent

WORKFORCE INVESTMENT AREA 7: EMPLOYMENT PROJECTIONS (TECHNICAL CERTIFICATES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Adv Emergency Medical Tech	Emergency Medical Tech	1.7%	n/a	U - Ungraded*
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Dental Assistant	Dental Assisting	1.7%	n/a	U - Ungraded*
Diagnostic Medical Sonography	Ultrasonic Tech	5.2%	n/a	U - Ungraded*
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	.25†	A - Excellent†
Emergency Medical Tech	Emergency Medical Tech	1.7%	n/a	U - Ungraded*
Environmental Tech	Science Tech	n/a	n/a	U - Ungraded*
Fire Science	Fire Fighting	1.4%	n/a	A - Excellent*
Foundations of Environmental Tech	Science Tech	n/a	n/a	U - Ungraded*
Logistics & Supply Chain Management	Transportation Operations Pathway - Transportation Systems	n/a	n/a	U - Ungraded*

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
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DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Medical Coding	Administrative & Information Support	1.4%	0.42	A - Excellent
Paralegal Studies	Legal Assisting	5.2%	n/a	U - Ungraded*
Paramedic	Emergency Medical Tech	1.7%	n/a	U - Ungraded*
Sleep Diagnostic Tech	n/a	n/a	n/a	n/a
Veterinary Assistant	Veterinary Tech	-3.5%	n/a	U - Ungraded*

WORKFORCE INVESTMENT AREA 8: EMPLOYMENT PROJECTIONS (TECHNICAL CERTIFICATES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Adv Emergency Medical Tech	Emergency Medical Tech	2.8%	5.07	C - Favorable
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Dental Assistant	Dental Assisting	5.8%	1.06	C - Favorable
Diagnostic Medical Sonography	Ultrasonic Tech	5.7%	2.2	U - Ungraded*
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Emergency Medical Tech	Emergency Medical Tech	2.8%	5.07	C - Favorable
Environmental Tech	Science Tech	2.2%	0.10	U - Ungraded*
Fire Science	Fire Fighting	2.3%	0.97	A - Excellent
Foundations of Environmental Tech	Science Tech	2.2%	0.10	U - Ungraded*

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
***The statewide average annual growth rate for jobs in all sectors during this period is projected to be 1.1%*
†All data for this workforce cluster is based on statewide projections, since regional data is not available

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Logistics & Supply Chain Management	Transportation Operations Pathway - Transportation Systems	5.2%	3.0	U - Ungraded*
Medical Coding	Administrative & Information Support	2.4%	0.11	A - Excellent
Paralegal Studies	Legal Assisting	3.8%	1.33	C - Favorable
Paramedic	Emergency Medical Tech	2.8%	5.07	C - Favorable
Sleep Diagnostic Tech	n/a	n/a	n/a	n/a
Veterinary Assistant	Veterinary Tech	3.1%	0.22	A - Excellent

WORKFORCE INVESTMENT AREA 9: EMPLOYMENT PROJECTIONS (TECHNICAL CERTIFICATES)

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Adv Emergency Medical Tech	Emergency Medical Tech	3.5%	n/a	A - Excellent
Criminal Justice	Law Enforcement	0.9%†	1.75†	D - Competitive†
Dental Assistant	Dental Assisting	2.2%	2.87	D - Competitive
Diagnostic Medical Sonography	Ultrasonic Tech	3.6%	n/a	A - Excellent
Early Childhood Education	Teacher Training Services - Pre K Early Childhood Ed.	3.8%†	0.25†	A - Excellent†
Emergency Medical Tech	Emergency Medical Tech	3.5%	n/a	A - Excellent
Environmental Tech	Science Tech	2.8%	0.47	A - Excellent
Fire Science	Fire Fighting	2.2%	n/a	A - Excellent
Foundations of Environmental Tech	Science Tech	2.8%	0.47	A - Excellent
Logistics & Supply Chain Management	Transportation Operations Pathway - Transportation Systems	3.0%	0.30	A - Excellent

Source: Tennessee Department of Labor & Workforce Development
**Ungraded workforce clusters have either a negative job growth rate, fewer than 11 annual job openings, or no related academic programs in the workforce investment area*
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†All data for this workforce cluster is based on statewide projections, since regional data is not available

DEGREE PROGRAM	ASSOCIATED WORKFORCE CLUSTER	PROJECTED AVERAGE ANNUAL GROWTH RATE (2014-2022)**	PROJECTED SUPPLY/ DEMAND RATIO (RATIO OF GRADUATES TO JOBS)	JOB OUTLOOK
Medical Coding	Administrative & Information Support	1.8%	0.20	A - Excellent
Paralegal Studies	Legal Assisting	5.4%	0.75	A - Excellent
Paramedic	Emergency Medical Tech	3.5%	n/a	A - Excellent
Sleep Diagnostic Tech	n/a	n/a	n/a	n/a
Veterinary Assistant	Veterinary Tech	1.6%	0.05	A - Excellent

EMPLOYMENT BY INDUSTRY SECTOR (2014)

	WIA 7	WIA 8	WIA 9	STATEWIDE
Agriculture, Forestry, Fishing & Hunting	1.3%	0.2%	0.0%	0.3%
Mining, Quarrying, & Oil & Gas Extraction	0.9%	0.2%	0.0%	0.1%
Utilities	0.7%	0.6%	0.4%	0.6%
Construction	4.7%	4.9%	3.9%	4.1%
Manufacturing	17.9%	11.5%	8.1%	12.5%
Wholesale Trade	6.3%	3.9%	5.5%	4.7%
Retail Trade	12.6%	13.2%	10.3%	11.7%
Transportation & Warehousing	3.1%	2.0%	4.7%	5.2%
Information	1.3%	2.0%	2.6%	1.7%
Finance & Insurance	2.9%	5.5%	4.4%	3.9%
Real Estate & Rental & Leasing	0.5%	1.2%	1.7%	1.3%
Professional, Scientific, & Technical Services	1.9%	7.4%	5.6%	4.5%
Management of Companies & Enterprises	0.2%	2.8%	1.5%	1.4%
Administration & Support, Waste Management & Remediation	4.1%	5.9%	7.6%	7.4%
Educational Services	11.2%	9.5%	7.5%	8.7%
Health Care & Social Assistance	14.8%	12.8%	14.6%	14.2%
Arts, Entertainment, & Recreation	0.4%	1.1%	1.3%	1.1%
Accommodation & Food Services	8.1%	9.3%	9.3%	9.1%
Other Services (excluding Public Administration)	1.9%	2.5%	3.0%	2.6%
Public Administration	5.2%	3.4%	7.8%	4.9%

Source: U.S. Census On The Map

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