



Labor Market Information for Strategic Planning

FTCC

Leadership Working Session
June 18, 2020

 **CREC** CENTER FOR
REGIONAL ECONOMIC
COMPETITIVENESS

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Agenda



Review findings and working session goals



Discuss key concepts and uses of LMI



Discuss self-assessments and goals



Exercise: super sector review and discussion



Live poll regarding greatest opportunities/threats for key sectors



Next steps: overview of remaining sessions and homework assignment



Background and Findings

March-May review





Labor market alignment in order to...



Program.

Decide which programs to offer and determine optimal enrollment size.



Evaluate.

Assess effectiveness based on graduate success.



Inform.

Help students decide which programs best meet their goals and lead to jobs.



Fund.

Demonstrate return on investment to families, communities, and states.



Labor market alignment will require...

Partners, shared vision

Knowledge, skills

Resources, incentives

Continuous engagement and
improvement



Partners, shared vision

Essential Practice #1: “guide and prepare students to enter employment and further education in fields of importance to the college’s service area”

Source: CCRC / AACC pathways guide



Partners, shared vision

“understanding how your work connects to the work of others at the college and the ability for individuals and teams to work across functions of the college”

Source:

<https://www.pathwaysresources.org/pathways-model/planning/preparation-awareness/engaging-stakeholders-and-making-the-case-for-change/>



Knowledge, skills

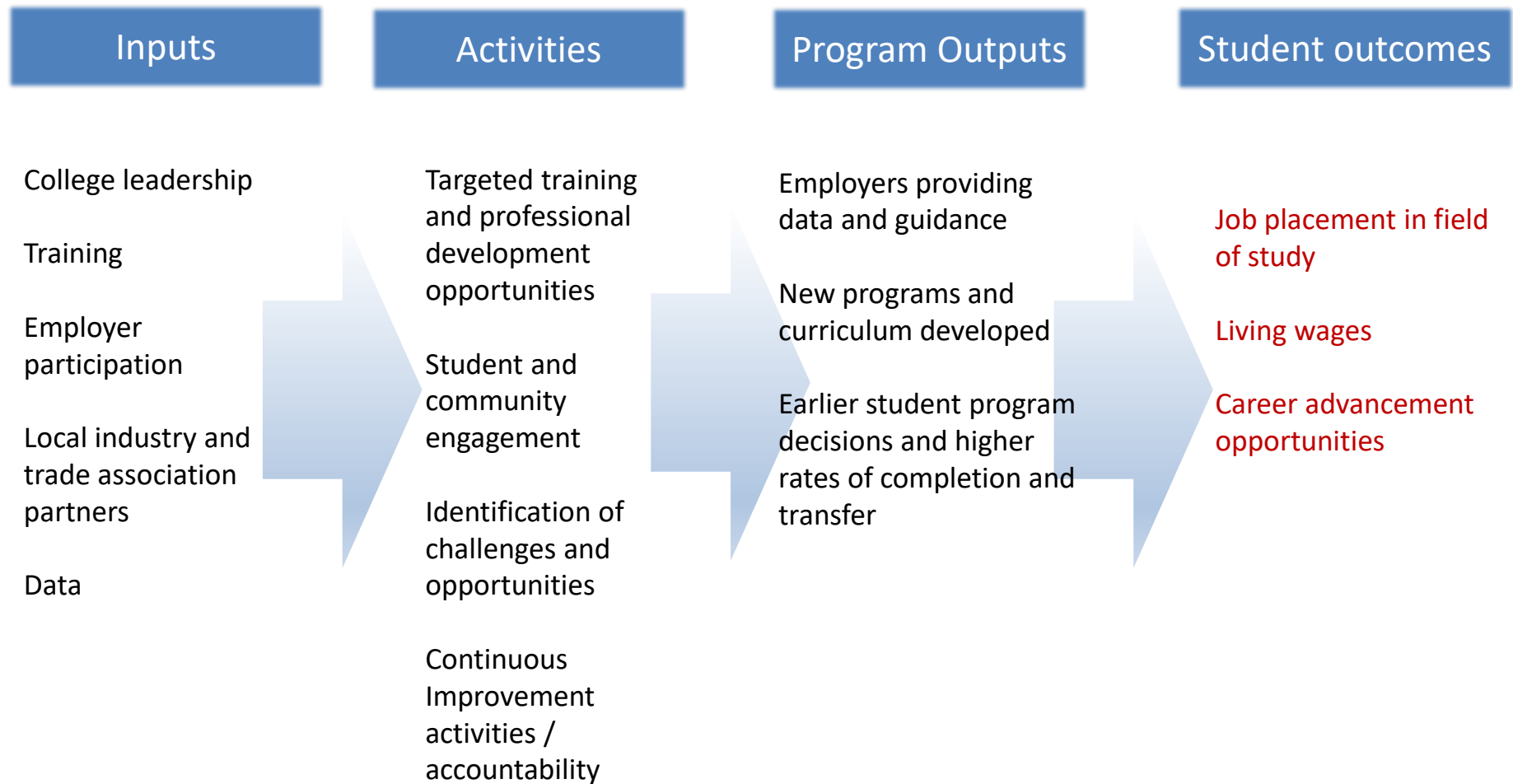
Technical – Research - **Analytical**

Analytical skills are needed to effectively launch the investigation by identifying the right questions to ask. As the information is collected, analytical skills are also needed to integrate information from different sources and perspectives, relate local to regional, state and national information and trends and to consider how changes in one factor, such as supply, may affect other factors.

Source: Schiorring, 2013



Labor market alignment will require...





Observations About LMI at FTCC



Strengths



Weaknesses



Opportunities



Threats

Opportunities

1. Develop a more thorough understanding of how to utilize labor market information
2. Develop storytelling capabilities to inform strategic planning (vs. program review)
3. Create a community of practice
4. Make data broadly available – to Deans, Faculty, Staff, Students, President, etc

Working session goals

Session 1: discuss the criteria for identifying job opportunities for students

Homework: select key occupations

Session 2: discuss the skills, education and training path for the occupation/career

Homework: select the information to provide to students

Session 3: discuss findings and strategic areas of focus



LMI Overview

**Key Concepts and Uses for
College Planning**



College Customer	College Faculty and Staff Roles	Key Customer Questions	Analytical or Data Need	College Customer Purpose
Students (and Parents)	Student Advisors	How can I help students make more informed career and educational choices?	Career options and requirements	Students or parents forming opinions or making career choices
Students	Placement Counselors	How can I help graduates quickly find jobs in their preferred fields?	Immediate jobs available	Students searching for work
Businesses	Workforce & Corporate Training Coordinators	How can I proactively contact companies likely to need training or education services? How can I more effectively target my outreach efforts?	Identifying companies that are adding or replacing talent	Selecting outreach targets, responding to requests, or planning company visits
College Board, Legislators, Businesses, Students	Curriculum Planners	How can I better assess future demand, and make more informed decision about program investments?	Current and future labor market demands (including job/skill requirements)	Conducting program reviews or making major investments
College Board, Legislators	Institutional Researchers & College Executives	How can I assess how the college is doing in delivering well-prepared talent to our community?	Graduate outcomes (e.g., employment, earnings) and future needs	Setting the college's strategic direction and making key investments
Federal, state, local, foundation funders	College grant writers	How can I make a compelling case that the college needs resources to meet student demand, business ed. & training needs?	Current demographic, labor market, and economic trends/projections	Seeking resources from funders



What is LMI:

Quantitative and Qualitative Data About...

Labor Supply: (Students and Workers)

- People (labor force is aged 16+)
 - Students
 - Enrollees
 - Graduates
 - Prospective students
 - Other adults (not in school)
 - Employed
 - Unemployed
 - Not in labor force
 - Current, past and future (projections)

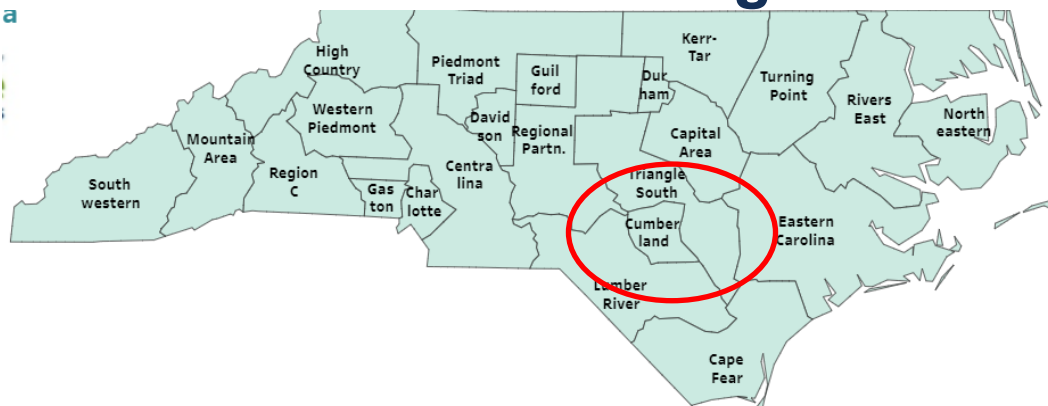
Labor Demand: (Employers and Jobs)

- Jobs (by industry and occupation)
 - Employment
 - Job openings
 - Wages
 - Current, past and future (projections)

‘Region’ matters in data analysis:

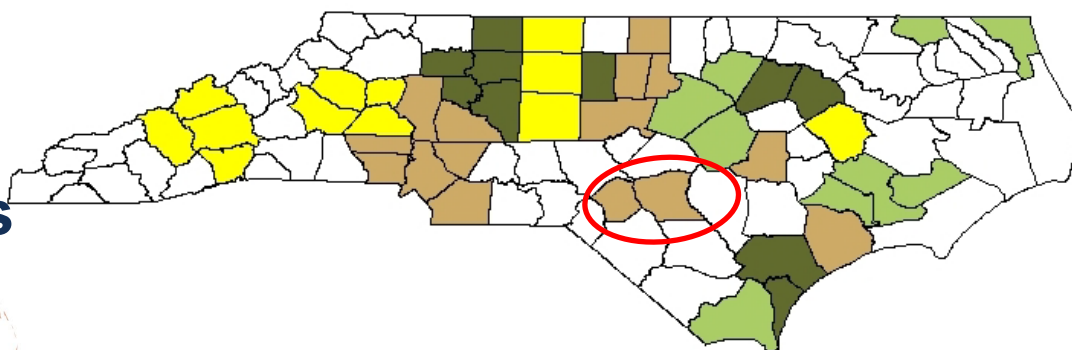
How broad or narrow should you look?

Workforce Board Regions



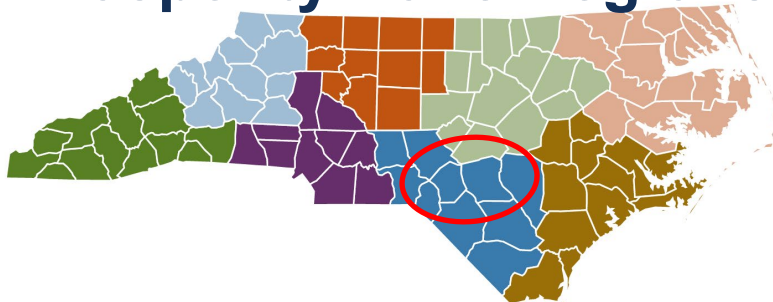
*Fayetteville/ Cumberland County is part of multiple regional configurations

Metro Statistical Areas (commuter sheds)

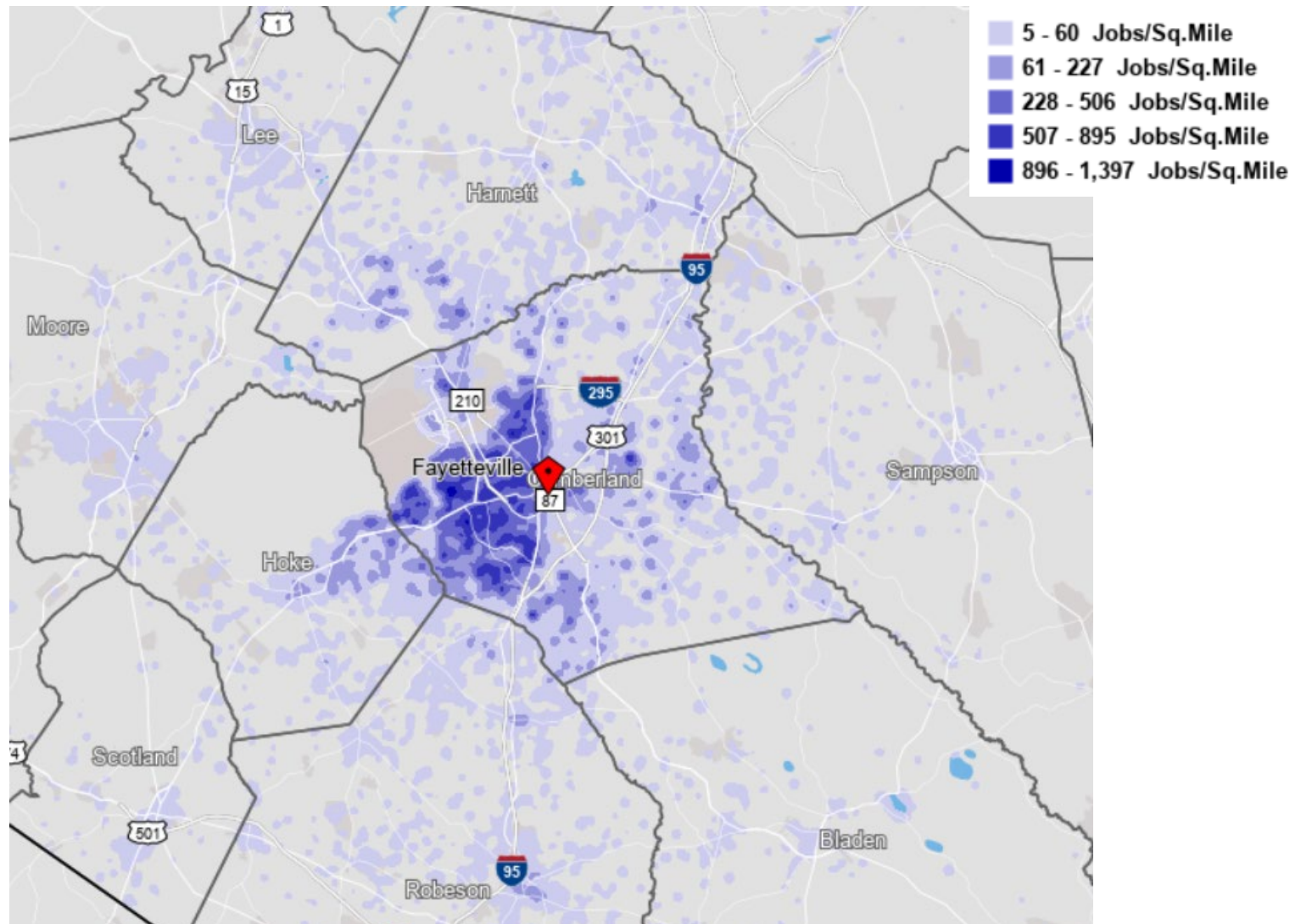


Produced by the North Carolina State Data Center

Prosperity Zone Regions



Cumberland County Labor Shed: Where jobs are concentrated

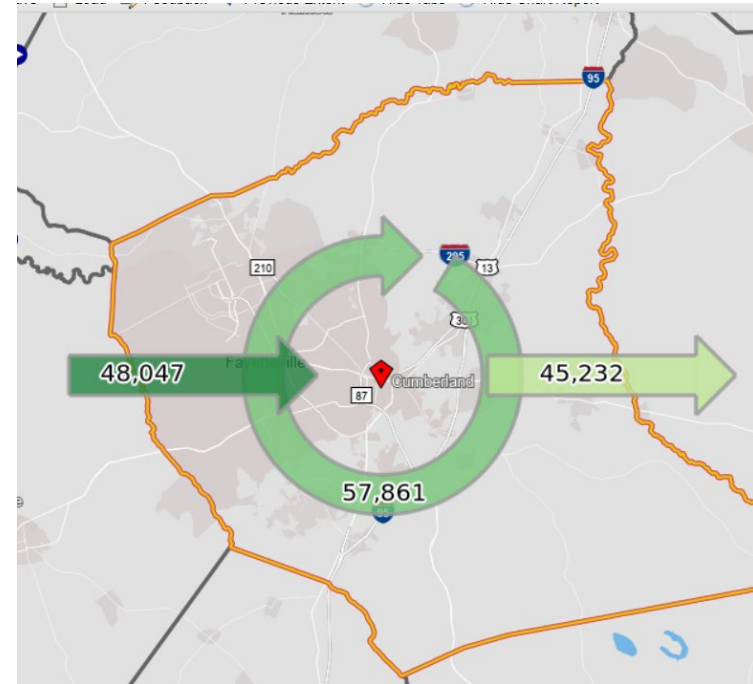


Source: US Census Bureau, Local Employment Dynamics

Where Cumberland Workers Live and Residents Work, 2017

Employed in the County	Workers	Share
All Counties	105,908	100.0%
Cumberland County	57,861	54.6%
Harnett County	5,357	5.1%
Hoke County	4,446	4.2%
Robeson County	3,838	3.6%
Wake County	3,749	3.5%
All Other Locations	30,658	29.0%

Source: US Census Bureau, Local Employment Dynamics



Resident Job Destinations	Workers	Share
All Counties	103,093	100.0%
Cumberland County	57,861	56.1%
Wake County	8,820	8.6%
Robeson County	3,725	3.6%
Mecklenburg County	2,929	2.8%
Harnett County	2,324	2.3%
All Other Locations	27,434	26.6%



Key LMI Concepts



Industry

Groups of firms or establishments that produce similar products or provide similar services.

Classified by NAICS to allow for counting and sorting;

Firms can produce different products that cross industry categories;

Establishments of same firm in different places may do different things



Occupation

Standardized set of activities or tasks that employees are paid to perform.

Classified by SOC to allow for counting and sorting;

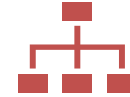
Often aggregates jobs that are similar but not the same



Skills

Capabilities and competencies required to perform tasks, with overlap and differences among occupations and jobs.

No formal classification system and skill mix can vary by job, even within the same occupation



Job Title

Firm-specific designation for a set of specific activities, responsibilities, duties, and tasks.

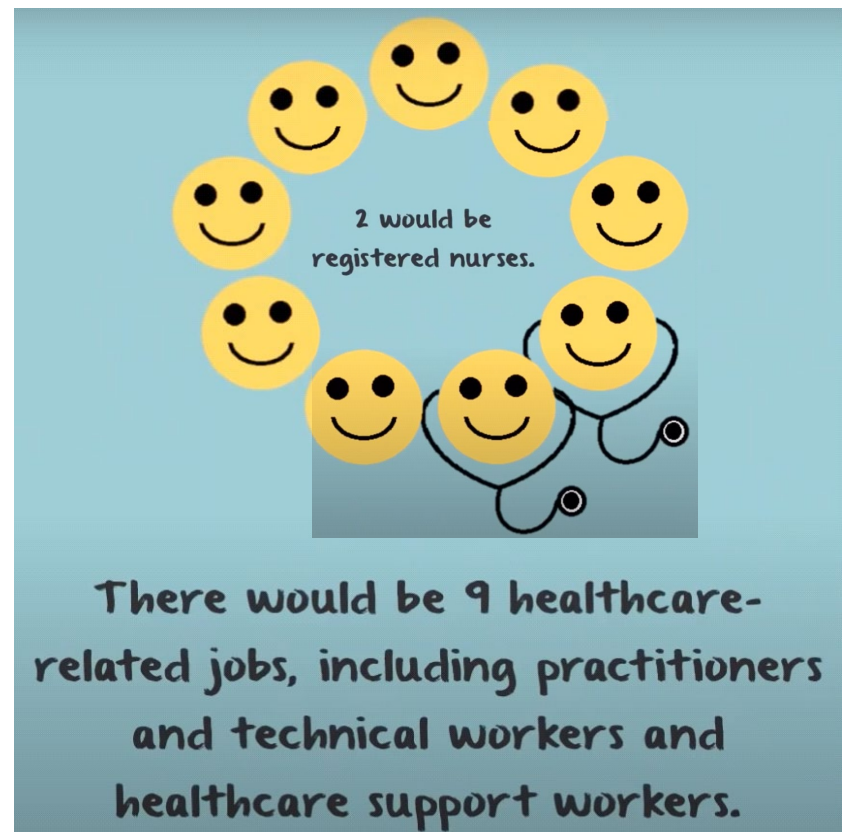
Firm's description of job, but same title can mean different things in different companies

Placing labor demand into context

Data elements of initial interest

- **Overall size** of region's employment base
- **Mix of industries** that demand labor
- Relative **prevalence of occupations**
- **Relevance of college programs** to available occupations

Of every 100 total jobs...





Aligning curriculum programs to outcomes using economic benchmarks

Our Goals for students



Job placement in field of study



Living wages



Career advancement opportunities

Measures that Matter

- Most job openings in relevant fields
 - Current
 - Future
- Wages paid
 - At entry
 - Possible progression
- Opportunities
 - Career clusters
 - Career pathways



Self assessments

Pre-session survey responses

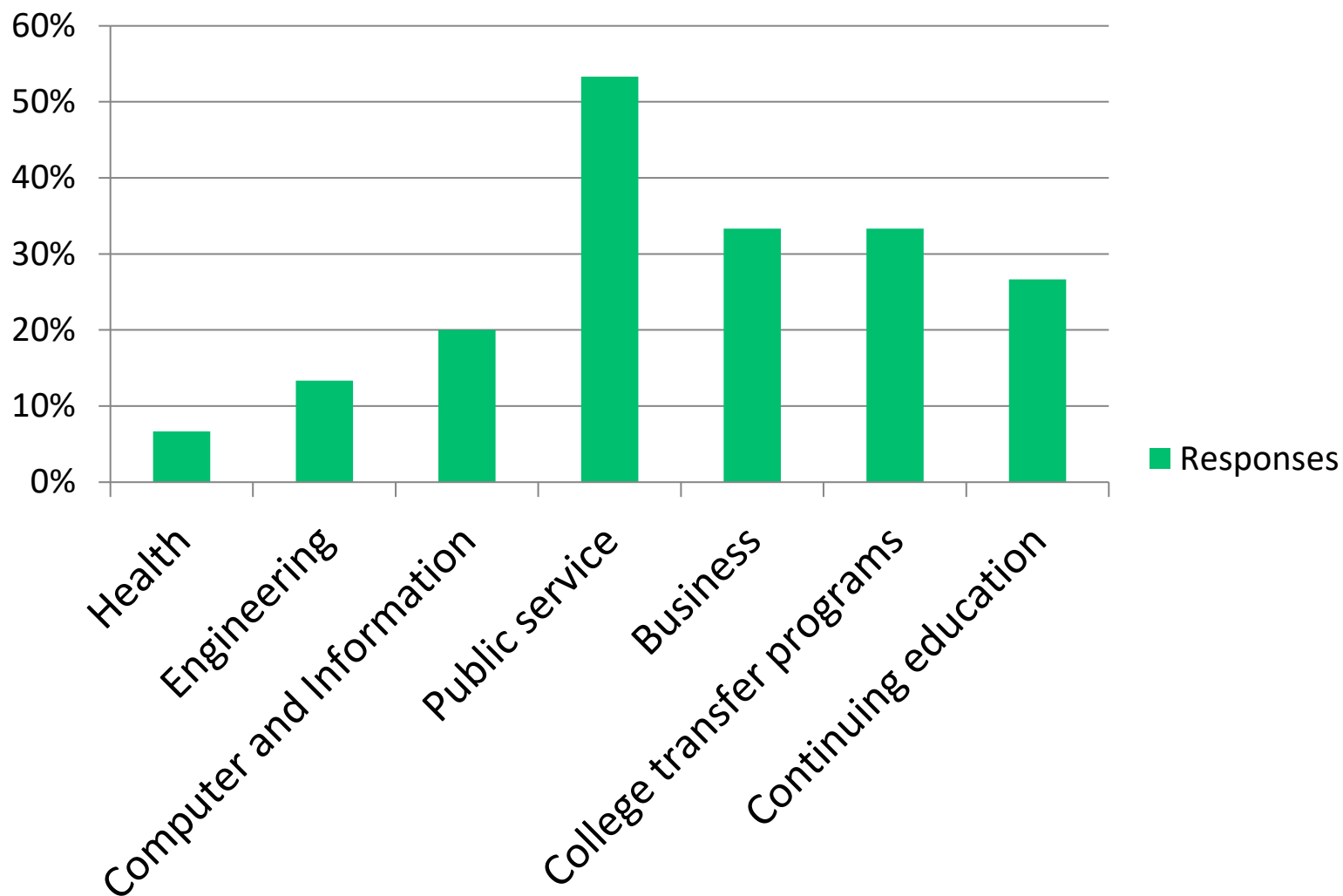




Choose the statement below that best reflects your comfort level with information on employment trends for your field of study/programs. (Select one)



Please choose two fields you would like to use as examples for our workshop.





Most agreed-upon statements

Students make better career decisions when they have access to more information on employment prospects and pay.

I have an important role to play in helping the college to identify promising careers for our students.

Students make better decisions about their education when they have access to information on employment prospects and pay.

I have an important role to play in serving employers by providing them with actionable career and labor market information.

As a school, we can demonstrate to students and employers alike that we are meeting labor market / employer demand in the FTCC service area.



I am most curious about...

Future employment opportunities for graduates from my programs

Skills and credentials required or preferred by employers

Student outcomes: enrollment and completion

Student outcomes: employment and wages

Data on small businesses not available from traditional data sources

Any gap or surplus between program completers and regional job openings

Aligning curriculum and job requirements (skills and credentials)

Aligning curriculum (learning objectives and competencies) and job expectations (skills and credentials)



I want to use LMI to...

Engage students and help them plan their careers

Improve student outcomes

Help students signal their relevant skills and credentials to employers

Update curriculum and/or create new courses

Improve college direction and visibility

Engage more effectively with business, industry and trade associations



Comments/concerns

- Data on sectors with small businesses
- COVID disruption



Understanding the Regional Economy

Background, exercise, and live poll





Understanding the local economy:

Employers think industry

NAICS	Industry Sector	NAICS	Industry Sector
11xxxx	Agriculture, Forestry, & Fishing	53xxxx	Real Estate, Rental & Leasing
21xxxx	Mining & Extraction	54xxxx	Professional, Scientific & Tech Services
22xxxx	Utilities	55xxxx	Management of Companies
23xxxx	Construction	56xxxx	Admin., Waste & Remediation
31-33xxxx	Manufacturing	61xxxx	Education
42xxxx	Wholesale Trade	62xxxx	Health Care & Social Assistance
44-45xxxx	Retail Trade	71xxxx	Arts, Entertainment & Recreation
48-49xxxx	Transportation & Warehousing	72xxxx	Accommodation & Food
51xxxx	Information	81xxxx	Other Services (Private)
52xxxx	Finance & Insurance	90xxxx	Public Administration

NAICS:
North
American
Industry
Classification
System



NAICS Taxonomy: Industry Examples

NAICS level	Example #1	
	NAICS code	Description
Sector	31-33	Manufacturing
Subsector	336	Transportation Equipment Manufacturing
Industry group	3364	Aerospace Product and Parts Manufacturing
Industry	33641	Aerospace Product and Parts Manufacturing
U.S. Industry	336411	Aircraft Manufacturing



Where Industry Data Comes From: QCEW

Quarterly Census of
Employment and Wages
(QCEW) – [About](#)

Partnership of BLS, NC
Commerce [Demand Driven
Delivery Data \(4D\)](#) System,
state UI office

Key word searches to
figure out the 'industry
code' at BLS [NAICS Finder](#)

- Employers reporting to Unemployment Payroll system
 - Includes 97% of employers
 - Excludes gov't agencies, religious organizations, and railroads that don't participate in UI
 - Excludes self-employed (1099 taxpayers) (available through US Bureau of Economic Analysis from IRS)
- Data reported through QCEW
 - NAICS industry and place of business
 - Not every state reports 'multi-site' establishments separately
 - Individual wage records quarterly, but monthly data includes total payroll and headcount
 - Industry data available, no information about occupations of workers
 - Available about 6 months after companies report to UI system
- Emsi, Chmura JobsEQ, and other vendors improve interface with current and historical QCEW combined with other info





Industry Projections



Estimate changes within an industry over time resulting from industry growth, technological change, and other factors.



Based on the state or local area's past industry employment trends



Refined by a review of current economic developments that affect employment in each industry.



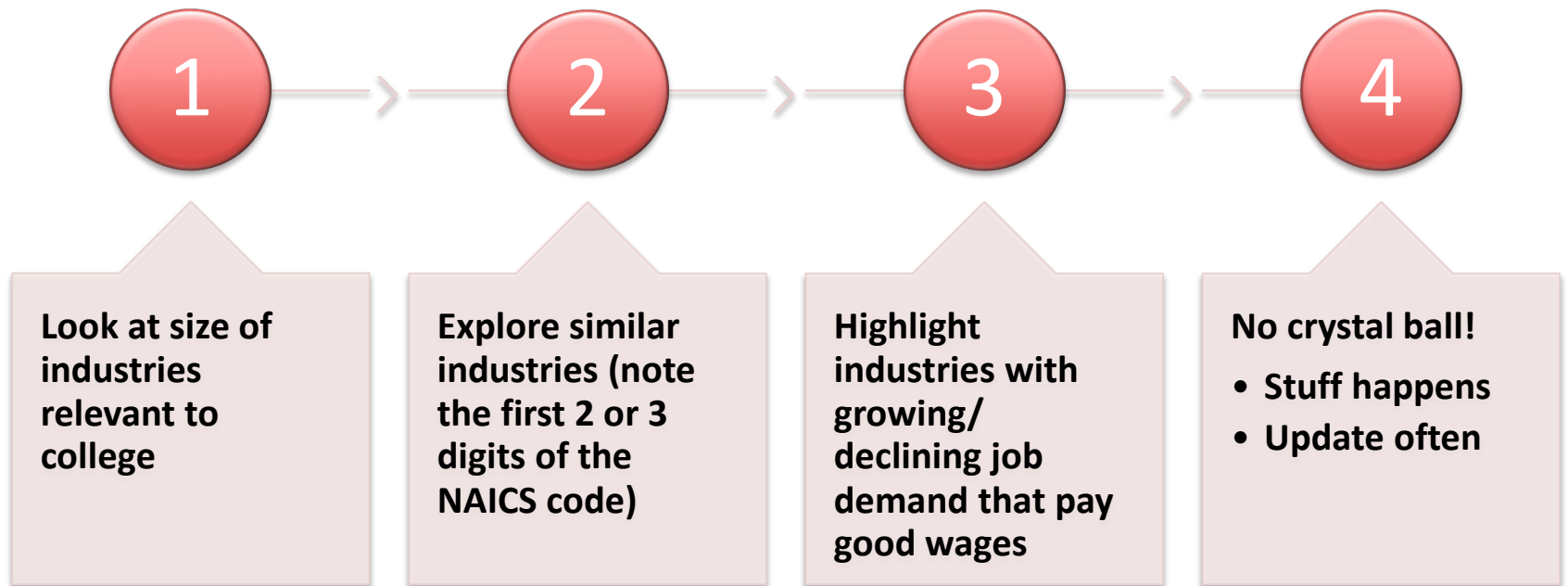
BLS prepares [national employment projections](#) but relies on NC Commerce to produce [state and area projections](#).



Long-term projections usually revised every two years, while short-term projections are revised annually to stay current.



How to Use Industry Projections





Cumberland County 10-Year Employment Projections for Largest Industries

Exercise #1

Describe Opportunities and Threats in Cumberland County Economy

33 of 863 industries represent nearly 2/3rds of county employment

1. Which of these industries may be most important to the college and why?
2. What more do you want to know about the most relevant industries?

NAICS	Description	2019 Jobs	2029 Jobs	2019 - 2029 Change
000000	All Industries	128,939	131,699	2,760
901199	Federal Government, Civilian, Excluding Postal Service	14,158	15,282	1,124
903611	Elementary and Secondary Schools (Local Government)	8,805	8,087	(718)
722513	Limited-Service Restaurants	6,990	7,595	605
903999	Local Government, Excluding Education and Hospitals	5,955	6,010	55
903622	Hospitals (Local Government)	5,727	5,927	200
722511	Full-Service Restaurants	5,399	6,239	840
902612	Colleges, Universities, and Professional Schools (State Government)	2,385	2,420	35
452311	Warehouse Clubs and Supercenters	2,362	2,094	(268)
621111	Offices of Physicians (except Mental Health Specialists)	2,362	2,527	165
326211	Tire Manufacturing (except Retreading)	2,296	1,896	(400)
445110	Supermarkets and Other Grocery (except Convenience) Stores	2,191	2,492	301
623110	Nursing Care Facilities (Skilled Nursing Facilities)	1,941	1,963	22
621610	Home Health Care Services	1,594	1,941	347
441110	New Car Dealers	1,445	1,402	(43)
493110	General Warehousing and Storage	1,343	1,102	(241)
902999	State Government, Excluding Education and Hospitals	1,274	1,143	(131)
721110	Hotels (except Casino Hotels) and Motels	1,254	1,191	(63)
452319	All Other General Merchandise Stores	1,212	1,705	493
624410	Child Day Care Services	1,136	1,038	(98)
447110	Gasoline Stations with Convenience Stores	1,096	1,086	(10)
238220	Plumbing, Heating, and Air-Conditioning Contractors	1,041	952	(89)
621210	Offices of Dentists	1,034	1,051	17
444110	Home Centers	942	1,132	190
901149	US Postal Service	924	748	(176)
452210	Department Stores	893	609	(284)
236210	Industrial Building Construction	865	1,688	823
335314	Relay and Industrial Control Manufacturing	818	748	(70)
713940	Fitness and Recreational Sports Centers	777	1,079	302
311615	Poultry Processing	770	627	(143)
336390	Other Motor Vehicle Parts Manufacturing	759	630	(129)
561320	Temporary Help Services	751	142	(609)
561422	Telemarketing Bureaus and Other Contact Centers	729	950	221
624120	Services for the Elderly and Persons with Disabilities	701	839	138

Source: Emsi

From Industries to Occupations...

Standard Occupational Classification (SOC)

To find data SOC for specific occupations

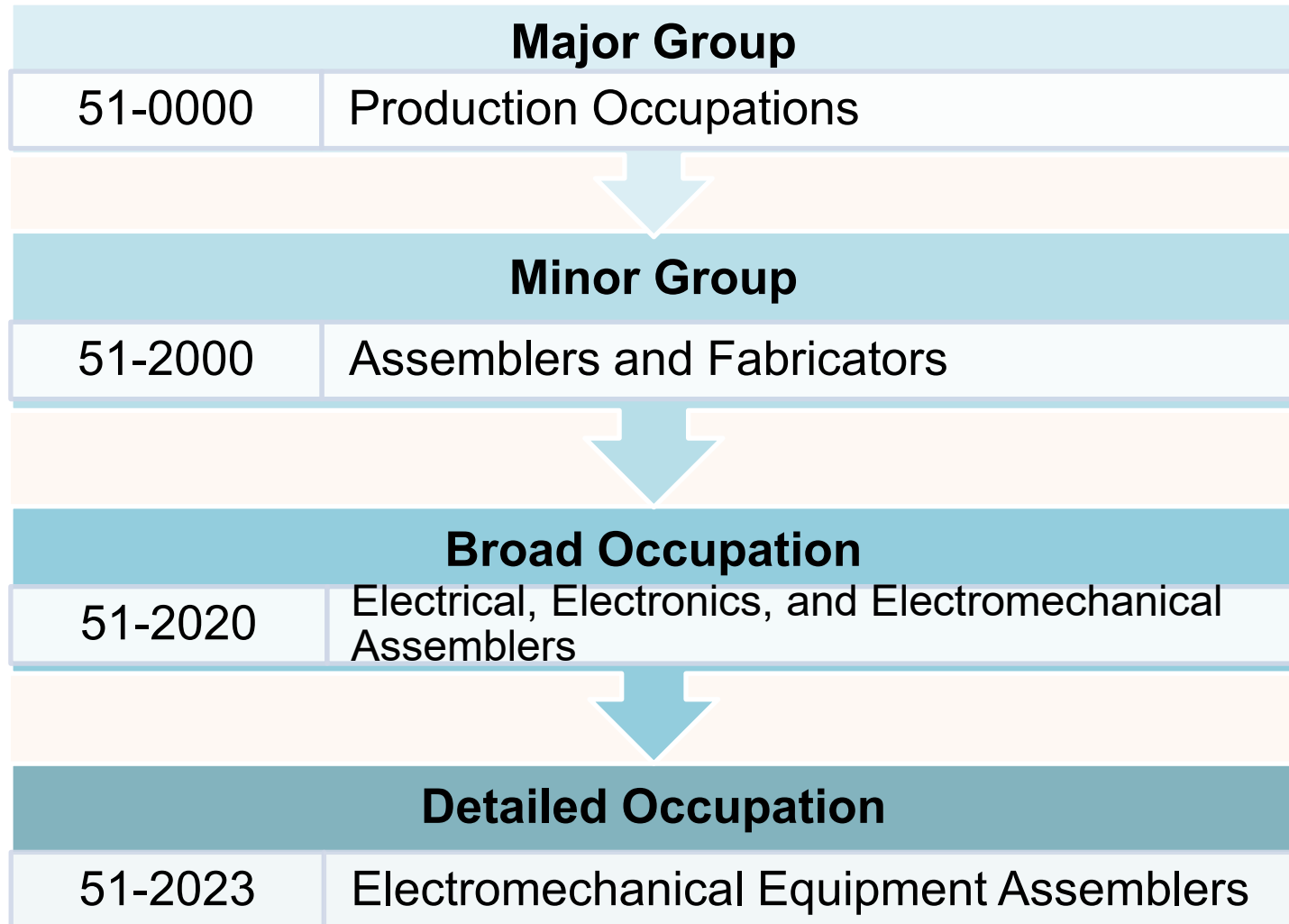
http://www.bls.gov/soc/major_groups.htm

SOC Code	Occupation	SOC Code	Occupation
11-0000	Management Occupations	35-0000	Food Preparation and Serving Related Occupations
13-0000	Business and Financial Operations Occupations	37-0000	Building and Grounds Cleaning and Maintenance Occupations
15-0000	Computer and Mathematical Occupations	39-0000	Personal Care and Service Occupations
17-0000	Architecture and Engineering Occupations	41-0000	Sales and Related Occupations
19-0000	Life, Physical, and Social Science Occupations	43-0000	Office and Administrative Support Occupations
21-0000	Community and Social Service Occupations	45-0000	Farming, Fishing, and Forestry Occupations
23-0000	Legal Occupations	47-0000	Construction and Extraction Occupations
25-0000	Education, Training, and Library Occupations	49-0000	Installation, Maintenance, and Repair Occupations
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	51-0000	Production Occupations
29-0000	Healthcare Practitioners and Technical Occupations	53-0000	Transportation and Material Moving Occupations
31-0000	Healthcare Support Occupations	55-0000	Military Specific Occupations
33-0000	Protective Service Occupations		

Manufacturing-relevant occupations



SOC Taxonomy: Hierarchy of Occupations





SOC value and limitations

Value

- Organizing framework
- Consistent approach to categorizing occupations and jobs everywhere
- Clusters similar jobs
- Recognizes that similar jobs may exist across different industries
- Some jobs may cross categorization

Limitations

- Inflexible; sometimes obsolete
- Difficult to explain to lay users and lack coverage
- Difficulties in coding jobs to occupations
- Too general in many cases
 - Sometimes too specific

Overcoming data limitations
requires local knowledge



Quick Poll:

Cumberland County companies made the largest number of new hires from which of the following occupations (all requiring formal education or training beyond high school) last year?

- Commercial Truck Drivers
- Elementary School Teachers
- Registered Nurses



Quick Poll:

Which of the following careers requiring an associate's degree or some formal postsecondary education pays entry level workers best?

- Licensed Practical Nurses
- Paralegals and Legal Assistants
- Preschool Teachers



Where Occupation Data Comes From: Occupation Employment Statistics ([OES](#))

Survey of 180,000 to 200,000 establishments per panel (every six months)

- Takes three years to fully collect data from 1.1 million establishments across the U.S.
- Reference months are May and November of each year
- NC Commerce conducts surveys in NC for BLS
- Published for May of each year, current published data is May 2019

- Data reported through OES
 - Estimated employment by NAICS (benchmarked to QCEW) and SOC
 - Wage by occupation
 - Mean, Median, 10%, 25%, 50%, 75%, and 90%
 - Data released for state and metro areas
 - [Asheville, NC](#)
 - [Burlington, NC](#)
 - [Charlotte-Concord-Gastonia, NC-SC](#)
 - [Durham-Chapel Hill, NC](#)
 - [Fayetteville, NC](#)
 - [Goldsboro, NC](#)
 - [Greensboro-High Point, NC](#)
 - [Greenville, NC](#)
 - [Hickory-Lenoir-Morganton, NC](#)
 - [Jacksonville, NC](#)
 - [Myrtle Beach-Conway-North Myrtle Beach, SC-NC](#)
 - [New Bern, NC](#)
 - [Raleigh, NC](#)
 - [Rocky Mount, NC](#)
 - [Virginia Beach-Norfolk-Newport News, VA-NC](#)
 - [Wilmington, NC](#)
 - [Winston-Salem, NC](#)
 - [Southeast Coastal North Carolina nonmetropolitan area](#)
 - [Northeast Coastal North Carolina nonmetropolitan area](#)
 - [Piedmont North Carolina nonmetropolitan area](#)
 - [Mountain North Carolina nonmetropolitan area](#)
- Private vendors model this data for counties using industry staffing pattern estimates



Quick-Tip Video: Determining Occupation Mix using Industry Staffing Patterns

Example:

**Motor Vehicle
Manufacturing**



Staffing-Patterns Matrix Can Show:



How the roles in the automaking industry are divided by occupation



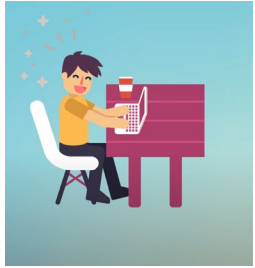
If the region is prepared for new roles



Estimate the number affected if jobs leave



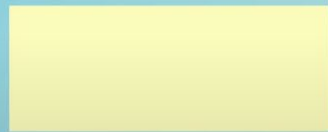
Appreciating Occupational Projections



Remember...

1. Projected over a period of several years based on historical data
2. Assumes full employment at the end of the period
3. Averages the total, assumes the same number of openings each year

Occupational openings



New jobs added



Those who change occupations



Those who leave the
labor force

Need to be replaced



Occupation Projections

Factors influencing projections

- Industry growth (due to increased demand for goods and services),
- Technological change (innovation, regulation, and cultural changes skill requirements)
- Other predictable factors (e.g., changes in labor force make-up)

Projection assumptions

- Starts with industry projections that drive need for workers
- Occupations primarily modeled based on current mix serving each industry
- Adjusts for expected changes in demand for certain occupations

Projection sources:

- [National \(BLS\)](#) – produced annually for 10 years from reference period (i.e., previous year) – released in September (recent change from December)
- [State \(NC Commerce\)](#)—produced biennially, 2 and 10 years from reference period (published 4 months after BLS projections)
- Private vendors—Emsi, JobsEQ – using proprietary methods, designed to build on BLS national projections and national algorithms, no special local knowledge



Quick Tip Video: Translating Job Titles to Occupations

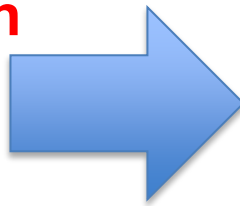




Making the Data More Useful by Narrowing the Focus

REMINDER: Our Benchmark Measures

- **Most job openings in relevant fields**
 - Current
 - Future
- **Wages paid**
 - At entry
 - Possible wage progression
- Opportunities (leading to related fields)
 - Career clusters
 - Career pathways



Some key questions to consider

- Which data point should we use for “openings”?
- What is a “relevant field” (i.e., how do we link academic programs to occupations)?
- What are “entry level” wages?
- What’s an adequate wage?

Adequate Wage: Earning Enough to Live

Typical Expenses

Cumberland County

These figures show the individual expenses that went into the living wage estimate. Their values vary by family size, composition, and the current location.

	1 ADULT				2 ADULTS (1 WORKING)				2 ADULTS (BOTH WORKING)			
	0 Children	1 Child	2 Children	3 Children	0 Children	1 Child	2 Children	3 Children	0 Children	1 Child	2 Children	3 Children
Food	\$3,010	\$4,446	\$6,682	\$8,863	\$5,518	\$6,877	\$8,872	\$10,802	\$5,518	\$6,877	\$8,872	\$10,802
Child Care	\$0	\$6,959	\$10,141	\$13,323	\$0	\$0	\$0	\$0	\$0	\$6,959	\$10,141	\$13,323
Medical	\$2,305	\$7,945	\$7,657	\$7,778	\$5,495	\$7,657	\$7,778	\$7,679	\$5,495	\$7,657	\$7,778	\$7,679
Housing	\$8,940	\$10,716	\$10,716	\$14,952	\$8,988	\$10,716	\$10,716	\$14,952	\$8,988	\$10,716	\$10,716	\$14,952
Transportation	\$4,322	\$8,425	\$10,689	\$11,645	\$8,425	\$10,689	\$11,645	\$12,206	\$8,425	\$10,689	\$11,645	\$12,206
Other	\$2,812	\$4,688	\$4,867	\$6,123	\$4,688	\$4,867	\$6,123	\$6,126	\$4,688	\$4,867	\$6,123	\$6,126
Required annual income after taxes	\$21,389	\$43,179	\$50,752	\$62,682	\$33,114	\$40,806	\$45,133	\$51,765	\$33,114	\$47,765	\$51,765	\$59,952
Annual taxes	\$4,191	\$8,515	\$10,011	\$12,328	\$6,528	\$8,046	\$8,901	\$10,172	\$6,528	\$9,421	\$10,172	\$11,645
Required annual income before taxes	\$25,580	\$51,694	\$60,763	\$75,011	\$39,641	\$48,853	\$54,034	\$61,937	\$39,641	\$57,186	\$61,937	\$71,597

Source: [MIT Living Wage Calculator](#) 2019 data

Let's Start with Defining a “Living Wage”

Living Wage Calculation for Cumberland County, North Carolina

The living wage shown is the hourly rate that an **individual** in a household must earn to support his or herself and their family. The assumption is the sole provider is working full-time (2080 hours per year). The tool provides information for individuals, and households with one or two working adults and zero to three children. In the case of households with two working adults, all values are **per working adult, single or in a family** unless otherwise noted.

The state minimum wage is the same for all individuals, regardless of how many dependents they may have. Data are updated annually, in the first quarter of the new year. State minimum wages are determined based on the posted value of the minimum wage as of January one of the coming year (National Conference of State Legislatures, 2019). The poverty rate reflects a person's gross annual income. We have converted it to an hourly wage for the sake of comparison.

For further detail, please reference the [technical documentation here](#).

	1 ADULT				2 ADULTS (1 WORKING)				2 ADULTS (BOTH WORKING)		
	0 Children	1 Child	2 Children	3 Children	0 Children	1 Child	2 Children	3 Children	0 Children	1 Child	2 Children
Living Wage	\$12.30	\$24.85	\$29.21	\$36.06	\$19.06	\$23.49	\$25.98	\$29.78	\$9.53	\$13.75	\$15.91
Poverty Wage	\$6.00	\$8.13	\$10.25	\$12.38	\$8.13	\$10.25	\$12.38	\$14.50	\$4.06	\$5.13	\$6.19
Minimum Wage	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25	\$7.25

Source: [MIT Living Wage Calculator](#)

Which of these largest Cumberland County occupations appear to be **UNPROMISING** as potential focus areas for FTCC curriculum planning? (Use chat)

Cumberland County 10-Year Employment Projections for Largest Occupations

SOC	Description	2019 Jobs	2029 Jobs	2019 Hires	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training	Annual Openings	Pct. 10 Hourly Earnings	Pct. 25 Hourly Earnings	Pct. 75 Hourly Earnings	Pct. 90 Hourly Earnings	Avg. Hourly Earnings	Median Hourly Earnings
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	6,546	7,213	12,234	No formal educational credential	None	Short-term on-the-job training	1,297	\$7.91	\$8.37	\$10.48	\$12.89	\$9.67	\$9.14
41-2031	Retail Salespersons	5,045	5,064	4,848	No formal educational credential	None	Short-term on-the-job training	747	\$7.98	\$8.66	\$12.23	\$17.22	\$11.50	\$9.95
41-2011	Cashiers	4,785	4,723	5,974	No formal educational credential	None	Short-term on-the-job training	905	\$7.85	\$8.32	\$10.50	\$12.17	\$9.56	\$9.10
43-9061	Office Clerks, General	3,491	3,253	2,616	High school diploma or equivalent	None	Short-term on-the-job training	408	\$9.60	\$11.18	\$17.83	\$21.03	\$14.60	\$13.97
29-1141	Registered Nurses	3,113	3,336	805	Bachelor's degree	None	None	194	\$22.61	\$27.06	\$40.14	\$46.02	\$34.09	\$33.78
35-3031	Waiters and Waitresses	2,387	2,641	4,979	No formal educational credential	None	Short-term on-the-job training	512	\$7.95	\$8.44	\$10.82	\$13.42	\$9.92	\$9.23
31-1014	Nursing Assistants	2,171	2,170	1,685	Postsecondary nondegree award	None	None	246	\$9.23	\$10.23	\$13.29	\$15.60	\$11.97	\$11.48
43-4051	Customer Service Representatives	2,016	1,981	1,832	High school diploma or equivalent	None	Short-term on-the-job training	269	\$8.55	\$10.11	\$17.02	\$21.40	\$14.14	\$13.05
25-2021	Elementary School Teachers, Except Special Education	1,868	1,746	487	Bachelor's degree	None	None	134	\$15.70	\$17.43	\$23.55	\$27.04	\$20.53	\$20.23
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	1,844	1,638	1,978	No formal educational credential	None	Short-term on-the-job training	231	\$8.29	\$9.29	\$13.44	\$15.70	\$11.68	\$11.00
13-1199	Business Operations Specialists, All Other	1,755	1,890	671	Bachelor's degree	None	None	190	\$24.73	\$30.49	\$46.29	\$52.14	\$38.45	\$38.62
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	1,637	1,561	1,822	No formal educational credential	None	Short-term on-the-job training	226	\$8.34	\$9.45	\$14.20	\$17.37	\$12.28	\$11.59
43-5081	Stock Clerks and Order Fillers	1,625	1,693	1,226	High school diploma or equivalent	None	Short-term on-the-job training	229	\$8.56	\$9.66	\$15.49	\$19.41	\$12.79	\$11.35
41-1011	First-Line Supervisors of Retail Sales Workers	1,479	1,504	1,039	High school diploma or equivalent	Less than 5 years	None	168	\$11.22	\$13.70	\$23.95	\$29.53	\$19.61	\$18.14
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,430	1,369	1,245	Postsecondary nondegree award	None	Short-term on-the-job training	164	\$12.50	\$14.56	\$21.90	\$27.44	\$18.44	\$17.45

Source: Emsi (data modeled from QCEW, Projections, and OES); data available for 775 occupations

Cumberland County 10-Year Employment Projections for **Government Sector**

Exercise #2

Describe Opportunities and Threats in Cumberland County Economy

20 of 316 Govt sector-related occupations represent 43% of employment.

1. Which of these occupations provide the **GREATEST PROMISE** as focus for the college based on:

- Education and OJT required
- Growth in the occupation
- Number of jobs available
- Wages offered?

2. How do these occupations relate to:

- the college's strategic strengths and weaknesses
- known trends in the occupation or related academic areas?

SOC	Description	Employed in Industry (2019)	Employed in Industry (2029)	Change (2019 - 2029)	Median Hourly Earnings	Typical Entry Level Education	Work Experience Required	Typical On-The-Job Training	Annual Job Openings
29-1141	Registered Nurses	2,322	2,458	136	\$ 33.78	Bachelor's degree	None	None	194
25-2021	Elementary School Teachers, Except Special Education	1,784	1,639	(145)	\$ 20.23	Bachelor's degree	None	None	134
13-1199	Business Operations Specialists, All Other	1,491	1,601	110	\$ 38.62	Bachelor's degree	None	None	190
25-9041	Teacher Assistants	1,128	1,049	(79)	\$ 10.50	Some college, no degree	None	None	134
43-9061	Office Clerks, General	1,106	1,042	(64)	\$ 13.97	High school diploma or equivalent	None	Short-term on-the-job training	408
25-1099	Postsecondary Teachers	884	920	36	\$ 30.18	Doctoral or professional degree	None	None	108
31-1014	Nursing Assistants	870	906	36	\$ 11.48	Postsecondary nondegree award	None	None	246
25-2031	Secondary School Teachers, Except Special and Career/Technical Education	837	781	(56)	\$ 21.58	Bachelor's degree	None	None	60
25-3098	Substitute Teachers	809	743	(66)	\$ 10.88	Bachelor's degree	None	None	94
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	688	681	(7)	\$ 11.00	No formal educational credential	None	Short-term on-the-job training	231
33-3051	Police and Sheriff's Patrol Officers	603	622	19	\$ 21.44	High school diploma or equivalent	None	Moderate-term on-the-job training	45
43-4199	Information and Record Clerks, All Other	546	583	37	\$ 21.96	High school diploma or equivalent	None	Short-term on-the-job training	72
29-2061	Licensed Practical and Licensed Vocational Nurses	540	528	(12)	\$ 22.39	Postsecondary nondegree award	None	None	102
25-3097	Teachers and Instructors, All Other	521	514	(7)	\$ 30.49	Bachelor's degree	None	None	83
13-1111	Management Analysts	483	589	106	\$ 37.29	Bachelor's degree	Less than 5 years	None	82
15-1199	Computer Occupations, All Other	480	521	41	\$ 41.43	Bachelor's degree	None	None	51
43-5052	Postal Service Mail Carriers	447	375	(72)	\$ 23.17	High school diploma or equivalent	None	Short-term on-the-job training	31
33-2011	Firefighters	430	445	15	\$ 12.48	Postsecondary nondegree award	None	Long-term on-the-job training	33
53-3022	Bus Drivers, School or Special Client	410	380	(30)	\$ 13.51	High school diploma or equivalent	None	Short-term on-the-job training	67
49-9071	Maintenance and Repair Workers, General	390	398	8	\$ 17.98	High school diploma or equivalent	None	Moderate-term on-the-job training	120

Source: Emsi

Review data on occupations for industries most closely aligned with your program



- Determine the **region** that you want to analyze
- Identify which **industry or group of industries** are most important and why
- **Ask CREC for data** on the number of existing jobs, anticipated openings, educational requirements, entry level wages, and wage progression
- With the new data, identify the **five most relevant occupations** for which your program should be planning
- Estimate the **number of workers needed each year in the next five years** to meet labor market demand
- Compare that **number to recent program graduates and enrollees** during the past year

Next Steps: Upcoming Sessions

July 2

- Present homework results and insights
- Analyze 'real-time' data, skill requirements, and pathway opportunities
- Use available data to inform conversations with employers

July 16

- Develop findings from analysis that should be presented to the Board of Trustees
- Provide preliminary recommendations for strategic areas of focus

Until next time...



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