

Economic Impacts of the Closure of the **Canton Paper Mill** in Haywood County, North Carolina

Conducted by



June 2023

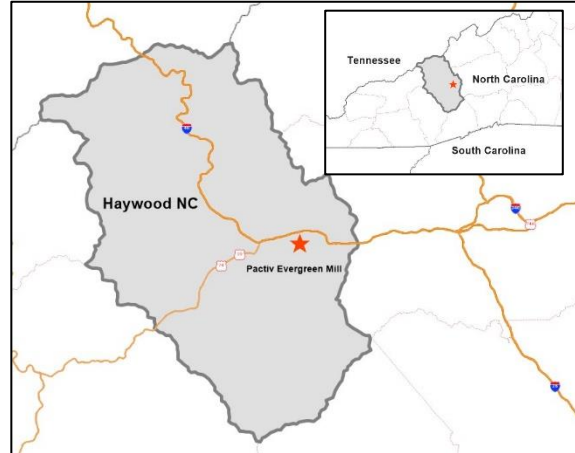
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Situation

In March of 2023, Pactiv Evergreen Inc. announced the closure of its Canton Paper Mill in Haywood County, North Carolina. According to the announcement, the permanent closure would result in the loss of 900 jobs at the mill beginning around June 9, 2023.¹

The mill, having begun operations in 1908, sits on 185 acres within the Town of Canton. Primary operations at the mill are manufacturing paper from pulp, which also includes the conversion of the paper made there.



Explanation of the Analysis

Purpose

The purpose of the analysis is to gain a greater understanding of how the Mill’s closing will affect Haywood County’s economy. The results should provide residents and policy-makers an unbiased and quantifiable account of what to expect as the Mill’s operations come to an end. Using industry-accepted methods, the analysis first objectively quantifies and tracks local spending that originates from the Mill’s activities; and then follows that spending as it moves through the local economy. Removing those spending flows and identifying what is lost or at-risk of being lost provides the basis of the results. The final outcomes are presented as negatives, indicating the expected reductions in demand due to the Mill’s closing.

¹ Pactiv Evergreen Inc. operates a separate plant in the Town Waynesville, also in Haywood County. At this time its future operations are undecided. The Waynesville plant is not included in this analysis.

Key Terms

Throughout the analysis there are several repeated terms which are important to understand:

- **Mill** The initial closing of the Mill's operation, including the layoff of 900 workers. In economic modeling this is referred to as the *direct* impact.
- **Local Suppliers** The Haywood County businesses that supply the Mill with the goods and services needed for the Mill to operate. In economic modeling this is referred to as *indirect* impacts.
- **Local Household Spending** The spending by Haywood County workers and business owners employed by the Mill or by local suppliers in the county. In economic modeling this is referred to as *induced* impacts.
- **Lost** The confirmed final impacts from the Mill's closure.
- **At-Risk** The Haywood County businesses and workers that will experience reductions in demand for their goods and services on account of the Mill's closure. For some this may lead to closings or layoffs, while others may be able to redirect their offerings or adapt to the change in other ways.

Limitations

All results should be treated as estimates, as there is no proven way to completely capture the complexities of a dynamic economy. In reality, jobs, businesses, products and policies are constantly changing. The analysis *freezes* the Haywood County economy at a point in time and then carefully measures the expected interactions between local participants but recognizes that over time these relationships change and adapt.

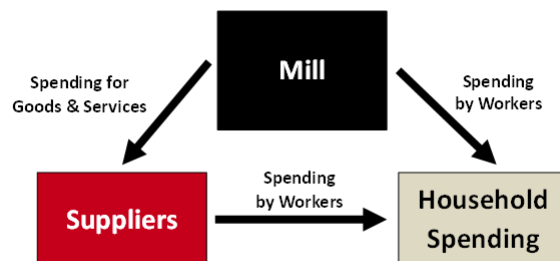
The analysis examines only the impact of the Mill's closure. The Mill's multi-generational presence in Canton includes deep integration throughout the local economy beyond the Mill's primary operation. The future of the shared wastewater treatment system, the Waynesville plant, and ownership of multiple outlying properties are a few of the peripheral entanglements not included in the analysis.

Economic impact analyses use *spending* as the primary factor to capture the effects of an economic activity. Spending presents a quantifiable variable from which an analyst can reliably model and track where and how dollars will flow in a particular situation. While spending is an important element, it fails to capture broader social and cultural impacts. The analysis does not address the Mill closing’s deeper social and cultural impacts on the community nor the personal impacts on its workers and their families.

Methodology

To measure economic impacts the IMPLAN[®] economic modeling system² was employed. IMPLAN[®] is an input-output model that is comprised of software and regional data sets. IMPLAN[®] is an acronym for IMPact analysis for PLANning. The IMPLAN[®] model was originally developed by the USDA Forest Service in cooperation with the Federal Emergency Management Agency (FEMA) and the USDI Bureau of Land Management to assist in resource management and planning. Currently the model is used by hundreds of public, private, and academic organizations.

The overriding objective of the model is to measure the full economic impact to a local economy as the result of a specific economic activity. The model is built upon a matrix detailing the input-output relationships among industries and consumers. The primary matrix structure is derived from the National Bureau of Economic Analysis’s Benchmark Input-Output Model. The



national model was realigned to match the Haywood County economy. Output ratios and imports for over 536 industrial sectors in the area are assigned. Purchase coefficients are derived to measure the percentage of intermediate and final demands that are satisfied from local production and the percentage that are imported from outside the area. Consumer expenditure patterns, price deflators, industry employment levels, household income groups and the area population are also factored in for the local economy. Supplier information from an online survey, hosted by the Haywood County Chamber of Commerce, was used to confirm and augment details on specific suppliers and their offerings to the Mill.

² IMPLAN Group, Inc., 16905 Northcross Drive, Suite 120 Huntersville, NC 28078

Key Findings

Employment Impacts

- The Mill's closure, resulting in the direct loss of 900 jobs, will impact another 983 jobs in the county. A total of 1,883 jobs in the county will be lost or put at-risk of being lost.
- For every job lost at the Mill, another 1.1 jobs in Haywood County will be put at-risk.
- Of the impacted jobs, 606 will be from local suppliers which provide goods and services directly to the Mill. Another 377 local jobs will be impacted due to the expected reduction in spending by local households from workers at the Mill and its suppliers.
- Viewed by itself, the impact to the *wood products* sector equals a potential loss of 150 jobs in the county.
- The 1,883 jobs lost or at-risk equal 9.5% of the county's total estimated employment.

Labor Income Impacts

- The Mill's closure will cause a direct loss of \$87.2 million of labor income and put at-risk another \$46.9 million of labor income from affected industries, resulting in a total of \$134.2 million of income in jeopardy in the county.
- The total \$134.2 million of labor income lost and at-risk equals 11% of the county's total estimated labor income.

Economic Output Impacts

- The Mill's closure will cause a direct loss of \$615.8 million in economic output and put at-risk another \$187.8 million of economic output from affected industries, resulting in a total of \$803.6 million of economic output in jeopardy in the county.

- The total \$803.6 million of economic output lost and at-risk equals 17% of the county's total annual, estimated economic output.

Tax Impacts

- The Mill's closure will put at-risk a grand total of \$47.5 million in annual tax revenues.
 - \$5.3 million of annual tax revenues at-risk to Haywood County
 - \$2.1 million from the Mill's closing
 - \$2.1 million from impacted local suppliers
 - \$1.1 million from the reduction in household spending
 - \$10.6 million of annual tax revenues at-risk to the State of North Carolina
 - \$31.6 million of annual tax revenues at-risk to the Federal Government

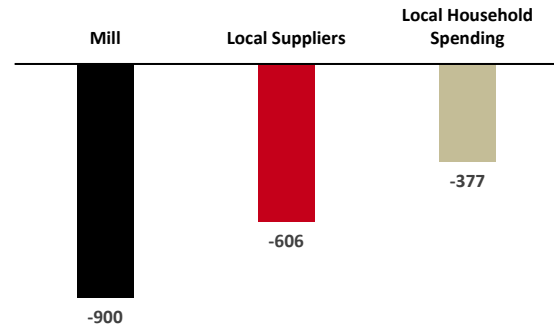
Occupation Impacts

The Mill's closing and resulting impacts, while potentially devastating in the short-term, does make available a wealth of skilled human capital in Haywood County. Through the perspective of occupations, workers holding unique skill-sets and proven work ethics may offer valuable assets to potential employers and entrepreneurs. Key occupations with prospective availability:

- 530 workers with *Production* experience
- 190 workers with *Installation, Maintenance, & Repair* experience
- 187 workers with *Transportation & Material Moving* experience
- 76 workers with *Management* experience
- 53 workers with *Business & Financial Operations* experience
- 45 workers with *Architecture & Engineering* experience

Employment Impacts

The Mill’s closure, resulting in the direct loss of 900 jobs, will impact another 983 jobs in the county. A total of 1,883 jobs in the county will be lost or at-risk of being lost. For every job lost at the Mill, another 1.1 local jobs will be put at-risk. Of the impacted jobs, 606 will be from local suppliers which provide goods and services directly to the Mill. Another 377 local jobs will



be impacted due to the expected reduction in spending by local households from workers at the Mill and its suppliers. The total 1,883 jobs lost or at-risk equals 9.5% of the county’s total estimated employment.

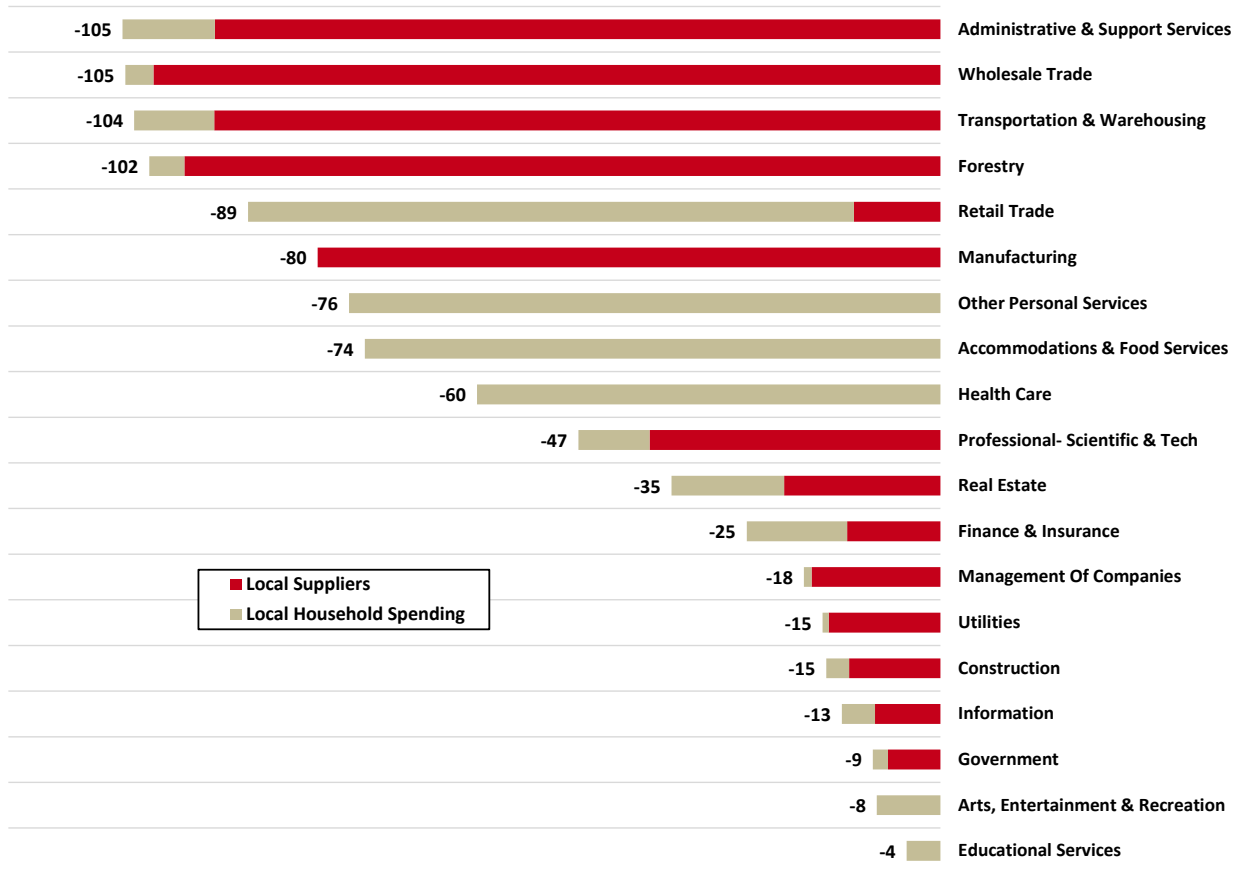
Total Lost Jobs at the Mill & At-Risk in Haywood County

Every industry sector in the County is impacted by the Mill’s closure.

Industry	Mill	Local Suppliers	Local Household Spending	Total
Manufacturing	-900	-80	0	-980
Administrative & Support Services		-93	-12	-105
Wholesale Trade		-101	-4	-105
Transportation & Warehousing		-93	-10	-104
Forestry		-97	-5	-102
Retail Trade		-11	-78	-89
Other Personal Services		0	-76	-76
Accommodations & Food Services		0	-74	-74
Health Care		0	-60	-60
Professional- Scientific & Tech		-37	-9	-47
Real Estate		-20	-14	-35
Finance & Insurance		-12	-13	-25
Management Of Companies		-17	-1	-18
Utilities		-14	-1	-15
Construction		-12	-3	-15
Information		-8	-4	-13
Government		-7	-2	-9
Arts, Entertainment & Recreation		0	-8	-8
Educational Services		0	-4	-4
Total	-900	-606	-377	-1,883

Jobs At-Risk in Haywood County by Industry

For every job lost at the Mill another 1.1 jobs will be at-risk of being lost in the County.



Jobs at-risk include impacts on local suppliers and those due to an expected decrease in local household spending from workers.

The *Administrative & Support Services* industry is a broad group of local businesses which supply services to buildings and facilities, including office support, maintenance, waste-management, grounds, and security services. Most impacted in the *Wholesale Trade* industry are businesses which support the Mill operations with machinery, equipment, supplies, and other durable goods. The *Transportation & Warehousing* industry is primarily impacted by expected losses in demand for trucking and rail transportation operations.

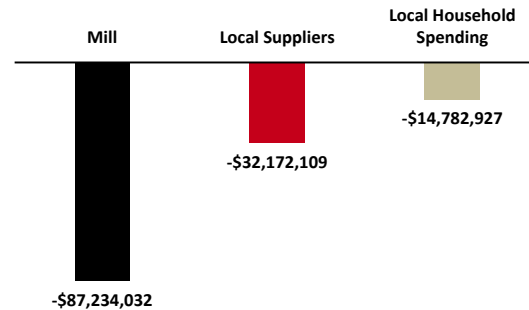
Several significantly impacted industries have little or no direct link to the Mill but are expected to suffer from the loss of local household spending from workers at the Mill and affected suppliers. The *Other Personal Services* industry includes household goods repair & maintenance, dry-cleaning & laundry services, religious & church groups, and barber & beauty shops. The 74 jobs at-risk in the *Accommodations & Food Services* industry come mostly from restaurants, accounting for 70 jobs or 95% of the group's total.

Wood Products

The *Wood Products* sector does not fall neatly into an industry classification but is of particular interest due to its historic role in the Mill's location and significance as a production input. Viewed by itself, the impact to the wood products sector equals a potential loss of 150 jobs in the county. The sector includes commercial logging, forest products, and timber tract production which together comprise the *Forestry* industry group, plus sawmills which are within the *Manufacturing* industry.

Labor Income Impacts

The Mill’s closure will cause a direct loss of \$87.2 million of labor income and put at-risk another \$46.9 million of labor income from affected industries, resulting in a total of \$134.2 million of labor income in jeopardy in the county. On average, the estimated annual, fully-loaded labor income per Mill workers is 83% above its local suppliers and 147% above those in businesses affected by the expected reduction in household spending. The total \$134.2 million of labor income lost and at-risk equals 11% of the county’s total estimated labor income.



Labor income includes wages and salaries, all benefits (e.g., health, retirement) and payroll taxes (both sides of social security, unemployment insurance taxes, etc.). It is referred to as fully-loaded payroll.

Labor income of local suppliers to the Mill, put at-risk due to the closure, contributes \$32.2 million to the local economy. In addition to wages, salaries and benefits, supplier income also includes proprietor income, which consists of payments received by self-employed individuals and unincorporated business owners. Labor income at-risk to businesses which are expected to experience reduced local household spending on account of the Mill’s closure total \$14.8 million in the county.

Lost Labor Income at the Mill & At-Risk in Haywood County

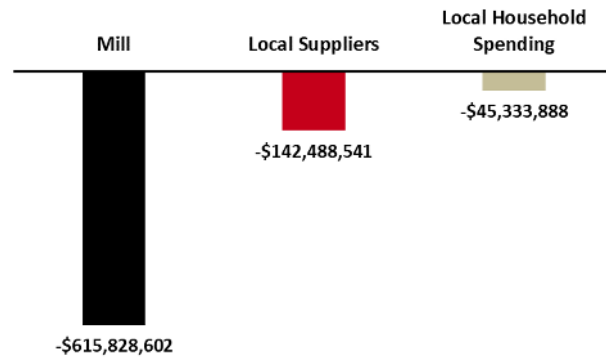
The lost and at-risk income equals 11% of the county’s total annual, estimated income.

	Jobs	Total Income
Mill	-900	-\$87,234,032
Local Suppliers	-606	-\$32,172,109
Local Household Spending	-377	-\$14,782,927
Total	-1,883	-\$134,189,068

Economic Output Impacts

Economic Output equals the value of Industry production, which is equal to sales plus any change in net inventory. The Mill’s closure will cause a direct loss of \$615.8 million in economic output and put at-risk another \$187.8 million of economic output from affected industries, resulting in a total of \$803.6 million of economic output in jeopardy in the county. The total \$803.6 million of economic output lost and at-risk equals 17% of the county’s total annual, estimated economic output.

The Mill’s closure will result in a loss of \$615.8 million in economic output in the county, amounting to an average of \$684,254 per job. Economic output at-risk among local suppliers to the Mill totals \$142.5 million, or \$235,130 per job. And economic output at-risk in those businesses affected by the expected reduction in household spending totals \$45.3 million or \$120,249 per job.



Lost Economic Output at the Mill & At-Risk in Haywood County

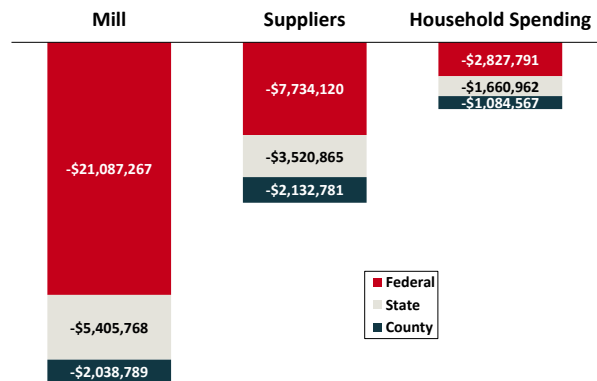
The lost and at-risk output equals 17% of the county’s total annual, estimated output.

	Jobs	Total Economic Output	Average Economic Output Per Job
Mill	-900	-\$615,828,602	\$684,254
Local Suppliers	-606	-\$142,488,541	\$235,130
Local Household Spending	-377	-\$45,333,888	\$120,249
Total	-1,883	-\$803,651,031	\$426,793

Tax Impacts

An important caveat should be taken when viewing these results. **The tax impact results present the improbable, worst-case scenario of the complete absence of a tax-paying entity at the Mill’s location.** While these results show a total loss of property tax revenues, the site’s land and building values will instead decline over time, property taxes will still be collected, just at lower values unknown today.

Among major revenue sources³ the Mill’s closure will put at-risk a grand total of \$47.5 million in tax revenues. Federal collections account for \$31.6 million or 67% of the total, the State for \$10.6 million or 22% and the County for \$5.3 million or the remaining 11%. The Town of Canton is not included in the total and collects \$1.35 million in property tax for the Mill site which will also be at-risk.⁴



Tax Revenues At-Risk

The Mill Closure accounts for 60% of the tax impact, while suppliers and reduced household spending account for the remaining 40%.

	Mill	Suppliers	Household Spending	Total
Federal	-\$21,087,267	-\$7,734,120	-\$2,827,791	-\$31,649,178
State	-\$5,405,768	-\$3,520,865	-\$1,660,962	-\$10,587,594
County	-\$2,038,789	-\$2,132,781	-\$1,084,567	-\$5,256,136
Total	-\$28,531,824	-\$13,387,765	-\$5,573,320	-\$47,492,909

³ Several minor taxes revenues categories, such as excise, custom duties, severance, licenses, and special assessment are not included in the analysis.

⁴ Pactiv Evergreen Inc. also owns numerous outlying properties in the City of Canton which may also be at-risk but are not included in the analysis.

Tax Revenues At-Risk-Details

	Mill		Local Suppliers		Household Spending		Total
	Corporate	Employees	Businesses	Workers	Businesses	Workers	
Tax	Federal						
Profit	-\$2,633,098		-\$697,274		-\$393,809		-\$3,724,180
Income		-\$6,342,914		-\$2,835,979		-\$953,217	-\$10,132,110
Social Insurance	-\$5,746,384	-\$6,364,872	-\$1,868,049	-\$2,332,819	-\$813,159	-\$667,606	-\$17,792,889
Total	-\$8,379,481	-\$12,707,786	-\$2,565,323	-\$5,168,798	-\$1,206,967	-\$1,620,824	-\$31,649,178
Tax	State						
Profit	-\$469,342		-\$124,287		-\$70,195		-\$663,824
Sales	-\$2,970,184		-\$2,517,147		-\$1,283,607		-\$6,770,937
Income		-\$1,828,507		-\$793,314		-\$268,018	-\$2,889,839
Motor Vehicle	-\$68,156	-\$69,579	-\$57,760	-\$28,356	-\$29,455	-\$9,687	-\$262,994
Total	-\$3,507,682	-\$1,898,086	-\$2,699,194	-\$821,670	-\$1,383,257	-\$277,705	-\$10,587,594
Tax	County						
Property	-\$1,337,390	-\$42,777	-\$1,556,961	-\$17,780	-\$793,965	-\$6,053	-\$3,754,926
Sales	-\$657,949		-\$557,594		-\$284,342		-\$1,499,885
Motor Vehicle	-\$390	-\$282	-\$330	-\$115	-\$169	-\$39	-\$1,325
Total	-\$1,995,729	-\$43,059	-\$2,114,885	-\$17,895	-\$1,078,475	-\$6,092	-\$5,256,136
Grand Total	-\$13,882,892	-\$14,648,932	-\$7,379,402	-\$6,008,363	-\$3,668,699	-\$1,904,621	-\$47,492,909

Occupation Impacts

An examination of the impact of the Mill’s closing on the county’s occupational base⁵ can reveal new insights and potential opportunities. Occupations represent unique skill-sets and proven work ethics. A worker’s occupation is not lost when a job ends and can present a valuable asset to another employer.

Worth noting, the Mill’s closure may make available 530 workers with *Production* experience, 190 workers with *Installation, Maintenance, & Repair* experience, and 187 workers with *Transportation & Material Moving* experience.

The Mill’s closing may also offer the rare opportunity to hire available workers in some highly specialized and sought after occupations, such as *Management* (76 workers), *Business & Financial Operations* (53 workers), and *Architecture & Engineering* (45 workers).

Code	Occupation Group	Total Wage & Salary Employment	Mill	Suppliers	Household Spending	Total Impact	Percent of Total
11-0000	Management	1,067	40	26	10	76	7%
13-0000	Business & Financial Operations	837	23	23	7	53	6%
15-0000	Computer & Mathematical	293	5	8	2	15	5%
17-0000	Architecture & Engineering	273	38	7	0	45	16%
19-0000	Life, Physical, & Social Science	143	7	4	0	11	7%
21-0000	Community & Social Service	614	0	0	4	4	1%
23-0000	Legal	91	0	2	1	3	4%
25-0000	Educational Instruction & Library	1,111	0	0	4	5	0%
27-0000	Arts, Design, Entertainment, Sports, & Media	260	1	3	2	6	2%
29-0000	Healthcare Practitioners & Technical	863	1	0	20	21	2%
31-0000	Healthcare Support	755	0	0	16	16	2%
33-0000	Protective Service	379	1	3	1	4	1%
35-0000	Food Preparation & Serving	2,414	0	0	66	66	3%
37-0000	Building and Grounds Cleaning & Maintenance	742	2	31	7	39	5%
39-0000	Personal Care & Service	425	0	1	7	8	2%

⁵ Occupational data is derived from full-time, reported wage & salary industry employment, and does not include the self-employed, seasonal workers or business owners. Thus, occupational data only represents a sample of total employment.

Code	Occupation Group	Total Wage & Salary Employment	Mill	Suppliers	Household Spending	Total Impact	Percent of Total
41-0000	Sales and Related	2,055	6	37	40	83	4%
43-0000	Office & Administrative Support	2,265	48	55	24	126	6%
45-0000	Farming & Forestry	147	0	73	1	74	51%
47-0000	Construction	761	18	11	1	30	4%
49-0000	Installation, Maintenance, & Repair	960	144	37	8	190	20%
51-0000	Production	1,823	479	47	4	530	29%
53-0000	Transportation & Material Moving	1,415	89	79	19	187	13%

Firm Profile

SYNEVA Economics, incorporated in the State of North Carolina since 2003 and based in Waynesville, is an innovative leader in data-driven regional economic analysis. As a regional economic research expert, SYNEVA Economics follows an adaptive business model, its role adjusting to the specific needs of each client and project. The firm at times works directly with municipal, community and economic development leadership and at other times serves as the research expert for firms such as Deloitte, Garner Economics, McCallum Sweeney Consulting, Magellan Strategy Group, Urban3, and Younger Associates.

SYNEVA Economics' broad portfolio includes economic assessments for dozens of communities, industry targeting, economic impact analyses, workforce & skills assessments, micro-demographic analyses, and a host of custom analyses answering specific site and client needs. The range of research activities has been as diverse as economic impact analyses of universities, international airports and major infrastructure projects to micro-demographics analyses of neighborhood gentrification and sub-state health insurance coverage. Besides economic developers, municipalities, and workforce development boards, SYNEVA Economics' clients have included commercial developers, community organizations, architectural and planning firms, a national insurance provider, and even the national offices of the Boy Scouts of America in site selection decisions.

Innovative projects have included in-depth evaluations of community and industry trends for the cities of Charlotte NC and Atlanta GA. Besides numerous community-level assignments, comprehensive workforce assessments have been conducted for the St. Joe Company in Florida, and an exhaustive evaluation of precise workers skills for all workforce investment areas in the state of Mississippi. SYNEVA Economics' projects have included the economic impacts of a permanent National Scouting Center for the Boys Scouts of America, Greenville-Spartanburg International Airport, Asheville Regional Airport and the proposed National Medal of Honor Museum in Charleston SC. For complete listing of projects and current activities visit www.syneva.com.

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