Prepared for Porter Novelli

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1.0 Executive Summary

Porter Novelli, a communications consulting firm, has been working on behalf of Food Lion while the grocery chain renovates and/or remodels 111 stores in the mid-Atlantic region as part of the Wave 7 remodel project. To strengthen their publicity and marketing plan, Porter Novelli engaged with Towson University's (TU) Regional Economic Studies Institute (RESI) to determine the economic and fiscal impacts of these construction projects and subsequent expanded operations at these retail locations.

To complete the project objective, RESI used data provided by Porter Novelli—including capital expenditures and increased employment at the remodeled stores—as inputs into the IMPLAN economic model. IMPLAN is an industry-recognized tool based on economic multipliers that estimates the secondary impacts (or "ripple effects") of a single economic event throughout the economy of interest. Impacts were calculated at the state level using the 2018 model for each state of interest. Please note that the 2018 model was the most recent dataset available.

Impacts were measured for two distinct phases of the remodeling plan. Using capital expenditures, RESI estimated the direct and secondary impacts of construction associated with the renovation of Food Lion locations. Following the remodel, Food Lion anticipates hiring additional employees to staff each store, leading to further impacts as a result of increased employment and operations expenditures.

The total economic impacts, (either the sum of direct and secondary impacts; or direct, indirect, and induced impacts) for both the renovation process and the first year of increased operations once renovations have been completed, are presented in Figure 1.

State	Employment	Output	Employee Compensation
Renovations			
Delaware	313	\$61,080,669	\$14,511,961
Maryland	960	\$188,642,892	\$47,389,649
Pennsylvania	39	\$7,650,515	\$1,883,450
Virginia	456	\$86,980,159	\$20,682,214
West Virginia	116	\$22,445,042	\$5,788,000
Increased Operations			
Delaware	553	\$53,385,955	\$18,856,445
Maryland	1,652	\$186,920,949	\$62,927,033
Pennsylvania	64	\$6,374,711	\$2,165,292
Virginia	754	\$77,121,633	\$26,049,621
West Virginia	202	\$18,190,184	\$6,209,982

Figure 1: Total Economic Impacts of Food Lion Wave 7 Store Remodels by	State
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For each of the states presented in Figure 1, the total economic impacts will also support increased tax revenues at the state and local levels. These total fiscal impacts are detailed in Figure 2.

State	Property	Income	Sales ¹	Payroll	Other	Total
Renovations						
Maryland	\$2,750,449	\$2,028,271	\$2,762,724	\$80 <i>,</i> 582	\$1,003,113	\$8,625,139
Pennsylvania	\$87,979	\$53 <i>,</i> 089	\$93,838	\$1,127	\$39,932	\$275,965
Delaware	\$334,681	\$514,936	\$219,881	\$4,055	\$782,680	\$1,856,233
Virginia	\$1,306,451	\$628 <i>,</i> 019	\$940,760	\$219	\$370,978	\$3,246,427
West Virginia	\$188,049	\$146,598	\$304,854	\$7,262	\$132,460	\$779,223
Increased Opera	tions					
Maryland	\$5,564,440	\$2,531,910	\$5,610,196	\$107,002	\$1,572,312	\$15,385,860
Pennsylvania	\$143,332	\$53 <i>,</i> 558	\$153,637	\$1,296	\$45,709	\$397,532
Delaware	\$392,552	\$559,778	\$258,191	\$5 <i>,</i> 269	\$878,315	\$2,094,105
Virginia	\$2,573,402	\$676,725	\$1,860,679	\$276	\$581,052	\$5,692,134
West Virginia	\$427,816	\$142,434	\$698,947	\$7,792	\$233,544	\$1,510,533

Figure 2: Total Fiscal Impacts of Food Lion Wave 7 Store Remodels by State

Sources: Food Lion, IMPLAN, RESI

In addition to these economic and fiscal impacts for the states where Wave 7 remodels are taking place, there are broader community benefits as well. A study published by the National Institutes of Health (NIH) found that larger grocery chains can offer healthier foods for lower prices, lowering the potential risk of negative health outcomes related to poor dietary habits.² Food Lion supports communities where their stores operate through a foundation, Food Lion Feeds. In addition to grants, food rescue programs, and other direct food support, Food Lion Feeds provides educational resources on healthy diet and nutrition.³

³ "Charitable Foundation," Food Lion, accessed August 31, 2020, https://www.foodlion.com/in-ourcommunity/food-lion-feeds/charitable-foundation-grants/.



¹ Although Delaware does not collect sales taxes on purchases, the State does levy a small gross receipts tax on producers/suppliers of goods and services. This tax rate ranges from 0.0945 to 1.9914 percent.

² "Neighborhood Impact on Healthy Food Availability and Pricing in Food Stores," National Institutes of Health, June 2010, accessed August 28, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3071013.

2.0 Introduction

Porter Novelli, a communications consulting firm, has been working on behalf of Food Lion while the grocery chain renovates and/or remodels 111 stores in the mid-Atlantic region as part of the Wave 7 remodel project. To strengthen their publicity and marketing plan, Porter Novelli engaged with Towson University's (TU) Regional Economic Studies Institute (RESI) to determine the economic and fiscal impacts of these construction projects and subsequent expanded operations at these retail locations. While the reports delivered by RESI are meant for internal use, Porter Novelli intends to utilize the results contained within to supplement their communications materials.

The report continues as follows:

- Section 3.0 provides an overview of the methodology RESI utilized for the analysis;
- Section 4.0 presents the economic and fiscal impacts by state;
- Section 5.0 discusses the benefits of supermarkets in rural economies; and
- Section 6.0 concludes the report.

In addition, the report contains several appendices that provide detailed methodology and results.

3.0 Methodology

To begin the research process, RESI received data from Porter Novelli/Food Lion regarding the stores undergoing renovations, including construction costs, construction timeframe, the number of additional employees required to support the expanded operations, and the increased operations costs post-construction.

RESI then prepared the data for input into the IMPLAN input/output model. IMPLAN is an industry-recognized input/output model that relies on economic multipliers. Consider the following example: a supermarket adds new products. When a customer purchases one of these new products, they pay the cashier. This is the **direct impact**. The supermarket can then use those funds towards supply purchases, such as paying utility bills or wholesalers. These are the **indirect impacts**. The supermarket and any suppliers—the utility company or wholesaler, for example—have to employ workers, who then use their compensation to make household purchases (e.g., paying mortgages or purchasing groceries). These are the **induced impacts**. All of these economic impacts support state and local tax revenues, which are the **total fiscal impacts**.

For this analysis, RESI used state-level IMPLAN models for 2018, the most recent data year available. Two separate "activities" were considered during the modeling process: expenditures on renovations at stores, and the subsequent increased employment necessary after these renovations.



Impacts calculated through the IMPLAN model were based upon these construction expenditures and increased employment. Impacts were reported in terms of employment, output, and employee compensation. Please note that these types of impacts are not additive but rather are different ways of presenting the economic impact of the activity being modeled.

- **Employment impacts** show the average number of jobs that the economic activity modeled in IMPLAN supports over the course of a year.
- **Output impacts** represent the value of the goods and services that are supported by the economic activity modeled in IMPLAN.
- Employee compensation impacts show the amount of wages and other compensation (benefits, unemployment insurance, etc.) that correspond to the economic activity modeled in IMPLAN.⁴

For more detailed methodology, please see Appendix A.

4.0 State-level Economic and Fiscal Impacts

This section contains the state-level economic and fiscal impacts of Food Lion's store remodeling efforts for renovation construction and the first year of operations at this increased capacity. Impacts are presented in 2020 dollars. Please note that totals may not sum exactly due to rounding. For more detailed industry-level impacts, please see Appendix C. For impacts calculated for select federal congressional districts and for select DMAs, please see Appendix D.

4.1 Delaware

According to data provided by Food Lion, the company plans to remodel 19 stores in the state of Delaware. Renovations began on all stores in the first half of 2020 and are expected to be completed by early December 2020, at the latest. After construction is complete, Food Lion anticipates being able to hire 398 additional employees throughout the state of Delaware. The economic impacts of these two phases are presented in Figure 3 below.

	Direct	Indirect	Induced	Total
Renovations				
Employment	167	70	76	313
Output	\$36,555,217	\$12,713,523	\$11,811,929	\$61,080,669
Employee Compensation	\$7,503,084	\$3,528,973	\$3,479,903	\$14,511,961
Increased Operations				
Employment	398	72	84	553
Output	\$28,111,865	\$12,311,972	\$12,962,118	\$53,385,955
Employee Compensation	\$11,851,272	\$3,189,856	\$3,815,317	\$18,856,445

Figure 3: Economic Impacts of Food Lion Wave 7 Store Remodels, Delaware

⁴ "Employee Compensation," IMPLAN, accessed September 1, 2020, https://implanhelp.zendesk.com/hc/en-us/articles/115009666268-Employee-Compensation.



As seen above, renovations are estimated to require 167 employees who produce \$36.6 million in output and earn \$7.5 million in employee compensation. These direct activities support an additional 146 workers in Delaware's economy, for a total impact of 313 employees. Once the remodeled stores are operational, the 398 additional workers at these 19 stores will further support another 72 jobs at suppliers. Both of these groups of employees will support an additional 84 induced jobs. In total, the first year of operations for these 19 stores in Delaware will support a total of 553 jobs in Delaware's economy.

The total impacts presented in Figure 3 will also support state and local tax revenues. These total fiscal impacts are shown below in Figure 4.

Tax Type	Renovations	Increased Operations
Property	\$334,681	\$392,552
Income	\$514,936	\$559,778
Sales ⁵	\$219,881	\$258,191
Payroll	\$4,055	\$5,269
Other	\$782 <i>,</i> 680	\$878,315
Total	\$1,856,233	\$2,094,105

Figure 4: Total Fiscal Impacts of Food Lion Wave 7 Store Remodels, Delaware

Sources: Food Lion, IMPLAN, RESI

The economic activity associated with Food Lion's Wave 7 remodels in the state of Delaware will support nearly \$1.9 million in state and local tax revenues during the renovation process and nearly \$2.1 million in state and local tax revenues during the first year of increased operations at these stores.

4.2 Maryland

During the Wave 7 store remodel project, Food Lion plans to renovate 52 stores throughout the state of Maryland, in both urban and rural areas. Nearly all construction commenced in the first half of 2020, with renovations scheduled to be completed by the end of the calendar year. Construction expenditures in Maryland were estimated to exceed \$108.2 million. Once complete, these renovations are expected to allow Food Lion stores to hire an additional 1,153 workers across the state. The economic impacts of these two phases are presented in Figure 5.

⁵ Although Delaware does not collect sales taxes on purchases, the State does levy a small gross receipts tax on producers/suppliers of goods and services. This tax rate ranges from 0.0945 to 1.9914 percent.



	Direct	Indirect	Induced	Total
Renovations				
Employment	521	205	234	960
Output	\$108,226,278	\$41,744,425	\$38,672,189	\$188,642,892
Employee Compensation	\$25,283,786	\$11,236,271	\$10,869,592	\$47,389,649
Increased Operations				
Employment	1,153	205	294	1,652
Output	\$100,001,421	\$38,445,133	\$48,474,395	\$186,920,949
Employee Compensation	\$39,504,053	\$9,805,933	\$13,617,047	\$62,927,033

Figure 5: Economic Impacts of Food Lion Wave 7 Store Remodels, Maryland

Sources: Food Lion, IMPLAN, RESI

As seen above, expenditures during the renovation process of \$108.2 million correspond to employment of 521 construction workers, supporting an additional 205 indirect jobs at suppliers and other companies that provide goods and services for the construction process. Household spending by these workers is estimated to support an additional 234 induced employees. Thus, the total employment impact of the renovation process is 960.

The estimated total economic activity presented in Figure 5 also supports tax revenues at the state and local levels. Figure 6 contains these total fiscal impacts.

Tax Type	Renovations	Increased Operations
Property	\$2,750,449	\$5,564,440
Income	\$2,028,271	\$2,531,910
Sales	\$2,762,724	\$5,610,196
Payroll	\$80,582	\$107,002
Other	\$1,003,113	\$1,572,312
Total	\$8,625,139	\$15,385,860

Figure 6: Total Fiscal Impacts of Food Lion Wave 7 Store Remodels, Maryland

Sources: Food Lion, IMPLAN, RESI

Economic activity supported by the renovation process is expected to generate approximately \$8.6 million in state and local revenues for Maryland jurisdictions. Once these renovated stores can support additional operations, direct and secondary economic activity can amount to nearly \$15.4 million in state and local tax revenues over the first year of operations. In both phases, sales taxes are the largest type of tax revenue, followed by property taxes.

4.3 Pennsylvania

Food Lion's Wave 7 remodel includes three stores in southern Pennsylvania, which are located in Hanover, Mercersburg, and Meyersdale. Construction costs totaled nearly \$4.0 million, with completion dates scheduled for early December 2020 at all three stores. Once the renovated stores can increase operations, they plan to hire an additional 44 employees combined. The



economic impacts of this construction and subsequent increased store operations are presented in Figure 7.

	Direct	Indirect	Induced	Total
Renovations				
Employment	19	9	11	39
Output	\$3,998,526	\$1,889,287	\$1,762,702	\$7,650,515
Employee Compensation	\$857 <i>,</i> 330	\$492,328	\$533,792	\$1,883,450
Increased Operations				
Employment	44	8	11	64
Output	\$3,094,220	\$1,487,552	\$1,792,939	\$6,374,711
Employee Compensation	\$1,221,333	\$401,602	\$542,357	\$2,165,292

Figure 7: Economic Impacts of Food Lion Wave 7 Store Remodels, Pennsylvania

Sources: Food Lion, IMPLAN, RESI

As seen above, spending on store renovations has a total economic impact that is approximately double the direct activity. Once renovations at the three stores are complete, the increased operations will support additional activity in Pennsylvania's economy, resulting in total employment impacts of 64 jobs, output of nearly \$6.4 million, and employee compensation of nearly \$2.2 million. These impacts also contribute to state and local tax receipts, estimated in Figure 8.

Figure 8: Total Fiscal Impacts of Food Lion Wave 7 Store Remodels, Pennsylvania

Тах Туре	Renovations	Increased Operations
Property	\$87 <i>,</i> 979	\$143,332
Income	\$53 <i>,</i> 089	\$53,558
Sales	\$93,838	\$153,637
Payroll	\$1,127	\$1,296
Other	\$39,932	\$45,709
Total	\$ 275 ,965	\$397,532

Sources: Food Lion, IMPLAN, RESI

All economic activity supported by the renovation process contributed nearly \$0.3 million in state and local taxes, while economic activity supported from increased store operations supported nearly \$0.4 million. For both phases, sales taxes were the largest type of tax generated, followed by property taxes.

4.4 Virginia

In Virginia, 27 Food Lion stores have undergone renovations as part of the Wave 7 project. The first renovation at a store was completed in May 2020, with all stores set to be finished by early December 2020. Capital spending per store ranged from a low of \$0.6 million to a high of nearly \$2.8 million, with per-store employment expected to increase by 10-30 workers. The additional



economic activity supported by this construction and increased operational capacity is presented in Figure 9.

	Direct	Indirect	Induced	Total
Renovations				
Employment	241	112	104	456
Output	\$49,438,272	\$21,098,157	\$16,443,730	\$86,980,159
Employee Compensation	\$10,274,058	\$5,855,268	\$4,552,889	\$20,682,214
Increased Operations				
Employment	540	102	113	754
Output	\$40,883,819	\$18,311,390	\$17,926,424	\$77,121,633
Employee Compensation	\$16,161,318	\$4,930,531	\$4,957,771	\$26,049,621

Figure 9: Economic Im	nacts of Food Lio	n Wave 7 Store	Remodels Virginia
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Sources: Food Lion, IMPLAN, RESI

As seen above, renovations are estimated to spur an additional 216 jobs, \$37.5 million in output, and \$10.4 million in employee compensation, with total economic activity approximately doubling from the direct effect. Once the 27 stores are fully operational, they will require 540 additional employees. This additional economic activity from the remodeled stores will support a total of 754 jobs, \$77.1 million in output, and \$26.0 million in employee compensation.

All of the economic activity supported by the Wave 7 remodel process in Virginia also contributes to state and local tax revenues. Figure 10 below shows these total fiscal impacts.

Тах Туре	Renovations	Increased Operations
Property	\$1,306,451	\$2,573,402
Income	\$628,019	\$676,725
Sales	\$940,760	\$1,860,679
Payroll	\$219	\$276
Other	\$370 <i>,</i> 978	\$581,052
Total	\$3,246,427	\$5,692,134

Figure 10: Total Fisca	I Impacts of Food Lion Wave 7 Stor	re Remodels, Virginia
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Sources: Food Lion, IMPLAN, RESI

Direct and secondary economic activity from store renovations are expected to contribute \$3.2 million in state and local tax revenues. The first year of increased operations from these renovated stores is estimated to support nearly \$5.7 million in fiscal impacts. For both phases, property taxes are the largest contributors, at \$1.3 million from renovations and \$2.6 million from increased operations.



4.5 West Virginia

In West Virginia, ten stores are part of the Wave 7 remodel. Approximately \$14.3 million was allocated for construction costs across these ten stores, with spending per store ranging from \$0.5 million to nearly \$2.2 million. Once renovations are complete, Food Lion expects to hire an additional 154 employees statewide. The economic impacts associated with both phases are presented below.

	Direct	Indirect	Induced	Total
Renovations				
Employment	62	25	28	116
Output	\$14,316,993	\$4,342,516	\$3,785,533	\$22,445,042
Employee Compensation	\$3,617,557	\$1,106,076	\$1,064,367	\$5,788,000
Increased Operations				
Employment	154	21	27	202
Output	\$11,142,181	\$3,350,811	\$3,697,192	\$18,190,184
Employee Compensation	\$4,351,446	\$819,262	\$1,039,273	\$6,209,982

Figure 11: Economic Impacts of Food Lion Wave 7 Store Remodels, West Virginia

Sources: Food Lion, IMPLAN, RESI

As noted in Figure 11, renovation expenditures of \$14.3 million support an additional \$8.1 million in indirect and induced output, for a total impact of \$22.4 million in output. This corresponds to a total of 116 employees earning at total of \$5.8 million in compensation.

Once the renovated stores are operational, their increased operations are estimated to support an additional 48 jobs, \$7.0 million in output, and \$1.9 million in employee compensation, for total impacts of 202 jobs, \$18.2 million in output, and \$6.2 million in employee compensation. These economic impacts result in tax revenues for state and local governments in West Virginia. The total fiscal impacts are shown in Figure 12 below.

Тах Туре	Renovations	Increased Operations
Property	\$188,049	\$427,816
Income	\$146,598	\$142,434
Sales	\$304,854	\$698,947
Payroll	\$7,262	\$7,792
Other	\$132,460	\$233,544
Total	\$779,223	\$1,510,533

Figure 12: Total Fiscal Impacts of Food Lion Wave 7 Store Remodels, West Virginia

Sources: Food Lion, IMPLAN, RESI

Economic activity associated with Wave 7 store renovations is estimated to support \$0.8 million in state and local taxes, while economic activity associated with the first year of increased operations is estimated to contribute \$1.5 million in state and local fiscal impact. During both



phases, sales tax revenues account for the plurality of these impacts, at \$0.3 million and \$0.7 million of the total, respectively.

5.0 Community Impacts of Store Remodels

While the above economic and fiscal impacts detail the benefits to each state's economy in the Wave 7 remodel plan, there will also be benefits to the local communities that surround each of the renovated Food Lion stores. This section describes how these communities will be affected.

5.1 Economic Benefits to Local Communities

The communities surrounding each Food Lion location are likely to receive a disproportionate share of the impact compared with the remainder of each state modeled in this report. With each store's increase in operations, many newly hired employees are likely to reside within a short distance of the store. In these instances, much of their earned wages will be spent at businesses that are also located in the immediate area. Any use of construction workers or vendors based in the local community would further concentrate these impacts to the local economy.

Due to the increased spending of new employees and suppliers, economic activity is expected to grow across many different industries beyond the construction (the remodel process) and retail trade (Food Lion store operations) industries.⁶ For example, when a local resident is hired to fill an added job at Food Lion, much of their income is likely to go towards necessities such as housing costs and healthcare. As a result, much of the impact in these industries would be captured within the local community. Since induced impacts represent the spending of additional earned wages, industries with higher estimates of induced impacts are likely to have a more significant effect in the local community.

This local impact will be magnified by the fact that many Food Lion stores are located within smaller towns and rural areas. Since these areas, by definition, have less overall economic activity than more densely populated or urban areas, the injection of new dollars from renovation and increased operations will have a proportionately larger impact on the community. New jobs and wages also represent increased economic stability for each community at a time when the economy is recovering from the effects of the coronavirus pandemic.

5.2 Additional Community Benefits

In addition to the economic activity supported by the remodeling of Food Lion stores, there are additional community benefits. Food Lion increases access to healthy foods through both the reduction of "food deserts" and direct charitable contributions that provide meals to local families in need.

⁶ Appendix C details the ways in which the state-wide impact spreads across the many different industries in each state.



Grocery stores are vital to the health and wellbeing of the communities they serve. Without access to healthy food, community members face increased negative health outcomes, such as obesity, cancer, and cardiovascular disease.⁷ However, distance and price can act as barriers to healthy food options. Areas that lack access to affordable healthy foods are commonly referred to as food deserts.⁸ Residents living in a food desert often have easier access to cheap fast food options, which offer highly processed foods that are high in fat, sugars, and salt.

Meanwhile, access to fresh and healthy food options at a reasonable price are more limited in a food desert. A study published by the National Institutes of Health (NIH) found that larger grocery chains can offer healthier foods for lower prices, lowering the potential risk of negative health outcomes related to poor dietary habits.⁹ Food Lion's store remodels have the potential to reduce the presence of food deserts, while increasing healthy food availability within the local area.

As indicated by the designation of "Wave 7," the store renovations discussed in this report are part of a greater, long-term remodeling process. In 2019, Food Lion renovated 92 stores, totaling \$158.0 million in capital investment.¹⁰ Along with each wave of store remodels, Food Lion also works to reduce hunger in the surrounding communities through their charitable nonprofit, Food Lion Feeds. Since the creation of Food Lion Feeds in 2014, more than 600 million meals have been donated to help members of the communities Food Lion serves. This includes over 128 million meals donated in 2019.¹¹

In addition to grants, food rescue programs, and other direct food support, Food Lion Feeds provides educational resources on healthy diet and nutrition.¹² Food Lion does not just invest in the health of the communities they support, but also in their employment opportunities. By offering part-time and full-time positions that require all levels of experience, Food Lion encourages associates to provide an essential community role and make an impact on the lives of their neighbors.¹³

¹³ "In Our Community," Food Lion, accessed August 31, 2020, https://www.foodlion.com/in-our-community/overview/.



⁷ "Neighborhood Impact on Healthy Food Availability and Pricing in Food Stores," National Institutes of Health, June 2010, accessed August 28, 2020, https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3071013/.

⁸ "Food Deserts," Food Empowerment Project, accessed August 31, 2020, https://foodispower.org/access-health/food-deserts/.

⁹ "Neighborhood Impact on Healthy Food Availability and Pricing in Food Stores," National Institutes of Health. ¹⁰ "92 More Food Lion Stores Freshly Remodeled," Food Lion, July 30, 2019, accessed August 31, 2020,

https://www.foodlion.com/fresh-ideas/92-more-food-lion-stores-freshly-remodeled/.

¹¹ Lee Redding, email message to Erin Nueslein, August 25, 2020.

¹² "Charitable Foundation," Food Lion, accessed August 31, 2020, https://www.foodlion.com/in-our-community/food-lion-feeds/charitable-foundation-grants/.

6.0 Conclusion

With the renovation of 111 stores in 2020, referred to collectively as the Wave 7 remodels, Food Lion is expected to provide a significant economic and fiscal impact to the states of Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. These benefits are the result of capital spending associated with the renovation process, as well as from an increase in employees and operating expenses at newly remodeled stores.

Capital expenditures will have significant economic ripple effects during the construction process, allowing renovated stores to support additional employees in their ongoing operations. These additional employees will in turn support further economic activity in the state and in the local communities where they live. Local communities will be further enriched by the increased access to affordable and healthy food options, along with charitable efforts that provide meals directly to those families in greatest need. In total, these impacts will be a strong start to a strengthened partnership between Food Lion and the communities it serves.



8.0 References

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Appendix A—Methodology

A.1 IMPLAN Model Overview

To quantify the economic and tax impacts of Food Lion's Wave 7 remodel, RESI utilized the IMPLAN input/output model. This model enumerates the economic and tax impact of each dollar earned and spent by the following:

- Remodeled stores;
- Other supporting vendors (business services, retail, etc.);
- Each dollar spent by these vendors on other firms; and
- Each dollar spent by the households' employees, other vendors' employees, and other businesses' employees.

Economists measure three types of economic impacts: direct, indirect, and induced impacts. The direct economic effects are generated as district entities conduct their operations. The indirect economic impacts occur as district entities purchase goods and services from other firms (e.g., supplies). As district entities and suppliers to these entities hire workers to complete the tasks, the increases in employment generate an increase in household income, while new job opportunities are created and income levels rise. This drives the induced economic impacts that result from households increasing their purchases at local businesses.

Consider the following example: a new firm opens in a region and directly employs 100 workers. The firm purchases supplies—both from outside the region and from local suppliers— which leads to increased business for local firms, thereby hypothetically creating jobs for another 100 workers. This is called the indirect effect. The workers at the firm and at the suppliers spend their income mostly in the local area, hypothetically creating jobs for another 50 workers. This is the induced effect. The direct, indirect and induced effects add up to 250 jobs created from the original 100 jobs. Thus, in terms of employment, the total economic impact of the firm in our example is 250.¹⁴

This analysis was conducted using the 2018 IMPLAN Models for the states of Delaware, Maryland, Pennsylvania, Virginia, and West Virginia. Please note that the 2018 models were the most recent dataset available.

The 2018 IMPLAN Model contains significant changes in the underlying data, as well as to the industry sector structure. Results generated using this model cannot be compared to results from prior models.

¹⁴ Total economic impact is defined as the sum of direct, indirect, and induced effects.



A.2 IMPLAN Modeling Process

Food Lion provided confidential capital spending and increased employment data to RESI through their contractor Porter Novelli. These data were provided at the store level. RESI then used these data to create inputs to the IMPLAN model. The following IMPLAN codes were used in the modellinig process:

- IMPLAN code 60—Maintenance and Repair Construction of Non-residential Structues; and
- IMPLAN code 406—Retail Food and Beverage Stores.

After the models were run by state, RESI exported the results and aggregated the sector-level impacts to the industry level.

In addition to the state-level impacts, RESI also calculated the economic impacts of federal congressional districts where stores are located (impacts are reported at the state level) and for select DMAs, as provided by Food Lion via Porter Novelli.



Appendix B—Economic Impact Example

As an example of the different types of impacts associated with the Wave 7 renovation, consider the economic impacts associated with the operation of a supermarket. In this example, a grocery store has recently added a coffee bar.

Figure 13: Economic Impact Example

	Direct Impact	Indirect Impact	Induced Impact
Employment	Barista	Coffee roaster	A waiter
Output	The coffee drink and pastry	The coffee beans	A meal at a restaurant
Employee Compensation	The barista's wages	The coffee roaster's salary	The waiter's salary
Source: RESI			

In the example above, a barista is the direct employment impact, as she is the one who works in the new facility making and serving the coffee drinks and pastries (the direct output impact). The barista's wages—as well as any benefits, such as health insurance—that she receives because she works in the supermarket, would be the direct employee compensation impact.

A coffee roaster would be an indirect employment impact, as roasted coffee beans are a supply that the barista needs (and therefore an indirect output impact). The coffee roaster's salary would be an indirect employee compensation impact because it is the pay he receives as the supplier.

A waiter would be an induced employment impact because the barista or the coffee roaster can use dollars from their wages to go out to eat and pay for a meal (the meal would be the induced output impact). The waiter's salary would be the induced employee compensation impact.



Appendix C—Detailed State-Level Economic Impacts

This section provides detailed (industry-level) economic impact data of the Wave 7 Remodels at the state level. In each of the following figures, direct impacts represent the impact of renovations or increased operations. That is, they are either in the *Construction* industry or the *Retail Trade* industry.

Indirect impacts represent supplies that are necessary for construction or store operations. For example, building materials purchased for the renovations would be indirect impacts in the *Retail Trade* industry.

Induced impacts represent economic activity from workers spending their paychecks in the local economy. For example, if a Food Lion employee takes their child to the pediatrician, this would be an induced impact in the *Health Care and Social Assistance* industry.

Because these different impacts relate to different spending avenues, one type of impact could be quite large for a given industry, while the others are small or non-existent. For example, *Health Care and Social Assistance* has basically no direct or indirect impact since these services are not necessary to perform construction or run a grocery store. However, employees at Food Lion or at Food Lion's vendors are nearly guaranteed to purchase health care services, so there is a larger induced impact.



C.1 Delaware

Figure 14: Industry	-level Fmp	lovment Im	nacts of Ren	ovations. Delawar	e
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	0
21 Mining	0	0	0	0
22 Utilities	0	0	0	0
23 Construction	167	0	1	168
31-33 Manufacturing	0	3	0	3
42 Wholesale Trade	0	6	1	7
44-45 Retail Trade	0	29	13	42
48-49 Transportation & Warehousing	0	5	3	7
51 Information	0	2	1	3
52 Finance & Insurance	0	1	4	5
53 Real Estate & Rental	0	5	4	10
54 Professional, Scientific, & Tech Services	0	5	3	8
55 Management of Companies	0	0	0	1
56 Administrative & Support / Waste Management & Remediation Services	0	6	4	11
61 Educational Services	0	1	1	2
62 Health Care & Social Assistance	0	0	19	19
71 Arts, Entertainment, & Recreation	0	1	3	3
72 Accommodation & Food Services	0	2	8	10
81 Other Services (except Public Administration)	0	2	9	12
9A Government Enterprises	0	0	1	1
93 Non-NAICS	0	0	0	0
9B Administrative Government	0	0	0	0
Total	167	70	76	313



Figure 15: Industry-level Output Impacts of Renovations, Delaware	Figure 15: Industry-leve	el Output Impacts of	FRenovations, Delaware
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$5,191	\$26,114	\$31,306
21 Mining	\$0	\$20,877	\$2,946	\$23 <i>,</i> 823
22 Utilities	\$0	\$229,974	\$227,246	\$457,221
23 Construction	\$36,555,217	\$91,774	\$147,620	\$36,794,612
31-33 Manufacturing	\$0	\$2,030,144	\$210,374	\$2,240,519
42 Wholesale Trade	\$0	\$1,870,800	\$411,953	\$2,282,754
44-45 Retail Trade	\$0	\$2,734,127	\$923,841	\$3,657,968
48-49 Transportation & Warehousing	\$0	\$734,372	\$343,281	\$1,077,653
51 Information	\$0	\$425,967	\$333,681	\$759,648
52 Finance & Insurance	\$0	\$657 <i>,</i> 040	\$1,491,926	\$2,148,965
53 Real estate & Rental	\$0	\$1,551,899	\$2,647,840	\$4,199,739
54 Professional, Scientific, & Tech Services	\$0	\$1,102,937	\$507,293	\$1,610,229
55 Management of Companies	\$0	\$41,530	\$23,477	\$65,007
56 Administrative & Support / Waste Management & Remediation Services	\$0	\$632,350	\$471,705	\$1,104,055
61 Educational Services	\$0	\$122,676	\$131,317	\$253,994
62 Health Care & Social Assistance	\$0	\$3,685	\$2,319,195	\$2,322,880
71 Arts, Entertainment, & Recreation	\$0	\$16,650	\$186,727	\$203,377
72 Accommodation & Food Services	\$0	\$112,658	\$570,998	\$683,656
81 Other Services (except Public Administration)	\$0	\$270,450	\$752,806	\$1,023,256
9A Government Enterprises	\$0	\$54 <i>,</i> 278	\$71,958	\$126,236
93 Non-NAICS	\$0	\$4,143	\$9,630	\$13,773
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$36,555,217	\$12,713,523	\$11,811,929	\$61,080,669



Figure 16: Industry-level Employee Compensation Impacts of Renovations, Delaware

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$825	\$1,801	\$2,626
21 Mining	\$0	\$3,107	\$894	\$4,001
22 Utilities	\$0	\$29,659	\$30,018	\$59 <i>,</i> 678
23 Construction	\$7,503,084	\$19,995	\$31,355	\$7,554,434
31-33 Manufacturing	\$0	\$247 <i>,</i> 684	\$15,207	\$262 <i>,</i> 891
42 Wholesale Trade	\$0	\$439,152	\$91,044	\$530,197
44-45 Retail Trade	\$0	\$1,205,529	\$414,897	\$1,620,426
48-49 Transportation & Warehousing	\$0	\$220,086	\$81,746	\$301,832
51 Information	\$0	\$122,808	\$77 <i>,</i> 643	\$200,451
52 Finance & Insurance	\$0	\$121,421	\$304,260	\$425 <i>,</i> 681
53 Real estate & Rental	\$0	\$79 <i>,</i> 062	\$52,252	\$131,314
54 Professional, Scientific, & Tech Services	\$0	\$457,916	\$207,656	\$665,572
55 Management of Companies	\$0	\$5,678	\$3,210	\$8,888
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$337,180	\$252,432	\$589,612
61 Educational Services	\$0	\$40,644	\$71,334	\$111,979
62 Health Care & Social Assistance	\$0	\$1,577	\$1,220,059	\$1,221,636
71 Arts, Entertainment, & Recreation	\$0	\$4,278	\$62,935	\$67,213
72 Accommodation & Food Services	\$0	\$39,940	\$185,129	\$225,069
81 Other Services (except Public Administration)	\$0	\$109,722	\$320,754	\$430,477
9A Government Enterprises	\$0	\$41,565	\$52,615	\$94,180
93 Non-NAICS	\$0	\$1,145	\$2,661	\$3,805
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$7,503,084	\$3,528,973	\$3,479,903	\$14,511,961



Figure 17: Industry-level Employment Impacts of Increased Operations, Delaware					
Industry	Direct	Indirect	Induced	Total	
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	0	
21 Mining	0	0	0	0	
22 Utilities	0	1	0	1	
23 Construction	0	1	1	2	
31-33 Manufacturing	0	0	0	1	
42 Wholesale Trade	0	1	1	2	
44-45 Retail Trade	398	1	14	413	
48-49 Transportation & Warehousing	0	3	3	6	
51 Information	0	15	1	16	
52 Finance & Insurance	0	2	4	6	
53 Real Estate & Rental	0	17	5	22	
54 Professional, Scientific, & Tech Services	0	5	3	8	
55 Management of Companies	0	1	0	1	
56 Administrative & Support / Waste Management & Remediation Services	0	14	5	19	
61 Educational Services	0	1	1	2	
62 Health Care & Social Assistance	0	1	21	22	
71 Arts, Entertainment, & Recreation	0	1	3	5	
72 Accommodation & Food Services	0	2	9	11	
81 Other Services (except Public Administration)	0	5	10	15	
9A Government Enterprises	0	1	1	2	
93 Non-NAICS	0	0	0	0	
9B Administrative Government	0	0	0	0	
Total	398	72	84	553	



Figure 18: Industry-level Output Impacts of Increased Operations, Delaware

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, &				
Hunting	\$0	\$18,712	\$28,821	\$47,533
21 Mining	\$0	\$2,300	\$3,249	\$5 <i>,</i> 548
22 Utilities	\$0	\$1,321,118	\$251,139	\$1,572,257
23 Construction	\$0	\$257,924	\$162,110	\$420,034
31-33 Manufacturing	\$0	\$171,728	\$232,574	\$404,302
42 Wholesale Trade	\$0	\$297,951	\$453 <i>,</i> 892	\$751 <i>,</i> 843
44-45 Retail Trade	\$28,111,865	\$115,521	\$1,017,846	\$29,245,233
48-49 Transportation & Warehousing	\$0	\$380,534	\$377,493	\$758,028
51 Information	\$0	\$2,060,537	\$368,018	\$2,428,555
52 Finance & Insurance	\$0	\$1,082,756	\$1,627,747	\$2,710,503
53 Real estate & Rental	\$0	\$3,296,280	\$2,907,995	\$6,204,275
54 Professional, Scientific, & Tech Services	\$0	\$950,161	\$556,355	\$1,506,516
55 Management of Companies	\$0	\$65,372	\$25,675	\$91,047
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$1,294,602	\$516,982	\$1,811,584
61 Educational Services	\$0	\$159,492	\$141,532	\$301,024
62 Health Care & Social Assistance	\$0	\$26,029	\$2,544,583	\$2,570,612
71 Arts, Entertainment, & Recreation	\$0	\$52,462	\$204,253	\$256,714
72 Accommodation & Food Services	\$0	\$136,733	\$627,947	\$764,680
81 Other Services (except Public Administration)	\$0	\$495,929	\$824,425	\$1,320,355
9A Government Enterprises	\$0	\$115,043	\$78,843	\$193,886
93 Non-NAICS	\$0	\$10,789	\$10,638	\$21,427
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$28,111,865	\$12,311,972	\$12,962,118	\$53,385,955



Figure 19: Industry-level Employee Compensation Impacts of Increased Operations, Delaware						
Industry	Direct	Indirect	Induced	Total		
11 Agriculture, Forestry, Fish, &	\$0	\$758	\$1,988	\$2,746		
Hunting		5676	J1,900	Ş2,740		
21 Mining	\$0	\$106	\$982	\$1,087		
22 Utilities	\$0	\$163,868	\$33,171	\$197,039		
23 Construction	\$0	\$54,829	\$34,450	\$89,280		
31-33 Manufacturing	\$0	\$18,060	\$16,795	\$34,855		
42 Wholesale Trade	\$0	\$69 <i>,</i> 815	\$100,308	\$170,124		
44-45 Retail Trade	\$11,851,272	\$63 <i>,</i> 666	\$457,118	\$12,372,056		
48-49 Transportation &	ćo	6122 022	600.000	6222 750		
Warehousing	\$0	\$132,932	\$89,826	\$222,758		
51 Information	\$0	\$843 <i>,</i> 523	\$85 <i>,</i> 594	\$929,117		
52 Finance & Insurance	\$0	\$186,965	\$330,279	\$517,245		
53 Real estate & Rental	\$0	\$175,712	\$57,515	\$233,227		
54 Professional, Scientific, &	\$0	\$340,849	6227 607	\$568 <i>,</i> 545		
Tech Services	ŞU	Ş540,649	\$227,697	\$506,545		
55 Management of Companies	\$0	\$8,938	\$3,510	\$12,448		
56 Administrative & Support /						
Waste Management &	\$0	\$704,161	\$276,676	\$980 <i>,</i> 837		
Remediation Services						
61 Educational Services	\$0	\$58,866	\$76,402	\$135,269		
62 Health Care & Social	\$0	\$11,146	\$1,338,908	\$1,350,054		
Assistance	ΨŪ	<i></i>	<i>\\\\\\\\\\\\\</i>	<i>\\</i> ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
71 Arts, Entertainment, &	\$0	\$9,749	\$68,772	\$78,522		
Recreation	•	. ,	. ,	. ,		
72 Accommodation & Food	\$0	\$47,553	\$203,458	\$251,011		
Services						
81 Other Services (except Public	\$0	\$204,333	\$351,371	\$555,704		
Administration)	\$0	¢01.040	657550	\$149 COD		
9A Government Enterprises 93 Non-NAICS		\$91,046	\$57,556	\$148,602		
	\$0 ¢0	\$2,981	\$2,939	\$5,920		
9B Administrative Government	\$0	\$0	\$0	\$0		
Total	\$11,851,272	\$3,189,856	\$3,815,317	\$18,856,445		



C.2 Maryland

Figure 20: Industry	-level Fmpl	ovment Im	nacts of Re	novations	Marvla	ind
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	1
21 Mining	0	2	0	3
22 Utilities	0	1	1	1
23 Construction	521	1	2	524
31-33 Manufacturing	0	13	1	14
42 Wholesale Trade	0	18	4	22
44-45 Retail Trade	0	69	33	102
48-49 Transportation & Warehousing	0	17	11	28
51 Information	0	6	4	10
52 Finance & Insurance	0	5	14	19
53 Real Estate & Rental	0	15	12	26
54 Professional, Scientific, & Tech Services	0	19	9	29
55 Management of Companies	0	2	1	3
56 Administrative & Support / Waste Management & Remediation Services	0	19	13	33
61 Educational Services	0	2	7	9
62 Health Care & Social Assistance	0	0	56	56
71 Arts, Entertainment, & Recreation	0	2	9	11
72 Accommodation & Food Services	0	4	23	27
81 Other Services (except Public Administration)	0	8	31	38
9A Government Enterprises	0	1	4	5
93 Non-NAICS	0	0	0	0
9B Administrative Government	0	0	0	0
Total	521	205	234	960



Figure 21: Industr	v-level Output	mpacts of Reno	vations, Maryland

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$25,070	\$40,073	\$65,143
21 Mining	\$0	\$829,583	\$22,273	\$851 <i>,</i> 856
22 Utilities	\$0	\$927,721	\$1,025,211	\$1,952,932
23 Construction	\$108,226,278	\$230,384	\$434,598	\$108,891,260
31-33 Manufacturing	\$0	\$6,083,227	\$563,153	\$6,646,380
42 Wholesale Trade	\$0	\$6,661,088	\$1,569,314	\$8,230,401
44-45 Retail Trade	\$0	\$8,022,542	\$2,824,441	\$10,846,983
48-49 Transportation & Warehousing	\$0	\$2,801,123	\$1,349,146	\$4,150,269
51 Information	\$0	\$2,222,246	\$1,937,118	\$4,159,364
52 Finance & Insurance	\$0	\$1,541,148	\$3,532,962	\$5,074,110
53 Real estate & Rental	\$0	\$4,727,253	\$9,685,123	\$14,412,377
54 Professional, Scientific, & Tech Services	\$0	\$3,789,480	\$1,639,193	\$5,428,673
55 Management of Companies	\$0	\$140,187	\$85,029	\$225,215
56 Administrative & Support / Waste Management & Remediation Services	\$0	\$1,893,392	\$1,369,536	\$3,262,928
61 Educational Services	\$0	\$396,742	\$721,919	\$1,118,661
62 Health Care & Social Assistance	\$0	\$11,122	\$6,485,495	\$6,496,618
71 Arts, Entertainment, & Recreation	\$0	\$122,811	\$808,429	\$931,241
72 Accommodation & Food Services	\$0	\$334,248	\$1,779,373	\$2,113,621
81 Other Services (except Public Administration)	\$0	\$837,971	\$2,550,857	\$3,388,828
9A Government Enterprises	\$0	\$119,917	\$174,701	\$294,618
93 Non-NAICS	\$0	\$27,170	\$74,243	\$101,413
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$108,226,278	\$41,744,425	\$38,672,189	\$188,642,892



Figure 22: Industry	I Journal Empire	waa Cam	noncotion I	Impacts of	Donovotions	Mandand
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$8,740	\$5,003	\$13,743
21 Mining	\$0	\$109,262	\$1,797	\$111,059
22 Utilities	\$0	\$99,243	\$109,748	\$208,991
23 Construction	\$25,283,786	\$51,407	\$91,690	\$25,426,883
31-33 Manufacturing	\$0	\$979,023	\$79,218	\$1,058,242
42 Wholesale Trade	\$0	\$1,529,666	\$376,739	\$1,906,404
44-45 Retail Trade	\$0	\$3,110,532	\$1,142,972	\$4,253,504
48-49 Transportation & Warehousing	\$0	\$788,729	\$308,942	\$1,097,671
51 Information	\$0	\$424,882	\$341,407	\$766,289
52 Finance & Insurance	\$0	\$445,925	\$1,089,696	\$1,535,621
53 Real estate & Rental	\$0	\$380,272	\$253 <i>,</i> 946	\$634,218
54 Professional, Scientific, & Tech Services	\$0	\$1,571,898	\$652,550	\$2,224,448
55 Management of Companies	\$0	\$22,970	\$13,933	\$36,903
56 Administrative & Support /	ŲÇ	<i>722,570</i>	Ş13,333	<i>430,303</i>
Waste Management & Remediation Services	\$0	\$946,589	\$681,391	\$1,627,980
61 Educational Services	\$0	\$122,172	\$418,577	\$540,749
62 Health Care & Social Assistance	\$0	\$5,437	\$3,175,374	\$3,180,812
71 Arts, Entertainment, & Recreation	\$0	\$26,782	\$240,416	\$267,198
72 Accommodation & Food Services	\$0	\$114,731	\$555,777	\$670,508
81 Other Services (except Public Administration)	\$0	\$367,379	\$1,115,692	\$1,483,071
9A Government Enterprises	\$0	\$117,566	\$179,028	\$296 <i>,</i> 594
93 Non-NAICS	\$0	\$13,064	\$35,697	\$48,761
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$25,283,786	\$11,236,271	\$10,869,592	\$47,389,649



Figure 23: Industry-level Employment Impacts of Increased Operations, Maryland					
Industry	Direct	Indirect	Induced	Total	
11 Agriculture, Forestry, Fish, & Hunting	0	1	1	2	
21 Mining	0	0	0	0	
22 Utilities	0	4	1	5	
23 Construction	0	3	1	4	
31-33 Manufacturing	0	2	3	5	
42 Wholesale Trade	0	2	4	6	
44-45 Retail Trade	1,153	4	38	1,194	
48-49 Transportation & Warehousing	0	7	17	23	
51 Information	0	43	7	49	
52 Finance & Insurance	0	7	15	21	
53 Real Estate & Rental	0	42	17	59	
54 Professional, Scientific, & Tech Services	0	18	11	29	
55 Management of Companies	0	0	1	1	
56 Administrative & Support / Waste Management & Remediation Services	0	40	17	57	
61 Educational Services	0	3	5	8	
62 Health Care & Social Assistance	0	4	68	72	
71 Arts, Entertainment, & Recreation	0	5	14	19	
72 Accommodation & Food Services	0	4	16	19	
81 Other Services (except Public Administration)	0	16	52	67	
9A Government Enterprises	0	2	7	9	
93 Non-NAICS	0	0	0	1	
9B Administrative Government	0	0	0	0	
Total	1,153	205	294	1,652	



Figure 24: Industry-level Output Impacts of Increased Operations, Maryland

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$62,803	\$50,321	\$113,124
21 Mining	\$0	\$43,851	\$27,967	\$71,818
22 Utilities	\$0	\$5,233,689	\$1,288,671	\$6,522,360
23 Construction	\$0	\$675,784	\$544,722	\$1,220,506
31-33 Manufacturing	\$0	\$649,257	\$707,480	\$1,356,738
42 Wholesale Trade	\$0	\$1,057,542	\$1,969,632	\$3,027,174
44-45 Retail Trade	\$100,001,421	\$346,513	\$3,544,833	\$103,892,766
48-49 Transportation & Warehousing	\$0	\$1,361,380	\$1,690,993	\$3,052,373
51 Information	\$0	\$7,201,324	\$2,432,584	\$9,633,907
52 Finance & Insurance	\$0	\$2,747,627	\$4,419,702	\$7,167,330
53 Real estate & Rental	\$0	\$9,117,035	\$12,145,064	\$21,262,098
54 Professional, Scientific, & Tech Services	\$0	\$3,041,010	\$2,054,097	\$5,095,107
55 Management of Companies	\$0	\$212,617	\$106,480	\$319,097
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$3,485,607	\$1,715,543	\$5,201,150
61 Educational Services	\$0	\$595,428	\$898,316	\$1,493,744
62 Health Care & Social Assistance	\$0	\$92,697	\$8,128,337	\$8,221,034
71 Arts, Entertainment, & Recreation	\$0	\$376 <i>,</i> 365	\$1,011,518	\$1,387,883
72 Accommodation & Food Services	\$0	\$367,922	\$2,232,036	\$2,599,958
81 Other Services (except Public Administration)	\$0	\$1,447,526	\$3,194,546	\$4,642,072
9A Government Enterprises	\$0	\$263,720	\$218,282	\$482,003
93 Non-NAICS	\$0	\$65,436	\$93,271	\$158,708
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$100,001,421	\$38,445,133	\$48,474,395	\$186,920,949



Figure 25: Industry-level Employee Compensation Impacts of Increased Operations, Maryland						
Industry	Direct	Indirect	Induced	Total		
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$12,101	\$6,280	\$18,380		
21 Mining	\$0	\$1,799	\$2,252	\$4,051		
22 Utilities	\$0	\$558,808	\$137,951	\$696,759		
23 Construction	\$0	\$153,631	\$114,908	\$268,539		
31-33 Manufacturing	\$0	\$126,151	\$99,457	\$225 <i>,</i> 608		
42 Wholesale Trade	\$0	\$258,035	\$472,827	\$730,862		
44-45 Retail Trade	\$39,504,053	\$179,616	\$1,434,501	\$41,118,171		
48-49 Transportation & Warehousing	\$0	\$436,846	\$387,118	\$823,963		
51 Information	\$0	\$2,321,780	\$428,631	\$2,750,411		
52 Finance & Insurance	\$0	\$742,940	\$1,362,098	\$2,105,038		
53 Real estate & Rental	\$0	\$703,223	\$318,712	\$1,021,935		
54 Professional, Scientific, & Tech Services	\$0	\$1,157,503	\$817,582	\$1,975,085		
55 Management of Companies	\$0	\$34,839	\$17,447	\$52,286		
56 Administrative & Support / Waste Management & Remediation Services	\$0	\$1,744,450	\$853,559	\$2,598,009		
61 Educational Services	\$0	\$239,748	\$519,974	\$759,722		
62 Health Care & Social Assistance	\$0	\$45,321	\$3,980,219	\$4,025,540		
71 Arts, Entertainment, & Recreation	\$0	\$56,254	\$300,617	\$356,871		
72 Accommodation & Food Services	\$0	\$123,744	\$696,989	\$820,733		
81 Other Services (except Public Administration)	\$0	\$638,993	\$1,397,304	\$2,036,296		
9A Government Enterprises	\$0	\$238 <i>,</i> 689	\$223,775	\$462,464		
93 Non-NAICS	\$0	\$31,463	\$44,846	\$76 <i>,</i> 309		
9B Administrative Government	\$0	\$0	\$0	\$0		
Total	\$39,504,053	\$9,805,933	\$13,617,047	\$62,927,033		



C.3 Pennsylvania

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	0
21 Mining	0	0	0	0
22 Utilities	0	0	0	0
23 Construction	19	0	0	19
31-33 Manufacturing	0	1	0	1
42 Wholesale Trade	0	1	0	1
44-45 Retail Trade	0	3	2	4
48-49 Transportation & Warehousing	0	1	1	1
51 Information	0	0	0	0
52 Finance & Insurance	0	0	1	1
53 Real Estate & Rental	0	1	1	1
54 Professional, Scientific, & Tech Services	0	1	0	1
55 Management of Companies	0	0	0	0
56 Administrative & Support / Waste Management & Remediation Services	0	1	1	1
61 Educational Services	0	0	0	0
62 Health Care & Social Assistance	0	0	3	3
71 Arts, Entertainment, & Recreation	0	0	0	0
72 Accommodation & Food Services	0	0	1	1
81 Other Services (except Public Administration)	0	0	1	2
9A Government Enterprises	0	0	0	0
93 Non-NAICS	0	0	0	0
9B Administrative Government	0	0	0	0
Total	19	9	11	39

Figure 26: Industry-level Employment Impacts of Renovations, Pennsylvania



Figure 27: Industry-level Output Impacts of Renovations, Pennsylvania

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$5,157	\$4,007	\$9,164
21 Mining	\$0	\$80 <i>,</i> 865	\$5,821	\$86 <i>,</i> 686
22 Utilities	\$0	\$41,611	\$38,163	\$79,774
23 Construction	\$3,998,526	\$11,637	\$18,687	\$4,028,850
31-33 Manufacturing	\$0	\$464,481	\$63,278	\$527,759
42 Wholesale Trade	\$0	\$251,392	\$69,999	\$321,391
44-45 Retail Trade	\$0	\$268,667	\$116,265	\$384,933
48-49 Transportation & Warehousing	\$0	\$135,619	\$71,639	\$207,259
51 Information	\$0	\$92,629	\$94,557	\$187,186
52 Finance & Insurance	\$0	\$68,759	\$204,993	\$273,752
53 Real estate & Rental	\$0	\$151,169	\$315,941	\$467,110
54 Professional, Scientific, & Tech Services	\$0	\$143,415	\$83,804	\$227,219
55 Management of Companies	\$0	\$6,347	\$4,151	\$10,498
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$84,160	\$67,493	\$151,652
61 Educational Services	\$0	\$15,962	\$37,090	\$53 <i>,</i> 052
62 Health Care & Social Assistance	\$0	\$346	\$322,651	\$322,997
71 Arts, Entertainment, & Recreation	\$0	\$3,976	\$36,898	\$40,874
72 Accommodation & Food Services	\$0	\$13,786	\$67,851	\$81,637
81 Other Services (except Public Administration)	\$0	\$36,411	\$114,165	\$150,576
9A Government Enterprises	\$0	\$7,095	\$10,438	\$17,533
93 Non-NAICS	\$0	\$5,804	\$14,809	\$20,613
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$3,998,526	\$1,889,287	\$1,762,702	\$7,650,515



Figure 28: Industry	v-level Employe	e Compensation	Impacts of Renovation	s. Pennsvlvania
	,			<i>,</i>

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$806	\$434	\$1,240
21 Mining	\$0	\$10,830	\$458	\$11,288
22 Utilities	\$0	\$5,101	\$4,741	\$9,842
23 Construction	\$857,330	\$2 <i>,</i> 547	\$3,947	\$863,825
31-33 Manufacturing	\$0	\$75,667	\$7,497	\$83,164
42 Wholesale Trade	\$0	\$53 <i>,</i> 276	\$15,084	\$68,360
44-45 Retail Trade	\$0	\$108,755	\$48,214	\$156,969
48-49 Transportation & Warehousing	\$0	\$40,394	\$17,964	\$58,358
51 Information	\$0	\$16,777	\$15,749	\$32,525
52 Finance & Insurance	\$0	\$19,845	\$61,666	\$81,511
53 Real estate & Rental	\$0	\$18,242	\$9 <i>,</i> 652	\$27,894
54 Professional, Scientific, & Tech Services	\$0	\$60,612	\$34,326	\$94,938
55 Management of Companies	\$0	\$2,122	\$1,388	\$3,510
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$43,935	\$34,722	\$78,657
61 Educational Services	\$0	\$5 <i>,</i> 364	\$21,832	\$27,197
62 Health Care & Social Assistance	\$0	\$158	\$166,029	\$166,188
71 Arts, Entertainment, & Recreation	\$0	\$858	\$11,546	\$12,405
72 Accommodation & Food Services	\$0	\$4,673	\$20,991	\$25,663
81 Other Services (except Public Administration)	\$0	\$15,400	\$45,790	\$61,191
9A Government Enterprises	\$0	\$5,286	\$7 <i>,</i> 476	\$12,762
93 Non-NAICS	\$0	\$1,679	\$4,284	\$5,964
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$857,330	\$492,328	\$533,792	\$1,883,450



igure 29: Industry-level Employment Impacts of Increased Operations, Pennsylvania					
Industry	Direct	Indirect	Induced	Total	
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	0	
21 Mining	0	0	0	0	
22 Utilities	0	0	0	0	
23 Construction	0	0	0	0	
31-33 Manufacturing	0	0	0	0	
42 Wholesale Trade	0	0	0	0	
44-45 Retail Trade	44	0	2	46	
48-49 Transportation & Warehousing	0	0	1	1	
51 Information	0	2	0	2	
52 Finance & Insurance	0	0	1	1	
53 Real Estate & Rental	0	1	1	2	
54 Professional, Scientific, & Tech Services	0	1	0	1	
55 Management of Companies	0	0	0	0	
56 Administrative & Support / Waste Management & Remediation Services	0	1	1	2	
61 Educational Services	0	0	0	1	
62 Health Care & Social Assistance	0	0	3	3	
71 Arts, Entertainment, & Recreation	0	0	0	1	
72 Accommodation & Food Services	0	0	1	1	
81 Other Services (except Public Administration)	0	1	1	2	
9A Government Enterprises	0	0	0	0	
93 Non-NAICS	0	0	0	0	
9B Administrative Government	0	0	0	0	
Total	44	8	11	64	



Figure 30: Industry-level Output Impacts of Increased Operations, Pennsylvania

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$3,830	\$4,092	\$7,922
21 Mining	\$0	\$6,573	\$5,943	\$12,515
22 Utilities	\$0	\$190,352	\$38,998	\$229,351
23 Construction	\$0	\$25,881	\$19,018	\$44,899
31-33 Manufacturing	\$0	\$52,576	\$64,647	\$117,223
42 Wholesale Trade	\$0	\$41,570	\$71,401	\$112,970
44-45 Retail Trade	\$3,094,220	\$13,127	\$118,594	\$3,225,942
48-49 Transportation & Warehousing	\$0	\$60,871	\$72,922	\$133,793
51 Information	\$0	\$304,360	\$96 <i>,</i> 499	\$400,858
52 Finance & Insurance	\$0	\$112,540	\$207,857	\$320,396
53 Real estate & Rental	\$0	\$270,078	\$321,547	\$591,626
54 Professional, Scientific, & Tech Services	\$0	\$111,057	\$85,150	\$196,207
55 Management of Companies	\$0	\$8,104	\$4,211	\$12,315
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$141,412	\$68,580	\$209,992
61 Educational Services	\$0	\$26,425	\$37,149	\$63,574
62 Health Care & Social Assistance	\$0	\$2,678	\$328,140	\$330,819
71 Arts, Entertainment, & Recreation	\$0	\$12,878	\$37,402	\$50,281
72 Accommodation & Food Services	\$0	\$14,295	\$69,102	\$83,397
81 Other Services (except Public Administration)	\$0	\$61,282	\$115,935	\$177,217
9A Government Enterprises	\$0	\$14,610	\$10,616	\$25,227
93 Non-NAICS	\$0	\$13,054	\$15,134	\$28,188
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$3,094,220	\$1,487,552	\$1,792,939	\$6,374,711



Figure 31: Industry-level Employee Compensation Impacts of Increased Operations, Pennsylvania

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$915	\$443	\$1,358
21 Mining	\$0	\$571	\$467	\$1,038
22 Utilities	\$0	\$22,867	\$4,845	\$27,712
23 Construction	\$0	\$5 <i>,</i> 637	\$4,018	\$9 <i>,</i> 655
31-33 Manufacturing	\$0	\$8,931	\$7,651	\$16,582
42 Wholesale Trade	\$0	\$9 <i>,</i> 206	\$15,385	\$24,591
44-45 Retail Trade	\$1,221,333	\$7,182	\$49,180	\$1,277,695
48-49 Transportation & Warehousing	\$0	\$19,798	\$18,278	\$38,076
51 Information	\$0	\$95,255	\$16,069	\$111,324
52 Finance & Insurance	\$0	\$30,131	\$62,385	\$92,517
53 Real estate & Rental	\$0	\$18,771	\$9,833	\$28,604
54 Professional, Scientific, & Tech Services	\$0	\$44,366	\$34,872	\$79,238
55 Management of Companies	\$0	\$2,709	\$1,408	\$4,117
56 Administrative & Support / Waste Management & Remediation Services	\$0	\$75,012	\$35,285	\$110,297
61 Educational Services	\$0	\$11,677	\$21,810	\$33 <i>,</i> 487
62 Health Care & Social Assistance	\$0	\$1,223	\$168,887	\$170,110
71 Arts, Entertainment, & Recreation	\$0	\$1,862	\$11,694	\$13,556
72 Accommodation & Food Services	\$0	\$4,763	\$21,365	\$26,128
81 Other Services (except Public Administration)	\$0	\$26,333	\$46,512	\$72,845
9A Government Enterprises	\$0	\$10,614	\$7,592	\$18,206
93 Non-NAICS	\$0	\$3,777	\$4,378	\$8,155
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$1,221,333	\$401,602	\$542,357	\$2,165,292



C.4 Virginia

Figure 32: Industry	-loval Em	nlovmont	Impacts of	Ronovations	Virginia
Figure 52. Industry	y-level Lill	pioyment	inipacts of	nenovations,	virgiilia

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	0	1	0	1
21 Mining	0	3	0	3
22 Utilities	0	0	0	1
23 Construction	241	1	1	243
31-33 Manufacturing	0	10	1	11
42 Wholesale Trade	0	8	2	10
44-45 Retail Trade	0	36	15	51
48-49 Transportation & Warehousing	0	9	4	13
51 Information	0	3	2	6
52 Finance & Insurance	0	3	7	9
53 Real Estate & Rental	0	9	6	14
54 Professional, Scientific, & Tech Services	0	9	4	14
55 Management of Companies	0	1	0	1
56 Administrative & Support / Waste Management & Remediation Services	0	9	6	15
61 Educational Services	0	1	2	3
62 Health Care & Social Assistance	0	0	21	21
71 Arts, Entertainment, & Recreation	0	1	4	5
72 Accommodation & Food Services	0	3	11	14
81 Other Services (except Public Administration)	0	4	13	17
9A Government Enterprises	0	1	2	3
93 Non-NAICS	0	0	1	1
9B Administrative Government	0	0	0	0
Total	241	112	104	456



Figure 33: Industry	-level Outr	ut Imnacts of	f Renovations	Virginia
ingule 55. Industry	y-level Outp	ut impacts of	i nenovations,	viigiilia

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$53,313	\$31,416	\$84,729
21 Mining	\$0	\$735,184	\$15,500	\$750 <i>,</i> 685
22 Utilities	\$0	\$402,386	\$365,196	\$767 <i>,</i> 582
23 Construction	\$49,438,272	\$129,148	\$191,925	\$49,759,346
31-33 Manufacturing	\$0	\$3,576,554	\$348,534	\$3,925,088
42 Wholesale Trade	\$0	\$2,969,399	\$616,413	\$3,585,813
44-45 Retail Trade	\$0	\$3,799,124	\$1,250,804	\$5,049,929
48-49 Transportation & Warehousing	\$0	\$1,526,315	\$627,155	\$2,153,470
51 Information	\$0	\$937,165	\$792,198	\$1,729,363
52 Finance & Insurance	\$0	\$824,177	\$1,855,630	\$2,679,807
53 Real estate & Rental	\$0	\$2,005,455	\$3,868,599	\$5,874,054
54 Professional, Scientific, & Tech Services	\$0	\$1,960,160	\$770,353	\$2,730,513
55 Management of Companies	\$0	\$79,961	\$40,549	\$120,510
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$1,081,675	\$679,111	\$1,760,786
61 Educational Services	\$0	\$140,876	\$191,447	\$332,322
62 Health Care & Social Assistance	\$0	\$5,424	\$2,351,469	\$2,356,893
71 Arts, Entertainment, & Recreation	\$0	\$49,758	\$259,956	\$309,714
72 Accommodation & Food Services	\$0	\$175,975	\$803,893	\$979,868
81 Other Services (except Public Administration)	\$0	\$433,483	\$994,963	\$1,428,446
9A Government Enterprises	\$0	\$85,877	\$121,893	\$207,771
93 Non-NAICS	\$0	\$126,747	\$266,723	\$393,470
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$49,438,272	\$21,098,157	\$16,443,730	\$86,980,159



				_	
Figure 34: Industry	u loval Empla	waa Campana	ation Impacts of	EDonovationa	Virginia
Figure 54: Industry	v-level cilibio	vee compens	ation impacts of	i Renovations.	VIERIUIA
		/			

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$18,727	\$3,706	\$22,433
21 Mining	\$0	\$150,815	\$1,963	\$152,778
22 Utilities	\$0	\$42,637	\$39,374	\$82,010
23 Construction	\$10,274,058	\$26,875	\$38,178	\$10,339,112
31-33 Manufacturing	\$0	\$621,926	\$43,571	\$665 <i>,</i> 497
42 Wholesale Trade	\$0	\$636,144	\$134,278	\$770,423
44-45 Retail Trade	\$0	\$1,391,859	\$497,866	\$1,889,725
48-49 Transportation & Warehousing	\$0	\$419,971	\$134,687	\$554,658
51 Information	\$0	\$259,277	\$189,725	\$449,002
52 Finance & Insurance	\$0	\$222,913	\$519,410	\$742,322
53 Real estate & Rental	\$0	\$241,977	\$111,019	\$352,996
54 Professional, Scientific, & Tech Services	\$0	\$863,466	\$327,698	\$1,191,164
55 Management of Companies	\$0	\$24,280	\$12,312	\$36,592
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$527,101	\$333,660	\$860,761
61 Educational Services	\$0	\$42,918	\$101,373	\$144,291
62 Health Care & Social Assistance	\$0	\$2,626	\$1,153,043	\$1,155,669
71 Arts, Entertainment, & Recreation	\$0	\$11,973	\$83,339	\$95,312
72 Accommodation & Food Services	\$0	\$59,133	\$245,211	\$304,344
81 Other Services (except Public Administration)	\$0	\$191,001	\$423,479	\$614,480
9A Government Enterprises	\$0	\$69,580	\$95,719	\$165 <i>,</i> 300
93 Non-NAICS	\$0	\$30,069	\$63,276	\$93,345
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$10,274,058	\$5,855,268	\$4,552,889	\$20,682,214



Figure 35: Industry-level Employment Impacts of Increased Operations, Virginia						
Industry	Direct	Indirect	Induced	Total		
11 Agriculture, Forestry, Fish, & Hunting	0	0	1	1		
21 Mining	0	0	0	0		
22 Utilities	0	1	0	2		
23 Construction	0	2	1	3		
31-33 Manufacturing	0	1	1	2		
42 Wholesale Trade	0	2	2	4		
44-45 Retail Trade	540	2	19	560		
48-49 Transportation & Warehousing	0	21	3	25		
51 Information	0	3	2	5		
52 Finance & Insurance	0	4	8	12		
53 Real Estate & Rental	0	21	6	27		
54 Professional, Scientific, & Tech Services	0	10	5	15		
55 Management of Companies	0	3	1	4		
56 Administrative & Support / Waste Management & Remediation Services	0	16	5	21		
61 Educational Services	0	1	4	5		
62 Health Care & Social Assistance	0	0	22	22		
71 Arts, Entertainment, & Recreation	0	2	4	6		
72 Accommodation & Food Services	0	5	15	19		
81 Other Services (except Public Administration)	0	5	14	19		
9A Government Enterprises	0	2	2	4		
93 Non-NAICS	0	0	0	0		
9B Administrative Government	0	0	0	0		
Total	540	102	113	754		



Figure 36: Industry-level Output Impacts of Increased Operations, Virginia

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$58,970	\$36,012	\$94,982
21 Mining	\$0	\$27,198	\$15,390	\$42,588
22 Utilities	\$0	\$2,027,897	\$407,173	\$2,435,070
23 Construction	\$0	\$331,955	\$203 <i>,</i> 057	\$535 <i>,</i> 012
31-33 Manufacturing	\$0	\$362,173	\$385,157	\$747 <i>,</i> 329
42 Wholesale Trade	\$0	\$504,463	\$692,362	\$1,196,824
44-45 Retail Trade	\$40,883,819	\$175,760	\$1,621,713	\$42,681,292
48-49 Transportation & Warehousing	\$0	\$2,651,202	\$492,444	\$3,143,646
51 Information	\$0	\$1,318,563	\$867,713	\$2,186,275
52 Finance & Insurance	\$0	\$1,173,709	\$2,135,523	\$3,309,232
53 Real estate & Rental	\$0	\$4,309,981	\$4,030,301	\$8,340,282
54 Professional, Scientific, & Tech Services	\$0	\$1,704,083	\$868,488	\$2,572,571
55 Management of Companies	\$0	\$629,572	\$244,556	\$874,129
56 Administrative & Support / Waste Management &	\$0	\$1,426,374	\$542,426	\$1,968,800
Remediation Services	ćo	¢00.047	¢250.050	¢250.000
61 Educational Services	\$0	\$98,847	\$259,959	\$358,806
62 Health Care & Social Assistance	\$0	\$177	\$2,511,766	\$2,511,943
71 Arts, Entertainment, & Recreation	\$0	\$152,574	\$233,320	\$385,894
72 Accommodation & Food Services	\$0	\$320,452	\$1,021,855	\$1,342,306
81 Other Services (except Public Administration)	\$0	\$566,432	\$961,957	\$1,528,389
9A Government Enterprises	\$0	\$471,011	\$395,253	\$866,264
93 Non-NAICS	\$0	\$0	\$0	\$0
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$40,883,819	\$18,311,390	\$17,926,424	\$77,121,633



Figure 37: Industry-level Employee Compensation Impacts of Increased Operations, Virginia						
Industry	Direct	Indirect	Induced	Total		
11 Agriculture, Forestry, Fish, &	\$0	\$9,649	\$5,279	\$14,927		
Hunting						
21 Mining	\$0	\$1,860	\$921	\$2,782		
22 Utilities	\$0	\$209 <i>,</i> 698	\$44,630	\$254,327		
23 Construction	\$0	\$68,942	\$40,248	\$109,191		
31-33 Manufacturing	\$0	\$73,026	\$48 <i>,</i> 394	\$121,421		
42 Wholesale Trade	\$0	\$142,560	\$175,661	\$318,221		
44-45 Retail Trade	\$16,161,318	\$58 <i>,</i> 630	\$542,370	\$16,762,318		
48-49 Transportation & Warehousing	\$0	\$1,057,321	\$154,783	\$1,212,104		
51 Information	\$0	\$283,602	\$183,881	\$467,483		
52 Finance & Insurance	\$0	\$345,369	\$573,926	\$919,295		
53 Real estate & Rental	\$0	\$322,760	\$99,269	\$422,029		
54 Professional, Scientific, &						
Tech Services	\$0	\$721,148	\$369,763	\$1,090,911		
55 Management of Companies	\$0	\$395 <i>,</i> 538	\$153,646	\$549,184		
56 Administrative & Support /						
Waste Management &	\$0	\$596,268	\$223,610	\$819,878		
Remediation Services						
61 Educational Services	\$0	\$47,620	\$143,737	\$191,357		
62 Health Care & Social	\$0	\$80	\$1,229,260	\$1,229,341		
Assistance	ŲÇ	90 0	Ş1,229,200	<i>ŢŢ,229,</i> 341		
71 Arts, Entertainment, &	\$0	\$30,080	\$69,188	\$99,268		
Recreation	, -	1 ,	1,	1,		
72 Accommodation & Food	\$0	\$117,789	\$329,000	\$446,789		
Services	·	. ,	. ,	. ,		
81 Other Services (except Public	\$0	\$250,698	\$426,553	\$677,251		
Administration)	·					
9A Government Enterprises	\$0	\$197,894	\$143,652	\$341,546		
93 Non-NAICS	\$0	\$0	\$0	\$0		
9B Administrative Government	\$0	\$0	\$0	\$0		
Total	\$16,161,318	\$4,930,531	\$4,957,771	\$26,049,621		



C.5 West Virginia

Figure 32: Industry	-level Emplo	vment Imnac	rts of Renovations	West Virginia
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	0	1	0	1
21 Mining	0	1	0	1
22 Utilities	0	0	0	0
23 Construction	62	0	0	63
31-33 Manufacturing	0	2	0	2
42 Wholesale Trade	0	2	0	2
44-45 Retail Trade	0	10	4	14
48-49 Transportation & Warehousing	0	2	1	3
51 Information	0	1	0	1
52 Finance & Insurance	0	1	1	2
53 Real Estate & Rental	0	1	1	3
54 Professional, Scientific, & Tech Services	0	2	1	3
55 Management of Companies	0	0	0	0
56 Administrative & Support / Waste Management & Remediation Services	0	2	1	3
61 Educational Services	0	0	0	1
62 Health Care & Social Assistance	0	0	8	8
71 Arts, Entertainment, & Recreation	0	0	1	1
72 Accommodation & Food Services	0	1	3	4
81 Other Services (except Public Administration)	0	1	3	4
9A Government Enterprises	0	0	0	1
93 Non-NAICS	0	0	0	0
9B Administrative Government	0	0	0	0
Total	62	25	28	116



Figure 33: Industry-level Output Impacts of Renovations, West Virginia

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$16,526	\$5,694	\$22,220
21 Mining	\$0	\$190,531	\$13,055	\$203,586
22 Utilities	\$0	\$80,700	\$69,809	\$150,508
23 Construction	\$14,316,993	\$27,654	\$45,437	\$14,390,084
31-33 Manufacturing	\$0	\$766,631	\$52,720	\$819,350
42 Wholesale Trade	\$0	\$536,732	\$144,431	\$681,163
44-45 Retail Trade	\$0	\$974 <i>,</i> 008	\$343 <i>,</i> 655	\$1,317,663
48-49 Transportation & Warehousing	\$0	\$349,514	\$123,481	\$472,995
51 Information	\$0	\$159,358	\$113,558	\$272,916
52 Finance & Insurance	\$0	\$154,227	\$286,643	\$440,870
53 Real estate & Rental	\$0	\$377,906	\$758,547	\$1,136,453
54 Professional, Scientific, & Tech Services	\$0	\$285,475	\$138,233	\$423,708
55 Management of Companies	\$0	\$12,599	\$6,959	\$19,558
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$173,299	\$123,250	\$296,550
61 Educational Services	\$0	\$43,519	\$35,382	\$78,900
62 Health Care & Social Assistance	\$0	\$846	\$930,287	\$931,132
71 Arts, Entertainment, & Recreation	\$0	\$6,958	\$58,857	\$65,815
72 Accommodation & Food Services	\$0	\$35,153	\$219,868	\$255,021
81 Other Services (except Public Administration)	\$0	\$105,029	\$244,871	\$349,900
9A Government Enterprises	\$0	\$19 <i>,</i> 806	\$23,536	\$43,342
93 Non-NAICS	\$0	\$26,045	\$47,262	\$73,307
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$14,316,993	\$4,342,516	\$3,785,533	\$22,445,042



Figure 34: Industry	v-level Employe	e Compensation	Impacts of Renovations	. West Virginia
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Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$3,576	\$669	\$4,245
21 Mining	\$0	\$36,054	\$973	\$37,027
22 Utilities	\$0	\$8,807	\$7 <i>,</i> 770	\$16,577
23 Construction	\$3,617,557	\$7,094	\$10,967	\$3,635,618
31-33 Manufacturing	\$0	\$109,081	\$4,228	\$113,310
42 Wholesale Trade	\$0	\$103,770	\$28,538	\$132,308
44-45 Retail Trade	\$0	\$351,182	\$132,640	\$483 <i>,</i> 822
48-49 Transportation & Warehousing	\$0	\$102,088	\$25,623	\$127,711
51 Information	\$0	\$33 <i>,</i> 803	\$22,302	\$56,104
52 Finance & Insurance	\$0	\$34,140	\$57,350	\$91,489
53 Real estate & Rental	\$0	\$44,059	\$18,417	\$62,476
54 Professional, Scientific, & Tech Services	\$0	\$100,984	\$44,816	\$145,800
55 Management of Companies	\$0	\$3,509	\$1,938	\$5,447
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$84,188	\$60,225	\$144,413
61 Educational Services	\$0	\$12,907	\$14,868	\$27,776
62 Health Care & Social Assistance	\$0	\$309	\$447,590	\$447,900
71 Arts, Entertainment, & Recreation	\$0	\$1,156	\$16,068	\$17,224
72 Accommodation & Food Services	\$0	\$11,113	\$63,811	\$74,924
81 Other Services (except Public Administration)	\$0	\$40,178	\$81,423	\$121,601
9A Government Enterprises	\$0	\$13,084	\$15,089	\$28,173
93 Non-NAICS	\$0	\$4,994	\$9,063	\$14,057
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$3,617,557	\$1,106,076	\$1,064,367	\$5,788,000



igure 35: Industry-level Employment Impacts of Increased Operations, West Virginia					
Industry	Direct	Indirect	Induced	Total	
11 Agriculture, Forestry, Fish, & Hunting	0	0	0	0	
21 Mining	0	0	0	0	
22 Utilities	0	0	0	0	
23 Construction	0	0	0	0	
31-33 Manufacturing	0	0	0	0	
42 Wholesale Trade	0	0	0	1	
44-45 Retail Trade	154	0	4	159	
48-49 Transportation & Warehousing	0	1	1	2	
51 Information	0	4	0	5	
52 Finance & Insurance	0	1	1	2	
53 Real Estate & Rental	0	3	1	4	
54 Professional, Scientific, & Tech Services	0	2	1	2	
55 Management of Companies	0	0	0	0	
56 Administrative & Support / Waste Management & Remediation Services	0	4	1	6	
61 Educational Services	0	0	0	1	
62 Health Care & Social Assistance	0	0	8	8	
71 Arts, Entertainment, & Recreation	0	0	1	1	
72 Accommodation & Food Services	0	1	3	4	
81 Other Services (except Public Administration)	0	2	3	5	
9A Government Enterprises	0	0	0	1	
93 Non-NAICS	0	0	0	0	
9B Administrative Government	0	0	0	0	
Total	154	21	27	202	



Figure 36: Industry-level Output Impacts of Increased Operations, West Virginia

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$2,397	\$5,575	\$7,972
21 Mining	\$0	\$19,892	\$12,785	\$32,677
22 Utilities	\$0	\$429,942	\$68,394	\$498,336
23 Construction	\$0	\$71 <i>,</i> 837	\$44,379	\$116,216
31-33 Manufacturing	\$0	\$63,632	\$51,640	\$115,272
42 Wholesale Trade	\$0	\$87 <i>,</i> 819	\$141,305	\$229,124
44-45 Retail Trade	\$11,142,181	\$42,678	\$336,175	\$11,521,034
48-49 Transportation & Warehousing	\$0	\$169,802	\$120,691	\$290,493
51 Information	\$0	\$567,494	\$111,126	\$678,620
52 Finance & Insurance	\$0	\$239,735	\$279,647	\$519,382
53 Real estate & Rental	\$0	\$652,633	\$740,754	\$1,393,387
54 Professional, Scientific, & Tech Services	\$0	\$224,977	\$134,897	\$359,874
55 Management of Companies	\$0	\$19,343	\$6,789	\$26,133
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$346,070	\$120,302	\$466,372
61 Educational Services	\$0	\$53,442	\$34,254	\$87,697
62 Health Care & Social Assistance	\$0	\$7,046	\$908,160	\$915,206
71 Arts, Entertainment, & Recreation	\$0	\$21,876	\$57,379	\$79,255
72 Accommodation & Food Services	\$0	\$37,612	\$214,965	\$252,577
81 Other Services (except Public Administration)	\$0	\$183,930	\$238,714	\$422,644
9A Government Enterprises	\$0	\$40,350	\$22,961	\$63,311
93 Non-NAICS	\$0	\$68,304	\$46,298	\$114,602
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$11,142,181	\$3,350,811	\$3,697,192	\$18,190,184



Figure 37: Industry-level Employee Compensation Impacts of Increased Operations, West	
Virginia	

Industry	Direct	Indirect	Induced	Total
11 Agriculture, Forestry, Fish, & Hunting	\$0	\$572	\$655	\$1,227
21 Mining	\$0	\$2,012	\$952	\$2 <i>,</i> 964
22 Utilities	\$0	\$44,976	\$7,612	\$52 <i>,</i> 588
23 Construction	\$0	\$18,337	\$10,713	\$29,050
31-33 Manufacturing	\$0	\$8,514	\$4,139	\$12,652
42 Wholesale Trade	\$0	\$18,588	\$27,919	\$46,507
44-45 Retail Trade	\$4,351,446	\$21,078	\$129,754	\$4,502,279
48-49 Transportation & Warehousing	\$0	\$55,478	\$25,038	\$80,516
51 Information	\$0	\$165,398	\$21,821	\$187,219
52 Finance & Insurance	\$0	\$49,422	\$55 <i>,</i> 919	\$105,341
53 Real estate & Rental	\$0	\$37,501	\$18,006	\$55 <i>,</i> 507
54 Professional, Scientific, & Tech Services	\$0	\$72,310	\$43,723	\$116,033
55 Management of Companies	\$0	\$5,387	\$1,891	\$7,278
56 Administrative & Support /				
Waste Management & Remediation Services	\$0	\$170,618	\$58,787	\$229,405
61 Educational Services	\$0	\$17,389	\$14,351	\$31,740
62 Health Care & Social Assistance	\$0	\$2,569	\$436,995	\$439,564
71 Arts, Entertainment, & Recreation	\$0	\$2,736	\$15,650	\$18,386
72 Accommodation & Food Services	\$0	\$11,632	\$62,371	\$74,003
81 Other Services (except Public Administration)	\$0	\$71,271	\$79,392	\$150,663
9A Government Enterprises	\$0	\$30,377	\$14,706	\$45,084
93 Non-NAICS	\$0	\$13,097	\$8,878	\$21,975
9B Administrative Government	\$0	\$0	\$0	\$0
Total	\$4,351,446	\$819,262	\$1,039,273	\$6,209,982



Appendix D—Congressional District and DMA Impacts

There are separate Excel files for impacts at the congressional district and DMA levels. This Excel files provide detailed (industry-level) economic impact data of the Wave 7 Remodels at the congressional district or designated market area (DMA) level. In each of the following figures, direct impacts represent the impact of renovations or increased operations. That is, they are either in the *Construction* industry or the *Retail Trade* industry.

Indirect impacts represent supplies that are necessary for construction or store operations. For example, building materials purchased for the renovations would be indirect impacts in the *Retail Trade* industry.

Induced impacts represent economic activity from workers spending their paychecks in the local economy. For example, if a Food Lion employee takes their child to the pediatrician, this would be an induced impact in the *Health Care and Social Assistance* industry.

Because these different impacts relate to different spending avenues, one type of impact could be quite large for a given industry, while the others are small or non-existent. For example, *Health Care and Social Assistance* has basically no direct or indirect impact since these services are not necessary to perform construction or run a grocery store. However, employees at Food Lion or at Food Lion's vendors are nearly guaranteed to purchase health care services, so there is a larger induced impact.

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