

# *Fayetteville Technical Community College*

## PLANNING ASSUMPTIONS



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# FAYETTEVILLE TECHNICAL COMMUNITY COLLEGE

## PLANNING ASSUMPTIONS

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# 1- FOREWORD

Each year, the Planning Council comprised of faculty, staff, and administrators from across Fayetteville Technical Community College (FTCC) meet, discuss, and develop strategic planning assumptions. The importance of this annual planning activity requires them to conduct a rigorous and deliberate study of current and anticipated trends occurring across higher education and the nation. They remain focused on identifying key trends and possible disruptions that are most relevant to FTCC’s Strategic Plan goals and objectives. Gartner (2021) recently found that “only 38% of organizations approach strategic planning this formally, with most other organizations using an ad hoc approach”. Gartner (2021) also stated “this leads to a disjointed effort that risks not taking full advantage of the positive impact a formal trendspotting approach will have on the organizations overall strategic assumptions and planning.” ([www.gartner.com](http://www.gartner.com))(07-09-21)

Planning assumptions and vulnerabilities, according to the Research and Development Corporation (**RAND Corp.**) (2005), one of the pioneer organizations in the development and use of planning assumptions, are explained below:

*“An organization’s assumptions are not immutable facts but, rather, are projected to hold true for some period of time. The planning time horizon is the farthest point out that a given planning effort will consider; it sets the limits on the vulnerability of an assumption. In some cases, an organization’s planning time horizon is set before planning begins. If not, it must be set before vulnerabilities can be established.”*

Understanding the value and impact of comprehensive planning assumptions, as defined by both Gartner and Rand Corp., the College remains fully committed to annually conducting a comprehensive examination of key trends and possible disruptions which may impact College operations. The planning time horizon covers a five-year period ensuring identified trends and possible disruptions are thoughtfully collected, analyzed and used to inform the initial creation or identify later modifications to the following documents:



The College’s environmental scan informs planning assumptions, which in turn, guides the strategic planning process.

## **2- ECONOMIC TRENDS AND PLANNING ASSUMPTIONS**

### **Analysis Summary**

- The priority needs for local employers include high demand for qualified applicants in nursing, transportation and related industries, retail, cosmetology, personal care aides, cyber-security, computer support technicians/managers, logistics including operations managers, and hospitality occupations. FTCC continues to train in these occupations and expand training capacity to meet this employer need.
- The COVID-19 pandemic has significantly disrupted the economy and affected post-secondary enrollment and retention. However, FTCC continues to provide synchronous and asynchronous instruction, with enhanced support services, to meet the changing educational needs of our students.
- Employers report it is increasingly difficult to find applicants who can communicate clearly, provide self-driven initiative and problem-solving skills, and maintain positive relationships with their co-workers. FTCC continues to supplement instruction with soft-skill development training as part of the College's General Education Core Competencies. Ninety-nine percent of 2021 FTCC graduates agreed that they could demonstrate these skills as a result of their completed coursework at the College. Additionally, one hundred percent of surveyed employers reported they would hire future FTCC graduates.
- The College continues to be recognized by multiple military related publications for providing superior course content and service support. This demonstrates FTCC is continuing to provide quality education needed by active duty soldiers, veterans, retirees, and their spouses.

### **2.1- General Economic Assumptions and Trends**

- Higher inflation rates and severe labor shortages are continuing due to the current pandemic. FTCC employees continue to work creatively to support students and the community during the current pandemic. (*Forbes Advisor*, 2022; *The Washington Post*, 2021)
- The number of people filing for unemployment benefits has increased since the start of the COVID-19 pandemic. During academic year 2020-2021 the College experienced declines in enrollment, likely attributed to unemployment. Currently unemployment rates are steadily improving as businesses are reopening. FTCC continues to actively recruit students as the economy continues to improve. (*Business Insider*, 2022)

### **2.2- National and Local Job Trends**

- Business are beginning to recover from the "Great Resignation." Job gains occurred in skilled trades, transportation, utilities sectors, healthcare, food service, personal services, and construction. FTCC continues to modify programs and enroll students in these critical areas,

along with other sectors of high growth such as cyber-security, logistics and operations management, automotive engine repair/mechanics, automotive-collision repair, and related programs. (*Business Insider*, 2021; *United States Bureau of Labor Statistics (BLS)*, 2021; *US News and World Report*, 2021)

- Other job sectors continue to experience difficulty recruiting employees with the needed skills. Eighty-nine percent of manufacturers reported to the Association of Career and Technical Education (ACTE) that they have experienced a shortage of new hires. Of those reporting talent shortages, 60% of the manufacturers determined that these shortages have a substantial impact on their productivity. Through workforce development programs, career and technical education, work-based learning programs, and industry specific partnerships, FTCC and other community colleges are helping to bridge this shortage. (*SHRM*, 2021)
- The Department of Homeland Security is reestablishing a council that will give advice to leadership concerning homeland security and academia. This council will consist of up to 30 individuals to include those representing community colleges. (*Department of Homeland Security [Docket No. DHS-2022-0004]*, 2022; *Inside Higher Ed*, 2021)
- Employers report that 85% of today's jobs will not exist in 2030 and many new jobs have not even been created yet. In support of these assumptions, the Institute for the Future provides examples of current-mainstream careers that did not exist just a few years ago, including drone operator, social media manager, app developer, and cloud computing engineer, among others. FTCC continues to expand programs, including short-term training opportunities, to meet this evolving career pattern anticipated over the coming decade. (*Applied Economics*, 2020; *Economic Alternatives*, 2020)
- The fast food industry continues to suffer and/or adjust due to labor shortages and supply chain interruptions through increased wages and implementing new technologies in support of drive-through ordering and deliveries. Other industries such as the grocery and retail industries have also expanded self-service lanes and online shopping with curbside pick-up and home delivery options. Through the use of mobile apps, online ordering has become more convenient and allowed for the expansion of third-party delivery through apps such as Grub Hub, Uber Eats, and Door Dash. It is likely that these trends will continue for the foreseeable future. FTCC continues to modify programs in computer technologies to meet this changing training need. (*Business Insider*, 2021, *Journal of Work, Environment, and Health*, 2020; *Trends in Food Science and Technology*, 2020)
- The healthcare industry is transforming with increased use of telehealth options and stricter health protocols. COVID-19 has created larger demand for new occupations such as contact tracers, COVID-19 testers, skilled technicians for vaccine inoculations, and laboratory technicians for COVID-19 testing. FTCC has expanded its health care programs and worked closely with the local and state-level health departments to meet this changing need. The College has also implemented internal testing and contact tracing to slow the spread of the pandemic. (*Journal of Communication in Healthcare*, 2020; *SHRM*, 2020)
- [Table 1](#) (see page 13) reflects new jobs created during the 2020-21 fiscal year and numbers of job openings. There is a significant need for additional military specialists, fast food and retail workers, healthcare providers including nurses, personal service workers, and automotive service technicians/repair, supply chain workers, and building and construction

trades workers, and related jobs. FTCC continues to strategically expand these programs to meet these growing needs. [Table 2](#) (see page 21) reflects the number of job openings and median salaries projected through 2026 for these and other occupations. (*Economic Modeling Specialist Inc. Burning Glass* pulled December 2021, *Journal of Communication in Healthcare*, 2020)

### 2.3- Military Support Projections

- North Carolina has the third-largest military population with the U.S. Army having the largest military presence in the state. Combined with the potential growth in both troop end-strength and federal government defense spending, additional opportunities in defense and aerospace are anticipated. Major corporations in this sector have begun establishing their footprint in the Fayetteville area as the region continues to grow in new businesses supporting the military. This expansion of new businesses is anticipated to continue its growth pattern as more businesses move into the local economy. FTCC's Military Business Center (NCMBC), All-American Veteran's Center, and College-wide educational programs provide ongoing support to this growing industry across North Carolina. (*Economic Development Partnership of North Carolina*, 2020)
- The military, and expanding military-support industries, will continue to have a high demand for a skilled workforce with strong computational skills, interpersonal communication skills, and soft-skills. FTCC continues to offer mathematics, information technology courses, airframe and powerplant certification preparation, ground school for pilots, drone flight and maintenance, communications courses, and soft skills training in all programs. The College is also expanding STEM-related training opportunities to meet the expanding needs of local, regional and national employment sectors. (*Developments and Advances in Defense and Security*, 2020; *Sustainability*, 2020)
- Highly skilled active duty service members transition from their military service each year. A significant number of new veterans prepared for their transition to private sector careers at community colleges. FTCC continues to modify course offerings for military personnel. The College also has expanded its support to other branches of the military beyond just the U.S. Army stationed at Fort Bragg. To meet the needs of the multiple military branches, the College continues to revise and expand its Credit for Prior Learning opportunities, thereby assisting the multiple branches of the armed forces as their members transition to civilian careers. (*International Security*, 2020; *Viqtory Media*, 2021). *Note: This is the correct spelling for Viqtory. The company recently changed their name to this unique spelling.*
  - FTCC continues to offer the Transition Tech program to active-duty military who are transitioning into the civilian workforce. There are multiple career pathways offering industry-recognized credentials in career fields of high- demand.
- Defense spending, with significant reliance upon COVID-19 government spending bills, and the movement to increase the capabilities of the Armed Forces is anticipated to continue over the next several years. This indicates additional training support will likely become necessary to meet those demands. FTCC is prepared to assist the military in a wide variety of educational programs and credentialing in health care, information systems security, and

transportation occupations. (*Military Spending and Global Security*, 2020; *Political Science Review*, 2020; *The Economic History Review*, 2020)

- Fort Bragg has a significant impact on the local economy. It is the largest local employer, with 65,000 military and civilian employees. It is also home to more military decision makers than any other location, outside of the Pentagon. The economic impact directly resulting from Fort Bragg operations along with the concentration of senior-level decision makers, has influenced growing numbers of major defense contractors opening sites in the region to support local operations.
- The North Carolina Military Business Center's (NCMBC) ongoing business recruitment activities continue to provide strong support to companies desiring to move closer to Fort Bragg. The College is strongly positioned to meet the needs of the changing military and the larger defense industry, including the anticipated growth of both troop end-strength and defense spending associated with the current COVID spending bill. (*North Carolina Military Business Center*, 2021)
- FTCC stands ready to meet the changing needs of the military services. This is evidenced through high rankings of nationally recognized military support publications that annually highlight superb service to military students. FTCC has received the following recognitions:
  - Ranked #1 Best for Vets (2021): General Education by Military Times among two-year schools located in the southeastern US. Rankings were based on college culture, student support, academic policies, academic quality, and financial aid.
  - Designated as a Military Friendly School – Large Community College. For 2021-22 academic year, FTCC ranked within the Top 10 School (Gold) Category by Victory Media (3rd year in a row). The designation is awarded to the top 10% of schools nationwide that deliver the best experience for military students and their family members.
  - Designated as a Military Friendly Spouse School – Large Community College (2021-22) by Victory Media for the past three years. Please note there are no gold, silver, or bronze categories with this designation. Only 63% of colleges and universities earned this designation in recognition of superior support for military servicemembers and their families.
  - Designated as a Military Advanced Education and Transition College by KMI Media Group. The designation is reserved for those colleges and universities that implement best practices regarding its active duty and veteran student populations.

## **2.4- Public Sector Projections**

- Public sector employment is anticipated to continue steady growth over the next five years as legislature requirements and needs continue to be modified or expanded. (*North Carolina Department of Commerce*, 2021)
- NC Community College faculty and staff salaries increased in the last legislative cycle with provisions for another 2.5% increase approved for the upcoming year. FTCC has moved

from 16th to 1st in faculty salaries among the 58 North Carolina community colleges. (*NCCCS Faculty/Staff Dashboard, 2022*)

- Ten of Cumberland County's top twenty-five employers are public sector organizations—Department of Defense, Veterans' Administration, County and City governments, Postal Service, Healthcare, secondary and post-secondary education. FTCC remains focused on expanding program offerings to meet anticipated needs in these employment sectors. (*North Carolina Department of Commerce, 2021*)

#### **2.4.1- Food Service, Hospitality, and Retail Sector Projections**

- Population growth across the nation, and locally, is expected to increase food consumption and increase demand for food service, hospitality, and retail sales at or above the average for all occupations. Due to COVID- 19, these industries continue to struggle for survival in the local, regional, national, and global markets. Online sales reached 32% of total sales during December 2021. Delivery services increased significantly during the same period. FTCC programs of study continue to provide highly trained graduates to meet demand for new employees through 2026. Regionally, these industry sectors are expected to add more jobs over the next five years as they continue to attempt to fill their current vacancies. There is also an increased demand for skilled managers in all of the sectors. FTCC's culinary, hospitality, and business administration programs continue to train students for these occupations. (*International Journal of Hospitality Management, 2020; Tourism Management, 2020*)

#### **2.4.2- Healthcare Sector Projections**

- As a result of the COVID-19 pandemic, the healthcare employment sector continues to experience a shortage of skilled healthcare workers and other allied-health medical staff. This shortage of healthcare-related employees is projected to continue increasing through 2026. FTCC has entered into partnerships with healthcare providers and expanded program capacity. The increasing numbers of qualified FTCC graduates will provide highly trained practitioners as healthcare facilities work to reduce their demand for qualified and credentialed applicants ready to go to work. (*American Hospital Association, 2021; Centers for Disease Control, 2021; North Carolina Department of Health and Human Services, 2021*)
- FTCC provides much needed assistance through clinical rotations. Students experience valuable hands-on training as they supplement these healthcare employee shortages. Cape Fear Valley Health System, through a partnership with the College, is covering the tuition and fees of registered nursing students to expand their opportunities to hire qualified nursing graduates locally. Upon graduation, these students agree to work for Cape Fear Valley Health System and will receive a \$15,000 sign-on bonus. Additional contracts for paramedic training have been awarded in partnership with the Army, Navy, and National Guard.

#### **2.4.3- Manufacturing and Skilled Trades Sector Projections**

- Continued demand is anticipated through 2026 for skilled technicians. Economic projections are fueling increased opportunities in the manufacturing industry across the United States. Job growth is projected in the areas of food service, transportation, skilled trades, and

manufacturing inclusive of production of COVID-19-related personal protection equipment and supplies. FTCC offers curriculum programs and corporate and continuing education programs in manufacturing technologies, and the skilled trades occupations reflected in [Table 3](#) (see page 34). (*NC Dept. of Commerce, 2021*)

- Manufacturing-related and skilled trades positions offer lucrative Fayetteville-area salaries, supplemented with strong employer-paid benefit packages. The total compensation package in the trade occupations indicates how local employers value employee skills and their post-secondary education/credentials that prepare them to be qualified applicants in hard to fill positions. FTCC continues to offer short-and long-term training leading to industry recognized credentials preparing students to meet this ongoing need. These programs have attracted the attention of manufacturing and skilled trades leaders across the nation. With training opportunities available at FTCC, local residents are preparing for these current and future employment opportunities in the skilled trades industry. The current shortage will become even more crucial as the baby-boomer generation continues moving into retirement. Please note the skilled trades projections in [Table 3](#) (see page 34). (*Clean Energy, 2020; Energy and Fuels, 2020*)

#### **2.4.4- Distribution and Transportation Sector Projections**

- The ongoing need for logistics analysts is expected to increase by 20% over the next 10 years. Logisticians work in nearly every industry sector, and the increased employment growth reflects significant opportunities in the global transportation sector. FTCC continues to expand training opportunities preparing students for these employment opportunities. (*US Bureau of Labor Statistics, 2021*)
- Walmart stores, with a regional distribution warehouse in Cumberland County, remains a major employer in the region with more than 1,000 employees. Rooms-to-Go has a regional sales and distribution center strategically located close to Fayetteville on Interstate 95 that is located centrally along the east coast. An Amazon distribution center is slated to open in 2022 and will create hundreds of jobs. This region's access to deep water ports in both North and South Carolina, makes this area a strong choice for additional distribution operations. FTCC has expanded programs of study related to global logistics and supply chain management to provide a workforce ready to meet the growing demand for talented employees to sustain distribution operations in these enterprises.
- According to the American Trucking Association, about 80,000 more truck drivers are needed to meet the demand from companies such as Amazon and Walmart are increasing in number of online shoppers requiring deliveries across the nation. Locally, truck drivers are being hired quickly as soon as they complete their FTCC training and certifications. Due to COVID-19 restrictions and supply chain shortages the trucking industry is seeing a higher demand for drivers. The trucking industry suffers with a high turnover rate in many cases where the drivers do not remain longer than one year. (*Transportation Planning and Technology, 2020; Transport Policy, 2020, XPress Technologies, 2022*)

## 2.5- Unemployment and Labor Force Participation

- As of November 2021, North Carolina was ranked 22nd in the nation for unemployment with a rate of 3.9%. (*North Carolina Department of Commerce, 2021; US Bureau of Labor Statistics, 2021*)
  - The North Carolina unemployment rate remains 1.3% higher as compared with the national average, reflected by [Table 4](#) (see page 34). This increase does not include those that are underemployed (working part-time and/or not seeking jobs with additional benefits) or those who are no longer in the labor force (discouraged workers). The underemployed and those no longer counted in the workforce, including the homeless, remain a growing concern for economists, labor-market analysts, and social/health experts. FTCC continues to strengthen its partnerships with local employment experts, including NCWorks and the Workforce Development Board to improve the employability of underemployed or discouraged workers. (*North Carolina Department of Commerce, 2021, United States Bureau of Labor Statistics, 2021*)

## 2.6- Enrollment and Financial Aid Trends

- As students enroll in community colleges across the United States, online programs of study have expanded exponentially since 2010 with even higher demand after the onset of COVID-19. FTCC is a leader in online education and used that expertise to seamlessly transition from face-to-face to online using both synchronous and asynchronous instruction. As we move into 2022, students are asking for a return to more face-to-face instruction and the College is responding accordingly. (*American Association of Community Colleges, 2020; Journal of Urban Economics, 2020*)
- Non-educational demands of community college students may negatively affect their retention, completion rates, and future financial aid eligibility. These demands include family life, employment conflicts, medical concerns, and other individual circumstances. Students are aware and taking advantage of a variety of student support services and learning resources. Examples include, but are not limited to, the following: College Foundation grants, federal COVID-19 financial assistance, College-issued laptops to persevere during these difficult times while they achieve their educational and career goals. (*The Internet and Higher Education, 2020; Pedagogy and Human Sciences, 2020*)
- A growing number of students who have already completed advanced degrees are returning to community colleges, including FTCC, for focused short-term job skills training that will enable them change their career or advance in their current profession. Students enrolled in four-year colleges and universities also attend community colleges during their summer breaks taking advantage of lower tuition rates and transferability of community college courses back to their home institution. FTCC provides timely registration and course availability for these students, enabling them to complete their degrees quicker. (*Annual Survey of Colleges & Universities, 2010-2021; Petersons Undergraduate Survey of Colleges & Universities, 2010-2021*)
- The federal government continues to cite the ongoing need for student aid within higher education and encourages less reliance on loans. However, even after this aid was increased, the government has not seen a corresponding increase in graduation rates. While the

COVID-19 pandemic has disrupted post-secondary enrollment and completion rates globally, FTCC continues to increase student retention and graduation rates even with the demands associated with COVID-19 symptoms, hospitalizations, and recovery time. (*Integrated Post-Secondary Education Data Systems, 2021; The Economics of Education, 2020*)

- Throughout the 2020-2021 academic year, VA awards were at maximum rates at public institutions. Students may also be qualified to receive a one-time rural benefit package, a monthly housing allowance, and a course resource stipend. As a result of these VA benefits, FTCC continues to experience increased enrollment of military spouses and family members with a corresponding expansion of support services staff providing guidance and administrative support. (*U.S. Department of Veterans Affairs, 2021*)
- The Forever GI Bill assists students who were affected by school closures or specific program disapprovals, by eliminating the 15-year time limit for using the GI Bill at community/technical colleges. The Forever GI Bill continues to undergo changes associated with additional funding for licensure or certification programs, increased survivor's and dependent's educational assistance, transferring of benefits within the family, consolidating benefit levels, beneficiary entitlement, additional funding for STEM (Science, Technology, Engineering & Math) programs, pilot programs, additional funding for recipients of the Purple Heart medal, and increases in housing allowances. FTCC continues to monitor legislative changes in benefits and provides timely information to students, faculty and staff possibly affected by such changes. (*Approaches to Military Pedagogy and Education, 2020; New Directions for Adult and Continuing Education, 2020*)
- The federal government continues to focus on higher retention, graduation and job placement rates from colleges receiving federal financial aid. FTCC continues to support activities necessary to increase retention, graduation, and job placement rates. This is evidenced by FTCC more than doubling graduation rates from 7% to 19% from 2011-12 to 2020-21. (*National Center for Education Statistics, 2021*)
- A review of enrollment over the past three years shows steady decline in the number of curriculum students, partially caused by the COVID-19 pandemic. Students meeting eligibility who enrolled during the 2020-21 academic year received increased amounts of financial aid monies as a result of CARES Act funding. See [Table 5](#) on page 35.

## 2.7- Tables Relating to Economic Trends

**2.7.1- Table 1: Economic Modeling Specialists, International (EMSI) Regional Private Workforce and Industry New Job Creation (Cumberland County)**

Description	2021 - 2022 Openings	Median Annual Earnings
Military-only occupations	2,634	\$33,369.78
Fast Food and Counter Workers	1,216	\$21,373.34
Cashiers	1,110	\$23,122.77
Retail Salespersons	971	\$25,050.40
Home Health and Personal Care Aides	575	\$23,856.70
Waiters and Waitresses	541	\$20,183.11
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	505	\$27,808.58
Stockers and Order Fillers	502	\$27,658.24
Office Clerks, General	495	\$34,290.73
Real Estate Sales Agents	454	\$50,189.01
Heavy and Tractor-Trailer Truck Drivers	401	\$40,952.32
Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	380	\$29,135.30
Nursing Assistants	360	\$26,694.56
Customer Service Representatives	358	\$35,533.16
Hairdressers, Hairstylists, and Cosmetologists	345	\$24,233.64
First-Line Supervisors of Retail Sales Workers	340	\$39,716.50
Cooks, Restaurant	339	\$25,506.40
Cooks, Fast Food	332	\$19,495.55
Childcare Workers	314	\$22,183.13
Maids and Housekeeping Cleaners	311	\$22,777.20
Laborers and Freight, Stock, and Material Movers, Hand	285	\$29,412.38
First-Line Supervisors of Food Preparation and Serving Workers	268	\$37,612.25
Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	248	\$75,610.61
Insurance Sales Agents	245	\$60,520.67
Automotive Service Technicians and Mechanics	245	\$34,339.41
Construction Laborers	243	\$30,715.39
Landscaping and Groundskeeping Workers	235	\$27,429.13
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	232	\$37,816.92
Project Management Specialists and Business Operations Specialists, All Other	230	\$88,864.35
Postsecondary Teachers	230	\$67,391.40

Description	2021 - 2022 Openings	Median Annual Earnings
Maintenance and Repair Workers, General	227	\$42,261.05
Receptionists and Information Clerks	220	\$29,067.36
Bookkeeping, Accounting, and Auditing Clerks	213	\$39,832.42
Registered Nurses	202	\$80,075.38
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	193	\$20,092.84
Teaching Assistants, Except Postsecondary	180	\$26,229.97
Elementary School Teachers, Except Special Education	179	\$50,169.41
Carpenters	178	\$36,815.37
Light Truck Drivers	176	\$35,379.79
Security Guards	170	\$43,860.25
Food Preparation Workers	162	\$23,264.26
Property, Real Estate, and Community Association Managers	157	\$51,199.27
First-Line Supervisors of Office and Administrative Support Workers	154	\$53,139.91
Management Analysts	153	\$84,043.39
Substitute Teachers, Short-Term	149	\$25,752.00
Human Resources Specialists	148	\$72,328.50
Industrial Truck and Tractor Operators	146	\$41,773.65
Aircraft Mechanics and Service Technicians	140	\$70,779.44
Police and Sheriffs Patrol Officers	135	\$48,955.97
Tutors and Teachers and Instructors, All Other	133	\$59,612.57
Real Estate Brokers	131	\$66,816.37
Medical Assistants	131	\$32,640.79
Miscellaneous Assemblers and Fabricators	129	\$29,380.17
Personal Financial Advisors	121	\$88,345.44
Licensed Practical and Licensed Vocational Nurses	113	\$51,983.03
Driver/Sales Workers	112	\$21,670.62
Electricians	111	\$46,552.48
Accountants and Auditors	110	\$79,156.63
First-Line Supervisors of Construction Trades and Extraction Workers	104	\$64,502.95
Logisticians	103	\$94,492.41
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	101	\$48,038.10
Food Service Managers	99	\$46,730.01
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	98	\$51,856.83
Secondary School Teachers, Except Special and Career/Technical Education	93	\$51,980.04

Description	2021 - 2022 Openings	Median Annual Earnings
First-Line Supervisors of Mechanics, Installers, and Repairers	90	\$68,817.22
Computer Occupations, All Other	89	\$98,290.01
First-Line Supervisors of Non-Retail Sales Workers	88	\$42,528.98
Dining Room and Cafeteria Attendants and Bartender Helpers	84	\$25,395.27
Dental Assistants	83	\$43,617.33
Construction Managers	83	\$67,662.59
Painters, Construction and Maintenance	82	\$33,101.89
Cooks, Institution and Cafeteria	81	\$28,965.33
Exercise Trainers and Group Fitness Instructors	81	\$39,620.48
Educational Instruction and Library Workers, All Other	81	\$46,247.52
Massage Therapists	77	\$37,241.64
Preschool Teachers, Except Special Education	76	\$33,893.05
Plumbers, Pipefitters, and Steamfitters	75	\$45,735.19
Counter and Rental Clerks	73	\$26,779.81
Packers and Packagers, Hand	71	\$26,415.18
Medical and Health Services Managers	70	\$112,357.05
Firefighters	69	\$30,696.80
Inspectors, Testers, Sorters, Samplers, and Weighers	68	\$35,246.57
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	68	\$45,186.90
Information and Record Clerks, All Other	64	\$52,164.83
Emergency Medical Technicians and Paramedics	63	\$41,063.28
Hotel, Motel, and Resort Desk Clerks	60	\$21,585.74
Operating Engineers and Other Construction Equipment Operators	59	\$42,041.81
Manicurists and Pedicurists	59	\$19,874.13
Shipping, Receiving, and Inventory Clerks	58	\$35,731.45
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	57	\$52,869.28
First-Line Supervisors of Housekeeping and Janitorial Workers	56	\$39,612.85
Installation, Maintenance, and Repair Workers, All Other	55	\$53,469.44
Securities, Commodities, and Financial	54	\$48,772.85
Bus, Truck Mechanics and Diesel Engine Specialists	53	\$46,772.58
Barbers	52	\$24,698.87
Healthcare Support Workers, All Other	52	\$52,755.00

Description	2021 - 2022 Openings	Median Annual Earnings
Medical Secretaries and Administrative Assistants	52	\$32,930.06
Correctional Officers and Jailers	50	\$40,359.10
Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	49	\$82,486.57
Training and Development Specialists	48	\$62,799.89
Property Appraisers and Assessors	47	\$50,779.82
Child, Family, and School Social Workers	46	\$51,380.73
First-Line Supervisors of Production and Operating Workers	46	\$63,402.35
Pharmacy Technicians	45	\$37,782.89
Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	45	\$45,045.15
Software Developers and Software Quality Assurance Analysts and Testers	45	\$98,990.78
Telecommunications Equipment Installers and Repairers, Except Line Installers	43	\$50,826.42
Computer User Support Specialists	43	\$51,864.73
Civil Engineers	43	\$98,645.07
Paralegals and Legal Assistants	42	\$44,489.37
Crematory Operators and Personal Care and Service Workers, All Other	41	\$26,157.08
Production, Planning, and Expediting Clerks	39	\$51,720.99
Welders, Cutters, Solderers, and Brazers	39	\$46,929.75
Office and Administrative Support Workers, All Other	37	\$42,220.74
Industrial Machinery Mechanics	37	\$54,248.54
Human Resources Managers	34	\$116,658.62
Food Servers, Nonrestaurant	34	\$24,949.34
Kindergarten Teachers, Except Special Education	33	\$47,283.00
Education Administrators, All Other	33	\$97,453.75
Refuse and Recyclable Material Collectors	33	\$27,788.04
Sailors and Marine Oilers	32	\$47,464.17
Psychologists, All Other	32	\$82,362.54
Mobile Heavy Equipment Mechanics, Except Engines	32	\$52,142.06
Social and Human Service Assistants	32	\$41,954.08
Human Resources Assistants, Except Payroll and Timekeeping	32	\$44,123.20
Automotive Body and Related Repairers	32	\$34,231.22
Chefs and Head Cooks	32	\$44,055.17
Helpers--Production Workers	32	\$31,120.19
Clinical Laboratory Technologists	31	\$55,166.20

Description	2021 - 2022 Openings	Median Annual Earnings
Middle School Teachers, Except Special and Career/Technical Education	31	\$46,946.03
Electrical Power-Line Installers and Repairers	31	\$67,952.98
Claims Adjusters, Examiners, and Investigators	31	\$72,060.03
Graphic Designers	30	\$40,563.18
Lodging Managers	30	\$25,273.55
Electrical and Electronics Repairers, Commercial and Industrial Equipment	29	\$61,870.33
Directors, Religious Activities and Education	29	\$86,049.39
Meeting, Convention, and Event Planners	29	\$43,552.09
Education Administrators, Kindergarten through Secondary	29	\$75,969.89
First-Line Supervisors of Police and Detectives	29	\$73,928.63
Computer, Automated Teller, and Office Machine Repairers	29	\$40,976.88
Motor Vehicle Operators, All Other	28	\$28,696.26
Network and Computer Systems Administrators	28	\$91,609.78
Executive Secretaries and Executive Administrative Assistants	28	\$58,436.80
School Bus Monitors and Protective Service Workers, All Other	28	\$34,614.65
Computer Systems Analysts	28	\$80,485.23
Molders, Shapers, and Casters, Except Metal and Plastic	27	\$36,060.08
Automotive Service Attendants	27	\$26,065.83
Religious Workers, All Other	27	\$32,296.38
Postal Service Mail Sorters, Processors, and Processing Machine Operators	27	\$51,363.21
Captains, Mates, and Pilots of Water Vessels	26	\$68,944.11
Special Education Teachers, Kindergarten and Elementary School	26	\$52,618.90
Dental Hygienists	26	\$67,740.21
Special Education Teachers, Secondary School	26	\$52,512.30
Phlebotomists	26	\$32,605.99
Social Workers, All Other	25	\$88,958.68
Sales Managers	25	\$62,821.20
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	25	\$41,930.23
Administrative Services and Facilities Managers	25	\$97,447.96
Loan Officers	25	\$52,114.19
Computer and Information Systems Managers	25	\$118,477.08
Transportation, Storage, and Distribution Managers	24	\$97,148.18
Reservation and Transportation Ticket Agents and Travel Clerks	24	\$38,063.65

Description	2021 - 2022 Openings	Median Annual Earnings
Farmworkers, Farm, Ranch, and Aqua-cultural Animals	24	\$27,795.75
Art Directors	24	\$27,105.64
Radiologic Technologists and Technicians	24	\$66,019.64
Training and Development Managers	24	\$144,001.30
Career/Technical Education Teachers, Secondary School	24	\$49,235.12
Nurse Practitioners	24	\$116,097.40
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	24	\$34,384.43
Court, Municipal, and License Clerks	23	\$40,902.49
Physician Assistants	23	\$127,998.88
Roofers	23	\$36,878.26
Veterinary Assistants and Laboratory Animal Caretakers	22	\$28,939.90
Physical Therapist Assistants	21	\$72,432.92
Skincare Specialists	21	\$27,611.89
Music Directors and Composers	21	\$35,353.28
Construction and Building Inspectors	21	\$68,609.67
Education Administrators, Postsecondary	20	\$98,157.49
Detectives and Criminal Investigators	20	\$56,664.82
Civil Engineering Technologists and Technicians	20	\$55,758.91
Bakers	20	\$24,834.03
Payroll and Timekeeping Clerks	20	\$44,010.27
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	20	\$39,760.74
Speech-Language Pathologists	19	\$67,895.33
Machinists	19	\$56,201.50
Social Scientists and Related Workers, All Other	19	\$92,524.66
Septic Tank Servicers and Sewer Pipe Cleaners	19	\$30,226.58
Budget Analysts	19	\$92,785.94
Production Workers, All Other	19	\$30,851.64
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	19	\$46,740.10
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	19	\$37,084.53
Bus Drivers, Transit and Intercity	19	\$37,798.65
Legal Secretaries and Administrative Assistants	19	\$33,562.05
Cost Estimators	18	\$67,504.65
Data Entry Keyers	17	\$33,134.52

Description	2021 - 2022 Openings	Median Annual Earnings
Web Developers and Digital Interface Designers	17	\$56,683.03
Electrical and Electronic Engineering Technologists and Technicians	17	\$72,989.12
Communications Equipment Operators, All Other	17	\$56,475.57
Tailors, Dressmakers, and Custom Sewers	17	\$19,508.69
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	17	\$39,203.04
Cutting and Slicing Machine Setters, Operators	17	\$38,327.47
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	16	\$35,135.56
Laundry and Dry-Cleaning Workers	16	\$25,835.32
Helpers--Electricians	16	\$37,359.74
Pipelayers	16	\$39,842.81
Dispatchers, Except Police, Fire, and Ambulance	16	\$47,607.70
Water and Wastewater Treatment Plant and System Operators	16	\$50,484.35
Mixing and Blending Machine Setters, Operators, and Tenders	16	\$41,279.69
Telecommunications Line Installers and Repairers	16	\$57,392.82
Information Security Analysts	15	\$97,820.23
Food Preparation and Serving Related Workers, All Other	15	\$23,484.74
Cement Masons and Concrete Finishers	15	\$38,948.26
Insurance Claims and Policy Processing Clerks	15	\$36,885.65
Physical Therapists	15	\$94,490.66
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	15	\$77,584.88
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	15	\$39,223.41
Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	14	\$55,497.68
Drywall and Ceiling Tile Installers	14	\$36,842.17
Public Safety Telecommunicators	14	\$39,920.37
Sheet Metal Workers	14	\$39,216.59
Cooks, Short Order	13	\$21,647.02
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	13	\$26,831.77
Miscellaneous Construction and Related Workers	13	\$36,604.76
Medical Transcriptionists	13	\$34,866.10

Description	2021 - 2022 Openings	Median Annual Earnings
Sawing Machine Setters, Operators, and Tenders, Wood	13	\$32,293.38
Postal Service Clerks	13	\$52,054.22
Surveying and Mapping Technicians	13	\$49,551.56
Industrial Engineers	13	\$87,704.05
Electric Motor, Power Tool, and Related Repairers	13	\$55,081.98
Miscellaneous First-Line Supervisors, Protective Service Workers	12	\$61,589.26
Highway Maintenance Workers	12	\$42,498.91
Industrial Engineering Technologists and Technicians	12	\$53,299.40
Occupational Health and Safety Specialists	11	\$88,434.51
Procurement Clerks	11	\$50,701.60
Surgical Technologists	11	\$51,046.26
Total	30,941	\$50,099.15

Source: EMSI 2021 (4th Quarter): Occupation Report; \*Location Quotient: Concentration in Cumberland County compared to all other NC Counties; 1 – Average

**2.7.2- Table 2: EMSI Regional Private Workforce and Industry Projections  
(Cumberland County)**

Description	2021-2026 Openings	Median Annual Earnings
Military-only occupations	13,242	\$33,369.78
Fast Food and Counter Workers	6,183	\$21,373.34
Cashiers	5,420	\$23,122.77
Retail Salespersons	4,839	\$25,050.40
Waiters and Waitresses	2,924	\$20,183.11
Home Health and Personal Care Aides	2,878	\$23,856.70
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	2,505	\$27,808.58
Stockers and Order Fillers	2,489	\$27,658.24
Office Clerks, General	2,416	\$34,290.73
Real Estate Sales Agents	2,213	\$50,189.01
Heavy and Tractor-Trailer Truck Drivers	1,949	\$40,952.32
Passenger Vehicle Drivers, Except Bus Drivers, Transit and Intercity	1,872	\$29,135.30
Cooks, Restaurant	1,843	\$25,506.40
Nursing Assistants	1,775	\$26,694.56
Customer Service Representatives	1,745	\$35,533.16
Hairdressers, Hairstylists, and Cosmetologists	1,709	\$24,233.64
First-Line Supervisors of Retail Sales Workers	1,674	\$39,716.50
Cooks, Fast Food	1,638	\$19,495.55
Childcare Workers	1,571	\$22,183.13
Laborers and Freight, Stock, and Material Movers, Hand	1,409	\$29,412.38
First-Line Supervisors of Food Preparation and Serving Workers	1,375	\$37,612.25
Personal Service Managers, All Other; Entertainment and Recreation Managers, Except Gambling; and Managers, All Other	1,212	\$75,610.61
Automotive Service Technicians and Mechanics	1,205	\$34,339.41
Construction Laborers	1,201	\$30,715.39
Insurance Sales Agents	1,187	\$60,520.67
Landscaping and Groundskeeping Workers	1,163	\$27,429.13
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,131	\$37,816.92
Maintenance and Repair Workers, General	1,130	\$42,261.05
Postsecondary Teachers	1,129	\$67,391.40
Project Management Specialists and Business Operations Specialists, All Other	1,121	\$88,864.35

Description	2021-2026 Openings	Median Annual Earnings
Receptionists and Information Clerks	1,080	\$29,067.36
Bookkeeping, Accounting, and Auditing Clerks	1,045	\$39,832.42
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	1,028	\$20,092.84
Registered Nurses	989	\$80,075.38
Door-to-Door Sales Workers, News and Street Vendors, and Related Workers	924	\$22,155.03
Teaching Assistants, Except Postsecondary	890	\$26,229.97
Elementary School Teachers, Except Special Education	882	\$50,169.41
Carpenters	868	\$36,815.37
Light Truck Drivers	864	\$35,379.79
Security Guards	840	\$43,860.25
Food Preparation Workers	827	\$23,264.26
Property, Real Estate, and Community Association Managers	765	\$51,199.27
First-Line Supervisors of Office and Administrative Support Workers	757	\$53,139.91
Substitute Teachers, Short-Term	740	\$25,752.00
Human Resources Specialists	739	\$72,328.50
Industrial Truck and Tractor Operators	708	\$41,773.65
Police and Sheriffs Patrol Officers	676	\$48,955.97
Tutors and Teachers and Instructors, All Other	667	\$59,612.57
Medical Assistants	650	\$32,640.79
Real Estate Brokers	637	\$66,816.37
Miscellaneous Assemblers and Fabricators	595	\$29,380.17
Personal Financial Advisors	582	\$88,345.44
Driver/Sales Workers	571	\$21,670.62
Licensed Practical and Licensed Vocational Nurses	555	\$51,983.03
Electricians	553	\$46,552.48
Accountants and Auditors	539	\$79,156.63
Logisticians	506	\$94,492.41
First-Line Supervisors of Construction Trades and Extraction Workers	503	\$64,502.95
Food Service Managers	498	\$46,730.01
Sales Representatives of Services, Except Advertising, Insurance, Financial Services, and Travel	497	\$48,038.10
Secondary School Teachers, Except Special and Career/Technical Education	462	\$51,980.04
Dining Room and Cafeteria Attendants and Bartender Helpers	454	\$25,395.27
First-Line Supervisors of Mechanics, Installers, and Repairers	447	\$68,817.22

Description	2021-2026 Openings	Median Annual Earnings
Computer Occupations, All Other	431	\$98,290.01
Exercise Trainers and Group Fitness Instructors	430	\$39,620.48
First-Line Supervisors of Non-Retail Sales Workers	422	\$42,528.98
Dental Assistants	413	\$43,617.33
Cooks, Institution and Cafeteria	409	\$28,965.33
Construction Managers	403	\$67,662.59
Farmworkers and Laborers, Crop, Nursery, and Greenhouse	400	\$23,995.88
Educational Instruction and Library Workers, All Other	400	\$46,247.52
Painters, Construction and Maintenance	400	\$33,101.89
Preschool Teachers, Except Special Education	394	\$33,893.05
Massage Therapists	384	\$37,241.64
Counter and Rental Clerks	363	\$26,779.81
Plumbers, Pipefitters, and Steamfitters	360	\$45,735.19
Packers and Packagers, Hand	348	\$26,415.18
Firefighters	345	\$30,696.80
Medical and Health Services Managers	342	\$112,357.05
Coaches and Scouts	334	\$35,122.06
Inspectors, Testers, Sorters, Samplers, and Weighers	329	\$35,246.57
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	322	\$45,186.90
Cleaners of Vehicles and Equipment	322	\$23,461.19
Hotel, Motel, and Resort Desk Clerks	320	\$21,585.74
Meat, Poultry, and Fish Cutters and Trimmers	315	\$32,709.48
Information and Record Clerks, All Other	314	\$52,164.83
Emergency Medical Technicians and Paramedics	312	\$41,063.28
Manicurists and Pedicurists	296	\$19,874.13
Operating Engineers and Other Construction Equipment Operators	294	\$42,041.81
Substance Abuse, Behavioral Disorder, and Mental Health Counselors	293	\$43,793.74
Shipping, Receiving, and Inventory Clerks	282	\$35,731.45
First-Line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	282	\$52,869.28
Installation, Maintenance, and Repair Workers, All Other	275	\$53,469.44
Billing and Posting Clerks	262	\$38,906.12
Bus and Truck Mechanics and Diesel Engine Specialists	261	\$46,772.58
Medical Secretaries and Administrative Assistants	260	\$32,930.06
Barbers	259	\$24,698.87

Description	2021-2026 Openings	Median Annual Earnings
Healthcare Support Workers, All Other	257	\$52,755.00
Buyers and Purchasing Agents	254	\$63,283.36
Educational, Guidance, and Career Counselors and Advisors	246	\$54,541.47
Correctional Officers and Jailers	245	\$40,359.10
Recreation Workers	242	\$27,068.52
Financial and Investment Analysts, Financial Risk Specialists, and Financial Specialists, All Other	239	\$82,486.57
Training and Development Specialists	233	\$62,799.89
Market Research Analysts and Marketing Specialists	229	\$55,264.01
Child, Family, and School Social Workers	229	\$51,380.73
Property Appraisers and Assessors	228	\$50,779.82
First-Line Supervisors of Production and Operating Workers	224	\$63,402.35
Medical Dosimetrists, Medical Records Specialists, and Health Technologists and Technicians, All Other	221	\$45,045.15
Pharmacy Technicians	220	\$37,782.89
Software Developers and Software Quality Assurance Analysts and Testers	214	\$98,990.78
Unclassified Occupation	213	\$49,751.29
Civil Engineers	212	\$98,645.07
Computer User Support Specialists	212	\$51,864.73
Packaging and Filling Machine Operators and Tenders	212	\$24,184.58
Telecommunications Equipment Installers and Repairers, Except Line Installers	211	\$50,826.42
Interviewers, Except Eligibility and Loan	209	\$31,620.16
Paralegals and Legal Assistants	207	\$44,489.37
Parts Salespersons	203	\$28,676.76
Crematory Operators and Personal Care and Service Workers, All Other	202	\$26,157.08
First-Line Supervisors of Personal Service and Entertainment and Recreation Workers, Except Gambling Services	197	\$32,394.81
Eligibility Interviewers, Government Programs	195	\$38,572.33
Production, Planning, and Expediting Clerks	194	\$51,720.99
Welders, Cutters, Solderers, and Brazers	189	\$46,929.75
Office and Administrative Support Workers, All Other	184	\$42,220.74
Postal Service Mail Carriers	181	\$55,715.55
Pest Control Workers	179	\$35,738.83
Industrial Machinery Mechanics	179	\$54,248.54
Food Servers, Nonrestaurant	173	\$24,949.34

Description	2021-2026 Openings	Median Annual Earnings
Human Resources Managers	172	\$116,658.62
Avionics Technicians	170	\$65,133.01
Sales and Related Workers, All Other	168	\$32,442.68
Chefs and Head Cooks	167	\$44,055.17
Earth Drillers, Except Oil and Gas; and Explosives Workers, Ordnance Handling Experts, and Blasters	165	\$62,500.98
Kindergarten Teachers, Except Special Education	165	\$47,283.00
Education Administrators, All Other	164	\$97,453.75
Mobile Heavy Equipment Mechanics, Except Engines	157	\$52,142.06
Human Resources Assistants, Except Payroll and Timekeeping	157	\$44,123.20
Automotive Body and Related Repairers	156	\$34,231.22
Helpers--Production Workers	154	\$31,120.19
Clinical Laboratory Technologists and Technicians	153	\$55,166.20
Paper Goods Machine Setters, Operators, and Tenders	153	\$35,253.08
Middle School Teachers, Except Special and Career/Technical Education	152	\$46,946.03
Excavating and Loading Machine and Dragline Operators, Surface Mining	150	\$50,371.39
Electrical and Electronics Repairers, Commercial and Industrial Equipment	148	\$61,870.33
Directors, Religious Activities and Education	147	\$86,049.39
Lodging Managers	145	\$25,273.55
Motor Vehicle Operators, All Other	144	\$28,696.26
Claims Adjusters, Examiners, and Investigators	144	\$72,060.03
First-Line Supervisors of Police and Detectives	144	\$73,928.63
Education Administrators, Kindergarten through Secondary	144	\$75,969.89
Computer, Automated Teller, and Office Machine Repairers	141	\$40,976.88
Electrical Power-Line Installers and Repairers	141	\$67,952.98
Graphic Designers	141	\$40,563.18
Tellers	141	\$37,453.35
Network and Computer Systems Administrators	139	\$91,609.78
School Bus Monitors and Protective Service Workers, All Other	139	\$34,614.65
Computer Systems Analysts	137	\$80,485.23
Automotive and Watercraft Service Attendants	135	\$26,065.83
Executive Secretaries and Executive Administrative Assistants	134	\$58,436.80

Description	2021-2026 Openings	Median Annual Earnings
Molders, Shapers, and Casters, Except Metal and Plastic	131	\$36,060.08
Special Education Teachers, Kindergarten and Elementary School	131	\$52,618.90
Postal Service Mail Sorters, Processors, and Processing Machine Operators	129	\$51,363.21
Special Education Teachers, Secondary School	128	\$52,512.30
Dental Hygienists	127	\$67,740.21
Phlebotomists	126	\$32,605.99
Sales Managers	126	\$62,821.20
Administrative Services and Facilities Managers	125	\$97,447.96
Reservation and Transportation Ticket Agents and Travel Clerks	125	\$38,063.65
Transportation, Storage, and Distribution Managers	124	\$97,148.18
Social Workers, All Other	123	\$88,958.68
First-Line Supervisors of Landscaping, Lawn Service, and Groundskeeping Workers	122	\$41,930.23
Radiologic Technologists and Technicians	117	\$66,019.64
Career/Technical Education Teachers, Secondary School	117	\$49,235.12
Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	116	\$34,384.43
Court, Municipal, and License Clerks	115	\$40,902.49
Computer and Information Systems Managers	114	\$118,477.08
Librarians and Media Collections Specialists	113	\$59,440.28
Miscellaneous Entertainers and Performers, Sports and Related Workers	113	\$34,445.29
Nurse Practitioners	111	\$116,097.40
Physical Therapist Assistants	111	\$72,432.92
Tax Preparers	110	\$22,084.21
Roofers	110	\$36,878.26
Bill and Account Collectors	108	\$37,605.05
Skincare Specialists	107	\$27,611.89
Construction and Building Inspectors	104	\$68,609.67
Civil Engineering Technologists and Technicians	100	\$55,758.91
Bakers	99	\$24,834.03
Education Administrators, Postsecondary	98	\$98,157.49
Production Workers, All Other	97	\$30,851.64
Septic Tank Servicers and Sewer Pipe Cleaners	96	\$30,226.58
Detectives and Criminal Investigators	96	\$56,664.82
Budget Analysts	95	\$92,785.94
Machinists	94	\$56,201.50
Payroll and Timekeeping Clerks	93	\$44,010.27
Speech-Language Pathologists	92	\$67,895.33

Description	2021-2026 Openings	Median Annual Earnings
Marketing Managers	91	\$82,765.62
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	90	\$37,084.53
Social and Community Service Managers	89	\$65,700.12
Bus Drivers, Transit and Intercity	89	\$37,798.65
Social Scientists and Related Workers, All Other	88	\$92,524.66
Legal Secretaries and Administrative Assistants	86	\$33,562.05
Communications Equipment Operators, All Other	86	\$56,475.57
Cost Estimators	86	\$67,504.65
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	85	\$39,760.74
Electrical and Electronic Engineering Technologists and Technicians	85	\$72,989.12
Web Developers and Digital Interface Designers	85	\$56,683.03
Tailors, Dressmakers, and Custom Sewers	83	\$19,508.69
Data Entry Keyers	82	\$33,134.52
Information Security Analysts	82	\$97,820.23
Laundry and Dry-Cleaning Workers	81	\$25,835.32
Food Preparation and Serving Related Workers, All Other	80	\$23,484.74
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	80	\$35,135.56
Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	79	\$46,740.10
Cutting and Slicing Machine Setters, Operators, and Tenders	78	\$38,327.47
Water and Wastewater Treatment Plant and System Operators	77	\$50,484.35
Pipelayers	77	\$39,842.81
Dispatchers, Except Police, Fire, and Ambulance	76	\$47,607.70
Helpers--Electricians	76	\$37,359.74
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	76	\$39,203.04
Telecommunications Line Installers and Repairers	75	\$57,392.82
Mixing and Blending Machine Setters, Operators, and Tenders	74	\$41,279.69
Insurance Claims and Policy Processing Clerks	74	\$36,885.65
Special Effects Artists and Animators	72	\$20,743.95
Instructional Coordinators	72	\$72,770.66
Cement Masons and Concrete Finishers	71	\$38,948.26
Library Technicians	71	\$38,242.18
Cooks, Short Order	70	\$21,647.02

Description	2021-2026 Openings	Median Annual Earnings
Physical Therapists	69	\$94,490.66
Private Detectives and Investigators	69	\$60,250.61
Printing Press Operators	68	\$28,423.27
Public Safety Telecommunicators	68	\$39,920.37
Adult Basic Education, Adult Secondary Education, and English as a Second Language Instructors	68	\$55,497.68
Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	67	\$39,223.41
Drywall and Ceiling Tile Installers	67	\$36,842.17
Sheet Metal Workers	66	\$39,216.59
Sales Representatives, Wholesale and Manufacturing, Technical and Scientific Products	66	\$77,584.88
Stationary Engineers and Boiler Operators	65	\$66,943.76
Purchasing Managers	65	\$137,997.24
Electric Motor, Power Tool, and Related Repairers	63	\$55,081.98
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	63	\$42,326.51
Miscellaneous Construction and Related Workers	63	\$36,604.76
Medical Transcriptionists	63	\$34,866.10
Surveying and Mapping Technicians	62	\$49,551.56
Postal Service Clerks	62	\$52,054.22
Sawing Machine Setters, Operators, and Tenders, Wood	62	\$32,293.38
Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters	61	\$26,831.77
Industrial Engineers	60	\$87,704.05
Advertising Sales Agents	60	\$45,045.82
Highway Maintenance Workers	60	\$42,498.91
Chemical Equipment Operators and Tenders	59	\$60,674.86
Loan Interviewers and Clerks	59	\$50,052.87
Healthcare Social Workers	58	\$55,506.50
Miscellaneous First-Line Supervisors, Protective Service Workers	58	\$61,589.26
Environmental Scientists and Specialists, Including Health	57	\$65,381.64
Occupational Health and Safety Specialists	57	\$88,434.51
Surgical Technologists	56	\$51,046.26
Procurement Clerks	55	\$50,701.60
Floral Designers	55	\$29,251.25
Tire Repairers and Changers	54	\$32,567.32
Paving, Surfacing, and Tamping Equipment Operators	54	\$36,594.62

Description	2021-2026 Openings	Median Annual Earnings
Calibration Technologists and Technicians and Engineering Technologists and Technicians,	54	\$78,990.71
Electrical Engineers	54	\$91,054.53
Mail Clerks and Mail Machine Operators, Except Postal Service	53	\$40,999.54
Industrial Engineering Technologists and Technicians	53	\$53,299.40
Social Science Research Assistants	53	\$55,731.35
Library Assistants, Clerical	52	\$28,113.80
Audio and Video Technicians	51	\$43,599.08
Office Machine Operators, Except Computer	50	\$27,813.15
Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	49	\$71,072.11
Public Relations and Fundraising Managers	48	\$124,298.73
Agricultural Workers, All Other	48	\$36,689.74
Tile and Stone Setters	47	\$36,357.36
Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	47	\$45,889.51
File Clerks	46	\$39,241.31
Probation Officers and Correctional Treatment Specialists	46	\$46,165.96
Merchandise Displayers and Window Trimmers	46	\$35,146.68
Security and Fire Alarm Systems Installers	46	\$41,158.74
Travel Agents	46	\$33,395.23
Helpers--Installation, Maintenance, and Repair Workers	45	\$33,416.77
Occupational Therapists	45	\$88,537.30
Health Education Specialists	45	\$54,272.80
Artists and Related Workers, All Other	45	\$37,355.55
Forest and Conservation Technicians	45	\$42,671.59
Broadcast Announcers and Radio Disc Jockeys	45	\$20,406.52
Respiratory Therapists	45	\$61,854.02
Order Clerks	45	\$31,145.06
Special Education Teachers, Middle School	44	\$53,898.63
Millwrights	44	\$58,641.99
Structural Iron and Steel Workers	44	\$39,562.89
Lighting Technicians and Media and Communication Equipment Workers, All Other	43	\$69,328.52
Court Reporters and Simultaneous Captioners	43	\$59,396.38
Computer Programmers	43	\$52,987.22
Switchboard Operators, Including Answering Service	42	\$33,329.61
Brickmasons and Blockmasons	42	\$42,431.67
Teaching Assistants, Postsecondary	42	\$27,030.47
News Analysts, Reporters, and Journalists	42	\$37,888.84

Description	2021-2026 Openings	Median Annual Earnings
Atmospheric and Space Scientists	42	\$112,534.86
Medical Equipment Preparers	41	\$32,452.09
Architects, Except Landscape and Naval	40	\$67,095.01
Ambulance Drivers and Attendants, Except Emergency Medical Technicians	40	\$30,664.44
Diagnostic Medical Sonographers	40	\$71,620.06
Slaughterers and Meat Packers	39	\$30,668.15
Maintenance Workers, Machinery	39	\$42,339.25
Athletes and Sports Competitors	39	\$37,052.00
Morticians, Undertakers, and Funeral Arrangers	39	\$59,389.42
Computer Network Support Specialists	38	\$63,657.25
Structural Metal Fabricators and Fitters	38	\$43,955.73
Word Processors and Typists	38	\$42,792.37
Home Appliance Repairers	38	\$40,086.87
Legal Support Workers, All Other	37	\$50,064.83
Material Moving Workers, All Other	37	\$34,198.06
Education and Childcare Administrators, Preschool and Daycare	37	\$47,121.95
Occupational Therapy Assistants	37	\$77,971.67
Graders and Sorters, Agricultural Products	37	\$27,713.18
Glaziers	37	\$40,596.37
Food Batchmakers	37	\$30,395.10
Control and Valve Installers and Repairers, Except Mechanical Door	37	\$72,722.41
Computer Network Architects	36	\$98,101.69
Floor Layers, Except Carpet, Wood, and Hard Tiles	36	\$27,400.20
Emergency Management Directors	34	\$77,547.20
Meter Readers, Utilities	34	\$36,766.81
Insulation Workers, Floor, Ceiling, and Wall	34	\$37,583.72
Psychiatric Technicians	34	\$37,955.44
Electronics Engineers, Except Computer	34	\$93,796.97
Title Examiners, Abstractors, and Searchers	34	\$46,887.10
Commercial and Industrial Designers	33	\$77,585.11
First-Line Supervisors of Firefighting and Prevention Workers	33	\$67,481.31
Health Information Technologists, Medical Registrars, Surgical Assistants, and Healthcare Practitioners and Technical Workers,	33	\$51,455.54
Transportation Security Screeners	32	\$45,374.76
Logging Equipment Operators	32	\$32,306.78
First-Line Supervisors of Farming, Fishing, and Forestry Workers	32	\$43,441.85
Precision Instrument and Equipment Repairers, All Other	31	\$82,577.44

Description	2021-2026 Openings	Median Annual Earnings
Environmental Science and Protection Technicians, Including Health	31	\$47,726.53
Computer and Information Research Scientists	30	\$98,294.41
Textile Bleaching and Dyeing Machine Operators and Tenders	30	\$28,165.79
Outdoor Power Equipment and Other Small Engine Mechanics	29	\$32,424.71
Architectural and Civil Drafters	29	\$57,891.67
Adhesive Bonding Machine Operators and Tenders	29	\$46,400.04
Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	29	\$34,346.60
Motorboat Mechanics and Service Technicians	29	\$34,449.63
Computer Numerically Controlled Tool Operators	28	\$40,589.64
Physical Therapist Aides	28	\$29,288.59
Broadcast Technicians	28	\$36,901.05
First-Line Supervisors of Correctional Officers	27	\$56,106.98
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	25	\$30,766.45
Funeral Attendants	25	\$29,410.88
Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	25	\$34,343.58
Ophthalmic Medical Technicians	25	\$32,216.07
Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	25	\$38,856.10
Database Administrators and Architects	25	\$106,063.53
Food Processing Workers, All Other	25	\$36,438.18
Tire Builders	25	\$61,547.45
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	24	\$46,565.75
Fence Erectors	24	\$36,513.08
Audiovisual Equipment Installers and Repairers	24	\$30,935.72
Community Health Workers	24	\$40,399.60
Helpers--Carpenters	24	\$30,371.02
Agents and Business Managers of Artists, Performers, and Athletes	23	\$34,009.62
Ophthalmic Laboratory Technicians	23	\$33,034.59
Cabinetmakers and Bench Carpenters	23	\$27,938.60
Surveyors	23	\$79,090.58
Shoe and Leather Workers and Repairers	23	\$24,402.24
Orderlies	23	\$31,451.58
Compensation, Benefits, and Job Analysis Specialists	23	\$63,319.17
Solar Photovoltaic Installers	23	\$47,641.41
Financial Clerks, All Other	23	\$42,644.96

Description	2021-2026 Openings	Median Annual Earnings
Dental Laboratory Technicians	22	\$49,915.63
Radio, Cellular, and Tower Equipment Installers and Repairers	22	\$60,587.65
Plating Machine Setters, Operators, and Tenders, Metal and Plastic	22	\$49,004.01
Electrical and Electronics Installers and Repairers, Transportation Equipment	21	\$75,833.48
Pressers, Textile, Garment, and Related Materials	20	\$22,936.82
Extruding and Forming Machine Setters, Operators, and Tenders, Synthetic and Glass Fibers	20	\$35,761.88
Cooks, All Other	20	\$24,608.05
Hazardous Materials Removal Workers	19	\$32,489.26
Geological and Hydrologic Technicians	19	\$46,114.03
Power Plant Operators	19	\$83,145.61
Textile, Apparel, and Furnishings Workers, All Other	19	\$29,417.00
Reinforcing Iron and Rebar Workers	19	\$42,892.62
Media and Communication Workers, All Other	18	\$49,097.65
Film and Video Editors	18	\$45,316.59
Transportation Inspectors	18	\$96,720.95
Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	18	\$57,911.97
Computer Hardware Engineers	17	\$111,006.95
Plasterers and Stucco Masons	16	\$40,803.32
Plant and System Operators, All Other	15	\$60,379.98
Pharmacy Aides	15	\$24,547.18
Motorcycle Mechanics	15	\$30,126.21
Helpers--Brickmasons, Blockmasons, Stonemasons, and Tile and Marble Setters	15	\$34,437.07
Cardiovascular Technologists and Technicians	15	\$67,757.03
Special Education Teachers, All Other	14	\$47,202.62
Crane and Tower Operators	14	\$54,107.38
Automotive Glass Installers and Repairers	14	\$29,731.23
Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	14	\$37,501.14
Tool and Die Makers	14	\$51,424.46
Gas Plant Operators	13	\$69,024.28
Engine and Other Machine Assemblers	13	\$38,631.44
Museum Technicians and Conservators	13	\$36,903.90
Fiberglass Laminators and Fabricators	13	\$26,782.78
Rail Car Repairers	13	\$53,908.99
Stonemasons	12	\$38,212.38

Description	2021-2026 Openings	Median Annual Earnings
Chemical Plant and System Operators	12	\$55,519.46
Concierges	12	\$30,078.52
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	12	\$26,630.96
Mechanical Drafters	12	\$53,968.47
Pesticide Handlers, Sprayers, and Applicators, Vegetation	12	\$26,847.64
Grounds Maintenance Workers, All Other	11	\$37,414.66
Forensic Science Technicians	11	\$53,799.30
Magnetic Resonance Imaging Technologists	10	\$71,672.37
Total	153,373	\$54,490.00

Source: EMSI 2021 (4th Quarter): Occupation Report; \*Location Quotient: Concentration in Cumberland County compared to all other NC Counties; 1 – Average

**2.7.3- Table 3: Skilled Trades Projections within Fayetteville Area Through 2026**

Occupation	Number of Fayetteville Area Jobs - Projected through 2026*	Average Starting Salary**	Value of the Benefits Package paid by the Employer**	Total Average Compensation (inclusive of benefits) **
Electricians	1033	\$58,429	\$27,684	\$86,113
Diesel Mechanics	541	\$55,400	\$26,361	\$81,761
Plumbers, Pipefitters, and Steamfitters	640	\$54,490	\$25,811	\$80,301
HVAC	621	\$60,418	\$28,650	\$89,068
Automotive Body and Related Repairers	307	\$52,774	\$25,169	\$77,943
Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	341	\$56,509	\$27,464	\$83,973
Automotive Service Technicians and Mechanics	2246	\$55,636	\$26,508	\$82,144
<b>Total</b>	<b>5422</b>	<b>\$56,237</b>	<b>\$26,807</b>	<b>\$83,403</b>

\*Source #1: EMSI 2021 (4th Quarter): Occupation Report

\*\*Source # 2: Salary.com (Some average salaries are computed at levels II and III to meet employer skill need of future applicants).

Legend: Value of Benefits includes employer paid social security, disability, healthcare, pension, and paid time off from Salary.com.

**2.7.4- Table 4: Unemployment Rates (National, North Carolina, and Cumberland County)**

Unemployment Rates			
	Nov 2020	Nov 2021	Status
National	6.7%	4.2%	 2.5%
North Carolina	6.4%	3.9%	 2.5%
Cumberland County	8.4%	5.6%	 2.8%

Source: North Carolina Department of Commerce, 2021, 4th Quarter. Unemployment rates for North Carolina and Cumberland County for December 2021 were unavailable at the current time.

**2.7.5- Table 5: Three-Year Financial Aid Awards**

<b>2020-21 FTCC Financial Aid Awards</b>			
Number of Students (duplicated) receiving awards	In-State Tuition Rate	Out-of-State Tuition Rate	Amount of Aid
23,357	\$2,528	\$8,672	\$61,744,104

<b>2019-20 FTCC Financial Aid Awards</b>			
Number of Students (duplicated) receiving awards	In-State Tuition Rate	Out-of-State Tuition Rate	Amount of Aid
24,380	\$2,528	\$8,672	\$51,342,278

<b>2018-19 FTCC Financial Aid Awards</b>			
Number of Students (duplicated) receiving awards	In-State Tuition Rate	Out-of-State Tuition Rate	Amount of Aid
27,808	\$2,528	\$8,672	\$66,063,169

Source: Integrated Post-Secondary Education Data Systems, Student Financial Aid Survey (2021)

### **3- PERSONAL FINANCE TRENDS**

#### **Analysis Summary**

- Financial aid and student educational loans remain a priority need for those seeking higher levels of educational and/or skill development.
  - The COVID-19 pandemic created more opportunities for training and retooling skills, including starting new businesses, for potential students eligible for financial aid.
  - More than half of Americans report living paycheck to paycheck.
  - The ability to pay for college, housing, food and other obligations remains problematic across the nation. On January 27, 2022, local news outlets announced that prices on basic household items such as coffee, luncheon meats, and other grocery items would be increasing in price between 5 and 30% depending upon the item.
  - FTCC continues to offer multiple financial aid, scholarships, grants, and loan opportunities to students to assist with the increasing pricing of basic necessities.
- 
- According to data published in September 2021, from the U.S. Bureau of Economic Analysis, North Carolina ranked 40th among all 50 states and the District of Columbia in per-capita personal income at \$ \$50,305 which is 84.5% of the national income average of \$59,510. (*U.S. Bureau of Economic Analysis, 2021*)
  - With the COVID-19 pandemic continuing to impact the economy, many Americans report facing a worse personal financial condition than they experienced a decade ago, resulting in a need for increased financial aid and other support services to enroll, pay, and complete a degree, diploma, or certificate. The challenges North Carolina students, including those at FTCC, face include:
    - North Carolina's population is reported at 10,551,162 with 12.9% living at or below poverty income levels as defined by the *US Census Bureau* (2021).
    - The COVID-19 pandemic contributed to a sharp increase in unemployment during 2020. The NC unemployment rate capped as high as 12.9% in April 2020, while the number unemployed has fallen to 3.9% in November 2021. (*Bureau of Labor Statistics, 2021; Public Policy and Aging Report, 2020*)
    - The COVID-19 pandemic precipitated a change in the labor force participation rate defined as the percentage of the population in the labor force or those actively searching for employment. Prior to 2020, the Labor Force Participation Rate (LFPR) was above 63%. The rate sharply decreased during 2020. In November 2021, the LFPR for the US was 61.8% and for NC it was 59.3%. The above statistics indicate a strong need for skills training, including short-term credentials to support increased demand within the job market. (*Federal Reserve Bank of Richmond, 2021*)

- The number of Americans living paycheck to paycheck is estimated to be 56% which is higher than the pre-COVID-19 rate of 53%. Approximately 48% of Americans reported experiencing some type of unexpected financial setback, and 51% reported that they need to withdraw money from their savings account during the last three months. Also, 47% indicated that they have no formal savings plan. Over 70% indicated that they are more conscientious of where and how they spend their money. (*Marketwatch*, 2021)
- Inflation is a concern for many Americans. The Consumer Price Index rose 7% for 2021 which is the largest annual increase since 1982. The largest increases were in energy led by gas, vehicles (new and used), and food. These increasing costs significantly affect FTCC's students, faculty, and staff and create financial stress. (*US Bureau of Labor Statistics*, 2022)
- The Federal Reserve Bank of New York reports that household debt increased by \$286 billion (1.9%) in the third quarter of 2021. Financial assistance for education is critical for those seeking educational opportunities. FTCC has provided multiple grants and started a food pantry supplementing an existing clothing closet thereby further assisting FTCC students and their families. (*Federal Reserve Bank of New York, Center for Microeconomic Data*, 2021; *International Small Business Journal*, 2020)
- Technology divides continue to persist along income lines. For households below \$30,000, 24% do not own a smartphone, 43% do not have broadband access, and 41% do not have a desktop or laptop. Households with higher income levels are not only more likely to have all three but are also more likely to have multiple devices. Households with lower incomes are more likely to depend on smartphones if they have them. For those Americans living in households earning less than \$30,000 who have smartphones, 27% are limited to internet access only through their smartphone. Software and distance learning technologies need to be accessible through smartphones for these households. (Pew Research Center, 2021)
- The COVID-19 pandemic brought shut downs in large sectors of the economy to slow the spread of the virus, particularly in industries such as travel and hospitality. This resulted initially in a drop in new businesses being created in 2020. However, since that time, there has been a surge in applications for new businesses. In April 2020, only 235,000 applications for new Employer Identification Numbers were submitted to the IRS. A few months later, there were 553,000 applications, which was the highest since 2004. (*U.S. Chamber of Commerce*, 2021)
- Online retail sales jumped from 11% of total sales in 2019 to 32% in 2020. This is creating supply chain shortages due to increased requirements for delivery. FTCC continues to expand programs of instruction related to supply chain management and logistics. (*Federal Reserve Bank of Richmond*, 2021)

## **4- HIGHER EDUCATION AND PERSONNEL TRENDS**

### **Analysis Summary**

- Diversity, Equity, and Inclusion (DE&I) remains a high priority for FTCC in support of faculty, staff, and students.
- Federal regulations related to compliance are increasing and expected to continue. Additionally, increased use of adjunct faculty, ongoing efforts to increase faculty salaries, and increasing demand for advanced credentials will continue to be important through 2026.
- Data security and access must be monitored closely as more data moves to the Cloud.
- The COVID-19 pandemic caused significant investment in technology to quickly shift from in-person classes to online classes while maintaining the security of student records and providing student support services remotely.
- Strong FTCC COVID-19 protocols based on the Center for Disease Control's guidance continue to be modified as necessary to maintain safety for faculty, staff, and students.
- A large number of students begin their educational journey at an institution and later transfer their academic credits to another educational institution. This has increased competition within and between schools and systems but has also provided opportunities for programs to construct new articulation agreements to assist students in navigating the process of college transfer.
- The baby-boomer generation continues to retire in large numbers. This is creating employee shortages and losses of institutional knowledge increasing demands for highly skilled employees, especially those that demonstrate requisite soft-skills.
- Developmental education initiatives will continue to put stress on college resources as the COVID-19 pandemic is resulting in more high school graduates that are under-prepared for college learning.

### **4.1- Higher Education Personnel Trends**

- FTCC embraces DE&I through the following institutional strategies:
  - Maintaining an awareness of diversity, equity, and inclusiveness supporting educational access, retention, and student success through an active outreach throughout the College's local service area.
  - Providing outreach throughout the community to promote access and inclusiveness to sustain a student body reflective of the College's service area.

- Use multiple course modality methods to meet the diverse learning styles of students, thereby strengthening the College's learning environment.
- Maintain external relationships and partnerships with community residents, businesses, governmental agencies, and/or higher education institutions celebrating the multitude of local events reflective of the diversity in our community and at the College. (*FTCC Diversity Plan, 2022*)
- The College and University Professional Association for Human Resources (CUPA-HR) conducted a survey of 254,160 higher education professionals across 1,114 public and private institutions inclusive of universities and community colleges. The survey findings indicated that higher education professionals received a median salary increase of 2.66% in the 2019-2020 academic year, with two-year institutions providing the highest salary increases at 3.05%. This indicates salary increases remain a high priority across the nation.
  - The highest salary growth rate was experienced in health sciences and environmental sustainability professions with an increase of approximately 32% (likely due to the increase of nurses in higher education institutions aligned with labor market growth projections).
  - Women represent 60% of higher education professionals and racial/ethnic minorities comprise 23%. In professional leadership positions nationally, the survey findings indicated women were generally paid less than their male counterparts with Black and Hispanic women having the lowest pay ratios in comparison to Caucasian men. At FTCC pay is based upon salary scales that are equitable among all demographic groups. Variations in salaries are the result of differing levels of experience, education, and demonstrated competencies. (*CUPA-HR, 2020; Journal of Business Research, 2020*)
- North Carolina was ranked 41st nationwide regarding faculty salaries among two-year, public colleges. FTCC ranked 1st among the 58 NC community colleges for faculty salaries during the 2021 fiscal year (FY). The average FTCC salary, based upon 326 full-time, ten-month instructors was \$57,838.
- In May 2020, the U.S. Department of Education released a revised Title IX regulation governing campus sexual assault and prohibiting sex discrimination at federally-funded institutions. The new regulation was designed to ensure due process for students who report sexual misconduct, as well as due process for their alleged perpetrators. This regulation requires colleges to provide hearings and allow for cross-examination of the involved parties. The regulation also requires colleges to act on complaints of misconduct that occur within educational programs, student activity clubs, and university events. FTCC has updated policies and procedures in accordance with the revised regulation and the College has experienced few Title IX complaints over the past five years. (*Inside Higher Ed, 2020; Journal of Advanced Academics, 2020; US Department of Education, 2020*)

#### **4.2- Data Validation and Security Trends**

- Recent reports addressed the unprecedented national investments in data acquisition, storage, and cloud-based service availability. Community colleges continue to invest in

state-of-the-art technologies and improve their data protocols including the students' use of technology. As a result, privacy and data security must remain part of the ongoing strategic planning initiatives. According to the report, leaders should remember "*Whom has access to what data elements are key questions that must be expected, inspected, and respected?*" FTCC continues to invest in privacy and data security technologies as a prevention against hacking and/or identity theft. (*Big Data and the Ethical Implications of Data Privacy in Higher Education Research*, 2020; *International Journal of Information Management*, 2020)

- The number of Chief Privacy Officers in higher education has risen partly due to the complexities of addressing the privacy risks to individuals and the security risks to organizations. (*Educause*, 2020)
- FTCC maintains tight controls on electronic data and mandates cyber-security professional development (PD) sessions for all employees. The College uses the KnowBe4<sup>®</sup> security training platform increasing focused attention to the critical requirement of safeguarding personally identifiable information.
- The COVID-19 pandemic caused teleworking to become necessary at FTCC to ensure the health and safety of faculty, staff, and administrators. With this shift in modality, the College provided access to student records and office computer stations via VPN on college-issued laptops.

#### **4.3- Shared Governance Trends**

- Faculty and staff collaboration and mutual support remain key to the success of any initiative. The COVID-19 pandemic demonstrated that institutions with a strong sense of shared governance and policy making were better prepared to respond to this crisis. (*Inside Higher Ed*, 2020; *Shared Governance in Higher Education*, 2020)
  - FTCC uses the Faculty, Staff, and Planning Councils to facilitate shared governance activities at the College. The College also has a myriad of Standing Committees ensuring decision making input is received from all College constituencies. Ad hoc and other advisory committees are created, as needed throughout the year when special circumstances require collective research, analysis, and problem-solving. Generally, these committees are associated with one-time situations.
- Community college transfers have increased by almost 250% during the past 20 years. While not all community college students transfer to another institution, statistics show that 80% of those who transfer go to a public or private university.
  - North Carolina is on par nationally — 40% compared to 42% — with the percent of students who start community college, transfer successfully, and earn a bachelor's degree within six years. (*EdNC*, 2020; *University of North Carolina-General Administration*, 2022)
  - During Fall 2021, 402 former FTCC students transferred into UNC System institutions. Also, 141 graduates decided to continue their education at FTCC.
  - Recent changes to the North Carolina Comprehensive Articulation Agreement

made community college transfer to a UNC System institution easier for students and included additional programs that have not historically been transfer programs. (*The University of North Carolina System, 2020*)

- The majority of community college students have a desire to transfer to a four-year institution and earn a bachelor’s degree. (*Inside Higher Ed, 2021; National Student Clearinghouse, 2021*)
  - FTCC continues to grow its articulation agreements with public and private colleges and universities located across the United States.
    - The College has implemented program mapping and pathways and has dedicated college transfer advisors and success coaches who assist students in navigating the transition from FTCC to a four-year institution.
    - The majority of FTCC graduates who transfer attend public, four-year institutions throughout the United States. (*FTCC Job Placement Reports, 2012-21; National Center for Education Statistics, 2012-21; National Student Clearinghouse, 2012-21*)

#### 4.4- Addressing the Generational Divide

- The FTCC student population is diverse in age groups as reflected in the Table 6 below:

**Table 6: Curriculum Student Age Group Frequency by Semester (Generated by Primary Academic Program)**

<b>Age Group</b>	<b>2019FA</b>	<b>2020SP</b>	<b>2020SU</b>	<b>2020FA</b>	<b>2021SP</b>	<b>2021SU</b>	<b>2021FA</b>
13-23	40%	40%	34%	46%	44%	38%	47%
23-31	31%	30%	33%	28%	27%	27%	26%
32-40	15%	15%	17%	13%	16%	17%	14%
41-49	9%	8%	10%	8%	8%	9%	7%
50-58	4%	5%	5%	4%	4%	5%	4%
59-67	2%	2%	2%	1%	1%	1%	1%
68-76	0%	0%	0%	0%	0%	0%	0%
77-85	0%	0%	0%	0%	0%	0%	0%
<b>Total</b>	<b>12,213</b>	<b>11,298</b>	<b>5,386</b>	<b>10,910</b>	<b>9,938</b>	<b>4,791</b>	<b>10,004</b>

- With four generations in our classrooms simultaneously, differentiating instruction can be particularly difficult especially related to diverse perceptions of academic integrity, digital adoptions, access to technology, time since last educational experiences, etc. (Professional Development in Education, 2020; Winona State University, 2020). FTCC provides all students with an orientation designed to address these concerns and takes positive resolution actions for any lingering apprehensions. FTCC faculty and staff are available to students in-person or remotely to provide timely responses.

- According to NCCCS, out of a total enrollment of 485,114 public, private, and charter high school students, 59,031 were dually enrolled in community colleges across the state during 2021. Students taking college classes have the ability to earn credits towards graduation or for college transfer. While there are many benefits to the Career and College Promise program, it also has the added effect of further diversifying the age populations served by the College. (*North Carolina Community College System, 2020*). FTCC has a strong Career and College Promise program that is well-received by FTCC faculty, staff, students, parents, and high schools in Cumberland County. The College provides space for one high school on the Fayetteville campus and provides access to learning resources when needed by those students.

#### **4.5- The Future of Developmental Education and a Comprehensive Curriculum**

- Developmental education remains an area of ongoing research within the community college system. NCCCS continues to monitor and revise the RISE program as needed based on the outcomes of students taking developmental courses. (*North Carolina Community College System RISE, 2020*)
- NCCCS is not unique in its pursuit of developmental education reforms. The Mathematics and English courses are the most common barriers to student success. Many institutions are using an expanded review of student experiences for placement while others are redesigning the curriculum to be more specific to a student's academic goals. (*The Journal of Continuing Higher Education, 2020*)
  - The College's Quality Enhancement Plan (QEP) will continue its implementation over the next three years. The QEP has key performance indicators of student success based on metrics collected and analyzed annually as part of the institutional assessment activities. The metrics and data will be provided in a QEP Impact Report to the College's regional accreditation agency prior to 2026 for their review.
- Researchers have identified a significant gap across all grade levels in mathematical skills from Fall 2020 to Fall 2021 which may be partially attributed to COVID-19 remote learning versus face-to-face learning. FTCC uses multiple measures as one of its tools to assess the proper program placement of incoming students. The use of multiple measures has gradually increased student performance over the previous years where placements were based solely on placement test results. (*Brookings, 2020; Educational Researcher, 2020*)

#### **4.6- Federal Administration and Its Impact on the Higher Education Landscape**

- Several federal policy initiatives and actions may impact the Higher Education landscape through 2026:
  - The COVID-19 pandemic has led the Biden-Harris Administration to act to address the impacts of the pandemic on underserved communities. The American Rescue Plan of 2021, a \$1.9 trillion economic stimulus bill, was signed into law on March 11, 2021. The plan was designed to change the course of the pandemic, rescue the economy, and deliver immediate relief for American workers. This plan provided nearly \$40 billion for colleges and universities through the Higher Education

Emergency Relief Fund (HEERF). The plan made historic investments in higher education and included more than \$10 billion to community colleges. (*U.S. Department of Education, 2022*)

- In January 2022, the U.S. Department of Education announced an additional \$198 million in American Rescue Plan funds would be provided to support students' basic needs and mitigate the spread of COVID-19 at colleges and universities. Funds will be awarded through a competitive grant process. (*U.S. Department of Education, 2022*)
- The reauthorization of the Higher Education Act is likely to be a focal point of both the new Congress and the Biden administration. Additionally, President Biden has pledged new investments in workforce development and community college infrastructure. (*Brookings, 2020; Lexology, 2020*)
  - FTCC continues to comply with all aspects of the current Higher Education Act as evidenced by the recent SACSCOC reaffirmation committee finding no deficiencies with the College's budget and finance processes and procedures.
- President Biden proposed to boost PELL grants beyond the \$6,495 maximum with a \$1,400 increase in his Build Back Better Agenda. The administration has stated that free community college remains a priority as well as student loan forgiveness based upon eligibility. (*Brookings, 2020; Inside Higher Ed., 2020*)

#### **4.7- Addressing the Affordability of Higher Education**

- The COVID-19 pandemic has re-invigorated the conversation around the affordability of higher education. From the stagnant nature of PELL awards to increasing textbook costs, students are paying more than ever for college. One initiative that has gained popularity in recent years is the adoption of Open Educational Resources (OER). Many colleges have adopted zero cost textbook courses and others have pivoted to only using OER materials. Beyond impacting student costs, faculty have reported switching to OER out of frustration with textbook publishers. Some of the documented frustrations have included rising costs, incompatibility with technology, overseas access, and the quality of the materials. (*Educational Technology Research and Development, 2020; Inside Higher Ed, 2020*)
  - FTCC continues to explore new resources to reduce the cost of attendance for the students under the guidance and recommendations of the faculty teaching their assigned courses.
  - In December 2020, the North Carolina Community College System established OpenNCCC, which provides a repository of Open Educational Resources for use within the system. This program is designed to offer a comprehensive infrastructure that provides high quality OER content and the opportunity for collaboration to support the instructional needs of faculty and learners. OpenNCCC also sponsors hubs and groups for collaboration across NCCCS member institutions. (*OpenNCCC, 2022*)

#### 4.8- Maintaining the Currency of Faculty and Staff Development

- There is an increasing emphasis related to professional development in technical skills, soft skills, safety, security measures, computer security controls, and changing federal regulations associated with compliance requirements. (*Journal of Further and Higher Education*, 2020; *TechTrends*, 2020)
  - FTCC has increased the number and quality of professional development offerings in each of these areas and other professional development designed to assist faculty with teaching for student success.
  
- A strong protocol for faculty development has the potential to fundamentally shift the culture of an institution. Mohr (2020) stated that good development of protocols should be introspective and specific to the needs of each individual faculty member. Some need to focus on digital literacy and best practices in online learning while others may need development regarding pedagogical practices. They further argued that faculty and staff should be engaged in the selection of their professional development activities and that work should cater to their needs. (*Journal of Education for Teaching*, 2020; *The Online Learning Consortium*, 2020)
  - FTCC's Center for Faculty Development supports the college by providing personal and professional support grounded in evidence-based practices through active collaboration with faculty and staff to promote academic success.

## 5- TECHNOLOGICAL TRENDS AND PLANNING ASSUMPTIONS

### Analysis Summary

- Community college classroom technology continues to change through:
  - Expanded emphasis of student-centered teaching philosophies.
  - Continuously changing technological demands that enhance digital fluency in the 21<sup>st</sup> century workplace.
  - Expanded course offerings that lead to micro credentials.
- Student use of technology continues to change through:
  - Connectivity of software tools with expected student learning outcomes.
  - Use of artificial intelligence and predictive analytics software that enhances student success.
  - Stronger demands for immediate communication with students utilizing different software platforms.
  - Emphasis on offering additional courses and programs of study in both hybrid and online modalities versus in-classroom instruction.

### 5.1- Community College Classroom Technology Trend Analysis

- According to the *EDUCAUSE Horizon Report Teaching and Learning Edition (2021)*, the following are the most important technologies for colleges, including FTCC, to consider over the next five years:
  - Borderless Networks/Network without Boundary: Institutional services and data are becoming increasingly cloud-based rather than campus-based.
  - Security Incidents Becoming Routine: Criminals have developed more sophisticated and more professionalized strategies and attacks, and breaches and ransomware in higher education are on the rise. Incidents have become a part of institutions' normal business planning and operations, with institutions moving away from incident response and recovery to incident identification and prevention.
  - Greater Use of Personal Devices for Business: With the proliferation of personal and mobile devices, along with institutions' continued adoption of virtual modes of working and learning, the use of personally owned devices (e.g., smartphones, laptops, tablets) for institutions' academic and administrative business has become more commonplace. Institutions are exposed to increased risks and challenges in keeping data and devices protected, leading to the need to negotiate boundaries around the

institutions' authority to monitor and control device and data use.

- Campus Technology (2021) stated there were five trends to monitor within the coming year. These trends include:
  - Adaptive Learning Technologies: Adaptive technology can enable the creation of course content so that students are offered instructional resources more directly relevant to their courses of study.
  - Artificial Intelligence (AI): AI is appearing throughout higher education teaching and learning, according to the report, touching on areas such as learning management systems, proctoring, assessment, student information systems, office productivity, library services, admissions, disability support, mobile apps, and more.
  - Analytics for Student Success: Instructors, academic advisors, department chairs, offices of access or disability services, and other areas of academic support will use learning analytics to understand better and interpret the needs and challenges of learner populations.
  - Blended and hybrid course models: The evolution of online and blended learning models requires the design of an array of new course models to cope with increased online and hybrid courses.
  - Quality online learning: Institutions need to focus on quality online learning ensuring that instructional content is student centered, aligned with programmatic learning outcomes, accessible to all learners, and effectively designed and delivered.
- The New Media Consortium (NMC's) top-ranked challenges expected for colleges in 2021 and beyond include:
  - Changes in Student Population: Global fertility rates have decreased 50% since 1960, potentially leading to fewer students and presenting fiscal challenges, especially for smaller and tuition-dependent institutions. Increased student diversity (in age, ethnicity, and other factors) requires institutional leaders to rethink how to achieve their teaching and learning objectives and will demand a new emphasis on holistic student success.
    - FTCC is recognized as a leader in forward-thinking, data analysis and marketing to a diverse population of potential students to fill the gap of an anticipated reduction in the number of high school graduates immediately transferring to the community college based upon this planning assumption.
  - Alternative Pathways to Education: Institutions must rethink their degree pathways to accommodate a changing student demographic and employment landscape. Alternatives include nano- and micro-degrees, competency-based programs, expanded online options, and portable, standards-based credentials, as well as increased collaboration and partnerships with other educational institutions. Advising programs use integrated platforms and data.

- FTCC has created multiple pathways over the previous two years and continues to expand them going forward as a significant part of the institution's Quality Enhancement Plan (QEP). The College's QEP also increases collaboration between faculty, staff and students, with the assistance of Success Coaches, to increase graduation rates and student success.
- Online Education: Online education is increasingly seen as a scalable means to provide courses to an increasingly nontraditional student population. Faculty must be prepared to teach in online, blended, and face-to-face modes. Higher education institutions, including FTCC, are moving to new standards and pathways, such as competency-based assessment and expanded offerings for micro-credentials and digital badging.
  - FTCC has been a pioneer institution in this educational process change allowing the College to instantly shift from in-class instruction to online instruction, without difficulty, during the COVID-19 pandemic.
  - FTCC faculty and staff are provided ongoing professional development related to quality enhancements related to their online instructional techniques; thereby, creating opportunities for both synchronous and asynchronous instruction meeting the instructional preferences of distance education students.
  - FTCC recently received from SACSCOC a report of compliance in regard to the quality of College:
    - programs and face-to-face and online course offerings.
    - competency-based assessment of programs and courses.
- Decrease in Higher Education Funding: With the probable decrease in COVID-19 funding, higher education will need to pursue alternative funding approaches to sustain operations. Teaching, learning, and research practices may be increasingly driven by this need of securing funding from alternative sources.
  - FTCC is expanding efforts to procure grants, additional articulation agreements with partnering institutions of higher education, while also engaging in right-sizing strategies, by shifting resources to high demand areas, based upon student demand for programs across the College.
- Value of Higher Education: Reports indicate a majority of adults in the United States believe the higher education industry is headed in the wrong direction. These reports attribute this belief to increasing cost of higher education and/or a perceived social or political distrust of higher education. Millennials tend to believe in the value of higher education, though they express concern over the rising cost. As overall enrollments continue to decline, institutions will be forced to identify alternative education or business models. While some adults across the nation may question the cost-benefit of higher education, FTCC's most recent Economic Impact Study (EIS) cited the following benefits provided by the College to students and the community:

- **Cost Analysis:** The EIS reported students realize a 25.8% rate of return or \$5.00 in higher future earnings for every dollar a student invests in their education.
- **Social Impact:** The EIS reported for every dollar invested in FTCC education, residents in North Carolina will receive \$9.60 in return, for as long as those students included in the study remain active in the state's workforce.
- **Taxpayer Analysis:** The EIS reported for every dollar of public money invested in FTCC, taxpayers receive \$2.70 in return, over the course of student's working lives. The average annual rate of return for taxpayers is 7.1%.

## 5.2- Students and Technology

### 5.2.1- Hyflex Learning Approach

- The combination of face-to-face and online learning is called HyFlex (hybrid-flexible). It has long been recognized that students have different learning styles; for some students, classroom instruction is the preferred learning method. For other students, online coursework is the preference. Some students prefer a combination of both instructional delivery methods. (*Journal of Learning Development in Higher Education, 2021*)
  - Recognizing that students may prefer a particular learning style, FTCC is rethinking the delivery of all three systems. While the face-to-face and online approaches have been a fundamental part of FTCC's educational process, the third approach, HyFlex, will soon become available for students.
    - Twelve classrooms are being developed as HyFlex classrooms.
    - *EDUCASE Review (2021)* suggests that the HyFlex course delivery model is a way to reach both students who want to learn on campus and simultaneously reach students who need remote or online access due to COVID-19 quarantine requirements or because they are more comfortable remaining at home while continuing their degree.

### 5.2.2- Future Technological Trends

- According to *eCampus News Today's Innovations in Education (2021)*, there are five technologies higher education should adopt to meet the future needs of the educational consumer, which include the following:

#### **Predictive Analytics**

- Predictive analytics can determine which courses a student may take, based on history and previous coursework, to maximize the odds of students doing well in their major. Additionally, predictive analytics are expected to eventually help educational institutions identify when students might be at risk of dropping out based on factors such as decreased attendance, lack of engagement with course work, or even their work or

commuting schedules.

- FTCC's use of predictive analytics is a central component of the College's Five-Year Quality Enhancement Plan and includes early warning messages to students concerning their decreased attendance, lack of engagement, and/or other difficulties shared with their Success Coaches, faculty, or staff.
- FTCC implemented Civitas® software that provides communication with each student and shared access by faculty, admissions, registrar, and success coaches while they are assisting the student. This intervention may prevent the student from not graduating and/or not achieving their educational, career, and life-goals.

### **Artificial Intelligence (AI)**

- AI can also provide a conversational interface with students, helping to answer common questions, such as "When is the first day of school?" or "How do I enroll in classes this semester?" By building automated responses into telephone lines, web sites, virtual digital assistants, and other channels students use, AI can help institutions save time and trim costs.
- FTCC's website provides this information in real-time, is regularly updated, and supplemented by social media postings. The College intends to complete a web-site redesign in 2022 further assisting students, faculty, staff and the community with enhanced access to information.

### **Chatbots**

- Chatbots simulate human conversation through voice commands, text chats, or both. Chatbots are proving an invaluable tool for establishing essential dialogs with enrolled students, as well as those interested in attending school.
  - FTCC has added Chatbot technology to its website to answer inquiries.

### **Nudge Technology**

- This is a collection of technologies working together to deliver timely, personalized interactions and reminders to students, staff, and faculty.
- Nudge technology can go even further by monitoring a variety of student records and noting potential opportunities or issues affecting the student's educational success. Nudge technology may let a student know they have just one day to pay tuition or warn that a class in their major is filling up quickly or even that they are likely to miss a big exam if they do not reach class in the next five minutes.
  - Civitas® software allows for such nudge interactions.

## Augmented Reality (AR) and Virtual Reality (VR)

- From an admissions standpoint, AR and VR let institutions provide personalized virtual campus tours, complete with a video representation of administrators welcoming prospective or incoming students to the school and walking them through key facilities aligned to their programs of study. The College's Marketing and Public Relations office is expanding use of virtual campus tours and modern video representations showcasing the College, programs, students, faculty, and staff.

Table 7 illustrates the changing demands for technology-assisted Curriculum and Corporate and Continuing Education courses at FTCC:

**Table 7: Four-Year Analysis of Technology-Assisted Courses at FTCC**

<b>Curriculum</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Internet Classes	2038	2079	2282	1729
Hybrid Classes*	296	283	138	350
Web-Assisted Classes**	2087	1841	N/A	N/A
Other Distance Learning Classes	25	13	N/A	N/A
Blended Classes***	N/A	N/A	737	469
<b>Corporate &amp; Continuing Education</b>	<b>2017-18</b>	<b>2018-19</b>	<b>2019-20</b>	<b>2020-21</b>
Distance Learning	30	7	N/A	N/A
Internet Classes	735	820	833	929
Hybrid Classes*	81	115	117	173
Blended Classes***	N/A	1	9	12
Web-Assisted Classes**	N/A	44	N/A	N/A

\* A course where the primary delivery is on-line with a requirement that students also meet in traditional face-to-face sessions as determined appropriate by the College.

\*\*A course where the primary delivery is via traditional face-to-face with a requirement that students have Internet access as a supplemental part of the course. As of 2019, Web-Assisted and Other Distance Learning Classes are no longer populated categories. Within Ellucian, each curriculum course is coded as TR-Traditional, HY-Hybrid, IN-Internet, and BL-Blended.

\*\*\*New category of modality as of 2019.

## 6- SOCIETAL TRENDS AND PLANNING ASSUMPTIONS

### Analysis Summary

- Projected Cumberland County demographic changes covering the period 2021-2026 will impact FTCC recruiting efforts.
  - Increased enrollment of students with disabilities, and other special needs, will require additional support and expanded professional development training to meet changing disability accommodations mandated for students, faculty, and staff.
  - As a result of the COVID-19 pandemic, more students are suffering from Post- Traumatic Stress Disorder and other mental health conditions.
  - Increasing enrollment of a diverse student population is anticipated.
  - Continued student, faculty, and staff training related to potential active shooter situations and prevention of other potentially violent attacks on campus will remain a priority.
- 
- Cumberland County statistical data projects higher concentrations of non-majority demographics, as compared to all other counties. The demographic groups projected to have growth and possible declines are reflected in **Table 8 on the next page**:

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**Table 8: Cumberland County Resident Ethnicity Projections 2021-2026**

Demographic*	2021 Population	2026 Population	% Change	Change
Black, Non-Hispanic	127,709	134,550	5%	6,841
White, Hispanic	30,180	33,118	10%	2,938
Two or More Races, Non-Hispanic	14,669	16,166	10%	1,497
Black, Hispanic	7,139	8,206	15%	1,066
Asian, Non-Hispanic	8,739	9,371	7%	632
American Indian or Alaskan Native, Non-Hispanic	4,926	5,257	7%	331
Native Hawaiian or Pacific Islander, Non-Hispanic	1,220	1,411	16%	191
Two or More Races, Hispanic	3,029	3,161	4%	132
Native Hawaiian or Pacific Islander, Hispanic	331	391	18%	60
Asian, Hispanic	475	524	10%	50
American Indian or Alaskan Native, Hispanic	1,405	1,306	(7%)	(98)
White, Non-Hispanic	138,340	131,256	(5%)	(7,085)
Total	338,163	344,718	2%	6,555

Source: QCEW Employees, Non-QCEW Employees & Self-Employed - EMSI 2021, 4th Quarter Demographic Profile. \*Demographic categories are pre-selected by the National Center of Education Statistics, not FTCC

- The U.S. workforce is getting older, and employees will consider retirement and other life changes later than previous generational groups. In the US, 10,000 baby boomers turn 65 on a daily basis, a trend that began in 2011 and is expected to continue through 2030. Many workers are not retiring because of the benefits of working, including prolonged health and keeping skills fresh by postponing retirement, and increasing their financial stability. (*Journal of Gerontological Social Work*, 2020; *Strategic HR Review*, 2020)
  - FTCC and other community colleges expect challenges with recruitment of replacements as the baby-boomers continue to leave the workforce. The College recently completed a 100% salary study resulting in increased salaries for faculty and staff and the adjusted pay range increases are anticipated to enable to the College to better compete for trained and qualified applicants as employees retire.
- As older employees age out, employers must find ways to hire and maintain younger employees at a higher retention rate because many of the younger workers do not reflect the same longevity beliefs or traits demonstrated by the baby-boomer population. (*Current and Emerging Trends in Aging and Work*, 2020; *The Sociological Review*, 2020)
  - This assumption is difficult to overcome; however, FTCC is increasing efforts to fully engage new hires quickly in the development of continuing improvement strategies, as a means of enhancement in student success, and instilling an internal desire to

continue working at the College, making a significant difference in student's lives, careers, and goals.

- The National Center of Education (NCES) recently reported that 5.8 million students attended a Two-Year institution during the Fall of 2020. Research also shows that the total enrollment in degree-granting postsecondary institutions by attendance status, sex, and age are projected to increase in 2020 through 2029. (*Digest of Education Statistics, 2020; Journal of Higher Education, 2020*)
  - FTCC works closely with regional employers to ensure programs of study align with job skills required for the 21<sup>st</sup> century workplace and short-term retraining programs are available for all students as the industry's potential workers.
- Cumberland County resident's age number change projections indicate the most growth potential, over the next five years, include those within ages 75-79 followed by 40-44. There are strong indications of more residents in ages 65 to 86 with a decline in ages 25 to 64. Table 9 below provides all age groups **ranked in descending order based upon the last column on the right side of the chart.**

**Table 9: Cumberland County Resident Age Projections 2021-2026**

Age Cohort	2021 Population	2026 Population	% Change	Number Change
75 to 79 years	7,776	10,227	32%	2,451
40 to 44 years	18,981	20,362	7%	1,381
70 to 74 years	11,724	13,051	11%	1,327
65 to 69 years	14,507	15,788	9%	1,281
15 to 19 years	22,421	23,569	5%	1,147
Under 5 years	26,022	27,052	4%	1,031
35 to 39 years	22,121	23,101	4%	980
80 to 84 years	5,226	6,147	18%	921
85 years and over	4,662	5,493	18%	831
45 to 49 years	16,670	17,486	5%	816
20 to 24 years	33,217	33,686	1%	469
5 to 9 years	23,726	23,819	0%	93
10 to 14 years	22,165	22,066	(0%)	(98)
60 to 64 years	17,328	16,636	(4%)	(692)
25 to 29 years	30,596	29,619	(3%)	(977)
50 to 54 years	17,013	15,740	(7%)	(1,273)
30 to 34 years	26,025	24,710	(5%)	(1,315)
55 to 59 years	17,983	16,166	(10%)	(1,817)
Total	338,163	344,718	2%	6,555

Source: QCEW Employees, Non-QCEW Employees & Self-Employed - EMSI 2021, 4th Quarter Demographic Profile

- Based upon Table 9 data, the College continues to prepare and design programs of study to meet the needs of senior students and older adult students. The College also is preparing for increases in age category 15-19 years old as they graduate from high school and move into higher education. FTCC age demographics are in line with national trends associated with the different generations currently in pursuit of either more education or actively seeking employment.

## 6.1- Students with Disabilities

- Community colleges continue to serve students with disabilities.
  - Twenty-five percent of students enrolled nationally at colleges and universities are classified as disabled. During the last 25 years, the number of disabled students enrolled in higher education has tripled. The College has a strong interactive accommodation process for students, faculty and staff. (*Community College Journal of Research and Practice*, 2021; *Journal of Advanced Research in Social and Behavioral Sciences*, 2020)
    - Palm-scanning (*MSN*, 2022) and palm print recognition (*Newsmax*, 2022) are the biometric technologies of the future, and to ensure FERPA and HIPPA confidentiality continues among disabled students. FTCC will adopt similar systems once these technologies are normalized by commerce and trade industries.
    - There is a growing concern in the U.S. related to spyware and hacking amongst cell phone users (*Future Internet*, 2021; *Newsmax*, 2022). Many FTCC students use their cell phones to access their educational courses through Blackboard® and gain access to student support services, including the Disabilities Support Services Office (DSSO) staff.
    - FTCC Disability Support Services Office reports an increase of students needing disability support services. From Fall 2017 to Fall 2021, required services increased 161% and is likely to continue increasing in the future. FTCC will expand staff, as needed, to meet the increasing demand for services.
- There are upward trends of disabled people entering the job force in entry-level positions, which tend to require few credentials and lower-level degrees. This causes these disabled applicants to possibly experience an unsecure, highly stressful, and poorly paid position. (*Forbes*, 2020; *Work, Employment and Society*, 2020)
  - FTCC regularly makes reasonable accommodations to assist employees in all levels of the organization and students. For example, the following services have been provided in the past year:
    - hundreds of standing desks to those employees experiencing back difficulties.

- better mouse pads with enhanced wrist protection and other requested equipment and supplies.
  - medical doctor referrals for Family Medical Leave and/or Worker's Compensation consideration.
- National data reflects that colleges and universities must provide an inclusive and supportive environment for employees and students with disabilities (*Accessibility and Diversity, 2020; Severe Disabilities, 2020*). FTCC continues to provide disability accommodations via:
  - web accessibility and ADA compliance in all electronic media
  - artificial assessment and algorithmic tools
  - counseling services, including an on-site NC Licensed Clinical Mental Health Counselor who created an Institutional Behavioral Assessment Team (IBAT) who provides a cross-functional, multidisciplinary point of contact for members of the college community, who have encountered behavior, which they perceive as unusual, threatening, or dangerous.
    - IBAT determines if there have been additional warning signs or reasons for concern (such as code violations or classroom incidents), classify the level of the threat, and develop a plan of action, including but not limited to: referrals to appropriate campus offices, off-campus agencies, interim measures, and other accommodations.
    - Faculty and staff are provided mental health awareness professional development training annually (2019-present).
- FTCC updates assistive technology annually (i.e., Dragon Software, JAWS screen reader software, speech-to-text apps using phones, iPads, digital devices, etc.). (*Contemporary Educational Technology, 2020; Journal of Education Research and Rural Community Development, 2020*)

FTCC remains focused on providing services for the disabled through:

- Assistive technology resources.
- Voice recognition software, including chatbot's and voice-activated apps using linguistic algorithms to learn the rules of the English language to make accurate guesses at what people are saying (*Forbes, 2021*), which allows students to use speech-to-text software on their devices for notetaking assistance.
- FTCC serves a growing number of students who have been diagnosed with an autism disorder, PTSD, and other medically-diagnosed disabilities as discussed below: (*Education Sciences, 2020; Disability and Society, 2020*)
  - The CDC reveals that Autism affects 1 in 44 U.S. children, and the number is growing due to an increase in societal awareness and disability inclusion (*Centers for Disease*

- Control*, 2021; *Fox News*, 2022). Once diagnosed, students can feel empowered by the information, therapy, and self-awareness associated with its treatment. FTCC uses medical documentation during interactive process sessions to provide timely, reasonable accommodations.
- COVID-19 is causing some patients to experience PTSD and delirium due to constant worry requiring mental health coping strategies (*Psychiatry Research*, 2020; *The Lancet Psychiatry*, 2020). FTCC provides referrals when requested to Cape Fear Valley Health System's services through the student/employee assistance program. This service is provided at no cost to the students or employees.
  - Post-Traumatic Stress Disorder (PTSD) associated with COVID-19 is often aligned with exposure to the loss of loved ones, loss of jobs, and development of multiple mental health conditions. (*CNBC*, 2020; *Current Psychology*, 2020; *The Clinical Neuropsychologist*, 2020)
  - There is a six-year high of suicide rates among *active duty military members* in the U.S. (*Journal of Military, Veteran and Family Health*, 2020; *USA Today*, 2020) FTCC has a large number of active-duty and veteran military members and spouses enrolled in courses.
    - The average number of veterans committing suicides per day, in 2018, was 17.6. If veterans receive VA benefits and care, this number decreases by 2.4%.
    - With the ongoing COVID-19 pandemic, veterans who commit suicide for reasons relating to the pandemic are unknown; however, some of the suicides may be attributed to losses associated with the pandemic. (*Community Mental Health Journal*, 2020; *Department of Veterans Affairs*, 2020)
    - FTCC provides accommodations to many active-duty military or veterans, and the College is unaware of any serious injury or death associated with FTCC students based on the statistics listed above.

## 6.2- School Violence

- According to *School Mental Health* (2020), the majority of students who have committed deadly school attacks had a history of being bullied and/or previous disciplinary troubles. This requires ongoing professional development related to environmental awareness and immediate actions to lessen the possibility of injuries or death.
  - As of 2020, all FTCC employees are required to annually complete active shooter and emergency management professional development training as a condition of continued employment. Employees must also complete professional development training associated with Title IX compliance on a 3-year renewal cycle to fully understand their responsibilities as designated reporters of potential violations of the law. New employees are provided both of these professional development training as part of their initial hire orientation.

- The *Centers for Disease and Control and Prevention* (2020) reported that school shootings have an impact that is “devastating for families, schools and entire communities” and outside of physical injuries, children exposed to violence can suffer a “wide array of negative health behaviors and outcomes, including alcohol and drug use and suicide.”
- FTCC remains fortunate to have not experienced school violence.
- In addition to school violence rising, there have been increases in sexual assaults being reported. (*Indiana Journal of Law and Social Equality*, 2020; *National Center for Education Statistics*, 2020)
  - FTCC has expanded professional development training related to emergency management and prevention of sexual harassment/violence.
  - Training includes Title IX compliance processes and procedures to prepare for possible future reports.
- According to *Violence Against Women*, (2021), young adults ages 18-34 are at the highest risk and represent 54% of sexual assault cases. One out of every six women falls victim to completed or attempted sexual assault within their lifetime. Furthermore, women ages 18-24 not attending college face a 20% higher risk of falling victim to sexual assault.
  - Sexual assaults that are underreported may involve victim-perpetrator relationships or failure to follow reporting policies and procedures. FTCC continues to make faculty, staff, and students aware of policies, their rights, and where they may find help to address their concerns of sexual assault.
  - FTCC has a strong professional development program related to prevention of sexual harassment and/or other Title IX violations.

## 7- CONCLUSION

- Colleges, including FTCC, must continue to emphasize academic activities designed to facilitate student success for diverse and aging populations of students.
- FTCC continues to meet the educational needs of currently enrolled students and remains vigilant in monitoring changing trends and projections to get ahead of student needs before they are requested. This includes the development of pathways to success using a multitude of educational opportunities, including short-term credentials, certificates, diplomas, and associate degrees.
- Programs of study will continue to be added based upon current and projected job market analysis and local demands for both short-term training and credentials and longer-term degree completion needs within the Fayetteville metropolitan service area.
- The College fully supports active-duty military and their family members residing in locations across the globe. This support includes flexible class arrangements to meet the demands of military service on short-notice deployments. The College also continues to refine its Credit for Prior Learning to recognize prior military and non- military work experiences that qualify for award of educational credits.
- Students of all capabilities continue to be professionally served by highly trained, skilled, and talented faculty and staff.
- FTCC has expanded local partnerships with the public-school systems and other colleges to offer a variety of programs of study necessary to meet the changing employment or college transfer related needs of students. In direct support of businesses, the College continues to provide increased training in the area of soft-skills to supplement technical and professional training.
- FTCC remains diligent with enforcement of federal, state, and local laws, rules, regulations, and policies, to reduce the potential for future litigation.
- As a result of COVID-19 and slight decreases in FTE, the College will monitor and, if necessary, prepare for budgetary constraints that may inhibit program growth.
- As a result of sustained research and long-term investment, regarding student learning data, the College launched a series of software platforms including Civitas® to:
  - predict different levels of student persistence
  - offer faculty and advisors real-time information about a student's academic progress
  - facilitate best practices to achieve student success through shared information from the faculty, staff, and students working together.
- The College continues to monitor financial revenues and expenditures to ensure that the College remains a good steward of taxpayer funds.

- Despite the difficulties of the pandemic, it has been a good year for FTCC and these Planning Assumptions are designed to facilitate continuous improvement activities.
- It is said that the past can be a prediction of what to expect in the future. The College is pleased to share the results of the most recent economic impact study that we will use as we continue progress over the next five years:
  - FTCC's day-to-day operations spending added \$75.6 million in income to Cumberland County.
  - The College's construction spending had a substantial impact on the local county economy, equal to \$866.2 thousand in added income.
  - The average associate degree graduate from FTCC will see an increase in earnings of \$9,000 each year compared to a person with a high school diploma or equivalent working in North Carolina, which equates to a 25.8% average annual return on investment for FTCC students.
  - For every dollar of public money invested in FTCC, local taxpayers will receive \$2.70 in return, over the course of students' working lives.
  - For every dollar invested in FTCC educations, people in North Carolina will receive \$9.60 in return for as long as students remain active in the workforce. (*EMSI Economic Impact Study, 2021*)

## 8- **AFTERWORD**

The College initiated a comprehensive environmental scan to develop these planning assumptions based upon professional resources that are cited with each individual assumption. We included information from national, state, and local publications, news articles, websites, and other highly-respected resources.

These planning assumptions are point-in-time, for the purpose of facilitating the next FTCC Strategic Plan that will cover the period of 2022-2027. Faculty and staff are encouraged to share information they may read over the coming year that may have an impact related to their respective areas of responsibility. That information should be provided to the Dean of Institutional Effectiveness, located in Room 167C of the Thomas R. McLean Administration Building and will be used as part of our next environmental scan.

If you have suggestions for improvement, please contact one of the following:

- Immediate supervisor and supervisory chain, or
- A member of the Planning Council, or
- Dean of Institutional Effectiveness, or
- Vice President for Human Resources and Institutional Effectiveness.