NC DEPARTMENT of COMMERCE
LABOR & ECONOMIC ANALYSIS

LMI Tuesdays!!!!

Session 13: Application Day

November 2, 2021

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https://www.nccommerce.com/about-us/divisions-programs/labor-economic-analysis-division#online-data-services

New Landing Page for Slide Decks:
https://www.nccommerce.com/documents/lmi-tuesday

Advertisement and instructions for joining:
https://public.ncworks.gov/TRAINResources/Prod/LMITues2021.pdf

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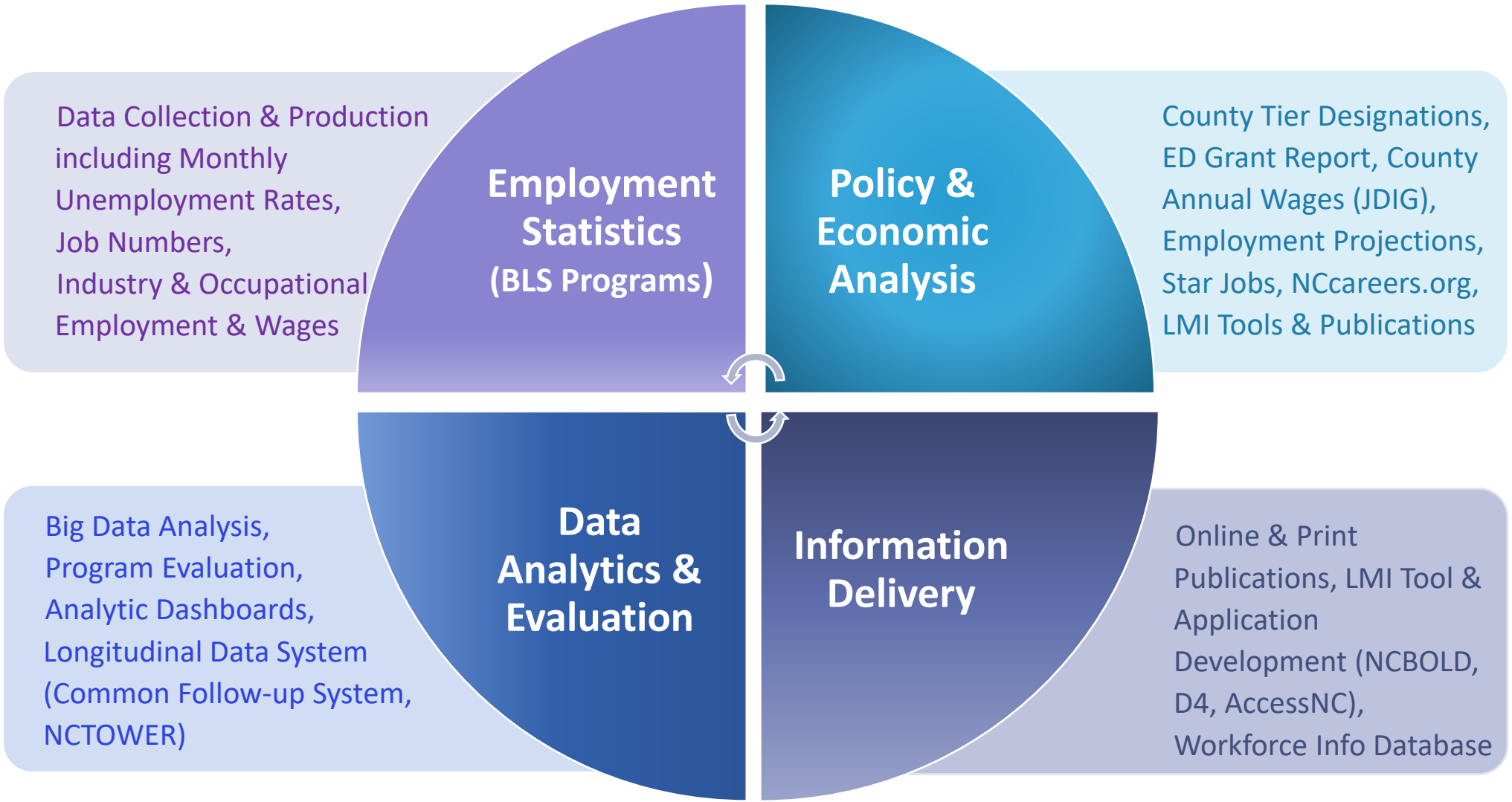
LEAD TEAMS



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Sample List of Products and Tools

NCcareers.org
DREAM IT PLAN IT BE IT

NC TOWER

NCBOLD

THE LEAD FEED

NORTH CAROLINA STAR JOBS

4 DEMAND DRIVEN DATA DELIVERY

ACCESSNC
North Carolina Economic Data & Site Information

CFS
NORTH CAROLINA
COMMON FOLLOW-UP SYSTEM

LABOR SUPPLY/DEMAND ANALYZER

EMPLOYMENT PROJECTIONS

NC TODAY

LABOR MARKET OVERVIEW

North Carolina
Labor Market Conditions

INTEREST PROFILER

North Carolina
Career Clusters Guide

UI Claim Data Dashboard

OCCUPATIONAL PROFILES

REALITY CHECK

CAREER CLUSTER SURVEY

WDB Dashboard

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NC Economic Trends Blog:

The LEAD FEED

https://www.nccommerce.com/news/the-lead-feed

On Twitter:

@CareersInNC
@LeadNC

Agenda for Today's Session

Applications and scenarios of using LMI

(we have 4 ready to go, but if you have one- we can use one of yours and try it out on the fly, and save ours for a future session)

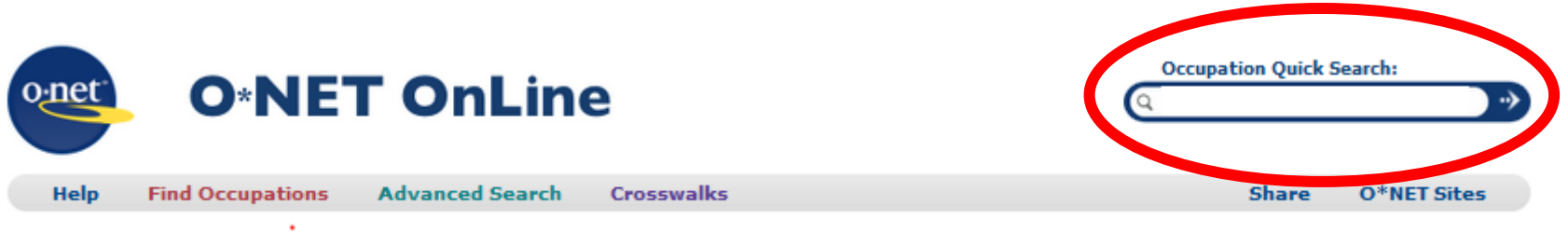
Scenario # 1

(from Tracy from DHHS- thanks!) We are looking to identify information about direct care providers for disabled individuals. We know salaries are lower when working for an in-home care provider and higher when working for a health system. It would be helpful to have these statistics and be able to compare the number of in-home care providers in various regions and salary differences in these regions.

Facts to verify:

- What occupation(s) would we need to consider for direct care workers?
- How do we get establishments, employment, and wages for these occupation(s)?
    - In different regions?
    - In different industries?

Fact # 1: What occupation(s) would we need to consider for direct care workers?



- O*NET online → Occupational Quick Search
- Type in 'direct care workers'

- This yields as its top occupation: SOC 31-1122.00: Personal Care Aides
- (Also others- but comparable may be) SOC 31-1121.00: Home Health Aides

Fact # 2a: How do we get employment and wages for these occupation(s)?

- D4.nccommerce.com → OEWS
- Select Occupation:
  - Occupational Family 31-0000 Healthcare Support Occupations
  - Note: do not uncheck North Carolina

Fact # 2b: How do we get employment and wages for these occupation(s)? In different regions?

- D4.nccommerce.com → OEWS
- Select Occupation:
  - Occupational Family 31-0000 Healthcare Support Occupations
  - In geography in left banner, select regions of interest
    - For counties associated with Metropolitan Statistical Areas, and especially Balance of State, consult with Bureau of Labor Statistics: https://www.bls.gov/oes/2020/may/msa_def.htm#3700001
    - (scroll up and down from here to see all counties associated with regions in NC)
  - Keep industry=000000 (for now)
- For this example, let's compare Piedmont non-metro versus Winston-Salem

Fact # 2b: How do we get employment and wages for these occupation(s)? In different regions?

Area Name	Occupational Code	Occupation	Industry	Year	Employment	Employment Relative Standard Error	Response Rate(%)	Hourly wage; mean	Annual wage; mean	Wage Relative Standard Error	Hourly wage; 10th percentile	Hourly wage; 25th percentile	Hourly wage; median
Piedmont NC Nonmetropolitan Area	31-1120	Home Health and Personal Care Aides	Total, All Industries	2020	4,240	7.8	82.0	$10.67	$22,200.00	1.7	$8.23	$9.10	$10.39
Winston-Salem MSA	31-1120	Home Health and Personal Care Aides	Total, All Industries	2020	4,210	11.7	71.0	$11.42	$23,760.00	1.9	$8.59	$9.95	$11.18

Findings:

- Winston-Salem MSA pays these workers more than Piedmont NC Nonmetropolitan area
- They have fairly similar amounts of Home Health and Personal Care Aides in each of these regions.

Fact # 2c: How do we get employment and wages for these occupation(s)? In different industries?

- D4.nccommerce.com → OEWS
- Select Occupation:
  - Occupational Family 31-0000 Healthcare Support Occupations
- Select Industry:
    - NAICS 6216 Home Health Care Services (click), and then scroll to..
    - NAICS 623 Nursing and Residential Care Facilities (then Ctrl+click)
- For this example, we can keep comparing Piedmont non-metro versus Winston-Salem

Fact # 2c: How do we get employment and wages for these occupation(s)? In different industries?

Area Name	Occupational Code	Occupation	Industry	Year	Employment	Employment Relative Standard Error	Response Rate(%)	Hourly wage; mean	Annual wage; mean	Wage Relative Standard Error	Hourly wage; 10th percentile	Hourly wage; 25th percentile	Hourly wage; median	Hourly wage; 75th percentile	Hourly wage; 90th percentile
Piedmont NC Nonmetropolitan Area	31-1120	Home Health and Personal Care Aides	Nursing and Residential Care Facilities	2020	1,390	18.3	83.0	$11.08	$23,050.00	3.5	$8.32	$9.46	$10.91	$12.18	$14.21
Piedmont NC Nonmetropolitan Area	31-1120	Home Health and Personal Care Aides	Home Health Care Services	2020	1,390	13.4	86.0	$10.27	$21,350.00	3.1	$8.15	$8.85	$9.93	$11.38	$13.02
Winston-Salem MSA	31-1120	Home Health and Personal Care Aides	Home Health Care Services	2020	960	25.9	78.0	$10.53	$21,900.00	4.2	$8.09	$8.87	$10.38	$11.76	$12.88
Winston-Salem MSA	31-1120	Home Health and Personal Care Aides	Nursing and Residential Care Facilities	2020	2,030	19.2	70.0	$11.75	$24,440.00	2.6	$9.09	$10.29	$11.42	$12.62	$15.02

Fact # 2c: How do we get employment and wages for these occupation(s)? In different industries?

Area Name	Occupational Code	Occupation	Industry	Year	Employment	Employment Relative Standard Error	Response Rate(%)	Hourly wage; mean	Annual wage; mean	Wage Relative Standard Error	Hourly wage; 10th percentile	Hourly wage; 25th percentile	Hourly wage; median	Hourly wage; 75th percentile	Hourly wage; 90th percentile
Piedmont NC Nonmetropolitan Area	31-1120	Home Health and Personal Care Aides	Nursing and Residential Care Facilities	2020	1,390	18.3	83.0	$11.08	$23,050.00	3.5	$8.32	$9.4	$10.91	12.18	$14.21
Piedmont NC Nonmetropolitan Area	31-1120	Home Health and Personal Care Aides	Home Health Care Services	202	1,390	13.4	86.0	$10.27	$21,350.00	3.1	$8.15	$8.8	$9.93	11.38	$13.02
Winston-Salem MSA	31-1120	Home Health and Personal Care Aides	Home Health Care Services	2020	960	25.9	78.0	$10.53	$21,900.00	4.2	$8.09	$8.8	$10.38	11.76	$12.88
Winston-Salem MSA	31-1120	Home Health and Personal Care Aides	Nursing and Residential Care Facilities	2020	2,030	19.2	70.0	$11.75	$24,440.00	2.6	$9.09	$10.29	$11.42	$12.62	$15.02

Findings:

- Winston-Salem MSA has greater percentage of Home Health and Personal Care Aides in Nursing and Residential Care Facilities than in Home Health Care Services while the non-metro area has similar employment.
- In each geography, Nursing and Residential Care Facilities pay better than Home Health Care Services

Fact # 2d: How do we get establishment data here?

- D4.nccommerce.com → QCEW
- Select counties of interest/regions:
  - Winston-Salem MSA (that was easy)
  - Piedmont Non-Metro (from nearby https://www.bls.gov/oes/2020/may/msa_def.htm#3700001)
  - Anson, Caswell, Cleveland, Granville, Lee, Montgomery, Moore, Richmond, Rutherford, Stanly, Surry, Vance, Wilkes Counties
- Select Industry:
  - NAICS 6216 Home Health Care Services (click), and then scroll to..
  - NAICS 623 Nursing and Residential Care Facilities (then Ctrl+click)

Fact # 2d: How do we get establishment data here?

Year	Quarter	Area Name	Ownership	NAICS Code	Industry	Establishments
2020	00	Anson County	Aggregate of all types	6216	Home Health Care Services	*
2020	00	Caswell County	Aggregate of all types	6216	Home Health Care Services	*
2020	00	Cleveland County	Aggregate of all types	6216	Home Health Care Services	10
2020	00	Granville County	Aggregate of all types	6216	Home Health Care Services	5
2020	00	Lee County	Aggregate of all types	6216	Home Health Care Services	5
2020	00	Montgomery County	Aggregate of all types	6216	Home Health Care Services	*
2020	00	Moore County	Aggregate of all types	6216	Home Health Care Services	9
2020	00	Richmond County	Aggregate of all types	6216	Home Health Care Services	6
2020	00	Rutherford County	Aggregate of all types	6216	Home Health Care Services	9
2020	00	Stanly County	Aggregate of all types	6216	Home Health Care Services	6
2020	00	Surry County	Aggregate of all types	6216	Home Health Care Services	7
2020	00	Vance County	Aggregate of all types	6216	Home Health Care Services	9
2020	00	Wilkes County	Aggregate of all types	6216	Home Health Care Services	5
2020	00	Winston-Salem MSA	Aggregate of all types	6216	Home Health Care Services	*

Fact # 2d: How do we get establishment data here?

Year	Quarter	Area Name	Ownership	NAICS Code	Industry	Establishments
2020	00	Davidson County	Aggregate of all types	6216	Home Health Care Services	7
2020	00	Davie County	Aggregate of all types	6216	Home Health Care Services	*
2020	00	Forsyth County	Aggregate of all types	6216	Home Health Care Services	38
2020	00	Stokes County	Aggregate of all types	6216	Home Health Care Services	5
2020	00	Winston-Salem MSA	Aggregate of all types	6216	Home Health Care Services	*
2020	00	Yadkin County	Aggregate of all types	6216	Home Health Care Services	*

Findings:

- Forsyth County clearly has the most Home Health Care Services organizations of any of the counties on this slide and the previous- but that makes sense, as it is both the largest county of all of them, and has strong Health Care presence.

Scenario # 2

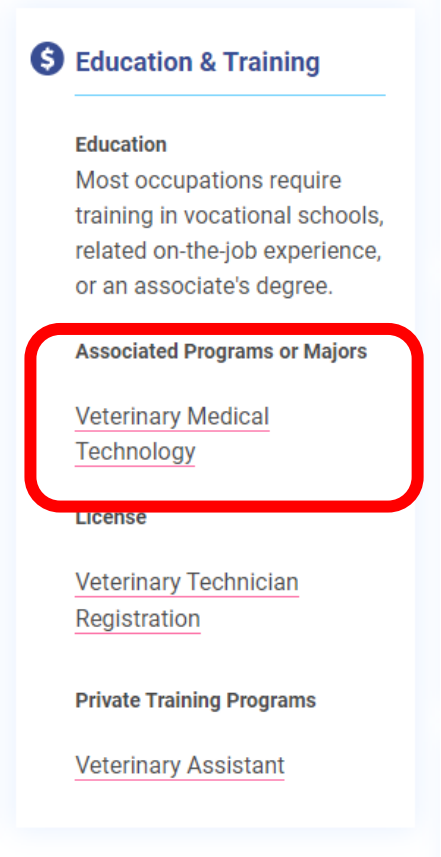
Fayetteville Technical Community College puts in an application for funding to buy equipment to support growing a Veterinary Technologist program, claiming that this would be the only Vet Tech program in the area. The application states that Vet Tech is projected to be one of the fastest growing occupations in the region and workers can graduate from the program making close to $28K per year.

Information we can verify:

- Where are other Vet Tech programs in NC?
- What is the demand for Vet Techs projected to be?
- What are the wages paid?

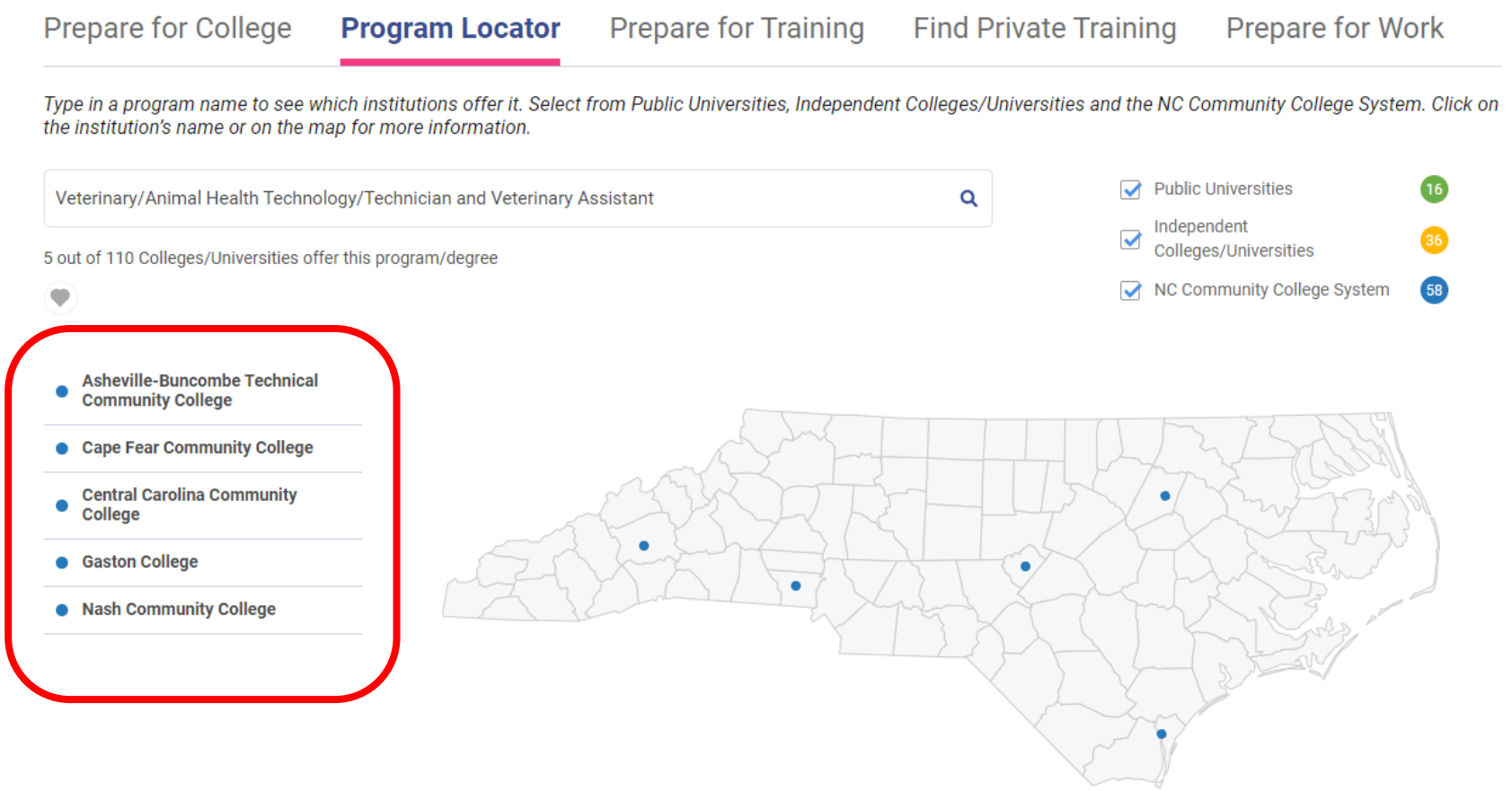
Fact # 1: Where are other Vet Tech programs in NC?

- NCcareers.org → Explore Occupations
- Search for Veterinarian Technologist
- Scroll down to the Education and Training section and identify the program(s) to prepare students to work as a Vet Tech
- Click on the Program Title(s) and see which schools offer the program



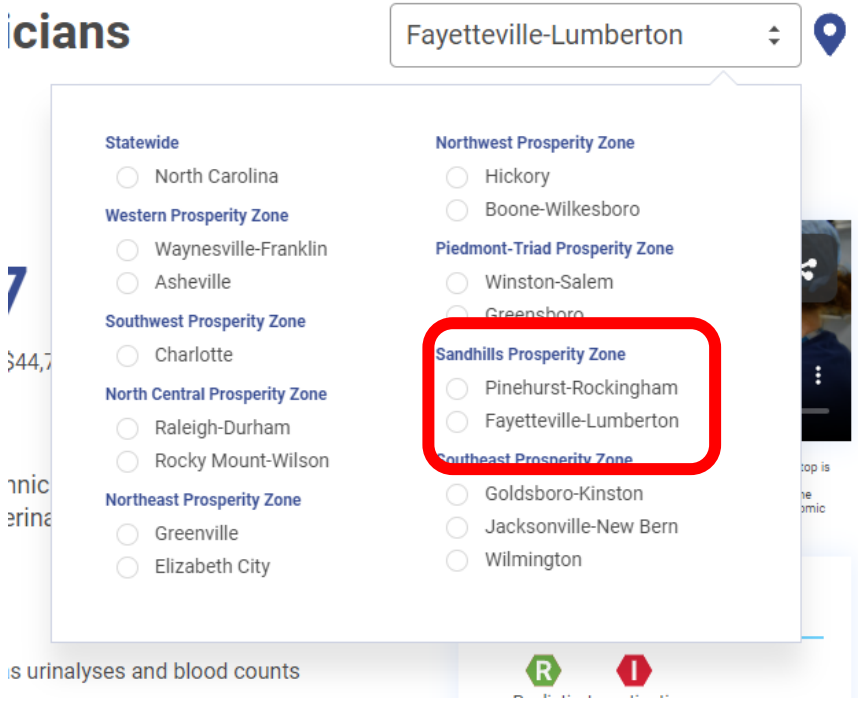
Five schools offer a program to prepare students to be a Vet Tech:

- AB Tech
- Cape Fear CC
- Central Carolina CC
- Gaston College
- Nash CC



Fact # 2: What is the projected demand for Vet Techs?

- NCcareers.org → Explore Occupations
- Search for Veterinarian Technologist
- Change Geography to Fayetteville-Lumberton
  - Note: the default geography is statewide



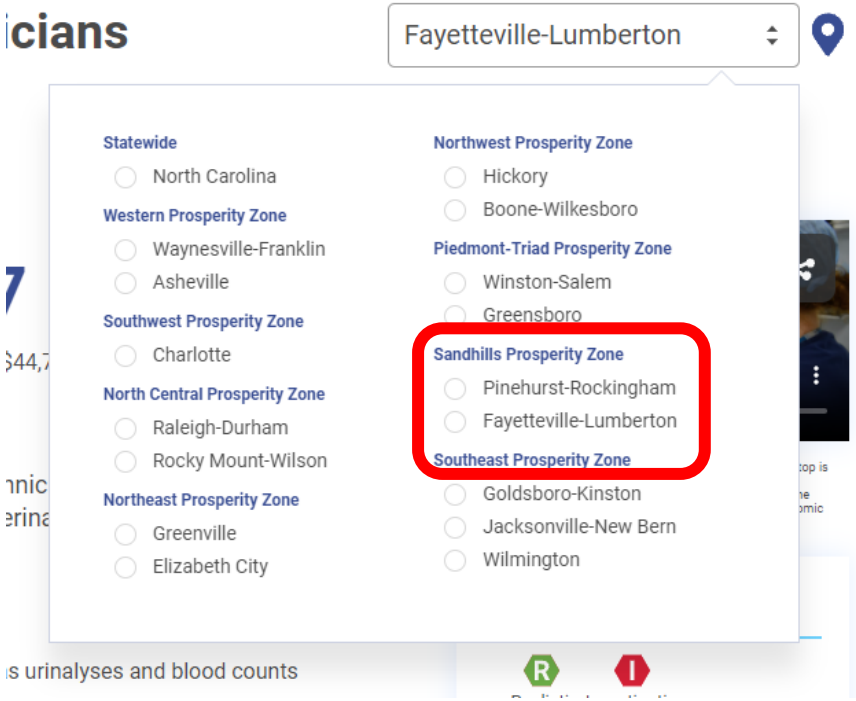
For the Fayetteville-Lumberton Region

- The number of Vet Tech jobs is expected to increase from 134 in 2018 to 156 in 2028.
- The occupation is projected to grow 1.5% or add 14 jobs per year.

- The number of Vet Tech Job Openings is projected to be a 4/5 until 2028.
- The Job Growth Rate is projected to be 5/5.

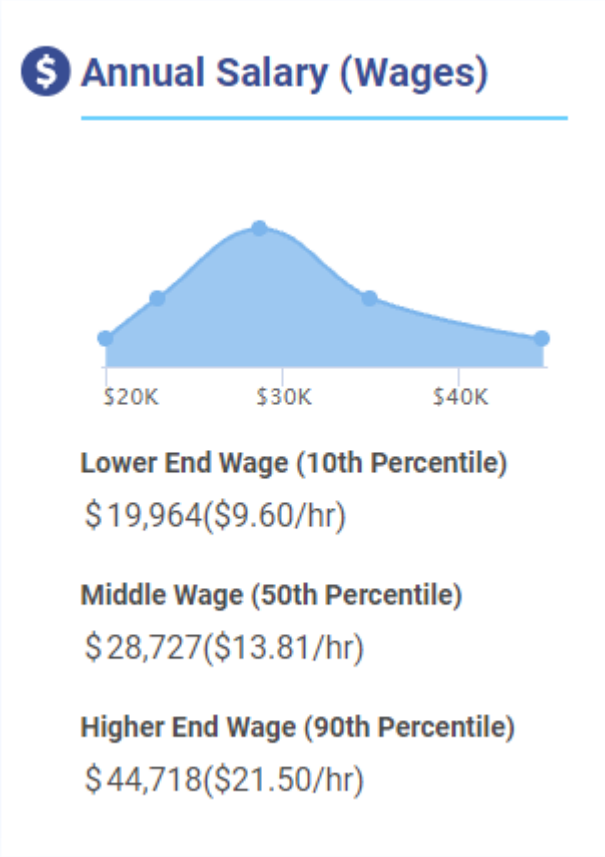
Fact # 3: What are the wages for Vet Techs?

- NCcareers.org → Explore Occupations
- Search for Veterinarian Technologist
- Change Geography to Fayetteville-Lumberton
  - Note: The default geography is Statewide



For the Fayetteville-Lumberton Region

- The Vet Tech lower end (10th Percentile) wage is $19,964.
- The Vet Tech middle (50th Percentile) wage is $28,727.
- The Vet Tech higher end (90th Percentile) wage is $44,718.



Scenario # 3

Wilkes County applies for funding to help develop a greenfield site for economic development purposes. The application claims a need because of a declining number of jobs in the county and a high unemployment rate over the last five years (2015 – 2020). They note that they would like to target a new manufacturing facility as they feel they have a strong potential manufacturing workforce that would be attractive to a potential company.

Fact to verify:

- Total job loss between 2015 and 2020
- Manufacturing job loss between 2015 & 2020
- Supply & demand for production jobs
- Unemployment rate since 2015 (Compared to statewide)

Fact # 1: What is the total job loss in Wilkes County between 2015 and 2020?

- D4.nccommerce.com → QCEW
- Change Geography to Wilkes County
- Select “Total (000000)” under NAICS Level and Industry
- Keep “Aggregate of all Types” under Ownership
- Select 2020 and 2015 under year
  - Note: holding down the “Ctrl” button and selecting your variable will allow for multiple selections
- Select “Annual” under Period.
- Click “View”

Year	Quarter	Area Name	Ownership	NAICS Code	Industry	Establishments	Average Employment
2015	00	Wilkes County	Aggregate of all types	000000	Total, All Industries	1,272	21,208
2020	00	Wilkes County	Aggregate of all types	000000	Total, All Industries	1,334	19,998

Average employment (jobs) in Wilkes County has decreased from 21,208 in 2015 to 19,998 in 2020.

Fact # 2: What is the Manufacturing job loss in Wilkes County between 2015 & 2020?

- D4.nccommerce.com → QCEW
- Change Geography to Wilkes County
  - Note: North Carolina is checked by default
- Select “Sector (2-digit)” under NAICS Level
- Select “31 – Manufacturing” under Industry
- Keep “Aggregate of all Types” under Ownership
- Select 2020 and 2015 under year
  - Note: holding down the “Ctrl” button will allow for multiple selections
- Select “Annual” under Period.
- Click “View”

Year	Quarter	Area Name	Ownership	NAICS Code	Industry	Establishments	Average Employment	Er
2015	00	Wilkes County	Aggregate of all types	31	Manufacturing	67	4,497	
2020	00	Wilkes County	Aggregate of all types	31	Manufacturing	62	4,209	

Average manufacturing employment (jobs) in Wilkes County has decreased from 4,497 in 2015 to 4,209 in 2020.

Fact # 3: Does Wilkes County have a high unemployment rate ?

- D4.nccommerce.com → LAUS
- Select Geography for Wilkes County
  - Note: do not uncheck North Carolina
- Select “Not Seasonally Adjusted” under Type
  - Note: County rates are not available seasonally adjusted
- Select “2020” under Year
- Select the month(s) you want to compare
- Select “View” to view the data on screen
  - Note: you can also download the data to an Excel file for manipulation, graphing or review

Area Name	Year	Month	Adjusted	LaborForce	Employed	Unemployed	Unemployment Rate(%)
North Carolina	2019	00	Not Seaonally Adjusted	5,077,492	4,885,611	191,881	3.8
Wilkes County	2019	00	Not Seaonally Adjusted	29,566	28,413	1,153	3.9
North Carolina	2020	00	Not Seaonally Adjusted	4,950,859	4,587,407	363,452	7.3
Wilkes County	2020	00	Not Seaonally Adjusted	28,483	26,544	1,939	6.8

Additional information regarding the LAUS program including data for other states and geographical areas can be accessed on the Bureau of Labor Statistics website at https://www.bls.gov/lau/

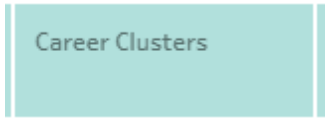
Wilkes County (3.9%) had a higher annual unemployment rate than NC (3.8%) in 2019, but the county's 2020 rate (6.8%) is lower that NC (7.3%).

Note: that Wilkes lost 3.6% of the labor force during that time while NC only lost 2.5%

Fact # 4: Does Wilkes County have workers looking for manufacturing jobs?

NC Labor Supply and Demand

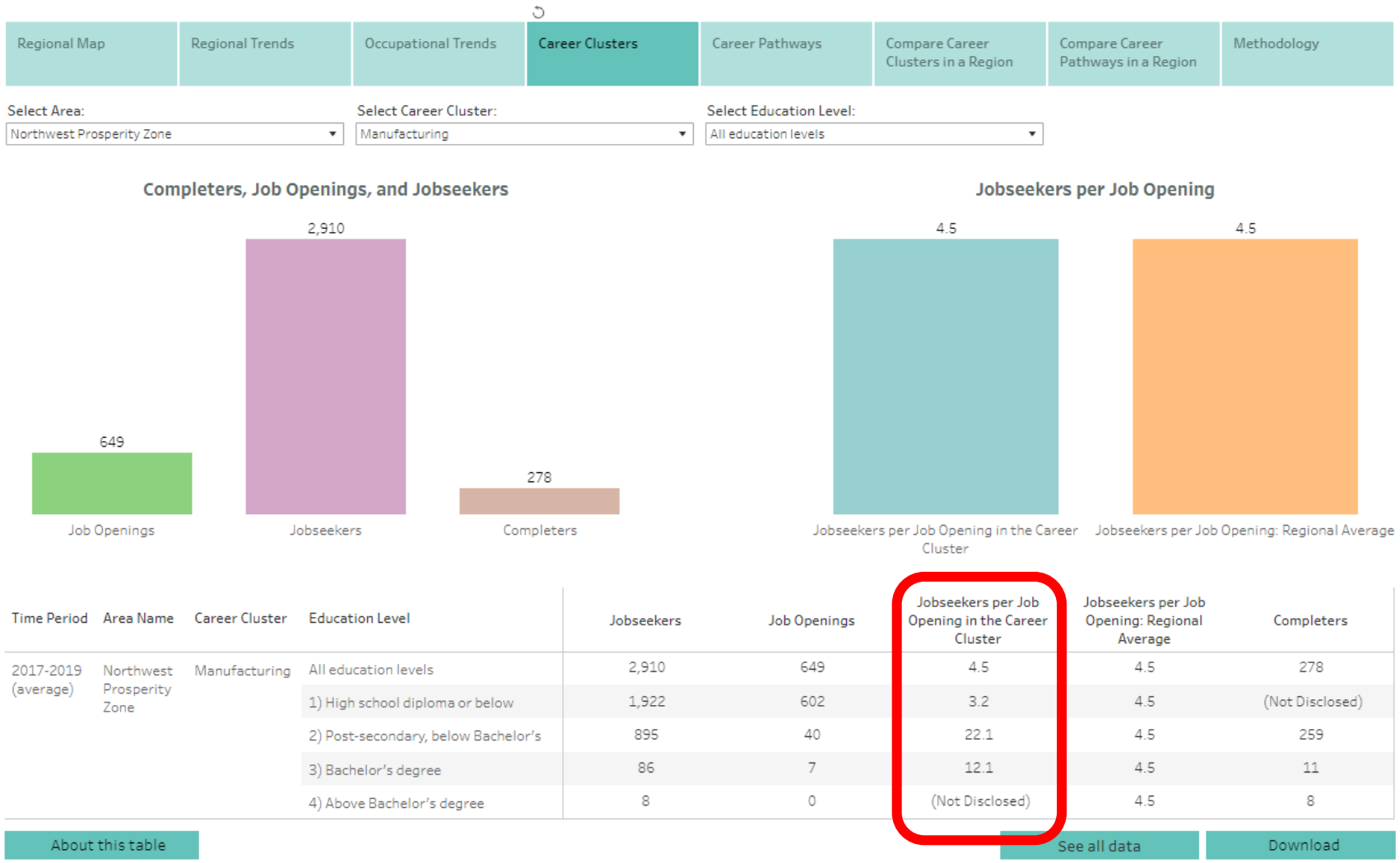
- Analytics.nccommerce.com → NC Labor Supply & Demand
- Select “Career Clusters” in top menu



- Choose “Northwest Prosperity Zone” under Select Area drop down menu
  - Note: Wilkes County is a part of the Northwest Prosperity Zone
- Choose “Manufacturing” under Select Career Cluster drop down menu

There are 4.5 Jobseekers per job opening in the Manufacturing Career Cluster

Note the other available data about education completers.



Time Period	Area Name	Career Cluster	Education Level	Jobseekers	Job Openings	Jobseekers per Job Opening in the Career Cluster	Jobseekers per Job Opening: Regional Average	Completers
2017-2019 (average)	Northwest Prosperity Zone	Manufacturing	All education levels	2,910	649	4.5	4.5	278
			1) High school diploma or below	1,922	602	3.2	4.5	(Not Disclosed)
			2) Post-secondary, below Bachelor's	895	40	22.1	4.5	259
			3) Bachelor's degree	86	7	12.1	4.5	11
			4) Above Bachelor's degree	8	0	(Not Disclosed)	4.5	8

Scenario # 4

The City of Clinton applied for funding to upgrade their water and sewer system to serve the needs of their downtown area. The application states that this funding will assist in locating a brewery into their downtown area that will employ 50 people and pay on average $40K per year which is equal to the current average wage in Sampson County.

Facts to verify:

- What occupations work in a brewery & average (median) wage?
- What is the average (median) wage in Sampson County?

Fact # 1: What occupations work in a brewery and what is the average wage paid?

- Tools.nccareers.org → Staffing Patterns
- In the Staffing Patterns by 3-digit NAICS drop down menu select “312 Beverage and Tobacco Product Manufacturing”
  - Note: NAICS.com has a search tool to identify an appropriate code

The largest occupation employed in this industry is Packaging & Filling Machine Operators & Tenders followed by Bartenders.

The average (median) annual wage for this industry is $39,540.

Note: Breweries are NAICS 312120. This info is for all occupations in the 312 NAICS branch.

Staffing Patterns by 3-digit NAICS: 312 Beverage and Tobacco Product I ▾ Search Start Over

Excel CSV

SOC	Occupation Title	Employment	Percent of Industry Employment	Median Annual Wage	Mean Annual Wage
00-0000	**Total Industry Employment**	**11,368**	**100.0%**	**$39,540**	**$46,740**
51-9111	Packaging and Filling Machine Operators and Tenders	2,052	18.1%	$35,920	$41,440
35-3011	Bartenders	809	7.1%	$21,560	$28,400
51-3091	Food and Tobacco Roasting, Baking, and Drying Machine Operators and Tenders	764	6.7%	$50,250	$50,110
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	724	6.4%	$41,850	$44,590
53-7051	Industrial Truck and Tractor Operators	514	4.5%	$32,290	$34,120
49-9041	Industrial Machinery Mechanics	496	4.4%	$54,270	$53,980
35-3031	Waiters and Waitresses	463	4.1%	$20,100	$22,480
51-1011	First-Line Supervisors of Production and Operating Workers	449	4.0%	$60,880	$62,740
41-2031	Retail Salespersons	357	3.1%	$23,980	$26,170
41-4012	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products	344	3.0%	$46,290	$59,170
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	273	2.4%	$34,420	$35,360
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	263	2.3%	$28,730	$31,790
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	250	2.2%	$40,640	$42,650
49-9071	Maintenance and Repair Workers, General	226	2.0%	$50,560	$50,830
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	222	1.9%	$54,830	$52,260
11-1021	General and Operations Managers	185	1.6%	$124,550	$145,900
47-2111	Electricians	173	1.5%	$72,260	$71,690
53-3031	Driver/Sales Workers	147	1.3%	$35,170	$33,610

Fact # 2: What is the average wage in Sampson County?

- D4.nccommerce.com → QCEW
- Select Sampson County for the geography
  - Note: Statewide is checked by default
- Select “Total (000000)” under NAICS Level and Industry
- Keep “Aggregate of all Types” under Ownership
- Select 2020
- Select “Annual” under Period.
- Click “View”

Year	Quarter	Area Name	Ownership	NAICS Code	Industry	Establishments	Average Employment	Month 1 Employment	Month 2 Employment	Month 3 Employment	Total Wages	Average Weekly Wage
2020	00	Sampson County	Aggregate of all types	000000	Total, All Industries	1,183	17,389	*	*	*	$716,423,906.00	$792.00

The Average Weekly Wage in Sampson County for 2020 (Annual Average) is $792.00. (approx. $41K per year)

Topic for November 16

Session 14: Future of Work and Occupations

This session will consider the future of work with an eye towards the impact of automation.

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Questions?

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Thank You!

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