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**The Economic Impact of Increased  
Congestion for Freight Dependant Businesses  
in Washington State – Technical Report**



**Washington State Department of Transportation  
and  
Freight Policy Transportation Institute  
Washington State University**

# The Economic Impact of Increased Congestion for Freight Dependant Businesses in Washington State – Technical Report

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## **DISCLAIMER**

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## Section 1 Executive Summary

Congestion in the transportation system causes freight dependant businesses to alter their business model to satisfy consumer demands under uncertain operational conditions. Responses from freight dependant businesses indicate that consumers would likely pay 60 to 80% of the increased cost of congestion. Ultimately, this means that consumers will pay higher prices for freight dependant goods and freight dependant businesses will spend more to provide those goods.

From an economy wide perspective, the majority of the money disrupted by congestion for freight dependant businesses will continue to stay in the economy, it will just be redistributed. Consumers will spend less on all other products (services and non-freight dependant goods) and freight dependant businesses will spend more. Therefore, in a simplistic sense, the economic impact of increased congestion for freight dependant businesses is the difference between the decreased spending by consumers (consumer cost) and the increased expenditure by freight dependant businesses (societal benefit).

Data from a survey of freight dependant businesses and seven IMPLAN models were used to calculate the costs of congestion and estimate the annual economic impact of increased congestion for freight dependant businesses in the State of Washington and six sub-regions of the state. All of the annual estimates used the 2008 IMPLAN database and are reported in 2011 dollars. The primary areas of increased cost for freight dependant businesses were identified as additional trucking costs and inventory costs. It is estimated that the consumer cost for a 20% congestion increase (60% cost realization) in Washington State is \$8.7 billion. Due to waste and other losses, the state economy will only see \$8.5 billion of that money spent by freight dependant businesses. The economic impact of this redistribution of wealth and inefficiency is a loss of \$3.3 billion dollars (0.5%) in total output and over 27,000 jobs (0.7%).

The impacts might actually be higher when you look at the State in regions. It is estimated that the Puget Sound area alone would see output declines of \$3.6 billion (0.8%) and lose more than 21,000 jobs (0.9%). The next closest region is the Northeast where output declines by \$290 million (0.8%) and employment falls by 2,200 (0.8%). The Southeast region is affected the least with output shrinking by \$31 million (0.2%) and a loss of 345 jobs (0.3%).

## Section 2 Introduction

This technical report is part of a larger project to provide the Washington State Department of Transportation with information about how freight dependant businesses are being affected by congestion and how they might respond to increased levels of congestion. The other components of this project were a survey of Washington freight dependant businesses conducted by the Social and Economic Sciences Research Center (SESRC) at Washington State University that will be summarized in a Data Review and Evaluation Report by Ken Casavant and an overall project summary to be developed by Casavant and the WSDOT.

The purpose of this report is to provide estimates of how the general economy is affected when freight dependant businesses incur congestion. These estimates are referred to as economic impacts. Typically, economic impact statements report how an economy changes when an external source of funds moves into a regional economy (i.e., a new manufacturing plant locates in a town). Congestion is somewhat unique in that “new” money is not being injected into the economy. Instead congestion causes freight dependant businesses to operate less efficiently. To estimate the economic impacts of this inefficiency, a hypothesis of how the funds are shifted within the economy must be devised.

The SESRC survey asked freight dependant businesses how they would respond if their travel time increased by 20%. Responses to this question indicate that consumers would likely pay 60 to 80% of the increased cost of congestion. However, the consumers’ cost of congestion for freight dependant businesses does not provide complete measure of the economic shock. How businesses spend resources to combat congestion must be considered as well.

To accurately estimate the economic impact of increased congestion for freight dependant businesses, two types of economic shocks are modeled simultaneously. First, the cost to consumers is a negative shock that represents consumers decreased spending in all other industries. The second shock is positive and can be considered the societal benefits that accrue from freight dependant businesses adding assets and labor to combat congestion. The economic impacts that result from these two offsetting impacts are the net impacts of increased congestion for freight dependant businesses.

The remainder of this report is organized into four sections with supporting appendices for each section. Section 3 explains how the SESRC survey data were used to estimate freight dependant businesses’ increased costs for trucking and inventory as a percentage of their total revenue. Section 4 provides details on how the cost percentages were transformed to population level estimates using the IMPact analysis for PLANning modeling system (IMPLAN) data. The specific modeling procedures for the state and six regional models are discussed in Section 5. Finally, the economic impact results are reported in Section 6.

### **Section 3 Survey Data**

The survey of freight dependant businesses conducted by Washington State University's Social and Economic Sciences Research Center was a targeted survey that emphasized freight dependant businesses and had an overall response rate of 29.6%. The survey results used in this section are from a subset of questions that provide information on the costs that would be incurred from increased levels of congestion and general business information. For complete information on the survey procedures and results please see the Data Review and Evaluation Report by Casavant.

**-Survey timing** The primary purpose of the survey was to quantify the economic impacts of traffic congestion and traffic delays for freight dependent businesses operating in Washington State. The questionnaire was developed in two phases; phase 1 was from June 2009 through October 2009 and phase 2 was from October 2010 through December 2010. Data collection started December 22, 2010 and was completed on March 25, 2011.

**-Population and sample** The population for the survey consisted of all businesses registered in the State of Washington and companies in freight dependent sectors or designated as owning and operating trucks or other freight vehicles in Washington State. The listed survey sample included a total of 83,000 cases. After SESRC removed 9,519 obvious duplicates and substantially incomplete (un-contactable) cases a total of 73,481 businesses remained (ESD List) and were proportioned as is shown below in table3. 1. The initial sample of 2500 cases was drawn from the population by selecting 1000 trucking companies and then proportionately sampling among the remaining industries with oversampling in the smaller industries so a minimum of 60 cases were drawn from each of the 10 sectors (table3.1).

**Table 3-1: Population and Starting Samples.**

Industry	Population	TRKF10 Initial Sample	TRKF10 Additional Sample	TRKF10 Starting Sample
Agribusiness	5809	107	108	215
Construction	23370	430	399	829
Globalgateway	1392	60	45	105
Manuf_food	750	60	32	92
Manufacturing	6024	111	55	166
Retail	19587	360	321	681
Trucking	1972	1000	0	1000
Warehousing	277	60	30	90
Wholesale	13691	252	222	474
Wood	609	60	38	98
	73481	2500	1250	3750

From SESRC calling success in earlier studies it was obvious more than 2500 cases would be needed to obtain 900 completed interviews and so SESRC proportionately drew an additional sample of 1250 cases for a starting sample of 3750 cases (Table3. 1).

By early February 2011 it was realized that the sample still was not adequate and more cases would be needed to meet the statistical significance goal for completed cases. It was decided to select the remaining cases from the carrier sector. The trucking companies from the first list had been exhausted and an additional list of 4,146 cases was obtained from the Washington Department of Licensing Truck Registration Database (UTC List). Review of these cases revealed 514 duplicates with the ESD List or substantially incomplete cases. These were removed leaving 3,632 cases to be used in this study. It was realized on January 20, 2011, after importing 600 initial added cases into the study that substantial duplication between the ESD List and the UTC list existed so calling was halted except for scheduled call backs from January 22 until February 2, 2011 so duplicates in the sample could be removed and coded out. On February 8, 2011 an additional 951 cases were added to the sample from the UTC List and then

remainder of the UTC List of 1,941 cases were added to the sample on February 10, 2011 for a total of 6,624.

The original survey dataset contains responses from 1,211 businesses. The number of Washington business facilities was used as a screening variable to remove out of state companies from the dataset. One hundred and thirty eight businesses reported no facilities in Washington. An additional 11 businesses that did not report their number of Washington facilities were excluded because their address in the survey sample was outside of the state. The survey dataset used for estimating congestion costs contained 1,062 observations.

**-Questionnaire design** The SESRC worked in collaboration with Barbara Ivanov at the Washington State Department of Transportation, Freight Systems Division and with Ken Casavant and Justin Taylor at Washington State University to develop and finalize the questionnaire used for the survey.

The goal was to design a survey that would comprise a 25 minute interview. The final script contained 543 questions, of which 335 had open-ended response components. The SESRC then programmed the script into SESRC's Computer Assisted Telephone Interviewing (CATI) system. The CATI program also facilitates the sample administration during the project calling period.

The CATI was tested by SESRC staff members and WSDOT representatives. The final survey script with revisions was completed on December 18, 2010. A web survey option was developed and utilized to give respondents an option as to how they preferred to complete the survey. The web option was also used to provide interviewers with a strategy to convert refusals to the phone survey. The final Internet version contained 246 screens including an introductory screen and a survey completion screens.

The first contact with the starting sample of 3,750 respondents was via telephone starting December 22, 2010. The web survey option was provided to all 3,750 respondents in the starting sample during the first phone conversation or in an answering machine message if one was available.

The SESRC sent out 1,659 web invitation letters to all telephone non-responders via first class mail on February 4, 2011 asking them to complete the survey on line or call our 800 number to do the survey over the phone. The SESRC also sent out 947 web invitation letters to the 951 additional UTC List cases with mailing addresses on February 10, 2011 asking them to complete the survey on line or call a 800 number to do the survey over the phone. The same letter was sent to the 1,898 of the remaining UTC List of 1,941 cases with mailing addresses on February 14, 2011. A copy of the telephone interview script, the web screenshots, and the letters can be found in the Data Report from the SESRC. The final results of over 1,000 businesses allowed evaluation of the responses across the relevant variables to describe the industry and to provide data for the cost of congestion analysis.

### 3.1 Industry Classification

Survey respondents were asked to identify the type of industry that best categorizes their business. Table 3-2 shows the response options provided to the respondents and the number that selected each industry type. Additionally, respondents were asked to classify the activity or activities that described their business in terms of truck freight (Table 3-).

**Table 3-2 Industry Classification, Raw Data.**

<b>Industry</b>	<b>Number of Responses</b>
<i>Agriculture, forestry, fishing</i>	231
<i>Mining</i>	8
<i>Construction</i>	170
<i>Manufacturing</i>	67
<i>Retail trade</i>	121
<i>Wholesale trade</i>	44
<i>Transportation and/or warehousing</i>	248
<i>Waste management</i>	16
<i>Food distribution</i>	23
<i>Other</i>	133
<i>Missing</i>	1
<b>Total</b>	<b>1062</b>

Responses to both the industry and activity questions were used to create a new industry classification scheme that categorized businesses by industry and activity to more closely align with the North American Industry Classification System.<sup>1</sup> First, respondent’s descriptions of their “other” industry designation were reviewed to determine if they could be categorized under one of the nine named industries.<sup>2</sup> Of the 133 businesses that classified their business industry as “other”, 48 provided additional details. Only 2 responses could not be mapped to one of the nine named industries.

<sup>1</sup> The 2 digit level NAICS categories are used as the aggregation template in the Input-Output models discussed later in the report.

<sup>2</sup> Respondent descriptions and the final industry determination are included in Appendix A, Table A-1.

**Table 3-3 Activity Type, Raw Data.**

<b>Activity</b>	<b>Number of Responses</b>
<i>Ships out-going freight only</i>	183
<i>Receives in-coming freight only</i>	122
<i>Freight carrier only (truck, parcel, or courier)</i>	316
<i>Freight forwarder or broker only</i>	29
<i>Ships out-going freight and receives in-</i>	189
<i>Ships out-going freight and carries freight</i>	25
<i>Receives in-coming freight and carries</i>	24
<i>Ships, receives, and carries freight</i>	90
<i>Freight carrier and a freight forwarder or</i>	36
<i>Ships, receives, brokers, and carries freight</i>	43
<i>Missing</i>	5
<b>Total</b>	<b>1062</b>

All of the for-hire businesses were then moved into Transportation and/or warehousing based on the business activity they identified. Specifically, businesses that classified themselves as a freight forwarder or broker or carried freight for others were reclassified. The new breakdown of observations by industry is presented in Table 3.<sup>3</sup>

**Table 3-4 Industry Classification, Revised Data.**

<b>Industry</b>	<b>Number of Observations</b>
<i>Agriculture, forestry,</i>	110
<i>Mining</i>	5
<i>Construction</i>	90
<i>Manufacturing</i>	50
<i>Retail trade</i>	107
<i>Wholesale trade</i>	31
<i>Transportation and/or</i>	614
<i>Waste management</i>	9
<i>Other</i>	46
<b>Total</b>	<b>1062</b>

<sup>3</sup> Seven respondents were in the Food distribution industry after for-hire operations were removed, however a clear connection to the IMPLAN industry sectors does not exist. Therefore, these observations were reclassified as Transportation and/or warehousing.

### 3.2 Regions

The majority of the survey questions focused on one region of the state. Respondents were asked to identify the region of the state where they face the most congestion or where the majority of their shipments occur. This region was then used to provide context for the remainder of the survey questions. Six regions were provided as response options. The regions were; Northwest, Southwest, Central basin, Northeast, Southeast, and Central Puget Sound Metro Area. Table 3-5 shows the number of observations for each congestion region.

**Table 3-5 Number of Observations, by Congestion Region.**

<b>Congestion Region</b>	<b>Number of Observations</b>
<i>Northwest</i>	267
<i>Southwest</i>	100
<i>Central Basin</i>	99
<i>Northeast</i>	84
<i>Southeast</i>	75
<i>Central Puget Sound Metro Area</i>	239
<i>Missing</i>	198
<b><i>Total</i></b>	<b><i>1062</i></b>

An additional spatial variable was created for use in the input-output modeling procedure. This variable identified the primary location of the business. The zip code for each business was mapped to a county and then assigned to one of the six regions.<sup>4</sup> Table 3-6 breaks down the number of companies by the region where they are located and the region where they experience the most congestion or where most of their shipments occur. Twenty-seven respondents indicated that they had Washington locations but had an out of state headquarters zip code. The headquarters region is reported as the largest congestion area/shipment destination for all regions. The Northwest region and the Puget Sound are consistently ranked as the second and third largest congestion area/shipment destination, respectively.

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<sup>4</sup> The state regions were not explicitly defined for the survey respondents. Therefore, the author in consultation with WSDOT personnel created a regional classification system to match the six regions as closely as possible. The county to region aggregation scheme is provided in Appendix A, Table A-2.

**Table 3-6 where they Trucking Costs**

A series of survey questions about the number of additional trucks that would be necessary to combat congestion was utilized to calculate trucking costs at 20, 30, and 40% increases in congestion. Table 3- shows the number of respondents in each industry that reported the number of trucks necessary to maintain production with a 20% increase in congestion.<sup>5</sup> To translate the additional trucking requirements into cost data, hourly trucking costs provided by respondents were used.

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<sup>5</sup> Additional truck count and percent data for 20, 30, and 40% congestion increases is provided in Appendix A, Table A-3 through Table A-5.

**Table 3-7 Distribution of Companies Trucking Requirements Necessary for 20% Congestion Increase, by Industry.**

Industry	Additional Trucks							Total
	0	0 to 1	1 to 2	2 to 5	5 to 10	10 to 20	20+	
<i>Agriculture, forestry, fishing</i>	19	13	8	2	0	1	0	<b>43</b>
<i>Mining</i>	1	2	0	0	0	0	0	<b>3</b>
<i>Construction</i>	15	15	5	2	1	2	0	<b>40</b>
<i>Manufacturing</i>	4	2	1	2	2	0	0	<b>11</b>
<i>Retail trade</i>	9	6	0	2	0	1	0	<b>18</b>
<i>Wholesale trade</i>	2	6	0	1	0	0	0	<b>9</b>
<i>Transportation and/or warehousing</i>	157	94	56	34	25	5	2	<b>373</b>
<i>Waste management</i>	5	2	0	0	0	0	0	<b>7</b>
<i>Other</i>	10	2	3	1	1	0	0	<b>17</b>
<b>Total</b>	<b>222</b>	<b>142</b>	<b>73</b>	<b>44</b>	<b>29</b>	<b>9</b>	<b>2</b>	<b>521</b>

Survey respondents were asked to identify their average hourly cost of trucking based on the type of trucks they operate. Baseline costs of \$55, \$76, and \$59 per hour were provided for each type of trucking fleet (light trucks, heavy trucks, or mixture, respectively). Respondents were then asked to identify their costs as higher, lower, or right at the baseline cost. Additionally, they were provided the opportunity to specify their hourly cost. Over 35% of the original sample of 1,062 responses (389 observations) provided specific hourly costs and 11% agreed with their respective baseline costs (115 observations). This information on hourly costs was used to impute hourly trucking costs for another 22% of the sample (238 observations) that did not provide cost data. The imputations were based on region, industry, relative baseline cost, and fleet type.<sup>6</sup> The remaining observations lacked sufficient detail on the type of fleet operated to impute hourly costs.

In addition to questions about how much it costs to operate trucks, respondents were asked to identify what percentage of those costs were attributable to wages and benefits, fuel costs, truck lease or purchase, and other truck-based costs. Table 3- shows the average trucking cost percentages reported by respondents.

<sup>6</sup> Details of the cost imputations are included in Appendix A.2.1.

**Table 3-8 Trucking Cost Components, Percentages.**

<b>Trucking Cost</b>	<b>Percent of Total</b>
<i>Wages and</i>	35.9%
<i>Fuel</i>	23.4%
<i>Truck Lease or</i>	16.2%
<i>Other Trucking</i>	24.0%

Hourly trucking costs were annualized by multiplying the hourly rate by 2,080 hours per year.<sup>7</sup> The annual cost of operating a truck was then multiplied by the number of trucks the respondents said would be necessary to combat 20, 30, and 40% congestion increases. Each company's total trucking cost due to increased congestion was then divided by their reported annual revenue to calculate the percentage.

To calculate state and regional mean trucking cost percentages, the individual companies' percentages were analyzed for outliers. Observations with a trucking cost percentage greater (or less) than two standard deviations from the industry mean were considered outliers and removed from the data before any additional processing was conducted.<sup>8</sup> State level trucking cost percentages were calculated as the mean of all observations, by industry. Similarly, regional means were calculated by region and industry. Any regional industry means that were comprised of less than 3 observations or did not exist in the survey dataset were supplanted with the industry state level mean. Table 3- contains the final regional and state level trucking cost percentages for a 20% congestion increase.<sup>9</sup>

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<sup>7</sup> Hours per year was calculated assuming 8 hours per day, 5 days per week and 52 weeks per year (2,080 hours). This assumes trucks are run on traditional business hours every day of the year. This is a conservative estimate relative to the maximum number of hours a driver can operate (3,816) based on U.S. Department of Transportation Hours of Service Regulations.

<sup>8</sup> Graphical and tabular details of the trucking cost percentages for 20, 30 and 40% congestion levels is provided in Appendix A, Figure A-1 through Figure A-3 Raw Data and Figure A-4 through Figure A-6 Clean Data.

<sup>9</sup> The trucking percentages for 30 and 40% congestion increases are reported in Appendix A, Table A-6 and Table A-7.

**Table 3-9 Regional and State Trucking Cost Percentages by Industry, 20% Congestion Increase.**

<b>Industry</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Agriculture, forestry, fishing</i>	1.08%	8.53%	7.61%	6.00%	6.63%	1.26%	6.00%
<i>Mining</i>	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%
<i>Construction</i>	6.38%	9.41%	4.67%	9.59%	8.28%	13.45%	8.28%
<i>Manufacturing</i>	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%
<i>Retail trade</i>	2.59%	2.91%	2.59%	2.59%	2.59%	3.48%	2.59%
<i>Wholesale trade</i>	3.16%	3.16%	3.16%	3.16%	3.16%	3.38%	3.16%
<i>Transportation and/or warehousing</i>	7.58%	2.96%	7.51%	3.93%	7.10%	7.87%	6.51%
<i>Waste management</i>	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%

The trucking cost percentages from companies that participated in the SESRC survey provide an integral component for calculating the economic shock created by congestion. These percentages will be used along with total revenue data (Section 4) to calculate gross state and regional congestion related costs and benefits.

### 3.3 Inventory Costs

A series of questions asked respondents if they held inventory in their congestion/shipment and the value of those goods. An additional set of questions asked how much more inventory would need to be held if congestion levels increased by 20, 30, and 40% (Table 3-).<sup>10</sup> It is assumed that companies that do not currently hold inventories will not be induced to hold inventory to combat congestion.

**Table 3-10 Distribution of Companies Inventory Requirements Necessary for 20% Congestion Increase, by Industry.**

Industry	Additional Inventory Days							Total
	0 to 0	3 to 3	7 to 7	14 to 14	30 to 30	90 to 90	90 +	
<i>Agriculture, forestry, fishing</i>	74	2	0	0	0	0	0	<b>76</b>
<i>Mining</i>	2	0	0	0	0	0	0	<b>2</b>
<i>Construction</i>	42	5	4	2	5	0	0	<b>58</b>
<i>Manufacturing</i>	12	5	2	1	3	1	0	<b>24</b>
<i>Retail trade</i>	25	6	3	4	4	2	0	<b>44</b>
<i>Wholesale trade</i>	7	1	0	3	1	1	1	<b>14</b>
<i>Transportation and/or warehousing</i>	163	2	2	4	3	2	1	<b>177</b>
<i>Waste management</i>	6	1	0	0	0	0	0	<b>7</b>
<i>Other</i>	23	1	1	1	1	2	0	<b>29</b>
<b>Total</b>	<b>354</b>	<b>23</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>8</b>	<b>2</b>	<b>431</b>

One hundred and fifty respondents reported a positive value for the inventory they hold. Table 3-1 shows the number of companies and their reported inventory values. Respondents were also asked how many days of inventory are carried, the number of additional days that would be required if congestion increased 20, 30, and 40%, and the magnitude and composition of their inventory carrying costs.

<sup>10</sup> Additional inventory day count and percent data for 20, 30, and 40% congestion increases is provided in Appendix A, Table A-8 through Table A-10.

**Table 3-11 Distribution of Companies Inventory Values, by Industry.**

<b>Industry</b>	<b>Zero</b>	<b>Less than \$500</b>	<b>\$500 - \$5 k</b>	<b>\$5 k - \$25 k</b>	<b>\$25 k - \$100 k</b>	<b>\$100 k - \$250 k</b>	<b>\$250 k - \$1 M</b>	<b>\$1 M - \$5 M</b>	<b>More than \$5 M</b>	<b>Total</b>
<i>Agriculture, forestry, fishing</i>	68	0	1	0	1	2	3	0	1	76
<i>Mining</i>	2	0	0	0	0	1	0	0	0	3
<i>Construction</i>	38	1	2	9	1	1	2	2	2	58
<i>Manufacturing</i>	9	1	1	0	5	2	2	2	2	24
<i>Retail trade</i>	9	0	1	4	9	13	9	7	3	55
<i>Wholesale trade</i>	3	0	0	3	1	2	4	3	0	16
<i>Transportation and/or warehousing</i>	149	1	1	3	2	4	7	10	6	183
<i>Waste management</i>	5	0	0	1	0	0	1	0	0	7
<i>Other</i>	17	0	0	0	5	2	2	2	0	28
<b>Total</b>	<b>300</b>	<b>3</b>	<b>6</b>	<b>20</b>	<b>24</b>	<b>27</b>	<b>30</b>	<b>26</b>	<b>14</b>	<b>450</b>

Respondents were asked to identify their inventory carrying cost as a percentage of inventory value and the components of that carrying cost. The eight carrying cost components were specified as; capital, taxes, insurance, warehousing, handling, clerical, obsolescence, and pilferage. Table 3- shows the average inventory carrying cost components and their value as a percentage of inventory value.

**Table 3-12 Inventory Carrying Cost and Components, Percentage of Inventory Value.**

<b>Inventory Cost</b>	<b>Percentage</b>
<i>Capital</i>	2.76%
<i>Taxes</i>	1.79%
<i>Insurance</i>	0.95%
<i>Warehousing</i>	1.37%
<i>Handling</i>	1.67%
<i>Clerical</i>	1.33%
<i>Obsolescence</i>	1.85%
<i>Pilferage</i>	1.26%
<b>Total Carrying</b>	<b>12.99%</b>

The total value of inventory was first divided by the number of days of inventory held to calculate a daily inventory value. The number of additional days of inventory, at each congestion level, was multiplied by the daily inventory value and the carrying cost percentage to calculate the inventory cost due to congestion. These costs were normalized by the company's reported annual revenue.

To calculate mean inventory cost percentages, the individual companies' percentages were analyzed for outliers. Observations with an inventory cost percentage greater (or less) than two standard deviations from the mean were considered outliers and removed from the data before any additional processing was conducted.<sup>11</sup> State level inventory cost percentages were calculated as the mean of all observations, by industry. Due to the low number of companies that held inventories, inventory cost percentages were not calculated by region. Table 3- contains the final state level inventory cost percentages for 20, 30, and 40% congestion increases.

**Table 3-13 State Inventory Cost Percentages.**

<i>Industry</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Agriculture, forestry, fishing</i>	0.01%	0.03%	0.04%
<i>Mining</i>	0.00%	0.00%	0.00%
<i>Construction</i>	0.04%	0.05%	0.06%
<i>Manufacturing</i>	0.42%	0.57%	0.84%
<i>Retail trade</i>	0.34%	0.41%	0.58%
<i>Wholesale trade</i>	0.23%	0.23%	0.25%
<i>Transportation and/or warehousing</i>	0.04%	0.05%	0.05%
<i>Waste management</i>	0.00%	0.00%	0.00%

The inventory cost percentages and the trucking cost percentages (Section 0) from companies that participated in the SESRC survey provide an integral component for calculating the economic shock created by congestion. These percentages will be used along with total revenue data (Section 4) to calculate gross state and regional congestion related costs and benefits.

### *3.4 Cost Realization*

Survey respondents were asked what strategies their companies would employ if travel times permanently increased by 20% (Table 3-). These responses provide us with some insight to how individual businesses would manage increased congestion and the resulting costs. Over half of the respondents indicated that they would continue their current operations and pass the costs on to consumers and another 20% said the additional costs would be absorbed by the company. Two other groups of firms indicated that they would modify their business operations to manage the travel time increases; 16% would change routes and 3% would relocate. Finally, 6% reported that they would go out of business.

<sup>11</sup> Graphical and tabular details of the inventory cost percentages for 20, 30 and 40% congestion levels is provided in Appendix A, Figure A-7 through Figure A-10 Raw Data and Figure A-10 through Figure A-12 Clean Data.

**Table 3-14 Strategies for Handling 20% Increase in Travel Time.**

<i>Response</i>	<b>Number</b>	<b>Percent</b>
<i>Go out of business</i>	50	6.3%
<i>Switch to alternative highways or roadways</i>	124	15.8%
<i>Relocate the business</i>	26	3.3%
<i>Continue to use the same shipment route and absorb the associated costs</i>	149	19.0%
<i>Continue to use the same shipment route but would pass on the associated costs to customers</i>	436	55.5%
<i>Missing</i>	277	

These responses can be further analyzed to describe the range of costs that consumers might face due to increased congestion. First, while individual firms might go out of business their consumers will likely still exist. Therefore, it can be assumed that they will be provided goods from other firms that still face congestion costs. Secondly, altering business operations to manage increased travel time is not free of costs. Firms will only incur these costs to the point where profits are equivalent to employing the other strategies. Table 3- shows the distribution of firms for these three cost management strategies.

**Table 3-15 Cost Management Strategies.**

<i>Strategy</i>	<b>Number</b>	<b>Percent</b>
<i>Alter business operations</i>	150	20.4%
<i>Absorb the costs</i>	149	20.3%
<i>Pass on the costs</i>	436	59.3%

The exact cost to consumers from congestion cannot be calculated due to uncertainty in how businesses might handle costs from operational changes. However, these cost management strategies indicate that the consumer cost will likely range from 60 to 80% of the total cost. The remaining cost of congestion is assumed to be absorbed by businesses or offset by efficiency gains from operational changes. All of the results in this report are presented at two levels (60% and 80% cost realization) to reflect this range in consumer costs.

### *3.5 General Considerations*

All of the survey questions were prefaced by stating “for the region that you experience the most congestion in, or where most of your shipments occur”. This includes questions about the number of trucks that would be required to combat congestion and the number of additional inventory days. While this preface provides context for the individual respondents to quantify their responses, it might underestimate the total costs of congestion. This underestimation is particularly relevant for companies that have multiple locations in the state or move freight in several regions of the state.

Over 75% of the respondents operated only one facility in the state and 48% identified their congestion/shipment region as the same region in which their headquarters are located. Therefore, the survey estimates are likely accurate and they should be considered a lower bound on congestion costs.

## **Section 4 IMPLAN Data**

The cost of congestion was calculated as a percentage of total revenue for all of the companies that participated in the SESRC survey. Estimates of congestion costs at the state and regional level can be made by using these percentages along with total revenue estimates for each level. This section describes how the 2008 IMPLAN data were used to first calculate total revenue and then the cost of congestion.

### *4.1 Total Revenue*

The first step in using the IMPLAN data to estimate total industry revenues is to aggregate the 440 industry sectors to match the 8 industries specified in the survey. The North American Industry Classification System (NAICS) codes provided a useful method for aggregating the industry sectors. The 2 digit NAICS codes match the survey industries very well and were used as the template for the industry aggregation.<sup>12</sup> Table 4-1 shows the number of people employed in each of the 8 industries included in the survey and the value of total output, as measured in the IMPLAN database.<sup>13</sup> Output is the annual value of production in producer prices.<sup>14</sup> Output is equal to sales for service sectors, sales plus or minus inventory change for manufacturers, and gross margin for retail and wholesale trade.

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<sup>12</sup> Waste Management falls into the larger 2-Digit NAICS category called Administrative and Support and Waste Management and Remediation Services. However, the Waste management industry sectors were placed in a separate category prior to aggregation.

<sup>13</sup> A complete list of the industry sectors included in the survey industry categories is included in Appendix B, Table B-1.

<sup>14</sup> IMPLAN Glossary of Terms ([http://implan.com/V4/index.php?option=com\\_glossary&Itemid=12](http://implan.com/V4/index.php?option=com_glossary&Itemid=12)).

**Table 4-1 Total Employment and Output Value, by Industry and Total 2008.**

Industry	Employment	Output	Percent of Total	
			Employment	Output
<i>Agriculture, forestry,</i>	133,155	\$14,066,128,8	3.43%	2.19%
<i>Mining</i>	5,093	\$1,723,912,32	0.13%	0.27%
<i>Construction</i>	274,095	\$39,590,105,0	7.06%	6.17%
<i>Manufacturing</i>	286,950	\$161,297,137,	7.39%	25.14
<i>Retail trade</i>	410,257	\$35,103,047,6	10.57%	5.47%
<i>Wholesale trade</i>	135,574	\$26,915,297,2	3.49%	4.19%
<i>Transportation and/or</i>	112,816	\$16,761,408,5	2.91%	2.61%
<i>Waste management</i>	14,753	\$3,589,177,34	0.38%	0.56%
<i>State Total</i>	3,880,528	\$641,663,378,	100.00%	100.00

To calculate total revenue from IMPLAN's output values, two modifications were made. First, the value of inventory was subtracted from output to reflect actual sales for the agriculture, mining, manufacturing, and transportation and/or warehousing industries. Second, the retail and wholesale trade sectors' values were adjusted using margins to show the total value of the goods sold.<sup>15</sup> Output values for construction and waste management industries were not modified to derive total revenue. The statewide total revenue values used for estimating the costs of congestion are reported in Table 4-2.<sup>16</sup>

**Table 4-2 Statewide Total Revenue Estimates, by Industry.**

Industry	Revenue
<i>Agriculture, forestry,</i>	\$14,025,087,3
<i>Mining</i>	\$1,722,882,63
<i>Construction</i>	\$39,590,105,0
<i>Manufacturing</i>	\$160,187,755,
<i>Retail trade</i>	\$111,814,709,
<i>Wholesale trade</i>	\$142,323,314,
<i>Transportation and/or</i>	\$16,754,995,1
<i>Waste management</i>	\$3,589,177,34

#### 4.2 Direct Cost of Congestion

Estimating the direct cost of congestion is the culmination of Section 3 and Section 4. Trucking costs and inventory costs due to congestion were both calculated as a percentage of total revenue by industry. Pairing these percentages with industry level total revenue estimates allows the direct costs of congestion to be estimated. Table 4-3 and Table 4-4 show the state level gross congestion cost estimates at all three congestion levels. The magnitude of the congestion costs,

<sup>15</sup> Household margins for the aggregated industries are provided in Appendix B, Table B-2.

<sup>16</sup> Total revenue estimates for each region are provided in Appendix B, Table B-3.

when compared to total state output (\$642 billion, Table 4-1), appear reasonable with a range of 2 to 7%.

**Table 4-3 Statewide Gross Congestion Cost Estimates by Industry, 60% Cost Realization.**

<i>Industry</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Agriculture, forestry, fishing</i>	\$505,492,039	\$586,628,910	\$744,121,071
<i>Mining</i>	\$95,562,557	\$128,053,826	\$208,326,374
<i>Construction</i>	\$1,975,520,330	\$2,721,306,733	\$3,181,508,353
<i>Manufacturing</i>	\$6,211,155,643	\$10,089,621,588	\$17,855,879,965
<i>Retail trade</i>	\$1,964,875,836	\$2,911,343,301	\$4,290,925,380
<i>Wholesale trade</i>	\$2,895,952,631	\$4,638,327,359	\$5,527,091,124
<i>Transportation and/or warehousing</i>	\$658,450,696	\$906,489,041	\$1,263,583,139
<i>Waste management</i>	\$61,638,139	\$61,638,139	\$175,611,269
<b>Total</b>	<b>\$14,368,647,872</b>	<b>\$22,043,408,896</b>	<b>\$33,247,046,675</b>

**Table 4-4 Statewide Gross Congestion Cost Estimates by Industry, 80% Cost Realization.**

<i>Industry</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Agriculture, forestry, fishing</i>	\$673,989,386	\$782,171,880	\$992,161,428
<i>Mining</i>	\$127,416,742	\$170,738,435	\$277,768,498
<i>Construction</i>	\$2,634,027,107	\$3,628,408,977	\$4,242,011,137
<i>Manufacturing</i>	\$8,281,540,857	\$13,452,828,784	\$23,807,839,953
<i>Retail trade</i>	\$2,619,834,448	\$3,881,791,068	\$5,721,233,840
<i>Wholesale trade</i>	\$3,861,270,175	\$6,184,436,478	\$7,369,454,833
<i>Transportation and/or warehousing</i>	\$877,934,261	\$1,208,652,055	\$1,684,777,518
<i>Waste management</i>	\$82,184,185	\$82,184,185	\$234,148,359
<b>Total</b>	<b>\$19,158,197,162</b>	<b>\$29,391,211,861</b>	<b>\$44,329,395,566</b>

These congestion costs are considered gross estimates because no allowances have been made for out-of-state exports. Section 5 covers this issue in more detail.

## **Section 5 Model Specification**

### *5.1 Congestion as Inefficiency*

Traffic congestion is caused when traffic demand meets or exceeds transportation capacity.<sup>17</sup> Freight dependant businesses are not able to control the capacity of the transportation system so they must develop strategies to avoid congestion and/or employ resources to offset its effects.

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<sup>17</sup>*Congestion: A National Issue.* <http://www.ops.fhwa.dot.gov/aboutus/opstory.htm>

Economic theory suggests that businesses will allocate resources optimally to maximize profits. This optimal allocation of resources specifies a production function. When faced with congestion, firms must reallocate resources and operate on a different, less efficient, production function.

Sections 3 and 4 of this report describe one method for measuring this inefficiency. Specifically, we have calculated the cost of adding additional trucks and carrying additional inventory to combat three levels of increased congestion. The remainder of this section will describe how the gross congestion costs were allocated as benefits and costs for use in the seven Input-Output (I-O) models.

### *5.2 Economic Costs and Benefits*

The cost of congestion is modeled two ways simultaneously. Once as a negative value that simulates consumers decreased purchases of services and non-freight dependant goods (consumer cost). The second value is positive and simulates freight dependant businesses adding employment and assets to combat congestion (societal benefits).

Before the gross congestion costs can be divided into cost and benefit categories, the costs incurred due to goods that were exported from the state must be examined. From the consumer cost perspective, the costs attributable to exports do not belong in the state or regional I-O models. If firms are able to pass the congestion cost on to consumers, these costs would be paid for by consumers that do not live in Washington.

From a societal benefit perspective, the inclusion or exclusion of these costs is not as clear. This uncertainty primarily comes from the elasticity of demand for the exported goods. It could be argued that firms would be less capable of passing along congestion costs to export customers because their demand for these goods is more elastic than in-state consumers. Furthermore, if firms are not able to increase export prices it is feasible that in-state consumers would be charged even higher rates.

Due to the uncertainty of the existence or direction (i.e., cost or benefit) of congestion costs attributable to exported goods, they were subtracted from the gross congestion costs for consumer costs and societal benefits. Therefore, the costs and benefits used in the I-O models are those paid by Washington consumers and spent by Washington freight dependant businesses.

Three of the inventory carrying cost components also required attention before costs and benefits could be calculated. First, obsolescence and pilferage are legitimate expenses for firms but they do not garner benefits to society. Secondly, taxes are a transfer from businesses and households to government. These dollars are used to provide non-market goods and services and do not circulate though the economy like spending in other economic sectors. Therefore, all three of these components are included in the consumer cost calculations but are excluded from the

societal benefit calculations.

### 5.3 Distribution

In regional I-O modeling, it is necessary to know the size of the direct costs and where they are accrued. This spatial component applies to both consumer costs and societal benefits. Since the congestion costs have been limited to those paid and spent in Washington, there is no real distinction to be made for the state level model. However, this is a critical step to understand how different regions of the state are affected by congestion.

#### 5.3.1 Trade Flow

Trade flow data from IMPLAN specifies the value of exports from one region to another. By linking all of the regional models, an industry level map of all the interregional transfers was created. Augmenting this information with the total production and export data, also from IMPLAN, provides a complete picture of where goods from each region are shipped. This distribution of production was transformed from values to percentages and used as a roadmap (trade flow matrix) for assigning consumer costs and societal benefits to the region where they would be accrued.<sup>18</sup>

##### 5.3.1.1 Consumer Costs

The congestion costs for each regional industry were multiplied by the trade flow matrix to assign the appropriate values to each region. State level costs were calculated after subtracting the costs attributable to exports. The state and regional consumer cost values at each congestion level were then summed across industries to calculate total consumer costs (Table 5-1 and Table 5-2). The vast majority (95%) of the consumer cost of congestion is attributable to trucking costs.<sup>19</sup>

**Table 5-1 Total Consumer Cost of Congestion, by Region 60% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$786,951,341	\$1,183,954,739	\$1,732,176,046
<i>Southwest</i>	\$764,545,407	\$1,123,886,870	\$1,648,865,447
<i>Central Basin</i>	\$588,952,830	\$897,230,962	\$1,198,492,462
<i>Northeast</i>	\$498,958,368	\$740,311,799	\$1,028,150,898
<i>Southeast</i>	\$193,562,034	\$289,452,203	\$405,533,118
<i>Puget Sound</i>	\$7,052,246,826	\$10,774,637,970	\$13,293,169,169
<i>State</i>	\$8,720,889,371	\$13,204,717,435	\$18,531,771,410

<sup>18</sup> The complete matrix of trade flows used to distribute costs and benefits is included in Appendix B, Table B-4

<sup>19</sup> A complete breakdown of consumer costs, by source is included in Appendix C, Table C-1 through Table C-6.

**Table 5-2 Total Consumer Cost of Congestion, by Region 80% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$1,049,268,455	\$1,578,606,319	\$2,309,568,062
<i>Southwest</i>	\$1,019,393,876	\$1,498,515,827	\$2,198,487,263
<i>Central</i>			
<i>Basin</i>	\$785,270,440	\$1,196,307,950	\$1,597,989,949
<i>Northeast</i>	\$665,277,824	\$987,082,399	\$1,370,867,864
<i>Southeast</i>	\$258,082,712	\$385,936,271	\$540,710,824
<i>Puget</i>			
<i>Sound</i>	\$9,402,995,768	\$14,366,183,960	\$17,724,225,558
<i>State</i>	\$11,627,852,495	\$17,606,289,913	\$24,709,028,546

### 5.3.1.2 Societal Benefits

Societal benefits are accrued in different regions based on where the expenditures will be made. Trucking expenses (wages and inputs) are presumed to be spent in each firm's home region. Capital and insurance inventory costs are also accrued in the home region.<sup>20</sup> Warehousing, handling, and clerical expenses are accrued in the destination regions. Handling and clerical are considered to be inventory wage expenses. State level benefits were calculated after subtracting the costs attributable to exports. The state and regional societal benefit values at each congestion level were then summed across industries to calculate total consumer costs. The total societal benefits from a 20% congestion increase are presented in Table 5-3 and Table 5-4.

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<sup>20</sup> Taxes, Obsolescence, and Pilferage are accrued in the home region, for reference purposes.

<sup>21</sup> The total societal benefits from all expense categories at all congestion levels are included in Appendix C, Table C-7 and Table C-8.

**Table 5-3 Societal Benefits from 20% Congestion Increase, by Expense Category and Region 60% Cost Realization.**

Expense	Central					Puget Sound	State
	Northwest	Southwest	Basin	Northeast	Southeast		
<i>Trucking</i>	\$516,668,	\$449,287,	\$329,306,	\$306,731,	\$129,150,	\$4,238,155,	\$5,249,724,
<i>Inputs</i>	549	029	793	134	948	185	341
<i>Trucking</i>	\$291,739,	\$253,692,	\$185,944,	\$173,197,	\$72,925,7	\$2,393,096,	\$2,964,284,
<i>Wages</i>	597	269	802	338	58	476	287
	\$11,651,8	\$7,934,72	\$6,711,90	\$6,168,20	\$2,463,10		\$107,697,52
<i>Capital</i>	87	9	8	0	2	\$73,059,432	5
	\$4,010,61	\$2,731,15	\$2,310,25	\$2,123,11			
<i>Insurance</i>	3	7	8	2	\$847,807	\$25,147,268	\$37,069,800
	\$4,924,22	\$4,072,02	\$3,573,51	\$2,944,45	\$1,140,74		
<i>Warehousing</i>	2	8	7	4	7	\$36,948,396	\$53,458,554
<i>Inventory</i>	\$10,782,9	\$8,916,85	\$7,825,21	\$6,447,70	\$2,497,98		\$117,062,52
<i>Wages</i>	69	0	9	8	7	\$80,908,896	7
<b>Total</b>	<b>\$839,777,</b>	<b>\$726,634,</b>	<b>\$535,672,</b>	<b>\$497,611,</b>	<b>\$209,026,</b>	<b>\$6,847,315,</b>	<b>\$8,529,297,</b>
	<b>837</b>	<b>062</b>	<b>497</b>	<b>946</b>	<b>349</b>	<b>653</b>	<b>034</b>

**Table 5-4 Societal Benefits from 20% Congestion Increase, by Expense Category and Region 80% Cost Realization.**

Expense	Central					Puget Sound	State
	Northwest	Southwest	Basin	Northeast	Southeast		
<i>Trucking</i>	\$688,891,3	\$599,049,3	\$439,075,7	\$408,974,8	\$172,201,2	\$5,650,873,	\$6,999,632,
<i>Inputs</i>	99	72	24	46	65	580	455
<i>Trucking</i>	\$388,986,1	\$338,256,3	\$247,926,4	\$230,929,7	\$97,234,34	\$3,190,795,	\$3,952,379,
<i>Wages</i>	29	59	02	84	4	302	050
	\$15,535,85	\$10,579,63					\$143,596,70
<i>Capital</i>	0	9	\$8,949,211	\$8,224,266	\$3,284,136	\$97,412,576	0
<i>Insurance</i>	\$5,347,484	\$3,641,542	\$3,080,344	\$2,830,816	\$1,130,409	\$33,529,691	\$49,426,400
<i>Warehousing</i>	\$6,565,630	\$5,429,371	\$4,764,689	\$3,925,938	\$1,520,996	\$49,264,528	\$71,278,072
<i>Inventory Wages</i>	\$14,377,292	\$11,889,133	\$10,433,625	\$8,596,945	\$3,330,649	\$107,878,528	\$156,083,369
<b>Total</b>	<b>\$1,119,703,784</b>	<b>\$968,845,416</b>	<b>\$714,229,995</b>	<b>\$663,482,595</b>	<b>\$278,701,799</b>	<b>\$9,129,754,205</b>	<b>\$11,372,396,046</b>

### 5.3.1.3 Net Effects

The net economic impacts are calculated through the I-O models, however the net effects are provided in Table 5-5 and Table 5-6 for illustrative purposes. Juxtaposing the societal benefits and consumer costs from congestion by region shows the diversity in the effects. The Northwest and Southeast regions have benefits in excess of their consumer costs. The deficit in the other regions ranges from \$1.3 million in the Northeast to \$273 million in the Puget Sound.

**Table 5-5 Net Effect of Consumer Cost and Societal Benefit, by Region, 20% Congestion Increase 60% Cost Realization.**

<b>Region</b>	<b>Societal Benefits</b>	<b>Consumer Cost</b>	<b>Net Effect</b>
<i>Northwest</i>	\$839,777,837	\$786,951,341	\$52,826,496
<i>Southwest</i>	\$726,634,062	\$764,545,407	-\$37,911,345
<i>Central Basin</i>	\$535,672,497	\$588,952,830	-\$53,280,333
<i>Northeast</i>	\$497,611,946	\$498,958,368	-\$1,346,422
<i>Southeast</i>	\$209,026,349	\$193,562,034	\$15,464,315
	-	-	-
<i>Puget Sound</i>	\$6,847,315,653	\$7,052,246,826	\$204,931,173
	-	-	-
<i>State</i>	\$8,529,297,034	\$8,720,889,371	\$191,592,337

**Table 5-6 Net Effect of Consumer Cost and Societal Benefit, by Region, 20% Congestion Increase 80% Cost Realization.**

<b>Region</b>	<b>Societal Benefits</b>	<b>Consumer Cost</b>	<b>Net Effect</b>
<i>Northwest</i>	\$1,119,703,784	\$1,049,268,455	\$70,435,329
<i>Southwest</i>	\$968,845,416	\$1,019,393,876	-\$50,548,460
<i>Central Basin</i>	\$714,229,995	\$785,270,440	-\$71,040,445
<i>Northeast</i>	\$663,482,595	\$665,277,824	-\$1,795,229
<i>Southeast</i>	\$278,701,799	\$258,082,712	\$20,619,087
<i>Puget Sound</i>	\$9,129,754,205	\$9,402,995,768	-\$273,241,563
<i>State</i>	\$11,372,396,046	\$11,627,852,495	-\$255,456,449

The net effects presented here differ from the economic impacts presented in Section 6 because they do not account for how the industries or households spend or withdraw money in the local economies.

### 5.4 Spending Patterns

The consumer costs and societal benefits of congestion are entered into the I-O models as changes to the baseline economy. Additionally, the models require that a pattern of spending be specified to define what industries are affected by the change and by how much. This section will discuss how all of the cost categories were incorporated into the regional and state models

#### 5.4.1 Consumer Costs

Consumers' income must increase or their total expenditures must decrease for them to pay the increased cost of freight dependant goods. Assuming that consumers' income is held constant, the amount spent on services and non-freight dependant goods must decrease by the cost of congestion. The household consumption function from IMPLAN was modified to incorporate the spending decrease into each model.

The household consumption function specifies the percentage of a consumer's dollar that is spent in each industry in the economy. Furthermore, it shows how much of that industry expenditure is spent in the local economy. The magnitude of the industry specific consumer expenditures in these consumption functions vary depending on the household's income level and the region. We do not have information on which households will incur congestion costs; therefore a composite consumption function was created for each region.

The composite function was calculated as a weighted average industry expenditure for all income ranges. The number of households in each income range was used for weighting. The composite consumption functions were then modified to remove all freight dependant industries and normalized to sum to one.<sup>22</sup> Finally, scenarios were created in each model with the composite consumption function and the corresponding costs from Table 5-1 and Table 5-2.

#### 5.4.2 Societal Benefits

The societal benefits are experienced when freight dependent companies begin to spend additional money on resources to counteract increased congestion. For modeling purposes, adding societal benefits to the economy is straightforward. Spending on the insurance and capital is placed in the corresponding IMPLAN industries. Wages are modeled as an increase to employee compensation.

Warehousing and trucking input expenditures are not discrete goods, therefore existing consumption functions were used to estimate the distribution of expenses across industries. The warehousing expenditures were modeled using the warehousing and storage consumption function and the transport by truck industry consumption function was used for the trucking input expenditures.<sup>23</sup> Scenarios for each congestion level were created in each model using the appropriate consumption function and expenditure values from Table 5-3 and Table 5-4.

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<sup>22</sup> The consumer cost spending patterns for each region and state model is provided in Appendix C, Table C-9.

<sup>23</sup> Spending patterns for all of the societal benefit categories are provided in Appendix C, Table C-10 through Table C-14.

Table 5-3

## Section 6 Results

The strength of an I-O model comes from the vast amount of data that it contains to describe how all of the industries and institutions in an economy interact. These interactions allow the model to estimate the full impacts from a change in the economy. The direct costs (estimated in Section 5) are entered into the model as the changes to the primary industries (specified in the spending patterns). Multipliers are then used to calculate the direct, indirect, and induced impacts. Direct impacts are a measure of how the local economy is affected by changes to the primary industries. Indirect impacts are the changes that would occur to the industries that support the primary industries. Induced impacts quantify the economic changes that results from household incomes being altered in the direct and indirect phases.

In our case, freight dependant industries spend money on employees and inputs when transporting and storing goods to counteract increased congestion. This money is spent on goods that are supplied by local purveyors or imported. In turn, the local purveyors spend additional money on employees and inputs from inside and outside the local economy. Employees of the freight dependant industries and the purveyors also spend their additional income on goods and services from the local economy or imports. All of this additional spending is financed by in-state consumers that are paying higher prices for freight dependant goods and decreased profits.<sup>24</sup> As consumers reallocate their disposable income from non-freight dependant industries to freight dependant industries, the economy is faced with a second wave of (negative) change.

The remainder of this report discusses the economic impact estimates from increased congestion in Washington State. All of these estimates are annual figures in 2011 dollars and are based on 2008 IMPLAN datasets for Washington State and six regions of the state.

### *6.1 Statewide Model*

There are several measures that can be used to discuss economic impact. Table 6-1 and Table 6-2 present three of the most common measures for a 20% congestion increase in Washington. Employment is a straightforward metric that shows the number of full and part-time jobs affected

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<sup>24</sup> It can be argued that the decrease in profits from firms absorbing the costs of congestion would contribute to further decreases in economic activity. However, IMPLAN assumes that corporate profits exit the region immediately.

by increased congestion for freight-dependent businesses.<sup>25</sup> The net effect of a 20% congestion increase is a decrease of 27,256 to 36,341 jobs (0.7 to 0.9%). The value of economic output from the state decreases by \$3.3 to \$4.4 billion (0.5 to 0.7%). Total value added (sales minus cost of inputs) also decreases by \$2.6 to \$3.5 billion (0.8 to 1.0%).

As congestion increases to 30 and 40% levels, the losses increase substantially. An additional 10% congestion increase (30%) causes job losses of 40,859 to 54,479 and output to decrease by \$4.9 to \$6.6 billion (50% increase). A further 10% congestion increase (40%) would cut 57,239 to 76,318 jobs and decrease output by \$7 to \$9 billion (40% increase).<sup>26</sup>

**Table 6-1 Summary Impact, 20% Congestion Increase, State 60% Cost Realization.**

Impact Type	Employment	Value	Output	Percentage Change		
				Employment	Value	Output
<i>Direct Effect</i>	-49,033	-	-	-1.3%	-1.3%	-1.1%
<i>Indirect Effect</i>	11,146	\$754,724,56	\$2,167,768,0	0.3%	0.2%	0.3%
<i>Induced Effect</i>	10,631	\$894,924,39	\$1,568,440,6	0.3%	0.3%	0.2%
<b><i>Total Effect</i></b>	<b>-27,256</b>	<b>-</b>	<b>-</b>	<b>-0.7%</b>	<b>-0.8%</b>	<b>-0.5%</b>

**Table 6-2 Summary Impact, 20% Congestion Increase, State 80% Cost Realization.**

Impact Type	Employment	Value	Output	Percentage Change		
				Employment	Value	Output
<i>Direct Effect</i>	-65,377	-	-	-1.7%	-1.7%	-1.5%
<i>Indirect Effect</i>	14,862	\$1,006,299,2	\$2,890,357,0	0.4%	0.3%	0.5%
<i>Induced Effect</i>	14,174	\$1,193,232,3	\$2,091,253,8	0.4%	0.4%	0.3%
<b><i>Total Effect</i></b>	<b>-36,341</b>	<b>-</b>	<b>-</b>	<b>-0.9%</b>	<b>-1.0%</b>	<b>-0.7%</b>

The magnitude of all the economic impacts from congestion increases is large. However, the changes relative to the industry totals are reasonable.

<sup>25</sup> Trucking and inventory wages are modeled as increases to employee compensation and does not explicitly add jobs. To the degree that trucking and inventory wages are spent on new employees, the employment figures are underestimated.

<sup>26</sup> Summaries of the impact estimates for 20, 30, and 40% congestion increases at 60 and 80% cost realization are provided in Appendix D, Table D-1 through Table D-42.

Table 6-3 and Table 6-4 show the total impact for each industry in the state and the percentage change from their baseline employment and output. Almost half (10 to 11) of the industries have a change in employment and output of plus or minus 1%. The industries losing the most jobs, in percentage terms, are Health and Social Services, Educational Services, and Arts-Entertainment-Recreation. The 60% cost realization job losses in these industries range from 3.4 to 4.5%. These three industries also have the greatest percentage losses in output value, 4.1 to 4.9%.<sup>27</sup>

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<sup>27</sup> Detailed impact estimates for Employment, Value Added, and Output at 20, 30, and 40% congestion increases at 60 and 8-% cost realization are provided in Appendix D, Table D-43 through

**Table 6-3 Total Impact by Industry, 20% Congestion Increase, State 60% Cost Realization.**

Industry	Employe	Output	Percentage Change	
			Employment	Output
<i>Ag, Forestry, Fish &amp; Mining</i>	-1	\$281,859	0.0%	0.0%
<i>Utilities</i>	67	\$30,221,017	1.3%	1.8%
<i>Construction</i>	-111	-\$83,024,003	-2.1%	-2.0%
<i>Manufacturing</i>	-516	-\$63,877,436	-0.2%	-0.2%
<i>Wholesale Trade</i>	243	\$1,266,264,942	0.1%	0.8%
<i>Retail trade</i>	861	\$173,828,805	0.6%	0.6%
<i>Transportation &amp; Information</i>	2,678	\$237,128,393	0.7%	0.7%
<i>Finance &amp; insurance</i>	8,595	\$1,040,011,974	7.6%	6.2%
<i>Real estate &amp; rental</i>	-852	-\$351,819,756	-0.7%	-0.6%
	-2,403	-\$601,477,474	-1.7%	-1.7%
	-4,566	-	-2.5%	-3.6%

**Table D-168.**

<i>Professional- scientific &amp; Management of Administrative services</i>	-1,252	-\$153,672,541	-0.5%	-0.4%
<i>Waste Management</i>	169	\$46,157,877	0.5%	0.6%
<i>Educational svcs</i>	4,062	\$237,267,293	2.3%	2.0%
<i>Health &amp; social services</i>	-38	-\$9,805,661	-0.3%	-0.3%
<i>Arts- entertainment &amp; Accommodation &amp; food</i>	-2,236	-\$134,253,839	-3.6%	-4.1%
<i>Other services</i>	-16,130	-	-4.5%	-4.9%
<i>Government &amp; non</i>	-2,795	-\$252,897,663	-3.4%	-4.1%
	-7,812	-\$503,159,853	-3.2%	-3.3%
	-6,376	-\$404,962,415	-3.0%	-2.8%
<b>Total</b>	1,156	-\$106,009,207	0.2%	-0.2%
	<b>-27,257</b>	<b>-</b>	<b>-0.7%</b>	<b>-0.5%</b>

These results are understandable considering that Health and Social Services expenditures are almost all local (84%) and it is the largest non-freight dependant household expenditure category (second largest overall). The Educational Services and Arts-Entertainment-Recreation expenditures are highly localized as well (63% and 83%, respectively). However, these industries are two of the smallest industries based on employment and output. Therefore, any decrease in household expenditures for these industries has a large effect.

**Table 6-4 Total Impact by Industry, 20% Congestion Increase, State 80% Cost Realization.**

Industry	Employee	Output	Percentage Change	
			Employment	Output
<i>Ag, Forestry, Fish &amp; Mining</i>	-2	\$375,807	0.0%	0.0%
<i>Utilities</i>	89	\$40,294,686	1.7%	2.3%
<i>Construction</i>	-148	-\$110,698,659	-2.8%	-2.7%
<i>Manufacturing</i>	-688	-\$85,169,908	-0.3%	-0.2%
<i>Wholesale Trade</i>	324	\$1,688,353,090	0.1%	1.0%
<i>Retail trade</i>	1,148	\$231,771,672	0.8%	0.9%
<i>Transportation &amp; Information</i>	3,570	\$316,171,183	0.9%	0.9%
<i>Finance &amp; insurance</i>	11,460	\$1,386,682,554	10.2%	8.3%
<i>Real estate &amp; rental</i>	-1,136	-\$469,093,022	-1.0%	-0.8%
<i>Professional- scientific &amp; Management of</i>	-3,204	-\$801,970,001	-2.2%	-2.2%
<i>Administrative services</i>	-6,089	-	-3.4%	-4.8%
<i>Waste Management</i>	-1,669	-\$204,896,713	-0.6%	-0.6%
<i>Educational svcs</i>	226	\$61,543,808	0.7%	0.8%
<i>Health &amp; social services</i>	5,416	\$316,356,357	3.1%	2.6%
<i>Arts- entertainment &amp; Accommodation &amp; food</i>	-50	-\$13,074,214	-0.3%	-0.4%
<i>Other services</i>	-2,981	-\$179,005,128	-4.8%	-5.4%
<i>Government &amp; non</i>	-21,507	-	-6.0%	-6.6%
<b>Total</b>	<b>-36,343</b>	<b>-</b>	<b>-0.9%</b>	<b>-0.7%</b>

Seven industry sectors had positive changes to their employment. Administrative Services and Transportation and Warehousing are the only industries with employment job changes greater than 2%, 2.3 to 3.1% and 7.6 to 10.2% respectively. Transportation and Warehousing was the only industry with output values increasing by more than 3%.

The gains to freight dependant industries were expected as more resources are devoted to the transportation of goods to combat congestion. The only freight dependent sectors with losses are the Agriculture and Construction industries. The Agriculture industry losses are negligible; however the Construction industry losses are not. This loss is largely attributable to the industries interdependence with the Real Estate and Rental industry. The Real Estate and Rental sector receives the third largest proportion of household expenditures (17%) and 95% is spent locally.

Two non-freight dependant industries, Administrative Services and Management of Companies, show positive changes from increased congestion. Both of these industries provide support services for businesses and benefit from the increased expenditure by freight dependant businesses.

As congestion levels increase to 30% and 40%, the magnitude of the impacts also increases. The relative order of industries being affected by congestion does not change. Health and Social Services continues to take the largest losses in jobs (6.8 to 9.1% and 9.6 to 12.8%, respectively) and output value (7.5 to 10% and 10.5 to 14%, respectively). Similarly, Transportation and Warehousing gains in employment by 11.7 to 15.6% and 16.4 to 21.9% and output values grow by 9.5 to 12.7% and 13.4 to 17.8%.

It is important to note that all of the cost calculations are based on the survey responses and relying heavily on the respondents' ability to forecast cost changes for 30% and 40% congestion increases may be misleading. However, some general comments can be made. As congestion increases, the number of industries negatively affected increases as does the severity of the losses. For example, at a 20% increase in congestion, 38% of the industries have employment losses greater than 1%; that percentage grows to 43% when congestion increases by 40%. The average negative employment effect for those industries changes from 3 to 4% up to 6 to 8% as congestion increases from 20% to 40%. Correspondingly, the industries that gain from congestion have average employment increases of 5% and 7 to 8% at congestion levels of 20% and 40% respectively.

## *6.2 Regional Model*

The trade flow matrix derived from the regional IMPLAN models contains a vast amount of information on where goods are produced and used. These data allow us to allocate consumer costs and societal benefits in the region where they are accrued. Subsequently, the magnitude of the congestion impacts varies significantly across the regions. Table 6-5 and

Table 6-6 show the total effect of congestion for the three primary metrics in each region.

**Table 6-5 Total Effect, 20% Congestion Increase, by Region 60% Cost Realization.**

Region	Employment	Value Added	Output	Percentage Change		
				Employment	Value Added	Output
<i>Northwest</i>	-1,786	-\$163,102,595	-\$162,360,385	-0.48%	-0.63%	-0.29%
<i>Southwest</i>	-1,622	-\$174,475,347	-\$265,810,407	-0.52%	-0.79%	-0.57%
<i>Central Basin</i>	-1,793	-\$141,465,489	-\$244,442,954	-0.47%	-0.61%	-0.54%
<i>Northeast</i>	-2,213	-\$162,922,959	-\$289,661,584	-0.77%	-0.84%	-0.80%
<i>Southeast</i>	-345	-\$27,408,355	-\$30,848,239	-0.31%	-0.40%	-0.21%
<i>Puget Sound</i>	-21,741	-\$2,305,044,223	-\$3,639,269,096	-0.90%	-0.98%	-0.82%
<b>Total</b>	<b>-29,500</b>	<b>-\$2,974,418,968</b>	<b>-\$4,632,392,665</b>	<b>-0.76%</b>	<b>-0.89%</b>	<b>-0.72%</b>

**Table 6-6 Total Effect, 20% Congestion Increase, by Region 80% Cost Realization.**

Region	Employment	Value Added	Output	Percentage Change		
				Employment	Value Added	Output
<i>Northwest</i>	-2,381	-\$217,469,835	-\$216,480,076	-0.65%	-0.84%	-0.39%
<i>Southwest</i>	-2,162	-\$232,633,805	-\$354,413,900	-0.69%	-1.06%	-0.76%
<i>Central Basin</i>	-2,391	-\$188,620,651	-\$325,923,938	-0.63%	-0.82%	-0.72%
<i>Northeast</i>	-2,951	-\$217,230,630	-\$386,215,473	-1.03%	-1.13%	-1.07%
<i>Southeast</i>	-460	-\$36,544,476	-\$41,130,994	-0.41%	-0.53%	-0.27%
<i>Puget Sound</i>	-28,989	-\$3,073,391,876	-\$4,852,358,238	-1.20%	-1.30%	-1.10%
<b>Total</b>	<b>-39,334</b>	<b>-\$3,965,891,273</b>	<b>-\$6,176,522,619</b>	<b>-1.01%</b>	<b>-1.19%</b>	<b>-0.96%</b>

All of the regions are negatively affected by increases in congestion, but the Puget Sound faces the largest costs in both absolute and percentage terms. Their output decrease of \$3.6 to \$4.9 billion (0.8 to 1.1%) is greater than all other regions combined. The specific ranking of the next four regions, in order of detriment from congestion, varies depending on the metric. Based on output they can be listed as the Northeast followed by the Southwest, Central Basin, and Northwest. The Southeast region, with employment declines of 345 to 460 jobs (0.31 to 0.41%) and a total output decline of \$31 to \$41 million (0.21 to 0.27%), is clearly affected the least by congestion.

The industries affected the most in each region closely follow the state level results. At 20% congestion increases (60% cost realization), 10 to 15 of the industries in each region have total employment and output effects of plus or minus 1% of their baseline levels. For the industries with losses in excess of 1%, the average employment and output effects range from 2 to 4% of

the baseline level. Health and Social Services, Educational Services, and Arts-Entertainment-Recreation industries consistently have the largest percentage losses in all of the regions. However, the Real Estate and Rental industry appears in 4 of the 7 regions as the second most affected for output losses. The Accommodation and Food Service industry ranks as the third most affected industry in the Puget Sound and Southeast regions for employment losses.

The Administrative Services and Transportation and Warehousing industries consistently have the highest gains from congestion across the regions (20% congestion increases, 60% cost realization). Wholesale Trade and Mining industries also appear in at least two regions as one of the top three gaining industries. For the industries with gains in excess of 1%, the average employment effects range from 3% to 6% and output effects range from 2% to 5% of the baseline level.

*Appendix A    Survey Data*

## A.1 General Information

### A.1.1 Industry Classification

**Table A-1 Other Industry Description and New Classification.**

Industry Description	Industry Remapping
<i>contract logging and log hauling</i>	Agriculture, forestry, fishing
<i>Live animal wholesaler</i>	Agriculture, forestry, fishing
<i>Logging, Land Clearing &amp; Demolition</i>	Agriculture, forestry, fishing
<i>agriculture, produce</i>	Agriculture, forestry, fishing
<i>grains and flour</i>	Agriculture, forestry, fishing
<i>haul logs to the mill</i>	Agriculture, forestry, fishing
<i>Haul Lumber</i>	Agriculture, forestry, fishing
<i>hauling logs, lumber, grain, bldg. products</i>	Agriculture, forestry, fishing
<b>LOGGING</b>	Agriculture, forestry, fishing
<b>BULK LIMESTONE PRODUCTS</b>	Construction
<i>land scape material, drive way rock</i>	Construction
<i>Material (Asphalt, Sand, &amp; Gravel) Hauling</i>	Construction
<i>sand dirt rock debris etc.</i>	Construction
<i>Fertilizer dry and liquid / Industrial</i>	Manufacturing
<i>copier delivery</i>	Retail trade
<i>Household goods</i>	Retail trade
<i>Production Bakery at the retail level (no wholesale). Either manufacturing or</i>	
<i>retail trade (not sure which to use)</i>	Retail trade
<i>Security, Monitoring, Access Control, Video Securiry</i>	Retail trade
<i>Auto</i>	Retail trade
<i>Auto Collision Repair</i>	Retail trade
<i>Automtive Towing &amp;Transport</i>	Retail trade
<i>newspaper publication</i>	Retail trade
<i>distributor</i>	Wholesale trade
<i>Document Destruction &amp; Document Storage</i>	Wholesale trade
<i>courier</i>	Transportation and/or warehousing

Industry Description	Industry Remapping
<i>hauling of liquid deicer and dust control materials</i>	Transportation and/or warehousing
<i>Manufactured Home Movement</i>	Transportation and/or warehousing
<i>mobile home transport</i>	Transportation and/or warehousing
<i>move general freight</i>	Transportation and/or warehousing
<i>Moving &amp; Storage</i>	Transportation and/or warehousing
<i>Moving and Storage</i>	Transportation and/or warehousing
<i>Multiply areas</i>	Transportation and/or warehousing
<i>Propane Fuel Delivery</i>	Transportation and/or warehousing
<i>recycling 40%, trucking 40%, construction 20%</i>	Transportation and/or warehousing
<i>Towing vehicles, Mobile and modular Transporting</i>	Transportation and/or warehousing
<i>Transportation Property Broker</i>	Transportation and/or warehousing
<i>We are a marine transporter of all of the above.</i>	Transportation and/or warehousing
<i>We transport freight of all kinds</i>	Transportation and/or warehousing
<i>Healthcare Distribution</i>	Transportation and/or warehousing
<i>Intermodal</i>	Transportation and/or warehousing
<i>Medical Product Distribution</i>	Transportation and/or warehousing
<i>auto wrecking/recycling</i>	Waste management
<i>Environmental Services</i>	Waste management
<i>Recycling</i>	Waste management
<i>refuse hauling</i>	Waste management
<i>Food Service</i>	Food distribution
<i>Service</i>	Other
<i>we do a mixture of the above</i>	Other

A.1.2 Regions

**Table A-2 County to Region Aggregation.**

<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>
Clallam	Clark	Benton	Ferry	Adams	King
Island	Cowlitz	Chelan	Pend Oreille	Asotin	Pierce
Jefferson	Grays Harbor	Douglas	Spokane	Columbia	Snohomish
Kitsap	Lewis	Grant	Stevens	Franklin	Thurston
San Juan	Mason	Kittitas		Garfield	
Skagit	Pacific	Klickitat		Lincoln	
Whatcom	Skamania	Yakima		Walla Walla	
	Wahkiakum	Okanogan		Whitman	

## A.2 Trucking Costs

**Table A-3 Distribution of Companies Trucking Requirements Necessary for 20% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Trucks							Total
	0	0 to 1	1 to 2	2 to 5	5 to 10	10 to 20	20+	
<i>Agriculture, forestry, fishing</i>	19	13	8	2	0	1	0	43
	3.65	2.50	1.54	0.38	0.00	0.19	0.00	8.25
<i>Mining</i>	1	2	0	0	0	0	0	3
	0.19	0.38	0.00	0.00	0.00	0.00	0.00	0.58
<i>Construction</i>	15	15	5	2	1	2	0	40
	2.88	2.88	0.96	0.38	0.19	0.38	0.00	7.68
<i>Manufacturing</i>	4	2	1	2	2	0	0	11
	0.77	0.38	0.19	0.38	0.38	0.00	0.00	2.11
<i>Retail trade</i>	9	6	0	2	0	1	0	18
	1.73	1.15	0.00	0.38	0.00	0.19	0.00	3.45
<i>Wholesale trade</i>	2	6	0	1	0	0	0	9
	0.38	1.15	0.00	0.19	0.00	0.00	0.00	1.73
<i>Transportation and/or warehousing</i>	157	94	56	34	25	5	2	373
	30.13	18.04	10.75	6.53	4.80	0.96	0.38	71.59
<i>Waste management</i>	5	2	0	0	0	0	0	7
	0.96	0.38	0.00	0.00	0.00	0.00	0.00	1.34
<i>Other (please specify):</i>	10	2	3	1	1	0	0	17
	1.92	0.38	0.58	0.19	0.19	0.00	0.00	3.26
	<b>222</b>	<b>142</b>	<b>73</b>				<b>2</b>	<b>521</b>
<b>Total</b>	<b>42.61</b>	<b>27.26</b>	<b>14.01</b>	<b>44</b>	<b>29</b>	<b>9</b>	<b>0.38</b>	<b>100.00</b>
	%	%	%	<b>8.45%</b>	<b>5.57%</b>	<b>1.73%</b>	%	%

**Table A-4 Distribution of Companies Trucking Requirements Necessary for 30% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Trucks							Total
	0	0 to 1	1 to 2	2 to 5	5 to 10	10 to 20	20+	
<i>Agriculture, forestry, fishing</i>	14	14	4	5	2	0	1	40
	2.82	2.82	0.81	1.01	0.40	0.00	0.20	8.06
<i>Mining</i>	0	3	0	0	0	0	0	3
	0.00	0.60	0.00	0.00	0.00	0.00	0.00	0.60
<i>Construction</i>	11	14	4	6	1	0	2	38
	2.22	2.82	0.81	1.21	0.20	0.00	0.40	7.66
<i>Manufacturing</i>	3	3	0	1	3	1	0	11
	0.60	0.60	0.00	0.20	0.60	0.20	0.00	2.22
<i>Retail trade</i>	6	7	1	2	0	0	1	17
	1.21	1.41	0.20	0.40	0.00	0.00	0.20	3.43
<i>Wholesale trade</i>	2	4	2	1	0	0	0	9
	0.40	0.81	0.40	0.20	0.00	0.00	0.00	1.81
<i>Transportation and/or warehousing</i>	142	70	54	44	24	16	6	356
	28.63	14.11	10.89	8.87	4.84	3.23	1.21	71.77
<i>Waste management</i>	5	2	0	0	0	0	0	7
	1.01	0.40	0.00	0.00	0.00	0.00	0.00	1.41
<i>Other (please specify):</i>	7	4	1	2	0	1	0	15
	1.41	0.81	0.20	0.40	0.00	0.20	0.00	3.02
	<b>190</b>	<b>121</b>	<b>66</b>				<b>10</b>	<b>496</b>
<b>Total</b>	<b>38.31</b>	<b>24.40</b>	<b>13.31</b>	<b>61</b>	<b>30</b>	<b>18</b>	<b>2.02</b>	<b>100.00</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>12.30%</b>	<b>6.05%</b>	<b>3.63%</b>	<b>%</b>	<b>%</b>

**Table A-5 Distribution of Companies Trucking Requirements Necessary for 40% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Trucks							Total
	0	0 to 1	1 to 2	2 to 5	5 to 10	10 to 20	20+	
<i>Agriculture, forestry, fishing</i>	13	9	4	6	3	0	1	36
	2.70	1.87	0.83	1.24	0.62	0.00	0.21	7.47
<i>Mining</i>	0	1	2	0	0	0	0	3
	0.00	0.21	0.41	0.00	0.00	0.00	0.00	0.62
<i>Construction</i>	10	8	9	6	1	1	1	36
	2.07	1.66	1.87	1.24	0.21	0.21	0.21	7.47
<i>Manufacturing</i>	1	3	1	0	2	2	1	10
	0.21	0.62	0.21	0.00	0.41	0.41	0.21	2.07
<i>Retail trade</i>	3	8	2	1	1	0	1	16
	0.62	1.66	0.41	0.21	0.21	0.00	0.21	3.32
<i>Wholesale trade</i>	1	3	3	2	0	0	0	9
	0.21	0.62	0.62	0.41	0.00	0.00	0.00	1.87
<i>Transportation and/or warehousing</i>	124	45	52	73	25	21	10	350
	25.73	9.34	10.79	15.15	5.19	4.36	2.07	72.61
<i>Waste management</i>	3	3	1	0	0	0	0	7
	0.62	0.62	0.21	0.00	0.00	0.00	0.00	1.45
<i>Other (please specify):</i>	7	3	2	1	1	1	0	15
	1.45	0.62	0.41	0.21	0.21	0.21	0.00	3.11
	<b>162</b>	<b>83</b>	<b>76</b>				<b>14</b>	<b>482</b>
<b>Total</b>	<b>33.61</b>	<b>17.22</b>	<b>15.77</b>	<b>89</b>	<b>33</b>	<b>25</b>	<b>2.90</b>	<b>100.00</b>
	<b>%</b>	<b>%</b>	<b>%</b>	<b>18.46%</b>	<b>6.85%</b>	<b>5.19%</b>	<b>%</b>	<b>%</b>

### A.2.1 Hourly Truck Cost Imputations

The original group of 389 observations that had specific hourly costs and the 115 observations that agreed with the provided baseline cost estimates were treated as known cost observations (total=504) for the cost imputations.

The primary intent of imputing hourly trucking costs was to identify the most specific group of similar companies between the known and unknown cost groups and then use the mean hourly cost estimate from the known observations as the cost estimate for the unknown group. Several variables in the dataset were used to create the most unique groups possible. The parameters of each group were then successively widened to increase the number of useable cost estimates.

In the first iteration the mean hourly cost was calculated for the known observations by industry and the headquarters region for each fleet type (heavy, light, and mixed) and with costs above or below the baseline cost. These mean cost estimates were then merged with unknown cost observations matching the same characteristics and reported costs above or below the baseline levels. Prior to this procedure 558 observations did not have hourly cost estimates. After running this procedure 482 observations did not have cost estimates. The most specific imputation routine resulted in 76 observations being filled in with average costs from the known observations.

The second iteration dropped the regional specification and calculated hourly costs by industry for each fleet type (heavy, light, and mixed) and with costs above or below the baseline cost. This slightly less specific imputation routine resulted in another 12 observations being filled in with average costs from the known observations. After running this procedure 470 observations did not have cost estimates.

The third iteration reinstated the regional specification and dropped the industry specification. Hourly costs were calculated by region for each fleet type (heavy, light, and mixed) and with costs above or below the baseline cost. This imputation routine resulted in another 3 observations being filled in with average costs from the known observations. After running this procedure 467 observations did not have cost estimates.

The fourth iteration dropped both the regional and industry specifications and calculated hourly costs for each fleet type (heavy, light, and mixed) and with costs above or below the baseline cost. This less specific imputation routine did not result in any observations being filled in with average costs from the known observations.

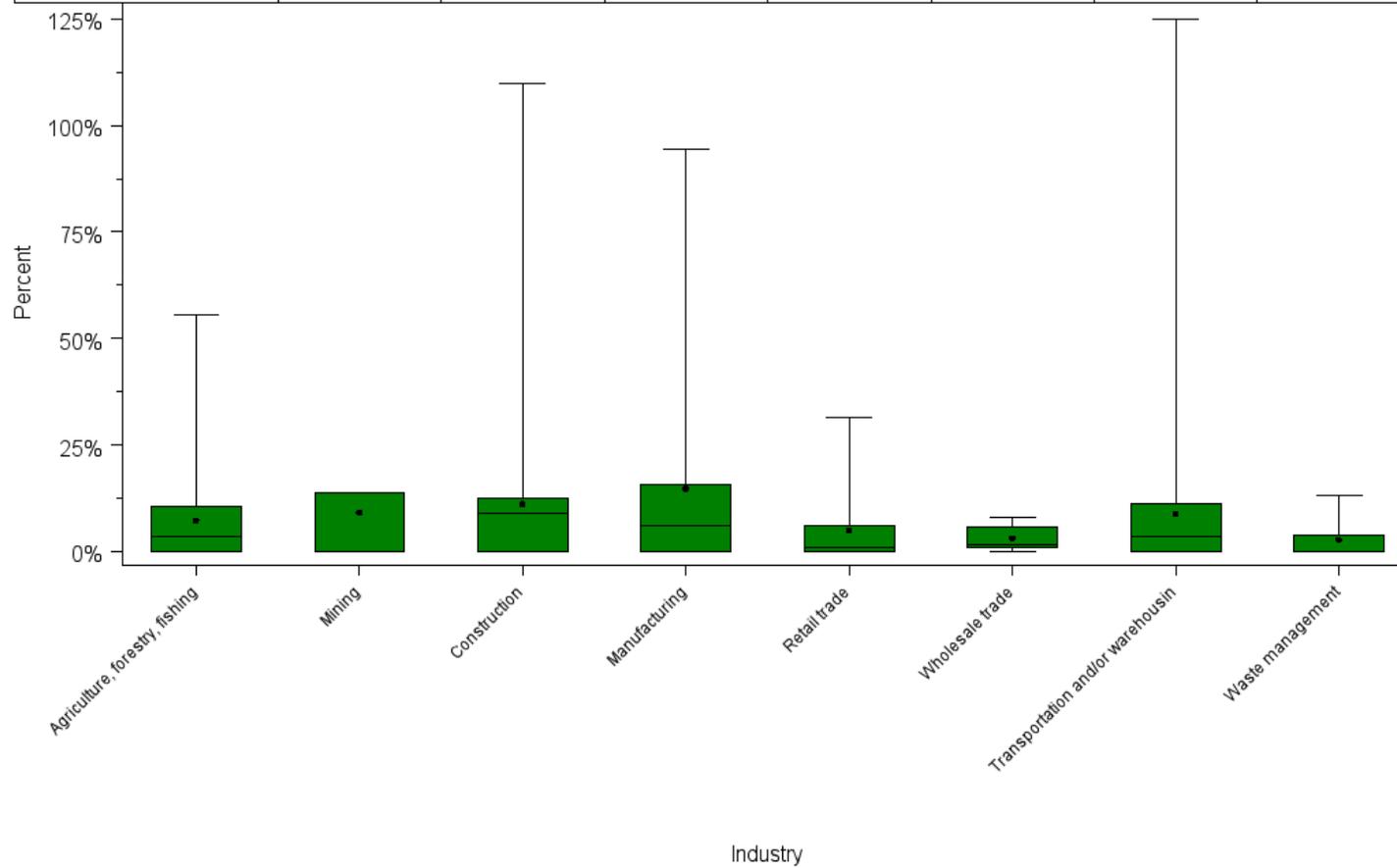
The fifth through eighth iterations followed the same specifications as the first through fourth; however the respondents' requirement for stating a cost structure above or below the baseline level was removed. A total of 147 additional observations had costs imputed after running the fifth, sixth, seventh and eighth routines (137, 10, 0, and 0 respectively). Only 320 observations

were not able to be imputed. These observations lacked sufficient detail on the type of fleet operated to impute hourly costs.

## A.2.2 Truck Cost Percentage Data Cleaning

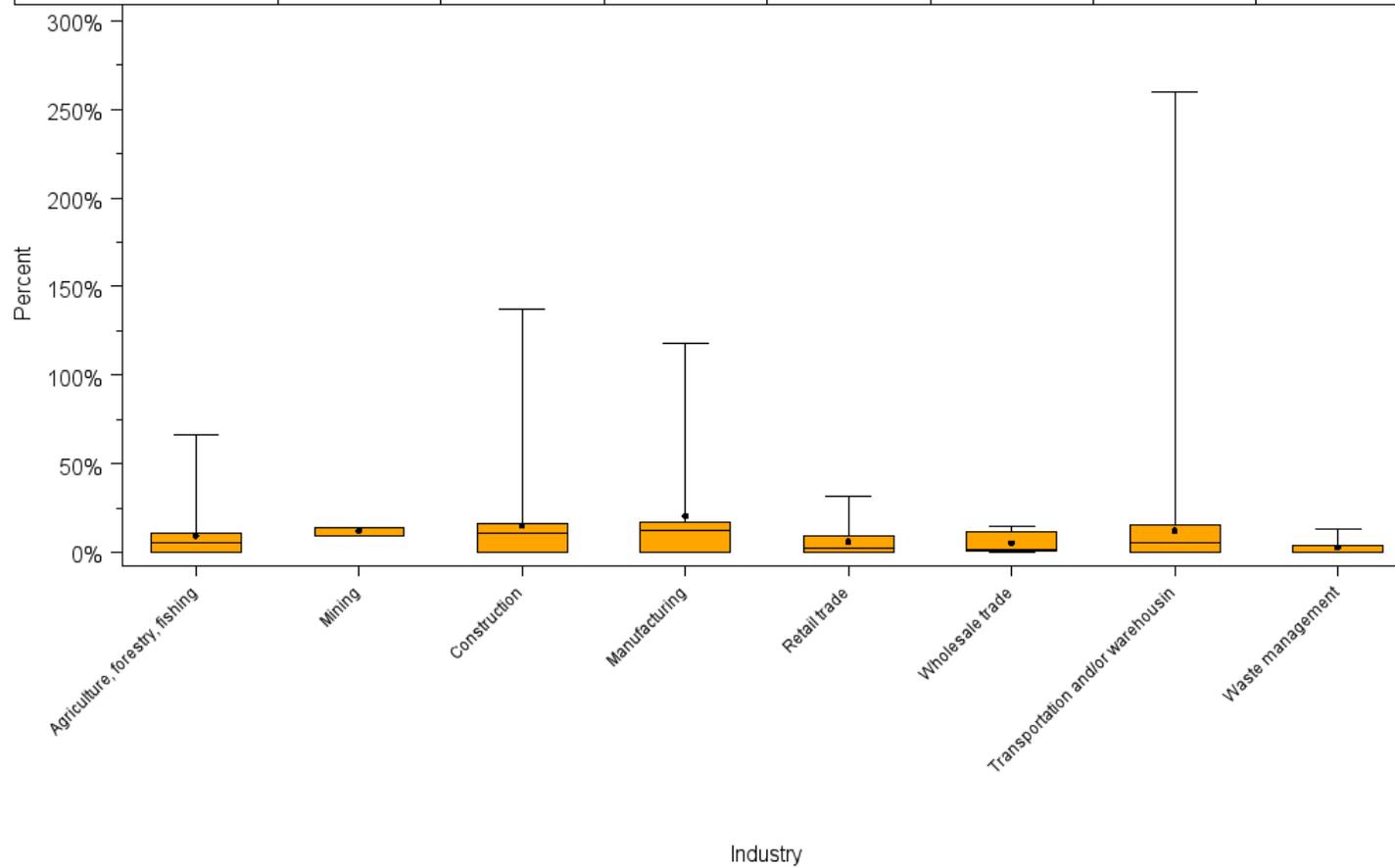
**Figure A-1 Summary Statistics and Distribution of Trucking Cost Percentages for 20% Congestion Increase by Industry, Raw Data.**

Mean	7.4%	9.2%	11.3%	14.9%	5.0%	3.2%	9.0%	2.9%
Min	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	55.5%	13.9%	109.8%	94.3%	31.6%	7.9%	124.8%	13.2%
N	36	3	34	10	12	9	327	6
Std Dev	0.108133	0.080059	0.199521	0.286522	0.092104	0.031674	0.157166	0.052987



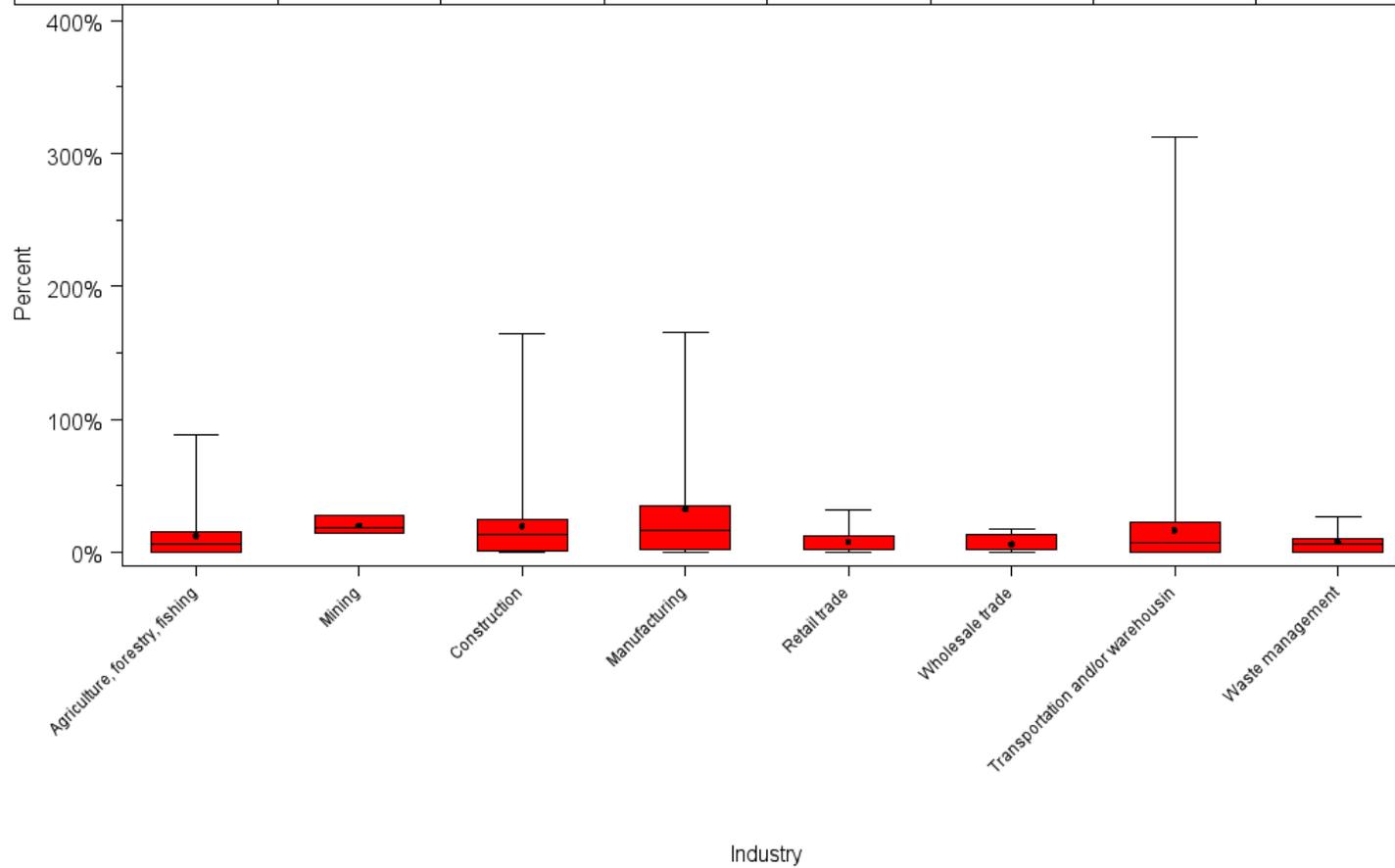
**Figure A-2 Summary Statistics and Distribution of Trucking Cost Percentages for 30% Congestion Increase by Industry, Raw Data.**

Mean	9.6%	12.4%	15.1%	20.7%	6.2%	5.2%	12.4%	2.9%
Min	0.0%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	66.6%	13.9%	137.3%	117.9%	31.6%	14.5%	260.0%	13.2%
N	36	3	34	10	12	9	327	6
Std Dev	0.140847	0.025619	0.251578	0.356179	0.095915	0.061004	0.23742	0.052987



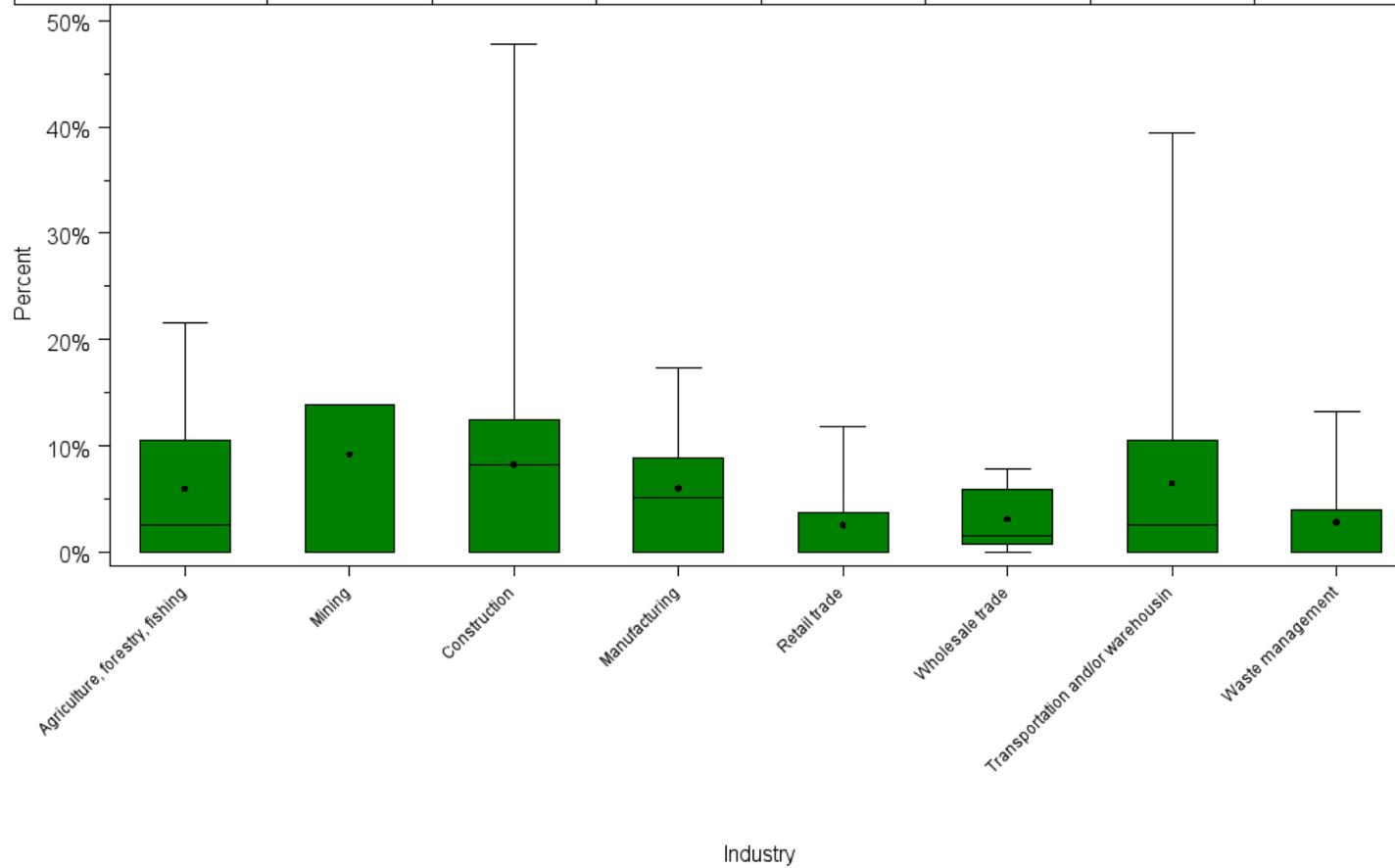
**Figure A-3 Summary Statistics and Distribution of Trucking Cost Percentages for 40% Congestion Increase by Industry, Raw Data.**

Mean	12.6%	20.2%	19.9%	32.5%	8.0%	6.2%	16.7%	8.2%
Min	0.0%	13.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	88.7%	27.7%	164.7%	165.0%	31.6%	17.6%	312.0%	26.3%
N	36	3	34	10	12	9	328	6
Std Dev	0.193876	0.070233	0.307849	0.490756	0.103692	0.068201	0.293595	0.098615



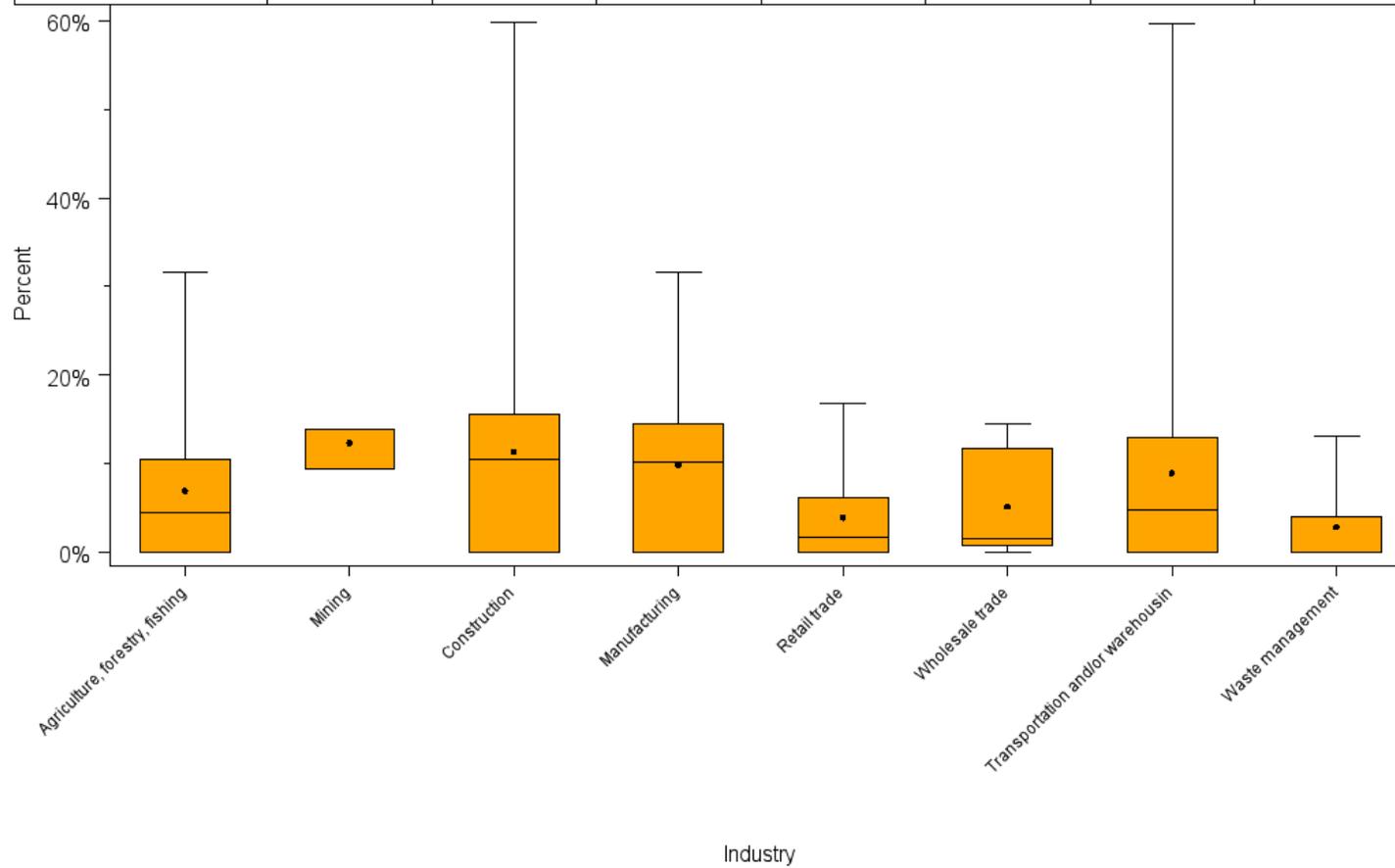
**Figure A-4 Summary Statistics and Distribution of Trucking Cost Percentages for 20% Congestion Increase by Industry, Clean Data.**

Mean	6.0%	9.2%	8.3%	6.0%	2.6%	3.2%	6.5%	2.9%
Min	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	21.6%	13.9%	47.8%	17.3%	11.8%	7.9%	39.4%	13.2%
N	35	3	33	9	11	9	314	6
Std Dev	0.070984	0.080059	0.098872	0.068839	0.040098	0.031674	0.084539	0.052987



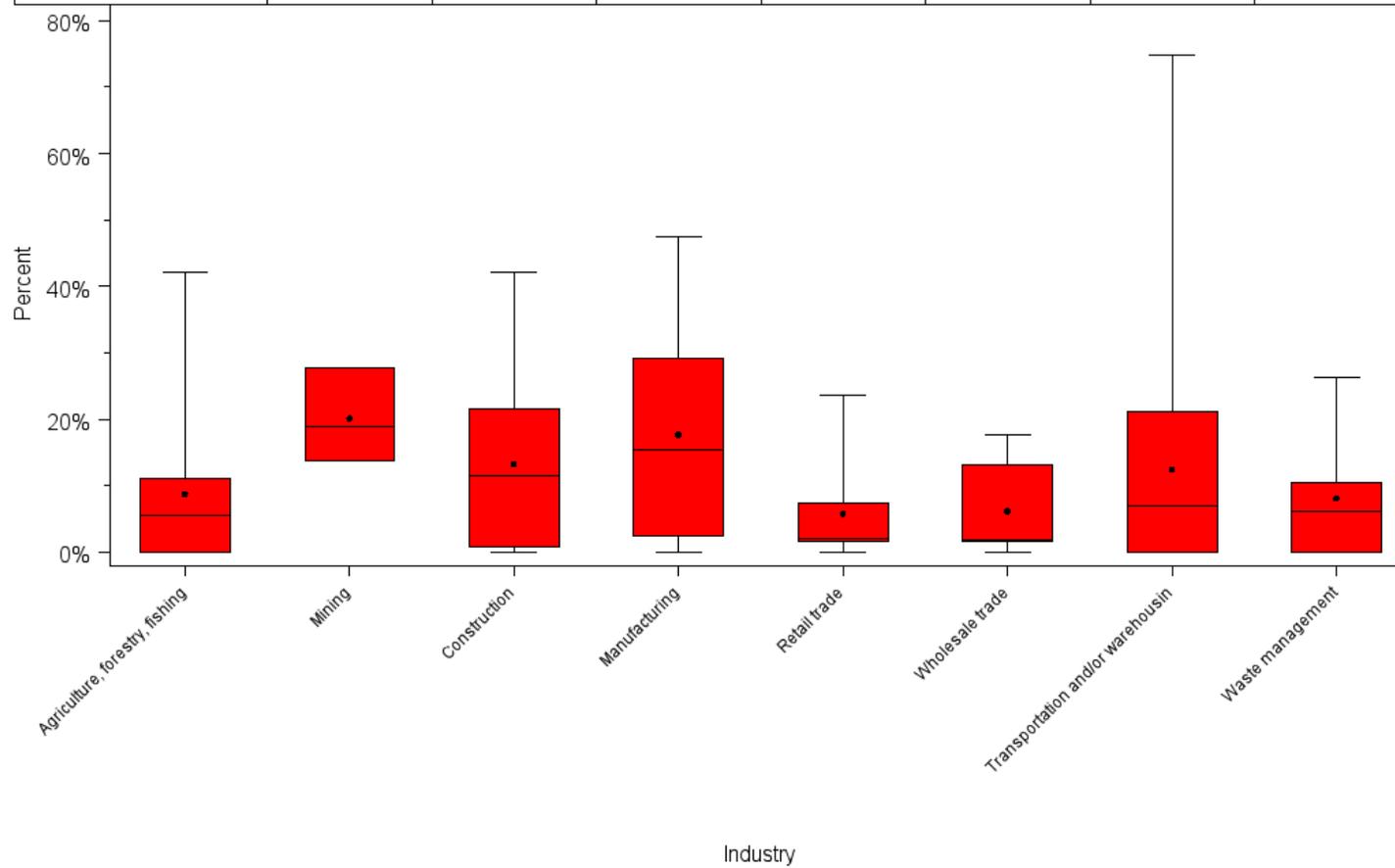
**Figure A-5 Summary Statistics and Distribution of Trucking Cost Percentages for 30% Congestion Increase by Industry, Clean Data.**

Mean	6.9%	12.4%	11.4%	9.9%	3.9%	5.2%	9.0%	2.9%
Min	0.0%	9.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	31.6%	13.9%	59.8%	31.6%	16.8%	14.5%	59.6%	13.2%
N	34	3	33	9	11	9	316	6
Std Dev	0.083942	0.025619	0.131196	0.107936	0.055615	0.061004	0.119669	0.052987



**Figure A-6 Summary Statistics and Distribution of Trucking Cost Percentages for 40% Congestion Increase by Industry, Clean Data.**

Mean	8.8%	20.2%	13.3%	17.7%	5.8%	6.2%	12.5%	8.2%
Min	0.0%	13.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Max	42.2%	27.7%	42.2%	47.4%	23.6%	17.6%	74.9%	26.3%
N	34	3	32	9	11	9	317	6
Std Dev	0.111903	0.070233	0.125008	0.164118	0.075667	0.068201	0.156788	0.098615



A.2.3 Final Trucking Cost Percentages

**Table A-6 Regional and State Trucking Cost Percentages by Industry, 30% Congestion Increase.**

<b>Industry</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Agriculture, forestry, fishing</i>	1.08%	8.53%	7.61%	6.00%	6.63%	1.26%	6.00%
<i>Mining</i>	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%
<i>Construction</i>	6.38%	9.41%	4.67%	9.59%	8.28%	13.45%	8.28%
<i>Manufacturing</i>	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%
<i>Retail trade</i>	2.59%	2.91%	2.59%	2.59%	2.59%	3.48%	2.59%
<i>Wholesale trade</i>	3.16%	3.16%	3.16%	3.16%	3.16%	3.38%	3.16%
<i>Transportation and/or warehousing</i>	7.58%	2.96%	7.51%	3.93%	7.10%	7.87%	6.51%
<i>Waste management</i>	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%

**Table A-7 Regional and State Trucking Cost Percentages by Industry, 40% Congestion Increase.**

<b>Industry</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Agriculture, forestry, fishing</i>	1.08%	8.53%	7.61%	6.00%	6.63%	1.26%	6.00%
<i>Mining</i>	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%	9.24%
<i>Construction</i>	6.38%	9.41%	4.67%	9.59%	8.28%	13.45%	8.28%
<i>Manufacturing</i>	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%	6.04%
<i>Retail trade</i>	2.59%	2.91%	2.59%	2.59%	2.59%	3.48%	2.59%
<i>Wholesale trade</i>	3.16%	3.16%	3.16%	3.16%	3.16%	3.38%	3.16%
<i>Transportation and/or warehousing</i>	7.58%	2.96%	7.51%	3.93%	7.10%	7.87%	6.51%
<i>Waste management</i>	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%	2.86%

### A.3 Inventory Costs

**Table A-8 Distribution of Companies Inventory Requirements Necessary for 20% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Inventory Days							Total
	0	0 to 3	3 to 7	7 to 14	14 to 30	30 to 90	90+	
<i>Agriculture, forestry, fishing</i>	74	2	0	0	0	0	0	76
	17.17	0.46	0.00	0.00	0.00	0.00	0.00	17.63
<i>Mining</i>	2	0	0	0	0	0	0	2
	0.46	0.00	0.00	0.00	0.00	0.00	0.00	0.46
<i>Construction</i>	42	5	4	2	5	0	0	58
	9.74	1.16	0.93	0.46	1.16	0.00	0.00	13.46
<i>Manufacturing</i>	12	5	2	1	3	1	0	24
	2.78	1.16	0.46	0.23	0.70	0.23	0.00	5.57
<i>Retail trade</i>	25	6	3	4	4	2	0	44
	5.80	1.39	0.70	0.93	0.93	0.46	0.00	10.21
<i>Wholesale trade</i>	7	1	0	3	1	1	1	14
	1.62	0.23	0.00	0.70	0.23	0.23	0.23	3.25
<i>Transportation and/or warehousing</i>	163	2	2	4	3	2	1	177
	37.82	0.46	0.46	0.93	0.70	0.46	0.23	41.07
<i>Waste management</i>	6	1	0	0	0	0	0	7
	1.39	0.23	0.00	0.00	0.00	0.00	0.00	1.62
<i>Other (please specify):</i>	23	1	1	1	1	2	0	29
	5.34	0.23	0.23	0.23	0.23	0.46	0.00	6.73
<b>Total</b>	<b>354</b>	<b>23</b>	<b>12</b>	<b>15</b>	<b>17</b>	<b>8</b>	<b>2</b>	<b>431</b>
	<b>82.13</b>	<b>5.34</b>	<b>2.78</b>	<b>3.48</b>	<b>3.94</b>	<b>1.86</b>	<b>0.46</b>	<b>100.00</b>

**Table A-9 Distribution of Companies Inventory Requirements Necessary for 30% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Inventory Days							Total
	0	0 to 3	3 to 7	7 to 14	14 to 30	30 to 90	90+	
<i>Agriculture, forestry, fishing</i>	70	3	1	0	1	0	0	75
	16.39	0.70	0.23	0.00	0.23	0.00	0.00	17.56
<i>Mining</i>	2	0	0	0	0	0	0	2
	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.47
<i>Construction</i>	42	4	2	3	6	0	0	57
	9.84	0.94	0.47	0.70	1.41	0.00	0.00	13.35
<i>Manufacturing</i>	11	2	4	2	3	1	0	23
	2.58	0.47	0.94	0.47	0.70	0.23	0.00	5.39
<i>Retail trade</i>	23	6	3	4	6	2	0	44
	5.39	1.41	0.70	0.94	1.41	0.47	0.00	10.30
<i>Wholesale trade</i>	6	2	0	3	1	1	1	14
	1.41	0.47	0.00	0.70	0.23	0.23	0.23	3.28
<i>Transportation and/or warehousing</i>	164	1	1	3	4	1	2	176
	38.41	0.23	0.23	0.70	0.94	0.23	0.47	41.22
<i>Waste management</i>	6	1	0	0	0	0	0	7
	1.41	0.23	0.00	0.00	0.00	0.00	0.00	1.64
<i>Other (please specify):</i>	23	1	1	1	1	2	0	29
	5.39	0.23	0.23	0.23	0.23	0.47	0.00	6.79
<b>Total</b>	<b>347</b>	<b>20</b>	<b>12</b>	<b>16</b>	<b>22</b>	<b>7</b>	<b>3</b>	<b>427</b>
	<b>81.26</b>	<b>4.68</b>	<b>2.81</b>	<b>3.75</b>	<b>5.15</b>	<b>1.64</b>	<b>0.70</b>	<b>100.00</b>

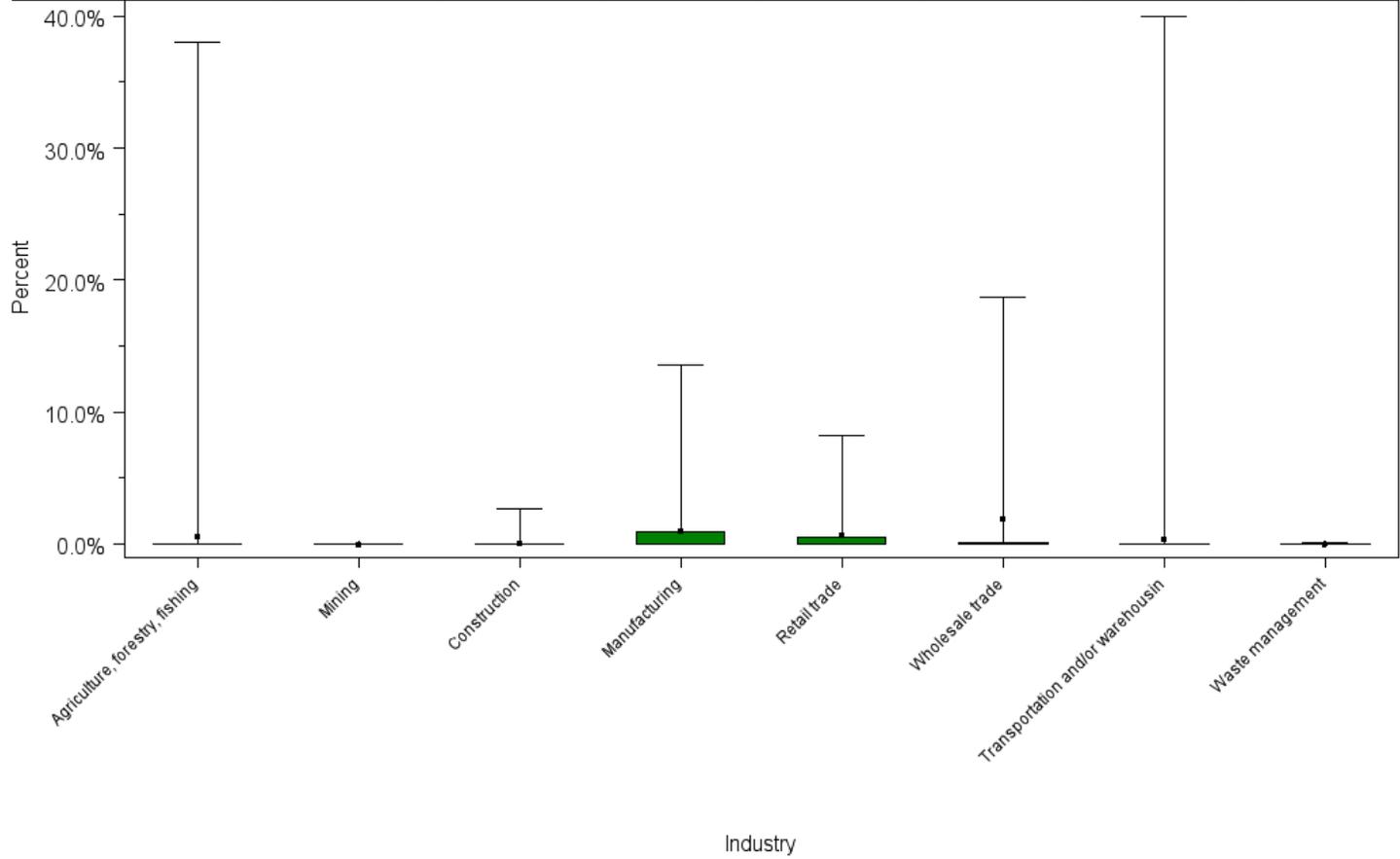
**Table A-10 Distribution of Companies Inventory Requirements Necessary for 40% Congestion Increase by Industry, Count and Percent.**

Industry	Additional Inventory Days							Total
	0	0 to 3	3 to 7	7 to 14	14 to 30	30 to 90	90+	
<i>Agriculture, forestry, fishing</i>	69	3	2	0	0	1	0	75
	16.20	0.70	0.47	0.00	0.00	0.23	0.00	17.61
<i>Mining</i>	2	0	0	0	0	0	0	2
	0.47	0.00	0.00	0.00	0.00	0.00	0.00	0.47
<i>Construction</i>	42	2	2	5	5	1	0	57
	9.86	0.47	0.47	1.17	1.17	0.23	0.00	13.38
<i>Manufacturing</i>	10	1	4	2	2	4	0	23
	2.35	0.23	0.94	0.47	0.47	0.94	0.00	5.40
<i>Retail trade</i>	20	4	4	6	5	3	1	43
	4.69	0.94	0.94	1.41	1.17	0.70	0.23	10.09
<i>Wholesale trade</i>	6	1	0	4	0	2	1	14
	1.41	0.23	0.00	0.94	0.00	0.47	0.23	3.29
<i>Transportation and/or warehousing</i>	164	0	2	1	4	3	2	176
	38.50	0.00	0.47	0.23	0.94	0.70	0.47	41.31
<i>Waste management</i>	6	0	1	0	0	0	0	7
	1.41	0.00	0.23	0.00	0.00	0.00	0.00	1.64
<i>Other (please specify):</i>	22	1	1	2	0	3	0	29
	5.16	0.23	0.23	0.47	0.00	0.70	0.00	6.81
<b>Total</b>	<b>341</b>	<b>12</b>	<b>16</b>	<b>20</b>	<b>16</b>	<b>17</b>	<b>4</b>	<b>426</b>
	<b>80.05</b>	<b>2.82</b>	<b>3.76</b>	<b>4.69</b>	<b>3.76</b>	<b>3.99</b>	<b>0.94</b>	<b>100.00</b>

### A.3.1 Inventory Cost Percentage Data Cleaning

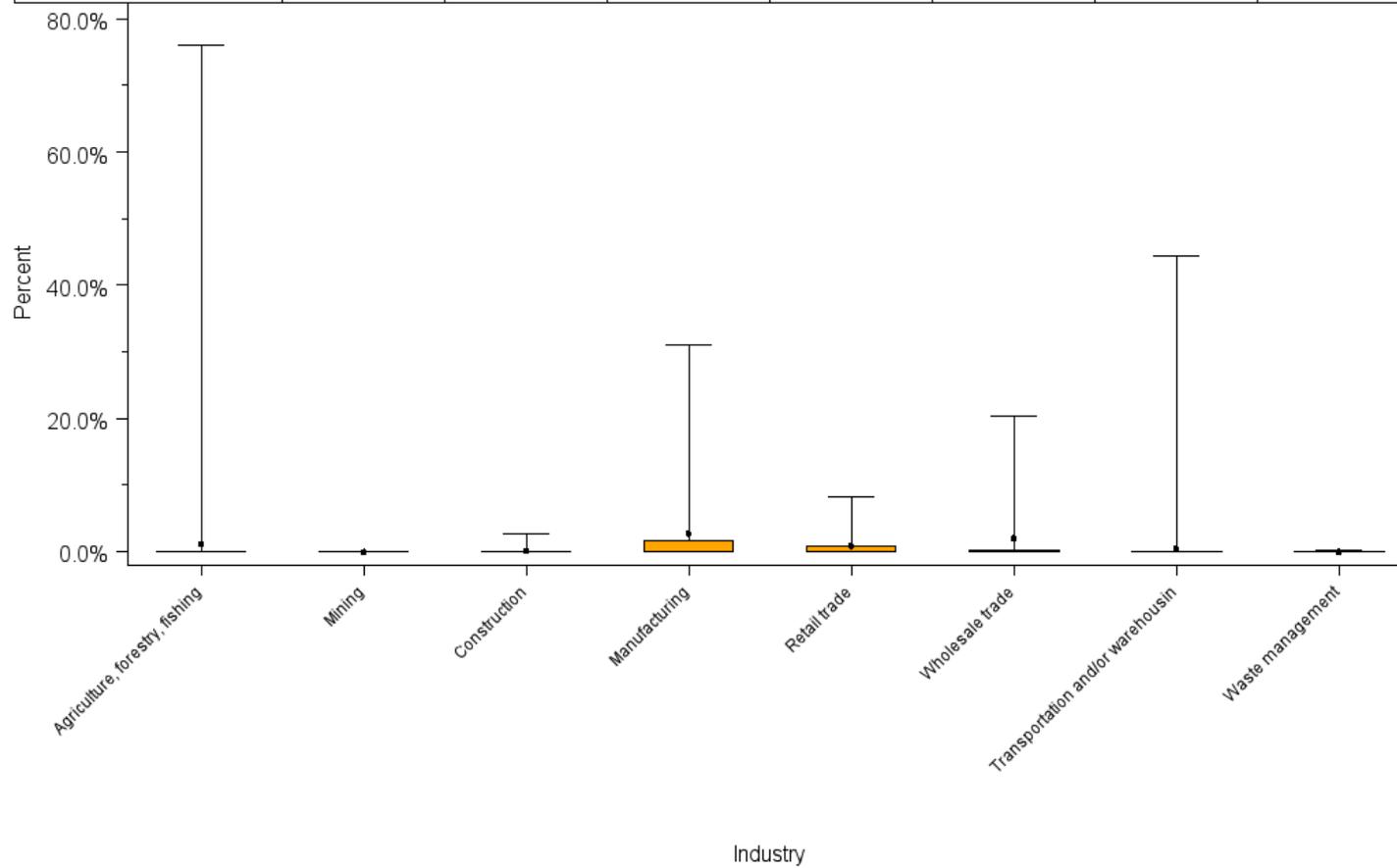
**Figure A-7 Summary Statistics and Distribution of Inventory Cost Percentages for 20% Congestion Increase by Industry, Raw Data.**

Mean	0.59%	0.00%	0.10%	1.00%	0.70%	1.90%	0.38%	0.02%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	38.04%	0.00%	2.67%	13.54%	8.21%	18.67%	40.00%	0.11%
N	66	2	53	22	38	11	150	6
Std Dev	0.046825	0	0.003979	0.028845	0.015691	0.055955	0.033366	0.000435



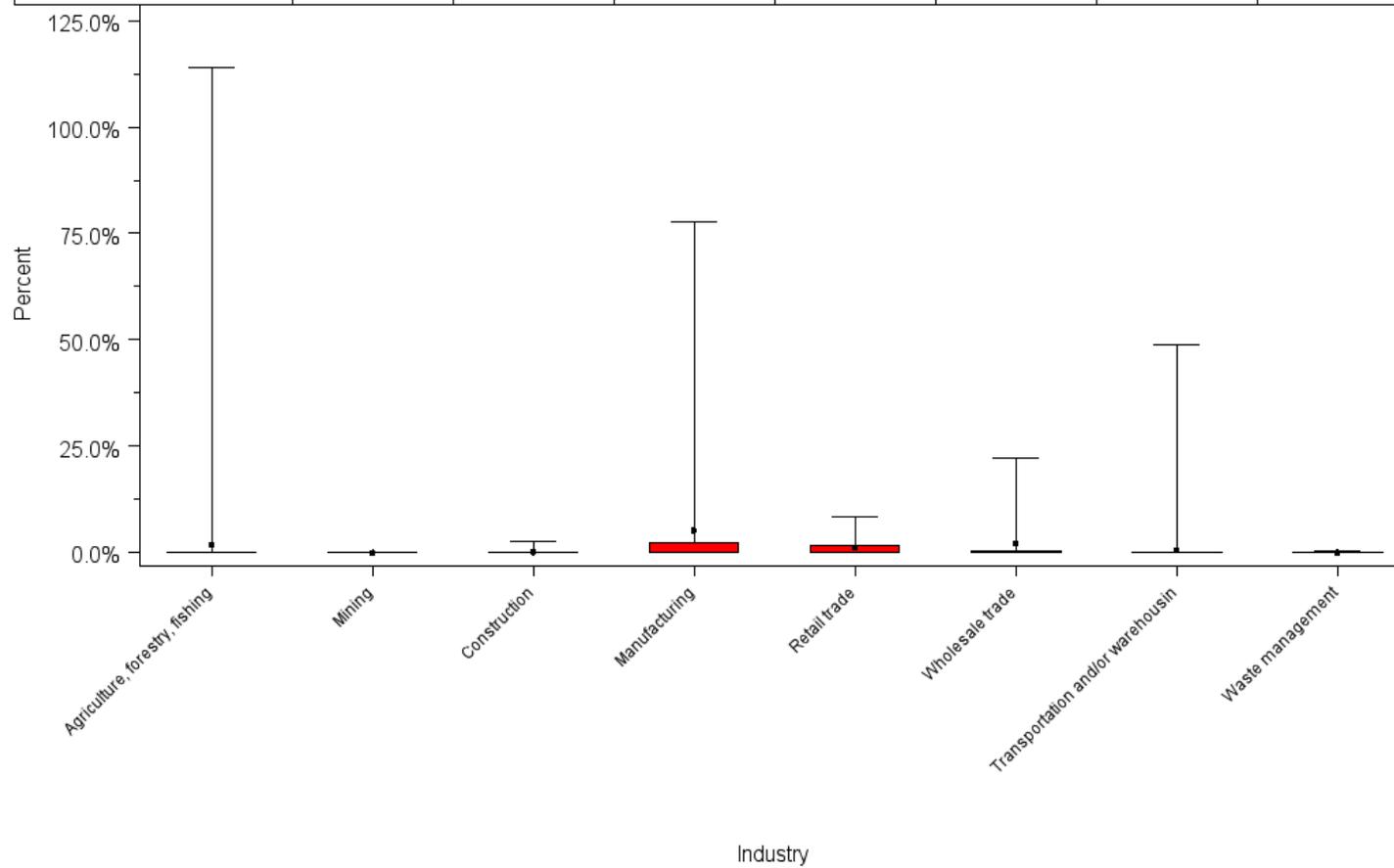
**Figure A-8 Summary Statistics and Distribution of Inventory Cost Percentages for 30% Congestion Increase by Industry, Raw Data.**

Mean	1.18%	0.00%	0.11%	2.73%	0.89%	2.07%	0.47%	0.03%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	76.09%	0.00%	2.67%	31.11%	8.21%	20.44%	44.44%	0.16%
N	66	2	53	22	38	11	150	6
Std Dev	0.09364	0	0.004069	0.073504	0.01858	0.061264	0.037889	0.000653



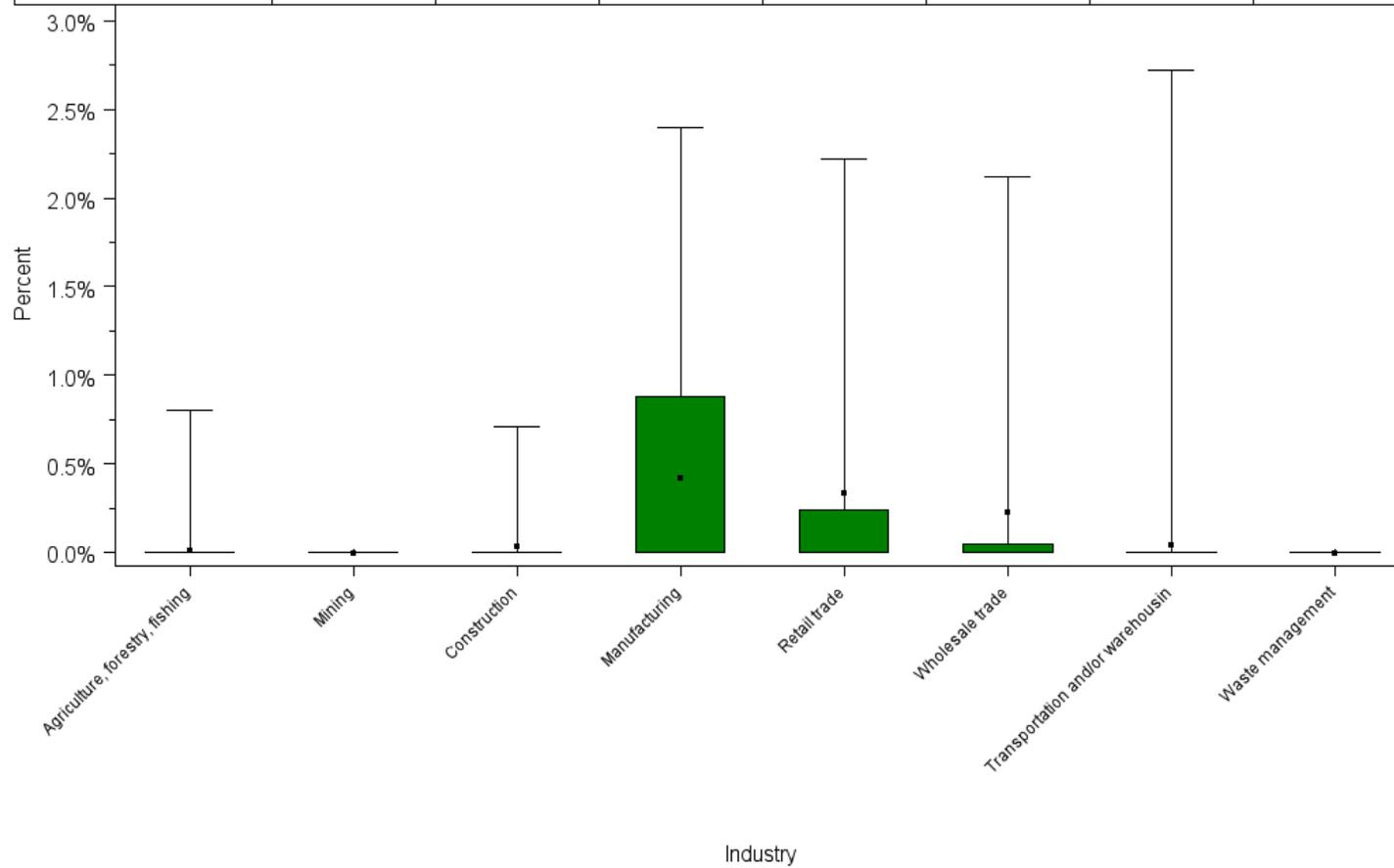
**Figure A-9 Summary Statistics and Distribution of Inventory Cost Percentages for 40% Congestion Increase by Industry, Raw Data.**

Mean	1.76%	0.00%	0.14%	5.22%	1.17%	2.24%	0.55%	0.04%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	114.13%	0.00%	2.67%	77.78%	8.21%	22.22%	48.89%	0.21%
N	66	2	53	22	38	11	150	6
Std Dev	0.140461	0	0.004722	0.167758	0.022301	0.066557	0.042695	0.000871



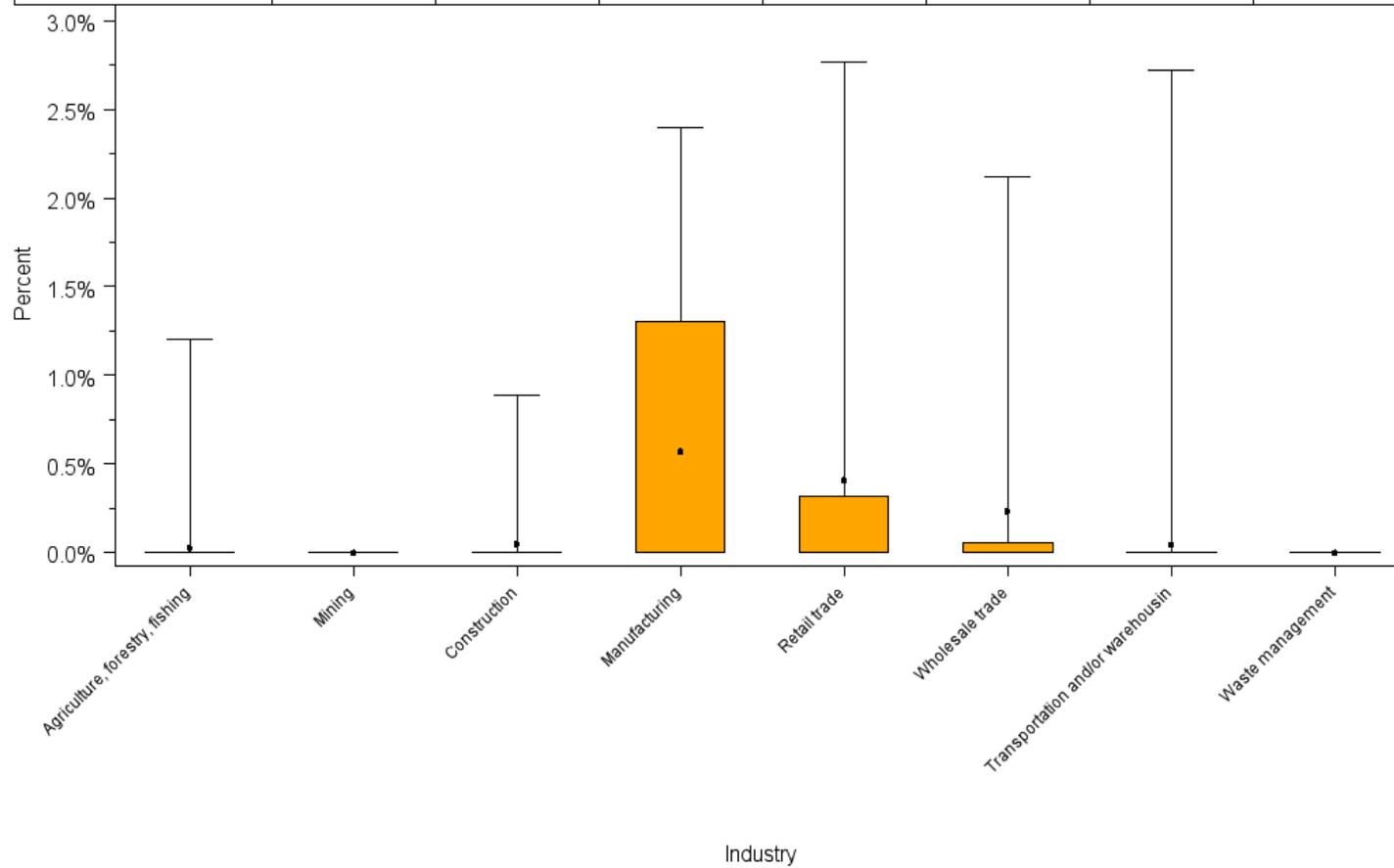
**Figure A-10 Summary Statistics and Distribution of Inventory Cost Percentages for 20% Congestion Increase by Industry, Clean Data.**

Mean	0.01%	0.00%	0.04%	0.42%	0.34%	0.23%	0.04%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	0.80%	0.00%	0.71%	2.40%	2.22%	2.12%	2.72%	0.00%
N	65	2	51	20	35	10	147	5
Std Dev	0.000992	0	0.001173	0.007177	0.006728	0.006664	0.002784	0



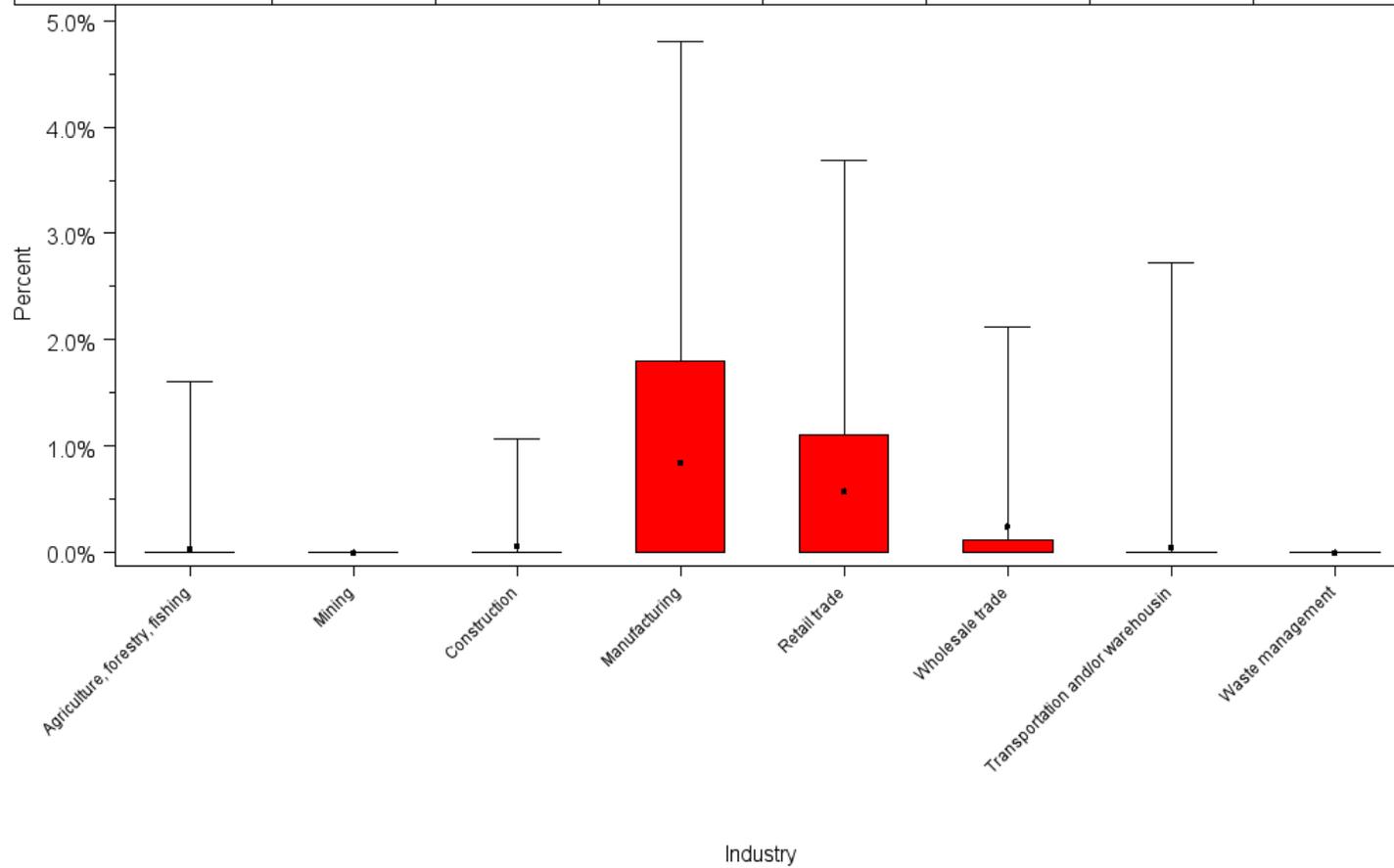
**Figure A-11 Summary Statistics and Distribution of Inventory Cost Percentages for 30% Congestion Increase by Industry, Clean Data.**

Mean	0.03%	0.00%	0.05%	0.57%	0.41%	0.23%	0.05%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	1.20%	0.00%	0.89%	2.40%	2.77%	2.12%	2.72%	0.00%
N	65	2	51	20	35	10	147	5
Std Dev	0.001579	0	0.001512	0.008814	0.007721	0.006644	0.002887	0



**Figure A-12 Summary Statistics and Distribution of Inventory Cost Percentages for 40% Congestion Increase by Industry, Clean Data.**

Mean	0.04%	0.00%	0.06%	0.84%	0.58%	0.25%	0.05%	0.00%
Min	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Max	1.60%	0.00%	1.07%	4.80%	3.69%	2.12%	2.72%	0.00%
N	65	2	51	20	35	10	147	5
Std Dev	0.002138	0	0.00182	0.013452	0.009231	0.006617	0.003091	0



*Appendix B IMPLAN Data*

## B.1 Industry Aggregation

**Table B-1 Detailed List of IMPLAN Industry Sectors Mapping to Survey Industries.**

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Agriculture, forestry, fishing</i>	Oilseed farming
<i>Agriculture, forestry, fishing</i>	Grain farming
<i>Agriculture, forestry, fishing</i>	Vegetable and melon farming
<i>Agriculture, forestry, fishing</i>	Fruit farming
<i>Agriculture, forestry, fishing</i>	Tree nut farming
<i>Agriculture, forestry, fishing</i>	Greenhouse, nursery, and floriculture production
<i>Agriculture, forestry, fishing</i>	Tobacco farming
<i>Agriculture, forestry, fishing</i>	Cotton farming
<i>Agriculture, forestry, fishing</i>	Sugarcane and sugar beet farming
<i>Agriculture, forestry, fishing</i>	All other crop farming
<i>Agriculture, forestry, fishing</i>	Cattle ranching and farming
<i>Agriculture, forestry, fishing</i>	Dairy cattle and milk production
<i>Agriculture, forestry, fishing</i>	Poultry and egg production
<i>Agriculture, forestry, fishing</i>	Animal production, except cattle and poultry and eggs
<i>Agriculture, forestry, fishing</i>	Forestry, forest products, and timber tract production
<i>Agriculture, forestry, fishing</i>	Commercial logging
<i>Agriculture, forestry, fishing</i>	Commercial Fishing
<i>Agriculture, forestry, fishing</i>	Commercial hunting and trapping
<i>Agriculture, forestry, fishing</i>	Support activities for agriculture and forestry
<i>Mining</i>	Extraction of oil and natural gas
<i>Mining</i>	Mining coal
<i>Mining</i>	Mining iron ore

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Mining</i>	Mining copper, nickel, lead, and zinc
<i>Mining</i>	Mining gold, silver, and other metal ore
<i>Mining</i>	Mining and quarrying stone
<i>Mining</i>	Mining and quarrying sand, gravel, clay, and ceramic and refractory minerals
<i>Mining</i>	Mining and quarrying other nonmetallic minerals
<i>Mining</i>	Drilling oil and gas wells
<i>Mining</i>	Support activities for oil and gas operations
<i>Mining</i>	Support activities for other mining
<i>Construction</i>	Construction of new nonresidential commercial and health care structures
<i>Construction</i>	Construction of new nonresidential manufacturing structures
<i>Construction</i>	Construction of other new nonresidential structures
<i>Construction</i>	Construction of new residential permanent site single- and multi-family structures
<i>Construction</i>	Construction of other new residential structures
<i>Construction</i>	Maintenance and repair construction of nonresidential structures
<i>Construction</i>	Maintenance and repair construction of residential structures
<i>Manufacturing</i>	Dog and cat food manufacturing
<i>Manufacturing</i>	Other animal food manufacturing
<i>Manufacturing</i>	Flour milling and malt manufacturing
<i>Manufacturing</i>	Wet corn milling
<i>Manufacturing</i>	Soybean and other oilseed processing
<i>Manufacturing</i>	Fats and oils refining and blending
<i>Manufacturing</i>	Breakfast cereal manufacturing
<i>Manufacturing</i>	Sugar cane mills and refining
<i>Manufacturing</i>	Beet sugar manufacturing
<i>Manufacturing</i>	Chocolate and confectionery manufacturing from cacao beans
<i>Manufacturing</i>	Confectionery manufacturing from purchased chocolate
<i>Manufacturing</i>	Nonchocolate confectionery manufacturing
<i>Manufacturing</i>	Frozen food manufacturing
<i>Manufacturing</i>	Fruit and vegetable canning, pickling, and drying
<i>Manufacturing</i>	Fluid milk and butter manufacturing
<i>Manufacturing</i>	Cheese manufacturing
<i>Manufacturing</i>	Dry, condensed, and evaporated dairy product manufacturing
<i>Manufacturing</i>	Ice cream and frozen dessert manufacturing
<i>Manufacturing</i>	Animal (except poultry) slaughtering, rendering, and processing
<i>Manufacturing</i>	Poultry processing
<i>Manufacturing</i>	Seafood product preparation and packaging
<i>Manufacturing</i>	Bread and bakery product manufacturing
<i>Manufacturing</i>	Cookie, cracker, and pasta manufacturing
<i>Manufacturing</i>	Tortilla manufacturing
<i>Manufacturing</i>	Snack food manufacturing

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Coffee and tea manufacturing
<i>Manufacturing</i>	Flavoring syrup and concentrate manufacturing
<i>Manufacturing</i>	Seasoning and dressing manufacturing
<i>Manufacturing</i>	All other food manufacturing
<i>Manufacturing</i>	Soft drink and ice manufacturing
<i>Manufacturing</i>	Breweries
<i>Manufacturing</i>	Wineries
<i>Manufacturing</i>	Distilleries
<i>Manufacturing</i>	Tobacco product manufacturing
<i>Manufacturing</i>	Fiber, yarn, and thread mills
<i>Manufacturing</i>	Broadwoven fabric mills
<i>Manufacturing</i>	Narrow fabric mills and schiffli machine embroidery
<i>Manufacturing</i>	Nonwoven fabric mills
<i>Manufacturing</i>	Knit fabric mills
<i>Manufacturing</i>	Textile and fabric finishing mills
<i>Manufacturing</i>	Fabric coating mills
<i>Manufacturing</i>	Carpet and rug mills
<i>Manufacturing</i>	Curtain and linen mills
<i>Manufacturing</i>	Textile bag and canvas mills
<i>Manufacturing</i>	All other textile product mills
<i>Manufacturing</i>	Apparel knitting mills
<i>Manufacturing</i>	Cut and sew apparel contractors
<i>Manufacturing</i>	Men's and boys' cut and sew apparel manufacturing
<i>Manufacturing</i>	Women's and girls' cut and sew apparel manufacturing
<i>Manufacturing</i>	Other cut and sew apparel manufacturing
<i>Manufacturing</i>	Apparel accessories and other apparel manufacturing
<i>Manufacturing</i>	Leather and hide tanning and finishing
<i>Manufacturing</i>	Footwear manufacturing
<i>Manufacturing</i>	Other leather and allied product manufacturing
<i>Manufacturing</i>	Sawmills and wood preservation
<i>Manufacturing</i>	Veneer and plywood manufacturing
<i>Manufacturing</i>	Engineered wood member and truss manufacturing
<i>Manufacturing</i>	Reconstituted wood product manufacturing
<i>Manufacturing</i>	Wood windows and doors and millwork manufacturing
<i>Manufacturing</i>	Wood container and pallet manufacturing
<i>Manufacturing</i>	Manufactured home (mobile home) manufacturing
<i>Manufacturing</i>	Prefabricated wood building manufacturing
<i>Manufacturing</i>	All other miscellaneous wood product manufacturing
<i>Manufacturing</i>	Pulp mills
<i>Manufacturing</i>	Paper mills
<i>Manufacturing</i>	Paperboard Mills
<i>Manufacturing</i>	Paperboard container manufacturing
<i>Manufacturing</i>	Coated and laminated paper, packaging paper and plastics film

Industry	IMPLAN Industry Sector
	manufacturing
<i>Manufacturing</i>	All other paper bag and coated and treated paper manufacturing
<i>Manufacturing</i>	Stationery product manufacturing
<i>Manufacturing</i>	Sanitary paper product manufacturing
<i>Manufacturing</i>	All other converted paper product manufacturing
<i>Manufacturing</i>	Printing
<i>Manufacturing</i>	Support activities for printing
<i>Manufacturing</i>	Petroleum refineries
<i>Manufacturing</i>	Asphalt paving mixture and block manufacturing
<i>Manufacturing</i>	Asphalt shingle and coating materials manufacturing
<i>Manufacturing</i>	Petroleum lubricating oil and grease manufacturing
<i>Manufacturing</i>	All other petroleum and coal products manufacturing
<i>Manufacturing</i>	Petrochemical manufacturing
<i>Manufacturing</i>	Industrial gas manufacturing
<i>Manufacturing</i>	Synthetic dye and pigment manufacturing
<i>Manufacturing</i>	Alkalies and chlorine manufacturing
<i>Manufacturing</i>	Carbon black manufacturing
<i>Manufacturing</i>	All other basic inorganic chemical manufacturing
<i>Manufacturing</i>	Other basic organic chemical manufacturing
<i>Manufacturing</i>	Plastics material and resin manufacturing
<i>Manufacturing</i>	Synthetic rubber manufacturing
<i>Manufacturing</i>	Artificial and synthetic fibers and filaments manufacturing
<i>Manufacturing</i>	Fertilizer manufacturing
<i>Manufacturing</i>	Pesticide and other agricultural chemical manufacturing
<i>Manufacturing</i>	Medicinal and botanical manufacturing
<i>Manufacturing</i>	Pharmaceutical preparation manufacturing
<i>Manufacturing</i>	In-vitro diagnostic substance manufacturing
<i>Manufacturing</i>	Biological product (except diagnostic) manufacturing
<i>Manufacturing</i>	Paint and coating manufacturing
<i>Manufacturing</i>	Adhesive manufacturing
<i>Manufacturing</i>	Soap and cleaning compound manufacturing
<i>Manufacturing</i>	Toilet preparation manufacturing
<i>Manufacturing</i>	Printing ink manufacturing
<i>Manufacturing</i>	All other chemical product and preparation manufacturing
<i>Manufacturing</i>	Plastics packaging materials and unlaminated film and sheet manufacturing
<i>Manufacturing</i>	Unlaminated plastics profile shape manufacturing
<i>Manufacturing</i>	Plastics pipe and pipe fitting manufacturing
<i>Manufacturing</i>	Laminated plastics plate, sheet (except packaging), and shape manufacturing
<i>Manufacturing</i>	Polystyrene foam product manufacturing
<i>Manufacturing</i>	Urethane and other foam product (except polystyrene) manufacturing
<i>Manufacturing</i>	

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Plastics bottle manufacturing
<i>Manufacturing</i>	Other plastics product manufacturing
<i>Manufacturing</i>	Tire manufacturing
<i>Manufacturing</i>	Rubber and plastics hoses and belting manufacturing
<i>Manufacturing</i>	Other rubber product manufacturing
<i>Manufacturing</i>	Pottery, ceramics, and plumbing fixture manufacturing
<i>Manufacturing</i>	Brick, tile, and other structural clay product manufacturing
<i>Manufacturing</i>	Clay and nonclay refractory manufacturing
<i>Manufacturing</i>	Flat glass manufacturing
<i>Manufacturing</i>	Other pressed and blown glass and glassware manufacturing
<i>Manufacturing</i>	Glass container manufacturing
<i>Manufacturing</i>	Glass product manufacturing made of purchased glass
<i>Manufacturing</i>	Cement manufacturing
<i>Manufacturing</i>	Ready-mix concrete manufacturing
<i>Manufacturing</i>	Concrete pipe, brick, and block manufacturing
<i>Manufacturing</i>	Other concrete product manufacturing
<i>Manufacturing</i>	Lime and gypsum product manufacturing
<i>Manufacturing</i>	Abrasive product manufacturing
<i>Manufacturing</i>	Cut stone and stone product manufacturing
<i>Manufacturing</i>	Ground or treated mineral and earth manufacturing
<i>Manufacturing</i>	Mineral wool manufacturing
<i>Manufacturing</i>	Miscellaneous nonmetallic mineral product manufacturing
<i>Manufacturing</i>	Iron and steel mills and ferroalloy manufacturing
<i>Manufacturing</i>	Steel product manufacturing from purchased steel
<i>Manufacturing</i>	Alumina refining and primary aluminum production
<i>Manufacturing</i>	Secondary smelting and alloying of aluminum
<i>Manufacturing</i>	Aluminum product manufacturing from purchased aluminum
<i>Manufacturing</i>	Primary smelting and refining of copper
<i>Manufacturing</i>	Primary smelting and refining of nonferrous metal (except copper and aluminum)
<i>Manufacturing</i>	Copper rolling, drawing, extruding and alloying
<i>Manufacturing</i>	Nonferrous metal (except copper and aluminum) rolling, drawing, extruding and alloying
<i>Manufacturing</i>	Ferrous metal foundries
<i>Manufacturing</i>	Nonferrous metal foundries
<i>Manufacturing</i>	All other forging, stamping, and sintering
<i>Manufacturing</i>	Custom roll forming
<i>Manufacturing</i>	Crown and closure manufacturing and metal stamping
<i>Manufacturing</i>	Cutlery, utensil, pot, and pan manufacturing
<i>Manufacturing</i>	Handtool manufacturing
<i>Manufacturing</i>	Plate work and fabricated structural product manufacturing
<i>Manufacturing</i>	Ornamental and architectural metal products manufacturing
<i>Manufacturing</i>	Power boiler and heat exchanger manufacturing

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Metal tank (heavy gauge) manufacturing
<i>Manufacturing</i>	Metal can, box, and other metal container (light gauge)
<i>Manufacturing</i>	manufacturing
<i>Manufacturing</i>	Ammunition manufacturing
<i>Manufacturing</i>	Arms, ordnance, and accessories manufacturing
<i>Manufacturing</i>	Hardware manufacturing
<i>Manufacturing</i>	Spring and wire product manufacturing
<i>Manufacturing</i>	Machine shops
<i>Manufacturing</i>	Turned product and screw, nut, and bolt manufacturing
<i>Manufacturing</i>	Coating, engraving, heat treating and allied activities
<i>Manufacturing</i>	Valve and fittings other than plumbing manufacturing
<i>Manufacturing</i>	Plumbing fixture fitting and trim manufacturing
<i>Manufacturing</i>	Ball and roller bearing manufacturing
<i>Manufacturing</i>	Fabricated pipe and pipe fitting manufacturing
<i>Manufacturing</i>	Other fabricated metal manufacturing
<i>Manufacturing</i>	Farm machinery and equipment manufacturing
<i>Manufacturing</i>	Lawn and garden equipment manufacturing
<i>Manufacturing</i>	Construction machinery manufacturing
<i>Manufacturing</i>	Mining and oil and gas field machinery manufacturing
<i>Manufacturing</i>	Other industrial machinery manufacturing
<i>Manufacturing</i>	Plastics and rubber industry machinery manufacturing
<i>Manufacturing</i>	Semiconductor machinery manufacturing
<i>Manufacturing</i>	Vending, commercial, industrial, and office machinery
<i>Manufacturing</i>	manufacturing
<i>Manufacturing</i>	Optical instrument and lens manufacturing
<i>Manufacturing</i>	Photographic and photocopying equipment manufacturing
<i>Manufacturing</i>	Other commercial and service industry machinery
<i>Manufacturing</i>	manufacturing
<i>Manufacturing</i>	Air purification and ventilation equipment manufacturing
<i>Manufacturing</i>	Heating equipment (except warm air furnaces) manufacturing
<i>Manufacturing</i>	Air conditioning, refrigeration, and warm air heating equipment
<i>Manufacturing</i>	manufacturing
<i>Manufacturing</i>	Industrial mold manufacturing
<i>Manufacturing</i>	Metal cutting and forming machine tool manufacturing
<i>Manufacturing</i>	Special tool, die, jig, and fixture manufacturing
<i>Manufacturing</i>	Cutting tool and machine tool accessory manufacturing
<i>Manufacturing</i>	Rolling mill and other metalworking machinery manufacturing
<i>Manufacturing</i>	Turbine and turbine generator set units manufacturing
<i>Manufacturing</i>	Speed changer, industrial high-speed drive, and gear
<i>Manufacturing</i>	manufacturing
<i>Manufacturing</i>	Mechanical power transmission equipment manufacturing
<i>Manufacturing</i>	Other engine equipment manufacturing
<i>Manufacturing</i>	Pump and pumping equipment manufacturing

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Air and gas compressor manufacturing
<i>Manufacturing</i>	Material handling equipment manufacturing
<i>Manufacturing</i>	Power-driven handtool manufacturing
<i>Manufacturing</i>	Other general purpose machinery manufacturing
<i>Manufacturing</i>	Packaging machinery manufacturing
<i>Manufacturing</i>	Industrial process furnace and oven manufacturing
<i>Manufacturing</i>	Fluid power process machinery manufacturing
<i>Manufacturing</i>	Electronic computer manufacturing
<i>Manufacturing</i>	Computer storage device manufacturing
<i>Manufacturing</i>	Computer terminals and other computer peripheral equipment manufacturing
<i>Manufacturing</i>	Telephone apparatus manufacturing
<i>Manufacturing</i>	Broadcast and wireless communications equipment manufacturing
<i>Manufacturing</i>	Other communications equipment manufacturing
<i>Manufacturing</i>	Audio and video equipment manufacturing
<i>Manufacturing</i>	Electron tube manufacturing
<i>Manufacturing</i>	Bare printed circuit board manufacturing
<i>Manufacturing</i>	Semiconductor and related device manufacturing
<i>Manufacturing</i>	Electronic capacitor, resistor, coil, transformer, and other inductor manufacturing
<i>Manufacturing</i>	Electronic connector manufacturing
<i>Manufacturing</i>	Printed circuit assembly (electronic assembly) manufacturing
<i>Manufacturing</i>	Other electronic component manufacturing
<i>Manufacturing</i>	Electromedical and electrotherapeutic apparatus manufacturing
<i>Manufacturing</i>	Search, detection, and navigation instruments manufacturing
<i>Manufacturing</i>	Automatic environmental control manufacturing
<i>Manufacturing</i>	Industrial process variable instruments manufacturing
<i>Manufacturing</i>	Totalizing fluid meters and counting devices manufacturing
<i>Manufacturing</i>	Electricity and signal testing instruments manufacturing
<i>Manufacturing</i>	Analytical laboratory instrument manufacturing
<i>Manufacturing</i>	Irradiation apparatus manufacturing
<i>Manufacturing</i>	Watch, clock, and other measuring and controlling device manufacturing
<i>Manufacturing</i>	Software, audio, and video media for reproduction
<i>Manufacturing</i>	Magnetic and optical recording media manufacturing
<i>Manufacturing</i>	Electric lamp bulb and part manufacturing
<i>Manufacturing</i>	Lighting fixture manufacturing
<i>Manufacturing</i>	Small electrical appliance manufacturing
<i>Manufacturing</i>	Household cooking appliance manufacturing
<i>Manufacturing</i>	Household refrigerator and home freezer manufacturing
<i>Manufacturing</i>	Household laundry equipment manufacturing
<i>Manufacturing</i>	Other major household appliance manufacturing

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Power, distribution, and specialty transformer manufacturing
<i>Manufacturing</i>	Motor and generator manufacturing
<i>Manufacturing</i>	Switchgear and switchboard apparatus manufacturing
<i>Manufacturing</i>	Relay and industrial control manufacturing
<i>Manufacturing</i>	Storage battery manufacturing
<i>Manufacturing</i>	Primary battery manufacturing
<i>Manufacturing</i>	Communication and energy wire and cable manufacturing
<i>Manufacturing</i>	Wiring device manufacturing
<i>Manufacturing</i>	Carbon and graphite product manufacturing
<i>Manufacturing</i>	All other miscellaneous electrical equipment and component manufacturing
<i>Manufacturing</i>	Automobile manufacturing
<i>Manufacturing</i>	Light truck and utility vehicle manufacturing
<i>Manufacturing</i>	Heavy duty truck manufacturing
<i>Manufacturing</i>	Motor vehicle body manufacturing
<i>Manufacturing</i>	Truck trailer manufacturing
<i>Manufacturing</i>	Motor home manufacturing
<i>Manufacturing</i>	Travel trailer and camper manufacturing
<i>Manufacturing</i>	Motor vehicle parts manufacturing
<i>Manufacturing</i>	Aircraft manufacturing
<i>Manufacturing</i>	Aircraft engine and engine parts manufacturing
<i>Manufacturing</i>	Other aircraft parts and auxiliary equipment manufacturing
<i>Manufacturing</i>	Guided missile and space vehicle manufacturing
<i>Manufacturing</i>	Propulsion units and parts for space vehicles and guided missiles manufacturing
<i>Manufacturing</i>	Railroad rolling stock manufacturing
<i>Manufacturing</i>	Ship building and repairing
<i>Manufacturing</i>	Boat building
<i>Manufacturing</i>	Motorcycle, bicycle, and parts manufacturing
<i>Manufacturing</i>	Military armored vehicle, tank, and tank component manufacturing
<i>Manufacturing</i>	All other transportation equipment manufacturing
<i>Manufacturing</i>	Wood kitchen cabinet and countertop manufacturing
<i>Manufacturing</i>	Upholstered household furniture manufacturing
<i>Manufacturing</i>	Nonupholstered wood household furniture manufacturing
<i>Manufacturing</i>	Metal and other household furniture (except wood) manufacturing
<i>Manufacturing</i>	Institutional furniture manufacturing
<i>Manufacturing</i>	Wood television, radio, and sewing machine cabinet manufacturing
<i>Manufacturing</i>	Office furniture and custom architectural woodwork and millwork manufacturing
<i>Manufacturing</i>	Showcase, partition, shelving, and locker manufacturing

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Manufacturing</i>	Mattress manufacturing
<i>Manufacturing</i>	Blind and shade manufacturing
<i>Manufacturing</i>	Surgical and medical instrument, laboratory and medical
<i>Manufacturing</i>	instrument manufacturing
<i>Manufacturing</i>	Surgical appliance and supplies manufacturing
<i>Manufacturing</i>	Dental equipment and supplies manufacturing
<i>Manufacturing</i>	Ophthalmic goods manufacturing
<i>Manufacturing</i>	Dental laboratories manufacturing
<i>Manufacturing</i>	Jewelry and silverware manufacturing
<i>Manufacturing</i>	Sporting and athletic goods manufacturing
<i>Manufacturing</i>	Doll, toy, and game manufacturing
<i>Manufacturing</i>	Office supplies (except paper) manufacturing
<i>Manufacturing</i>	Sign manufacturing
<i>Manufacturing</i>	Gasket, packing, and sealing device manufacturing
<i>Manufacturing</i>	Musical instrument manufacturing
<i>Manufacturing</i>	All other miscellaneous manufacturing
<i>Manufacturing</i>	Broom, brush, and mop manufacturing
<i>Retail trade</i>	Retail Stores - Motor vehicle and parts
<i>Retail trade</i>	Retail Stores - Furniture and home furnishings
<i>Retail trade</i>	Retail Stores - Electronics and appliances
<i>Retail trade</i>	Retail Stores - Building material and garden supply
<i>Retail trade</i>	Retail Stores - Food and beverage
<i>Retail trade</i>	Retail Stores - Health and personal care
<i>Retail trade</i>	Retail Stores - Gasoline stations
<i>Retail trade</i>	Retail Stores - Clothing and clothing accessories
<i>Retail trade</i>	Retail Stores - Sporting goods, hobby, book and music
<i>Retail trade</i>	Retail Stores - General merchandise
<i>Retail trade</i>	Retail Stores - Miscellaneous
<i>Retail trade</i>	Retail Nonstores - Direct and electronic sales
<i>Wholesale trade</i>	Wholesale trade businesses
<i>Transportation and/or</i>	
<i>warehousing</i>	Transport by air
<i>Transportation and/or</i>	
<i>warehousing</i>	Transport by rail
<i>Transportation and/or</i>	
<i>warehousing</i>	Transport by water
<i>Transportation and/or</i>	
<i>warehousing</i>	Transport by truck
<i>Transportation and/or</i>	
<i>warehousing</i>	Transit and ground passenger transportation
<i>Transportation and/or</i>	
<i>warehousing</i>	Transport by pipeline
<i>Transportation and/or</i>	Scenic and sightseeing transportation and support activities for
<i>warehousing</i>	transportation

<b>Industry</b>	<b>IMPLAN Industry Sector</b>
<i>Transportation and/or warehousing</i>	Couriers and messengers
<i>Transportation and/or warehousing</i>	Warehousing and storage
<i>Waste management</i>	Waste management and remediation services

## B.2 Industry Margins

The retail trade and transportation sectors' margins are not specified for the wholesale trade in IMPLAN. These values were estimated as the average of the retail and transportation margins for all other sectors.

**Table B-2 Household Level Margins for Aggregated Industries.**

<b>Sector</b>	<b>Margin Sector</b>	<b>Margin Value</b>
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>Ag, Forestry, Fish &amp; Hunting</i>	53%
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>Wholesale Trade</i>	12%
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>Retail trade</i>	28%
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>Transportation &amp; Warehousing</i>	7%
<i>Mining</i>	<i>Mining</i>	33%
<i>Mining</i>	<i>Wholesale Trade</i>	0%
<i>Mining</i>	<i>Retail trade</i>	30%
<i>Mining</i>	<i>Transportation &amp; Warehousing</i>	37%
<i>Manufacturing</i>	<i>Manufacturing</i>	63%
<i>Manufacturing</i>	<i>Wholesale Trade</i>	9%
<i>Manufacturing</i>	<i>Retail trade</i>	27%
<i>Manufacturing</i>	<i>Transportation &amp; Warehousing</i>	1%
<i>Wholesale Trade</i>	<i>Wholesale Trade</i>	19%
<i>Wholesale Trade*</i>	<i>Retail trade</i>	27%
<i>Wholesale Trade*</i>	<i>Transportation &amp; Warehousing</i>	11%
<i>Retail trade</i>	<i>Retail trade</i>	31%
<i>Information</i>	<i>Wholesale Trade</i>	3%
<i>Information</i>	<i>Retail trade</i>	24%
<i>Information</i>	<i>Transportation &amp; Warehousing</i>	0%
<i>Information</i>	<i>Information</i>	73%
<i>Other services</i>	<i>Wholesale Trade</i>	0%
<i>Other services</i>	<i>Retail trade</i>	0%
<i>Other services</i>	<i>Transportation &amp; Warehousing</i>	0%
<i>Other services</i>	<i>Other services</i>	0%

\*estimated by authors.

### B.3 Total Revenue

**Table B-3 Regional and Statewide Total Revenue Estimates, by Industry.**

<b>Industry</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Agriculture, forestry, fishing</i>	\$1,474,852,881	\$1,402,324,961	\$6,225,978,471	\$516,556,518	\$2,010,897,322	\$2,400,148,488	\$14,025,087,392
<i>Mining</i>	\$108,171,680	\$653,710,669	\$109,025,361	\$325,588,045	\$70,002,075	\$456,975,247	\$1,722,882,632
<i>Construction</i>	\$4,141,996,544	\$3,645,185,536	\$2,894,587,136	\$2,553,692,416	\$757,122,816	\$25,597,517,824	\$39,590,105,088
<i>Manufacturing</i>	\$18,205,808,793	\$13,711,986,402	\$9,284,190,947	\$7,009,730,331	\$4,919,651,499	\$107,231,686,236	\$160,187,755,858
<i>Retail trade</i>	\$10,904,074,846	\$7,999,637,421	\$8,606,697,067	\$7,994,857,289	\$2,091,239,070	\$74,218,212,234	\$111,814,709,161
<i>Wholesale trade</i>	\$6,537,218,788	\$9,022,567,455	\$8,044,438,264	\$9,169,377,153	\$3,086,071,375	\$106,465,961,015	\$142,323,314,397
<i>Transportation and/or warehousing</i>	\$785,787,765	\$1,405,452,712	\$913,832,211	\$1,074,920,669	\$451,507,449	\$12,124,467,412	\$16,754,995,185
<i>Waste management</i>	\$186,009,392	\$183,107,520	\$2,021,068,416	\$76,817,136	\$26,327,028	\$1,095,848,064	\$3,589,177,344

## B.4 Trade Flow

**Table B-4 Inter-Regional Trade Flow Percentages, by Region and Industry.**

Region	Industry	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	Out of State
<i>Northwest</i>	<i>Agriculture, forestry, fishing</i>	33.12%	1.33%	0.32%	0.08%	0.06%	23.32%	41.77%
<i>Northwest</i>	<i>Mining</i>	63.20%	0.05%	0.03%	0.01%	0.00%	15.86%	20.85%
<i>Northwest</i>	<i>Construction</i>	86.06%	0.10%	0.13%	0.00%	0.00%	1.77%	11.94%
<i>Northwest</i>	<i>Manufacturing</i>	14.17%	4.57%	0.53%	0.18%	1.10%	34.71%	44.75%
<i>Northwest</i>	<i>Retail trade</i>	77.32%	0.15%	0.04%	0.00%	0.00%	13.95%	8.54%
<i>Northwest</i>	<i>Wholesale trade</i>	89.05%	0.01%	0.08%	0.00%	0.01%	0.31%	10.55%
<i>Northwest</i>	<i>Transportation and/or warehousing</i>	59.29%	0.70%	0.57%	0.16%	0.10%	18.27%	20.91%
<i>Northwest</i>	<i>Waste management</i>	72.07%	0.48%	0.12%	0.03%	0.01%	16.13%	11.17%
<i>Southwest</i>	<i>Agriculture, forestry, fishing</i>	0.45%	70.66%	0.19%	0.04%	0.04%	4.81%	23.82%
<i>Southwest</i>	<i>Mining</i>	1.86%	34.92%	0.41%	0.00%	0.16%	24.03%	38.62%
<i>Southwest</i>	<i>Construction</i>	0.09%	85.85%	0.08%	0.00%	0.00%	0.88%	13.10%
<i>Southwest</i>	<i>Manufacturing</i>	1.28%	18.23%	0.82%	0.36%	0.30%	12.06%	66.96%
<i>Southwest</i>	<i>Retail trade</i>	0.17%	82.80%	0.03%	0.00%	0.00%	6.24%	10.76%
<i>Southwest</i>	<i>Wholesale trade</i>	0.04%	82.74%	0.01%	0.00%	0.00%	0.02%	17.18%
<i>Southwest</i>	<i>Transportation and/or warehousing</i>	1.71%	52.87%	0.63%	0.06%	0.10%	12.87%	31.77%
<i>Southwest</i>	<i>Waste management</i>	0.81%	64.35%	0.08%	0.02%	0.01%	8.89%	25.84%
<i>Central Basin</i>	<i>Agriculture, forestry, fishing</i>	0.35%	0.22%	14.75%	0.41%	2.27%	4.26%	77.75%
<i>Central Basin</i>	<i>Mining</i>	0.75%	0.11%	13.05%	3.37%	3.17%	2.36%	77.19%
<i>Central Basin</i>	<i>Construction</i>	0.04%	0.01%	82.12%	0.01%	9.85%	0.16%	7.81%
<i>Central Basin</i>	<i>Manufacturing</i>	1.44%	1.78%	10.68%	1.41%	1.79%	9.77%	73.14%
<i>Central Basin</i>	<i>Retail trade</i>	0.56%	0.07%	63.90%	0.04%	6.93%	11.11%	17.38%
<i>Central Basin</i>	<i>Wholesale trade</i>	0.00%	0.00%	78.80%	0.04%	10.34%	0.00%	10.80%
<i>Central Basin</i>	<i>Transportation and/or warehousing</i>	2.15%	0.92%	51.71%	1.51%	6.07%	16.83%	20.82%
<i>Central Basin</i>	<i>Waste management</i>	0.45%	0.40%	15.96%	2.08%	1.81%	3.29%	76.01%
<i>Northeast</i>	<i>Agriculture, forestry, fishing</i>	0.30%	0.26%	0.68%	47.25%	0.29%	1.15%	50.07%
<i>Northeast</i>	<i>Mining</i>	0.37%	0.32%	0.73%	30.87%	0.13%	2.85%	64.73%

<b>Region</b>	<b>Industry</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>Out of State</b>
<i>Northeast</i>	<i>Construction</i>	0.00%	0.00%	0.31%	88.88%	0.59%	0.00%	10.22%
<i>Northeast</i>	<i>Manufacturing</i>	0.76%	0.65%	1.92%	16.20%	0.72%	7.03%	72.72%
<i>Northeast</i>	<i>Retail trade</i>	0.27%	0.00%	0.43%	72.55%	0.87%	2.28%	23.60%
<i>Northeast</i>	<i>Wholesale trade</i>	0.00%	0.00%	0.09%	86.18%	0.70%	0.00%	13.03%
<i>Northeast</i>	<i>Transportation and/or warehousing</i>	0.86%	0.27%	4.37%	58.62%	2.84%	3.12%	29.91%
<i>Northeast</i>	<i>Waste management</i>	0.04%	0.02%	0.30%	81.35%	0.45%	0.19%	17.64%
<i>Southeast</i>	<i>Agriculture, forestry, fishing</i>	0.14%	0.07%	6.20%	0.79%	11.84%	0.88%	80.07%
<i>Southeast</i>	<i>Mining</i>	0.40%	1.82%	29.78%	0.00%	16.24%	9.52%	42.24%
<i>Southeast</i>	<i>Construction</i>	0.01%	0.00%	37.57%	0.10%	55.28%	0.01%	7.03%
<i>Southeast</i>	<i>Manufacturing</i>	0.66%	0.67%	11.22%	2.01%	13.85%	4.04%	67.55%
<i>Southeast</i>	<i>Retail trade</i>	0.11%	0.00%	29.45%	0.03%	52.67%	3.00%	14.74%
<i>Southeast</i>	<i>Wholesale trade</i>	0.00%	0.00%	35.88%	0.18%	49.95%	0.00%	13.99%
<i>Southeast</i>	<i>Transportation and/or warehousing</i>	0.97%	0.45%	33.36%	1.66%	30.46%	4.04%	29.06%
<i>Southeast</i>	<i>Waste management</i>	0.24%	0.17%	18.78%	3.33%	13.34%	1.53%	62.61%
<i>Puget Sound</i>	<i>Agriculture, forestry, fishing</i>	2.49%	6.27%	0.30%	0.11%	0.07%	48.49%	42.27%
<i>Puget Sound</i>	<i>Mining</i>	3.60%	0.08%	0.00%	0.00%	0.00%	89.94%	6.37%
<i>Puget Sound</i>	<i>Construction</i>	0.95%	0.41%	0.27%	0.00%	0.02%	85.62%	12.73%
<i>Puget Sound</i>	<i>Manufacturing</i>	1.43%	0.68%	0.48%	0.26%	0.10%	28.21%	68.84%
<i>Puget Sound</i>	<i>Retail trade</i>	1.30%	0.75%	1.18%	0.02%	0.12%	76.65%	19.98%
<i>Puget Sound</i>	<i>Wholesale trade</i>	4.60%	1.16%	1.54%	0.02%	0.19%	81.56%	10.93%
<i>Puget Sound</i>	<i>Transportation and/or warehousing</i>	3.80%	1.50%	1.40%	0.45%	0.23%	67.62%	25.00%
<i>Puget Sound</i>	<i>Waste management</i>	1.75%	0.83%	0.08%	0.02%	0.00%	92.88%	4.44%

*Appendix C    Modeling Data*

## C.1 Consumer Costs

### C.1.1 Trucking Costs

**Table C-1 Trucking Cost of Congestion, by Region 60% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$740,261,085	\$1,128,864,080	\$1,658,555,349
<i>Southwest</i>	\$725,935,449	\$1,077,990,098	\$1,587,347,733
<i>Central Basin</i>	\$555,069,633	\$857,889,200	\$1,146,766,281
<i>Northeast</i>	\$471,039,790	\$708,177,527	\$986,169,773
<i>Southeast</i>	\$182,745,752	\$276,634,353	\$388,427,990
<i>Puget Sound</i>	\$6,701,911,306	\$10,361,148,292	\$12,741,999,972
<i>State</i>	\$8,214,008,629	\$12,607,837,131	\$17,737,427,700

**Table C-2 Trucking Cost of Congestion, by Region 80% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$987,014,780	\$1,505,152,106	\$2,211,407,132
<i>Southwest</i>	\$967,913,932	\$1,437,320,130	\$2,116,463,644
<i>Central Basin</i>	\$740,092,843	\$1,143,852,267	\$1,529,021,708
<i>Northeast</i>	\$628,053,054	\$944,236,703	\$1,314,893,030
<i>Southeast</i>	\$243,661,002	\$368,845,804	\$517,903,986
<i>Puget Sound</i>	\$8,935,881,741	\$13,814,864,389	\$16,989,333,295
<i>State</i>	\$10,952,011,505	\$16,810,449,508	\$23,649,903,600

C.1.2 Inventory Costs

**Table C-3 Inventory Cost of Congestion, by Region 60% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$46,690,256	\$55,090,659	\$73,620,697
<i>Southwest</i>	\$38,609,958	\$45,896,773	\$61,517,714
<i>Central Basin</i>	\$33,883,197	\$39,341,762	\$51,726,181
<i>Northeast</i>	\$27,918,577	\$32,134,273	\$41,981,125
<i>Southeast</i>	\$10,816,282	\$12,817,850	\$17,105,129
<i>Puget Sound</i>	\$350,335,520	\$413,489,678	\$551,169,197
<i>State</i>	\$506,880,742	\$596,880,304	\$794,343,709

**Table C-4 Inventory Cost of Congestion, by Region 80% Cost Realization.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	\$62,253,674	\$73,454,213	\$98,160,930
<i>Southwest</i>	\$51,479,945	\$61,195,697	\$82,023,619
<i>Central Basin</i>	\$45,177,596	\$52,455,682	\$68,968,241
<i>Northeast</i>	\$37,224,770	\$42,845,697	\$55,974,834
<i>Southeast</i>	\$14,421,710	\$17,090,467	\$22,806,838
<i>Puget Sound</i>	\$467,114,026	\$551,319,570	\$734,892,263
<i>State</i>	\$675,840,989	\$795,840,405	\$1,059,124,946

C.1.3 Consumer Cost Percentages

**Table C-5 Trucking Consumer Cost as Percentage of Total Consumer Cost.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	94.07%	95.35%	95.75%
<i>Southwest</i>	94.95%	95.92%	96.27%
<i>Central Basin</i>	94.25%	95.62%	95.68%
<i>Northeast</i>	94.40%	95.66%	95.92%
<i>Southeast</i>	94.41%	95.57%	95.78%
<i>Puget Sound</i>	95.03%	96.16%	95.85%
<i>State</i>	94.19%	95.48%	95.71%

**Table C-6 Inventory Consumer Cost as Percentage of Total Consumer Cost.**

<i>Region</i>	<b>Congestion Level</b>		
	<b>20%</b>	<b>30%</b>	<b>40%</b>
<i>Northwest</i>	5.93%	4.65%	4.25%
<i>Southwest</i>	5.05%	4.08%	3.73%
<i>Central Basin</i>	5.75%	4.38%	4.32%
<i>Northeast</i>	5.60%	4.34%	4.08%
<i>Southeast</i>	5.59%	4.43%	4.22%
<i>Puget Sound</i>	4.97%	3.84%	4.15%
<i>State</i>	5.81%	4.52%	4.29%

## C.2 Societal Benefits

**Table C-7 Total Societal Benefits from Congestion, by Region and State 60% Cost Realization.**

<b>Congestion Level</b>	<b>Expense</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
20%	<i>Trucking Inputs</i>	\$516,668,549	\$449,287,029	\$329,306,793	\$306,731,134	\$129,150,948	\$4,238,155,185	\$5,249,724,341
20%	<i>Trucking Wages</i>	\$291,739,597	\$253,692,269	\$185,944,802	\$173,197,338	\$72,925,758	\$2,393,096,476	\$2,964,284,287
20%	<i>Capital</i>	\$11,651,887	\$7,934,729	\$6,711,908	\$6,168,200	\$2,463,102	\$73,059,432	\$107,697,525
20%	<i>Insurance</i>	\$4,010,613	\$2,731,157	\$2,310,258	\$2,123,112	\$847,807	\$25,147,268	\$37,069,800
20%	<i>Warehousing</i>	\$4,924,222	\$4,072,028	\$3,573,517	\$2,944,454	\$1,140,747	\$36,948,396	\$53,458,554
20%	<i>Inventory Wages</i>	\$10,782,969	\$8,916,850	\$7,825,219	\$6,447,708	\$2,497,987	\$80,908,896	\$117,062,527
20%	<i>Taxes</i>	\$7,556,840	\$5,146,074	\$4,353,013	\$4,000,390	\$1,597,447	\$47,382,748	\$69,847,308
20%	<i>Loss</i>	\$13,129,482	\$8,940,945	\$7,563,056	\$6,950,399	\$2,775,452	\$82,324,215	\$121,354,820
30%	<i>Trucking Inputs</i>	\$801,811,821	\$661,989,347	\$503,160,463	\$462,797,905	\$193,048,924	\$6,550,930,134	\$8,057,901,138
30%	<i>Trucking Wages</i>	\$452,747,236	\$373,795,745	\$284,112,185	\$261,321,256	\$109,006,084	\$3,699,016,939	\$4,549,935,993
30%	<i>Capital</i>	\$14,541,699	\$9,517,890	\$7,901,921	\$7,124,393	\$2,950,726	\$85,184,922	\$126,819,834
30%	<i>Insurance</i>	\$5,005,295	\$3,276,085	\$2,719,864	\$2,452,237	\$1,015,648	\$29,320,897	\$43,651,754
30%	<i>Warehousing</i>	\$5,810,177	\$4,840,537	\$4,149,208	\$3,389,065	\$1,351,844	\$43,608,996	\$62,950,425
30%	<i>Inventory Wages</i>	\$12,723,016	\$10,599,717	\$9,085,857	\$7,421,310	\$2,960,242	\$95,494,152	\$137,847,645
30%	<i>Taxes</i>	\$9,431,029	\$6,172,834	\$5,124,797	\$4,620,530	\$1,913,695	\$55,246,743	\$82,249,095
30%	<i>Loss</i>	\$16,385,755	\$10,724,868	\$8,903,976	\$8,027,849	\$3,324,912	\$95,987,358	\$142,902,059
40%	<i>Trucking Inputs</i>	\$1,292,714,628	\$999,926,357	\$689,839,511	\$646,827,899	\$278,073,506	\$7,875,469,460	\$11,336,317,036
40%	<i>Trucking Wages</i>	\$729,938,071	\$564,613,643	\$389,521,485	\$365,234,754	\$157,015,658	\$4,446,924,992	\$6,401,110,664
40%	<i>Capital</i>	\$20,371,962	\$12,868,794	\$10,536,010	\$9,342,249	\$3,968,320	\$112,277,663	\$168,775,107
40%	<i>Insurance</i>	\$7,012,088	\$4,429,476	\$3,626,525	\$3,215,629	\$1,365,907	\$38,646,297	\$58,092,881
40%	<i>Warehousing</i>	\$7,764,462	\$6,488,011	\$5,455,340	\$4,427,571	\$1,804,005	\$58,129,469	\$83,776,049
40%	<i>Inventory Wages</i>	\$17,002,471	\$14,207,324	\$11,946,000	\$9,695,410	\$3,950,376	\$127,290,808	\$183,451,203
40%	<i>Taxes</i>	\$13,212,251	\$8,346,066	\$6,833,137	\$6,058,922	\$2,573,657	\$72,817,759	\$109,459,218
40%	<i>Loss</i>	\$22,955,363	\$14,500,706	\$11,872,098	\$10,526,954	\$4,471,549	\$126,515,772	\$190,177,747

**Table C-8 Total Societal Benefits from Congestion, by Region and State 80% Cost Realization.**

<b>Congestion Level</b>	<b>Expense</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
20%	<i>Trucking Inputs</i>	\$688,891,399	\$599,049,372	\$439,075,724	\$408,974,846	\$172,201,265	\$5,650,873,580	\$6,999,632,455
20%	<i>Trucking Wages</i>	\$388,986,129	\$338,256,359	\$247,926,402	\$230,929,784	\$97,234,344	\$3,190,795,302	\$3,952,379,050
20%	<i>Capital</i>	\$15,535,850	\$10,579,639	\$8,949,211	\$8,224,266	\$3,284,136	\$97,412,576	\$143,596,700
20%	<i>Insurance</i>	\$5,347,484	\$3,641,542	\$3,080,344	\$2,830,816	\$1,130,409	\$33,529,691	\$49,426,400
20%	<i>Warehousing</i>	\$6,565,630	\$5,429,371	\$4,764,689	\$3,925,938	\$1,520,996	\$49,264,528	\$71,278,072
20%	<i>Inventory Wages</i>	\$14,377,292	\$11,889,133	\$10,433,625	\$8,596,945	\$3,330,649	\$107,878,528	\$156,083,369
20%	<i>Taxes</i>	\$10,075,786	\$6,861,432	\$5,804,017	\$5,333,854	\$2,129,929	\$63,176,997	\$93,129,744
20%	<i>Loss</i>	\$17,505,975	\$11,921,259	\$10,084,075	\$9,267,199	\$3,700,603	\$109,765,620	\$161,806,426
30%	<i>Trucking Inputs</i>	\$1,069,082,429	\$882,652,462	\$670,880,617	\$617,063,873	\$257,398,565	\$8,734,573,512	\$10,743,868,184
30%	<i>Trucking Wages</i>	\$603,662,981	\$498,394,326	\$378,816,247	\$348,428,341	\$145,341,445	\$4,932,022,586	\$6,066,581,324
30%	<i>Capital</i>	\$19,388,932	\$12,690,519	\$10,535,895	\$9,499,191	\$3,934,301	\$113,579,897	\$169,093,111
30%	<i>Insurance</i>	\$6,673,727	\$4,368,114	\$3,626,486	\$3,269,649	\$1,354,198	\$39,094,530	\$58,202,339
30%	<i>Warehousing</i>	\$7,746,903	\$6,454,050	\$5,532,278	\$4,518,753	\$1,802,459	\$58,145,328	\$83,933,900
30%	<i>Inventory Wages</i>	\$16,964,021	\$14,132,955	\$12,114,476	\$9,895,080	\$3,946,990	\$127,325,536	\$183,796,860
30%	<i>Taxes</i>	\$12,574,706	\$8,230,446	\$6,833,062	\$6,160,707	\$2,551,594	\$73,662,324	\$109,665,460
30%	<i>Loss</i>	\$21,847,673	\$14,299,824	\$11,871,968	\$10,703,798	\$4,433,216	\$127,983,144	\$190,536,079
40%	<i>Trucking Inputs</i>	\$1,723,619,504	\$1,333,235,142	\$919,786,014	\$862,437,199	\$370,764,675	\$10,500,625,947	\$15,115,089,381
40%	<i>Trucking Wages</i>	\$973,250,761	\$752,818,191	\$519,361,980	\$486,979,672	\$209,354,211	\$5,929,233,323	\$8,534,814,219
40%	<i>Capital</i>	\$27,162,616	\$17,158,392	\$14,048,014	\$12,456,332	\$5,291,093	\$149,703,550	\$225,033,476
40%	<i>Insurance</i>	\$9,349,451	\$5,905,968	\$4,835,367	\$4,287,506	\$1,821,210	\$51,528,396	\$77,457,175
40%	<i>Warehousing</i>	\$10,352,615	\$8,650,682	\$7,273,787	\$5,903,427	\$2,405,340	\$77,505,958	\$111,701,399
40%	<i>Inventory Wages</i>	\$22,669,961	\$18,943,099	\$15,928,000	\$12,927,213	\$5,267,168	\$169,721,077	\$244,601,604
40%	<i>Taxes</i>	\$17,616,334	\$11,128,088	\$9,110,849	\$8,078,563	\$3,431,542	\$97,090,346	\$145,945,624
40%	<i>Loss</i>	\$30,607,150	\$19,334,275	\$15,829,465	\$14,035,939	\$5,962,065	\$168,687,696	\$253,570,330

### C.3 Consumer Cost Spending Patterns

**Table C-9 Consumer Cost Spending Pattern.**

<i>Sector</i>	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Electricity, and distribution services</i>	0.02710	0.02716	0.02764	0.02771	0.02793	0.02607	0.02665
<i>Natural gas, and distribution services</i>	0.00602	0.00603	0.00611	0.00613	0.00616	0.00586	0.00595
<i>Water, sewage treatment, and other utility services</i>	0.00874	0.00875	0.00883	0.00884	0.00887	0.00854	0.00865
<i>Newspapers</i>	0.00223	0.00224	0.00221	0.00221	0.00220	0.00226	0.00224
<i>Periodicals</i>	0.00146	0.00146	0.00144	0.00144	0.00143	0.00147	0.00146
<i>Books</i>	0.00280	0.00280	0.00279	0.00279	0.00279	0.00280	0.00280
<i>Directories and mailing lists</i>	0.00048	0.00048	0.00047	0.00047	0.00047	0.00049	0.00048
<i>Software</i>	0.00065	0.00065	0.00064	0.00064	0.00064	0.00066	0.00066
<i>Motion pictures and videos</i>	0.00377	0.00377	0.00376	0.00376	0.00376	0.00381	0.00379
<i>Sound recordings</i>	0.00182	0.00182	0.00183	0.00183	0.00184	0.00180	0.00181
<i>Radio and television entertainment</i>	0.00089	0.00089	0.00087	0.00087	0.00087	0.00092	0.00090
<i>Telecommunications</i>	0.02555	0.02562	0.02595	0.02599	0.02620	0.02490	0.02529
<i>Data processing- hosting- ISP- web search portals</i>	0.00651	0.00652	0.00627	0.00622	0.00610	0.00693	0.00669
<i>Other information services</i>	0.00179	0.00178	0.00175	0.00175	0.00173	0.00182	0.00180
<i>Monetary authorities and depository credit intermediation services</i>	0.02481	0.02488	0.02467	0.02466	0.02462	0.02474	0.02474
<i>Nondepository credit intermediation and related services</i>	0.00265	0.00265	0.00258	0.00258	0.00254	0.00268	0.00265
<i>Securities, commodity contracts, investments, and related services</i>	0.02340	0.02347	0.02277	0.02269	0.02226	0.02384	0.02350
<i>Insurance</i>	0.04422	0.04410	0.04283	0.04265	0.04190	0.04634	0.04506
<i>Funds, trusts, and other financial services</i>	0.01095	0.01086	0.01008	0.00996	0.00954	0.01240	0.01155

<i>Sector</i>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Real estate buying and selling, leasing, managing, and related services</i>	0.07758	0.07800	0.08036	0.08074	0.08217	0.07250	0.07544
<i>Imputed rental services of owner-occupied dwellings</i>	0.16020	0.15969	0.15668	0.15607	0.15435	0.16740	0.16333
<i>Automotive equipment rental and leasing services</i>	0.00608	0.00608	0.00604	0.00604	0.00603	0.00617	0.00612
<i>General and consumer goods rental services except video tapes and discs</i>	0.00140	0.00139	0.00141	0.00141	0.00141	0.00139	0.00139
<i>Video tape and disc rental services</i>	0.00105	0.00105	0.00103	0.00103	0.00102	0.00108	0.00106
<i>Commercial and industrial machinery and equipment rental and leasing services</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Legal services</i>	0.01489	0.01487	0.01486	0.01488	0.01475	0.01478	0.01482
<i>Accounting, tax preparation, bookkeeping, and payroll services</i>	0.00158	0.00158	0.00153	0.00152	0.00149	0.00161	0.00158
<i>Specialized design services</i>	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021
<i>Scientific research and development services</i>	0.00048	0.00049	0.00045	0.00045	0.00043	0.00052	0.00049
<i>Advertising and related services</i>	0.00012	0.00012	0.00012	0.00012	0.00011	0.00012	0.00012
<i>Photographic services</i>	0.00057	0.00057	0.00056	0.00056	0.00056	0.00059	0.00058
<i>Veterinary services</i>	0.00333	0.00333	0.00327	0.00327	0.00324	0.00343	0.00337
<i>Employment services</i>	0.00008	0.00008	0.00008	0.00008	0.00008	0.00009	0.00008
<i>Travel arrangement and reservation services</i>	0.00108	0.00108	0.00103	0.00103	0.00100	0.00114	0.00110
<i>Business support services</i>	0.00061	0.00061	0.00060	0.00060	0.00059	0.00061	0.00061
<i>Investigation and security services</i>	0.00103	0.00103	0.00104	0.00104	0.00104	0.00102	0.00103
<i>Services to buildings and dwellings</i>	0.00090	0.00090	0.00090	0.00090	0.00090	0.00092	0.00091
<i>Other support services</i>	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
<i>Elementary and secondary education</i>	0.00469	0.00463	0.00443	0.00439	0.00431	0.00524	0.00493

<i>Sector</i>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>from private schools</i>							
<i>Education from private junior colleges, colleges, universities, and professional schools</i>	0.03121	0.03129	0.03367	0.03390	0.03567	0.02937	0.03078
<i>Other private educational services</i>	0.00732	0.00736	0.00698	0.00697	0.00681	0.00768	0.00745
<i>Offices of physicians, dentists, and other health practitioners</i>	0.08277	0.08286	0.08246	0.08242	0.08228	0.08266	0.08264
<i>Home health care services</i>	0.01300	0.01298	0.01332	0.01333	0.01348	0.01265	0.01288
<i>Medical and diagnostic labs and outpatient and other ambulatory care services</i>	0.02960	0.02955	0.03021	0.03022	0.03053	0.02888	0.02933
<i>Private hospital services</i>	0.11125	0.11128	0.11246	0.11262	0.11290	0.10833	0.10989
<i>Nursing and residential care services</i>	0.02160	0.02156	0.02159	0.02168	0.02146	0.02111	0.02132
<i>Child day care services</i>	0.00775	0.00772	0.00753	0.00754	0.00739	0.00790	0.00778
<i>Individual and family services</i>	0.00943	0.00941	0.00919	0.00921	0.00902	0.00952	0.00942
<i>Community food, housing, and other relief services, including rehabilitation services</i>	0.00347	0.00346	0.00339	0.00339	0.00333	0.00350	0.00347
<i>Performing arts</i>	0.00120	0.00120	0.00118	0.00118	0.00117	0.00123	0.00121
<i>Spectator sports</i>	0.00192	0.00192	0.00190	0.00190	0.00187	0.00193	0.00192
<i>Promotional services for performing arts and sports and public figures</i>	0.00159	0.00159	0.00156	0.00156	0.00155	0.00166	0.00162
<i>Independent artists, writers, and performers</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Museum, heritage, zoo, and recreational services</i>	0.00194	0.00194	0.00190	0.00190	0.00186	0.00196	0.00194
<i>Fitness and recreational sports center services</i>	0.00269	0.00269	0.00273	0.00273	0.00276	0.00265	0.00268
<i>Bowling activities</i>	0.00030	0.00030	0.00029	0.00029	0.00029	0.00032	0.00031
<i>Amusement parks, arcades, and</i>	0.01863	0.01859	0.01859	0.01860	0.01858	0.01876	0.01869

<i>Sector</i>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>gambling recreation</i>							
<i>Other amusements and recreation</i>	0.00833	0.00832	0.00831	0.00831	0.00829	0.00840	0.00837
<i>Hotels and motel services, including casino hotels</i>	0.00925	0.00924	0.00952	0.00955	0.00978	0.00921	0.00930
<i>Other accommodation services</i>	0.00276	0.00276	0.00283	0.00284	0.00291	0.00276	0.00278
<i>Restaurant, bar, and drinking place services</i>	0.06595	0.06602	0.06501	0.06487	0.06452	0.06754	0.06663
<i>Automotive repair and maintenance services, except car washes</i>	0.01282	0.01281	0.01274	0.01273	0.01271	0.01300	0.01290
<i>Car wash services</i>	0.00147	0.00147	0.00146	0.00146	0.00146	0.00149	0.00148
<i>Electronic and precision equipment repairs and maintenance</i>	0.00111	0.00111	0.00112	0.00112	0.00113	0.00110	0.00111
<i>Personal and household goods repairs and maintenance</i>	0.00214	0.00213	0.00213	0.00213	0.00213	0.00216	0.00215
<i>Personal care services</i>	0.00835	0.00835	0.00845	0.00847	0.00853	0.00821	0.00830
<i>Death care services</i>	0.00297	0.00298	0.00314	0.00316	0.00325	0.00270	0.00286
<i>Dry-cleaning and laundry services</i>	0.00193	0.00192	0.00194	0.00194	0.00196	0.00195	0.00194
<i>Other personal services</i>	0.00915	0.00914	0.00913	0.00913	0.00915	0.00924	0.00920
<i>Services from religious organizations</i>	0.01008	0.01006	0.00982	0.00984	0.00964	0.01017	0.01007
<i>Grantmaking, giving, and social advocacy services</i>	0.00515	0.00514	0.00501	0.00502	0.00492	0.00520	0.00514
<i>Civic, social, and professional services</i>	0.00629	0.00628	0.00618	0.00618	0.00612	0.00638	0.00632
<i>Cooking, housecleaning, gardening, and other services to private households</i>	0.00248	0.00246	0.00246	0.00246	0.00244	0.00256	0.00252
<i>US Postal delivery services</i>	0.00132	0.00131	0.00133	0.00133	0.00133	0.00131	0.00131
<i>Products &amp; services of State &amp; Local Govt enterprises (except electric</i>	0.00674	0.00674	0.00673	0.00673	0.00672	0.00676	0.00675

<i>Sector</i>	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>utilities)</i>							
<i>Used and secondhand goods</i>	0.00688	0.00689	0.00694	0.00694	0.00695	0.00680	0.00685
<i>Rest of the world adjustment</i>	0.01730	0.01739	0.01852	0.01868	0.01937	0.01565	0.01668

## C.4 Societal Benefit Spending Patterns

**Table C-10 Capital Spending Pattern.**

Sector	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Monetary authorities and depository credit intermediation services</i>	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

**Table C-11 Insurance Spending Pattern.**

Sector	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Insurance</i>	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000	1.00000

**Table C-12 Wages Spending Pattern.**

Sector	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Employee Compensation</i>	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

**Table C-13 Warehousing Spending Pattern.**

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
<i>Oil and natural gas</i>	0.00002	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030
<i>Coal</i>	0.00006	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
<i>Electricity, and distribution services</i>	0.00002	0.01470	0.01470	0.01470	0.01470	0.01470	0.01470
<i>Natural gas, and distribution services</i>	0.00007	0.00146	0.00146	0.00146	0.00146	0.00146	0.00146
<i>Water, sewage treatment, and other utility services</i>	0.00058	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054
<i>Maintained and repaired nonresidential structures</i>	0.00007	0.00238	0.00238	0.00238	0.00238	0.00238	0.00238
<i>Textile bags and canvas</i>	0.00005	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>All other textile products</i>	0.00181	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Wood windows and doors and millwork</i>	0.00001	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Wood containers and pallets</i>	0.00010	0.00048	0.00048	0.00048	0.00048	0.00048	0.00048
<i>All other miscellaneous wood products</i>	0.00312	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
<i>Paper from pulp</i>	0.00707	0.00030	0.00030	0.00030	0.00030	0.00030	0.00030
<i>Paperboard from pulp</i>	0.02355	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
<i>Paperboard containers</i>	0.00001	0.00109	0.00109	0.00109	0.00109	0.00109	0.00109
<i>Coated and laminated paper, packaging paper and plastics film</i>	0.00026	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
<i>All other paper bag and coated and treated paper</i>	0.00004	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
<i>Printed materials</i>	0.00000	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011
<i>Refined petroleum products</i>	0.00001	0.00810	0.00810	0.00810	0.00810	0.00810	0.00810

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							0
<i>Petroleum lubricating oils and greases</i>	0.00435	0.00016	0.00016	0.00016	0.00016	0.00016	0.00016
							6
<i>Other basic organic chemicals</i>	0.00038	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Paints and coatings</i>	0.00017	0.00031	0.00031	0.00031	0.00031	0.00031	0.00031
							1
<i>Soaps and cleaning compounds</i>	0.00249	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>All other chemical products and preparations</i>	0.00012	0.00221	0.00221	0.00221	0.00221	0.00221	0.00221
							1
<i>Plastics packaging materials and unlaminated films and sheets</i>	0.00063	0.00018	0.00018	0.00018	0.00018	0.00018	0.00018
							8
<i>Polystyrene foam products</i>	0.00396	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Urethane and other foam products (except polystyrene)</i>	0.03403	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Other plastics products</i>	0.00153	0.00098	0.00098	0.00098	0.00098	0.00098	0.00098
							8
<i>Tires</i>	0.00041	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021
							1
<i>Glass containers</i>	0.00094	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
							4
<i>Abrasive products</i>	0.00041	0.00024	0.00024	0.00024	0.00024	0.00024	0.00024
							4
<i>All other forged, stamped, and sintered metals</i>	0.00204	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>Handtools</i>	0.00279	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
							2
<i>Metal cans, boxes, and other metal containers (light gauge)</i>	0.00051	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Arms, ordnance, and accessories</i>	0.00015	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>Hardware</i>	0.00063	0.00013	0.00013	0.00013	0.00013	0.00013	0.00013
							3
<i>Spring and wire products</i>	0.00161	0.00029	0.00029	0.00029	0.00029	0.00029	0.00029
							0.00029

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							9
							0.0002
							6
							0.0002
							0
							0.0001
							5
							0.0002
							4
							0.0000
							5
							0.0004
							9
							0.0001
							7
							0.0000
							4
							0.0000
							7
							0.0000
							0
							0.0001
							3
							0.0002
							1
							0.0001
							4
							0.0000
							6
							0.0021
							5
							0.0004
							3
							0.0002
							8
							0.0000

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							2
<i>Broadcast and wireless communications equipment</i>	0.00000	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Other communications equipment</i>	0.00000	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
							5
<i>Audio and video equipment</i>	0.00054	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>Other electronic components</i>	0.00070	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
							0
<i>Magnetic and optical recording media</i>	0.00091	0.00073	0.00073	0.00073	0.00073	0.00073	0.00073
							3
<i>Electric lamp bulbs and parts</i>	0.00006	0.00022	0.00022	0.00022	0.00022	0.00022	0.00022
							2
<i>Power, distribution, and specialty transformers</i>	0.00131	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
							0
<i>Motor and generators</i>	0.00208	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015
							5
<i>Relay and industrial controls</i>	0.00041	0.00173	0.00173	0.00173	0.00173	0.00173	0.00173
							3
<i>Motor vehicle parts</i>	0.00112	0.00570	0.00570	0.00570	0.00570	0.00570	0.00570
							0
<i>Sporting and athletic goods</i>	0.00035	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
							0
<i>Office supplies (except paper)</i>	0.00428	0.00049	0.00049	0.00049	0.00049	0.00049	0.00049
							9
<i>Gaskets, packing and sealing devices</i>	0.00052	0.00035	0.00035	0.00035	0.00035	0.00035	0.00035
							5
<i>All other miscellaneous manufactured products</i>	0.00016	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>Wholesale trade distribution services</i>	0.00030	0.00510	0.00510	0.00510	0.00510	0.00510	0.00510
							0
<i>Retail Services - Motor vehicle and parts OR BEA ALL RETAIL</i>	0.00004	0.00008	0.00008	0.00008	0.00008	0.00008	0.00008
							8
<i>Retail Services - Furniture and home furnishings</i>	0.01469	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Retail Services - Electronics and appliances</i>	0.00146	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							0.0000

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							2
<i>Retail Services - Building material and garden supply</i>	0.00054	0.00004	0.00004	0.00004	0.00004	0.00004	0.00004
							4
<i>Retail Services - Food and beverage</i>	0.00238	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
							6
<i>Retail Services - Health and personal care</i>	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
							3
<i>Retail Services - Gasoline stations</i>	0.00001	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
							3
<i>Retail Services - Clothing and clothing accessories</i>	0.00000	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
							3
<i>Retail Services - Sporting goods, hobby, book and music</i>	0.00048	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Retail Services - General merchandise</i>	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
							6
<i>Retail Services - Miscellaneous</i>	0.00030	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
							2
<i>Retail Services - Nonstore, direct and electronic sales</i>	0.00004	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
							7
<i>Air transportation services</i>	0.00109	0.00058	0.00058	0.00058	0.00058	0.00058	0.00058
							8
<i>Rail transportation services</i>	0.00005	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
							7
<i>Water transportation services</i>	0.00010	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
							5
<i>Truck transportation services</i>	0.00011	0.00181	0.00181	0.00181	0.00181	0.00181	0.00181
							1
<i>Transit and ground passenger transportation services</i>	0.00810	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
							1
<i>Pipeline transportation services</i>	0.00016	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
							0
<i>Scenic and sightseeing transportation services and support activities for transportation</i>	0.00002	0.00312	0.00312	0.00312	0.00312	0.00312	0.00312
							2
<i>Couriers and messengers services</i>	0.00031	0.00707	0.00707	0.00707	0.00707	0.00707	0.00707
							7
<i>Warehousing and storage services</i>	0.00001	0.02355	0.02355	0.02355	0.02355	0.02355	0.02355

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							5
							0.0000
<i>Newspapers</i>	0.00221	0.00001	0.00001	0.00001	0.00001	0.00001	1
							0.0002
<i>Periodicals</i>	0.00018	0.00026	0.00026	0.00026	0.00026	0.00026	6
							0.0000
<i>Books</i>	0.00002	0.00004	0.00004	0.00004	0.00004	0.00004	4
							0.0000
<i>Directories and mailing lists</i>	0.00002	0.00000	0.00000	0.00000	0.00000	0.00000	0
							0.0000
<i>Motion pictures and videos</i>	0.00098	0.00001	0.00001	0.00001	0.00001	0.00001	1
							0.0043
<i>Telecommunications</i>	0.00021	0.00435	0.00435	0.00435	0.00435	0.00435	5
							0.0003
<i>Data processing- hosting- ISP- web search portals</i>	0.00004	0.00038	0.00038	0.00038	0.00038	0.00038	8
							0.0001
<i>Other information services</i>	0.00024	0.00017	0.00017	0.00017	0.00017	0.00017	7
							0.0024
<i>Monetary authorities and depository credit intermediation services</i>	0.00001	0.00249	0.00249	0.00249	0.00249	0.00249	9
							0.0001
<i>Nondepository credit intermediation and related services</i>	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012	2
							0.0006
<i>Securities, commodity contracts, investments, and related services</i>	0.00002	0.00063	0.00063	0.00063	0.00063	0.00063	3
							0.0039
<i>Insurance</i>	0.00001	0.00396	0.00396	0.00396	0.00396	0.00396	6
							0.0340
<i>Real estate buying and selling, leasing, managing, and related services</i>	0.00013	0.03404	0.03404	0.03403	0.03404	0.03404	4
							0.0015
<i>Automotive equipment rental and leasing services</i>	0.00029	0.00153	0.00153	0.00153	0.00153	0.00153	3
							0.0004
<i>General and consumer goods rental services except video tapes and discs</i>	0.00026	0.00041	0.00041	0.00041	0.00041	0.00041	1
							0.0009
<i>Commercial and industrial machinery and equipment rental and leasing services</i>	0.00020	0.00094	0.00094	0.00094	0.00094	0.00094	4
							0.0004
<i>Leasing of nonfinancial intangible assets</i>	0.00015	0.00041	0.00041	0.00041	0.00041	0.00041	1
							0.0020
<i>Legal services</i>	0.00024	0.00204	0.00204	0.00204	0.00204	0.00204	0.0020

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							4
<i>Accounting, tax preparation, bookkeeping, and payroll services</i>	0.00005	0.00279	0.00279	0.00279	0.00279	0.00279	0.00279
<i>Architectural, engineering, and related services</i>	0.00049	0.00051	0.00051	0.00051	0.00051	0.00051	0.00051
<i>Specialized design services</i>	0.00017	0.00015	0.00015	0.00015	0.00015	0.00015	0.00015
<i>Computer systems design services</i>	0.00004	0.00063	0.00063	0.00063	0.00063	0.00063	0.00063
<i>Other computer related services, including facilities management</i>	0.00007	0.00161	0.00161	0.00161	0.00161	0.00161	0.00161
<i>Management, scientific, and technical consulting services</i>	0.00000	0.00314	0.00314	0.00314	0.00314	0.00314	0.00314
<i>Environmental and other technical consulting services</i>	0.00013	0.00048	0.00048	0.00048	0.00048	0.00048	0.00048
<i>Scientific research and development services</i>	0.00021	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Advertising and related services</i>	0.00014	0.00280	0.00280	0.00280	0.00280	0.00280	0.00280
<i>All other miscellaneous professional, scientific, and technical services</i>	0.00006	0.00159	0.00159	0.00159	0.00159	0.00159	0.00159
<i>Management of companies and enterprises</i>	0.00215	0.00571	0.00571	0.00571	0.00571	0.00571	0.00571
<i>Employment services</i>	0.00043	0.00667	0.00667	0.00667	0.00667	0.00667	0.00667
<i>Travel arrangement and reservation services</i>	0.00028	0.00020	0.00021	0.00020	0.00020	0.00020	0.00020
<i>Office administrative services</i>	0.00002	0.00217	0.00217	0.00217	0.00217	0.00217	0.00217
<i>Facilities support services</i>	0.00002	0.00021	0.00021	0.00021	0.00021	0.00021	0.00021
<i>Business support services</i>	0.00005	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112
<i>Investigation and security services</i>	0.00001	0.00073	0.00073	0.00073	0.00073	0.00073	0.00073
<i>Services to buildings and dwellings</i>	0.00000	0.00411	0.00411	0.00411	0.00411	0.00411	0.00411

<b>Sector</b>	<b>Northwes t</b>	<b>Southwes t</b>	<b>Central Basin</b>	<b>Northeas t</b>	<b>Southeas t</b>	<b>Puget Sound</b>	<b>State</b>
							1
<i>Other support services</i>	0.00073	0.00421	0.00421	0.00421	0.00421	0.00421	0.00421
<i>Waste management and remediation services</i>	0.00022	0.00150	0.00150	0.00150	0.00150	0.00150	0.00150
<i>Spectator sports</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Promotional services for performing arts and sports and public figures</i>	0.00015	0.00053	0.00053	0.00053	0.00053	0.00053	0.00053
<i>Independent artists, writers, and performers</i>	0.00173	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Fitness and recreational sports center services</i>	0.00570	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Other amusements and recreation</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Hotels and motel services, including casino hotels</i>	0.00049	0.00054	0.00054	0.00054	0.00054	0.00054	0.00054
<i>Restaurant, bar, and drinking place services</i>	0.00035	0.00070	0.00070	0.00070	0.00070	0.00070	0.00070
<i>Automotive repair and maintenance services, except car washes</i>	0.00001	0.00091	0.00091	0.00091	0.00091	0.00091	0.00091
<i>Car wash services</i>	0.00510	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
<i>Electronic and precision equipment repairs and maintenance</i>	0.00008	0.00131	0.00131	0.00131	0.00131	0.00131	0.00131
<i>Commercial and industrial machinery and equipment repairs and maintenance</i>	0.00002	0.00208	0.00208	0.00208	0.00208	0.00208	0.00208
<i>Personal and household goods repairs and maintenance</i>	0.00002	0.00041	0.00041	0.00041	0.00041	0.00041	0.00041
<i>Dry-cleaning and laundry services</i>	0.00004	0.00112	0.00112	0.00112	0.00112	0.00112	0.00112
<i>Civic, social, and professional services</i>	0.00006	0.00035	0.00035	0.00035	0.00035	0.00035	0.00035
<i>US Postal delivery services</i>	0.00003	0.00428	0.00428	0.00428	0.00428	0.00428	0.00428
<i>Products &amp; services of State &amp; Local Govt enterprises (except electric</i>	0.00003	0.00052	0.00052	0.00052	0.00052	0.00052	0.00052

Sector	Northwes t	Southwes t	Central Basin	Northeas t	Southeas t	Puget Sound	State
<i>utilities)</i>							2
<i>Used and secondhand goods</i>	0.00003	0.00016	0.00016	0.00016	0.00016	0.00016	0.0001 6

**Table C-14 Trucking Inputs Spending Pattern.**

Sector	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Oil and natural gas</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Electricity, and distribution services</i>	0.00214	0.00210	0.00217	0.00203	0.00211	0.00207	0.00209
<i>Natural gas, and distribution services</i>	0.00074	0.00072	0.00075	0.00070	0.00073	0.00071	0.00072
<i>Water, sewage treatment, and other utility services</i>	0.00022	0.00021	0.00022	0.00021	0.00022	0.00021	0.00021
<i>Maintained and repaired nonresidential structures</i>	0.00064	0.00063	0.00065	0.00061	0.00063	0.00062	0.00062
<i>Textile bags and canvas</i>	0.00003	0.00003	0.00003	0.00002	0.00003	0.00003	0.00003
<i>All other textile products</i>	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
<i>Wood containers and pallets</i>	0.00077	0.00075	0.00078	0.00073	0.00076	0.00074	0.00075
<i>Paper from pulp</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Paperboard from pulp</i>	0.00032	0.00031	0.00032	0.00030	0.00031	0.00031	0.00031
<i>Paperboard containers</i>	0.00046	0.00045	0.00047	0.00044	0.00045	0.00045	0.00045
<i>Coated and laminated paper, packaging paper and plastics film</i>	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007	0.00007
<i>All other paper bag and coated and treated paper</i>	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
<i>Printed materials</i>	0.00049	0.00048	0.00050	0.00046	0.00048	0.00047	0.00048
<i>Refined petroleum products</i>	0.16306	0.15957	0.16506	0.15458	0.16066	0.15779	0.15888
<i>Petroleum lubricating oils and greases</i>	0.00109	0.00107	0.00110	0.00103	0.00107	0.00105	0.00106
<i>Industrial gas</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Alkalies and chlorine</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>All other basic inorganic chemicals</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Other basic organic chemicals</i>	0.00025	0.00024	0.00025	0.00023	0.00024	0.00024	0.00024
<i>Paints and coatings</i>	0.00026	0.00025	0.00026	0.00025	0.00025	0.00025	0.00025
<i>Soaps and cleaning compounds</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>All other chemical products and preparations</i>	0.00069	0.00067	0.00069	0.00065	0.00068	0.00066	0.00067

Sector	Northwest	Southwest	Central Basin	Northeast	Southeast	Puget Sound	State
<i>Plastics packaging materials and unlaminated films and sheets</i>	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
<i>Polystyrene foam products</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Urethane and other foam products (except polystyrene)</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Other plastics products</i>	0.00267	0.00261	0.00270	0.00253	0.00263	0.00258	0.00260
<i>Tires</i>	0.00495	0.00485	0.00501	0.00469	0.00488	0.00479	0.00482
<i>Glass containers</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Glass products made of purchased glass</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Miscellaneous nonmetallic mineral products</i>	0.00010	0.00010	0.00010	0.00009	0.00010	0.00010	0.00010
<i>Handtools</i>	0.00028	0.00028	0.00029	0.00027	0.00028	0.00027	0.00027
<i>Metal cans, boxes, and other metal containers (light gauge)</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Hardware</i>	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011	0.00011
<i>Spring and wire products</i>	0.00048	0.00047	0.00048	0.00045	0.00047	0.00046	0.00047
<i>Machined products</i>	0.00153	0.00149	0.00155	0.00145	0.00151	0.00148	0.00149
<i>Turned products and screws, nuts, and bolts</i>	0.00057	0.00056	0.00058	0.00054	0.00057	0.00056	0.00056
<i>Coated, engraved, heat treated products</i>	0.00287	0.00281	0.00291	0.00272	0.00283	0.00278	0.00280
<i>Valves and fittings other than plumbing</i>	0.00072	0.00071	0.00073	0.00068	0.00071	0.00070	0.00070
<i>Other fabricated metals</i>	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
<i>Other commercial and service industry machinery</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Air conditioning, refrigeration, and warm air heating equipment</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Cutting tools and machine tool accessories</i>	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
<i>Other engine equipment</i>	0.00053	0.00052	0.00054	0.00051	0.00053	0.00052	0.00052
<i>Material handling equipment</i>	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009	0.00009
<i>Other general purpose machinery</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Computer storage devices</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Computer terminals and other computer peripheral equipment</i>	0.00067	0.00066	0.00068	0.00064	0.00066	0.00065	0.00065
<i>Telephone apparatus</i>	0.00005	0.00005	0.00005	0.00004	0.00005	0.00005	0.00005
<i>Broadcast and wireless communications equipment</i>	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
<i>Other communications equipment</i>	0.00011	0.00011	0.00012	0.00011	0.00011	0.00011	0.00011
<i>Audio and video equipment</i>	0.00001	0.00000	0.00001	0.00000	0.00000	0.00000	0.00000

<b>Sector</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Other electronic components</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Totalizing fluid meters and counting devices</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Electric lamp bulbs and parts</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Motor and generators</i>	0.00076	0.00075	0.00077	0.00072	0.00075	0.00074	0.00074
<i>Relay and industrial controls</i>	0.00020	0.00020	0.00020	0.00019	0.00020	0.00019	0.00020
<i>Storage batteries</i>	0.00007	0.00007	0.00007	0.00006	0.00007	0.00007	0.00007
<i>Communication and energy wires and cables</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Motor vehicle parts</i>	0.02117	0.02072	0.02143	0.02007	0.02086	0.02049	0.02063
<i>All other transportation equipment</i>	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003
<i>Gaskets, packing and sealing devices</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Wholesale trade distribution services</i>	0.01469	0.01438	0.01487	0.01393	0.01447	0.01421	0.01431
<i>Retail Services - Motor vehicle and parts OR BEA ALL RETAIL</i>	0.00149	0.00146	0.00151	0.00141	0.00147	0.00144	0.00145
<i>Retail Services - Furniture and home furnishings</i>	0.00036	0.00035	0.00037	0.00034	0.00036	0.00035	0.00035
<i>Retail Services - Electronics and appliances</i>	0.00040	0.00040	0.00041	0.00038	0.00040	0.00039	0.00039
<i>Retail Services - Building material and garden supply</i>	0.00077	0.00076	0.00078	0.00073	0.00076	0.00075	0.00075
<i>Retail Services - Food and beverage</i>	0.00114	0.00112	0.00116	0.00108	0.00113	0.00111	0.00111
<i>Retail Services - Health and personal care</i>	0.00048	0.00047	0.00048	0.00045	0.00047	0.00046	0.00047
<i>Retail Services - Gasoline stations</i>	0.00052	0.00051	0.00052	0.00049	0.00051	0.00050	0.00050
<i>Retail Services - Clothing and clothing accessories</i>	0.00064	0.00062	0.00064	0.00060	0.00063	0.00062	0.00062
<i>Retail Services - Sporting goods, hobby, book and music</i>	0.00028	0.00027	0.00028	0.00026	0.00028	0.00027	0.00027
<i>Retail Services - General merchandise</i>	0.00105	0.00103	0.00106	0.00099	0.00103	0.00101	0.00102
<i>Retail Services - Miscellaneous</i>	0.00043	0.00042	0.00043	0.00040	0.00042	0.00041	0.00041
<i>Retail Services - Nonstore, direct and electronic sales</i>	0.00124	0.00121	0.00126	0.00118	0.00122	0.00120	0.00121
<i>Air transportation services</i>	0.00278	0.00272	0.00281	0.00263	0.00274	0.00269	0.00271
<i>Rail transportation services</i>	0.01069	0.01046	0.01082	0.01013	0.01053	0.01034	0.01042
<i>Water transportation services</i>	0.00085	0.00083	0.00086	0.00080	0.00084	0.00082	0.00083
<i>Truck transportation services</i>	0.04242	0.04152	0.04295	0.04022	0.04180	0.04105	0.04134
<i>Transit and ground passenger transportation services</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Pipeline transportation services</i>	0.00220	0.00215	0.00223	0.00209	0.00217	0.00213	0.00214

<b>Sector</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Scenic and sightseeing transportation services and support activities for transportation</i>	0.01938	0.01896	0.01961	0.01837	0.01909	0.01875	0.01888
<i>Couriers and messengers services</i>	0.03727	0.03647	0.03772	0.03533	0.03672	0.03606	0.03631
<i>Warehousing and storage services</i>	0.00731	0.00716	0.00740	0.00693	0.00720	0.00707	0.00712
<i>Newspapers</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Periodicals</i>	0.00007	0.00007	0.00007	0.00006	0.00007	0.00007	0.00007
<i>Books</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Directories and mailing lists</i>	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
<i>Motion pictures and videos</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Internet publishing and broadcasting services</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Telecommunications</i>	0.00800	0.00783	0.00810	0.00758	0.00788	0.00774	0.00779
<i>Data processing- hosting- ISP- web search portals</i>	0.00037	0.00036	0.00038	0.00035	0.00037	0.00036	0.00036
<i>Other information services</i>	0.00038	0.00037	0.00038	0.00036	0.00037	0.00037	0.00037
<i>Monetary authorities and depository credit intermediation services</i>	0.00521	0.00510	0.00527	0.00494	0.00513	0.00504	0.00508
<i>Nondepository credit intermediation and related services</i>	0.00058	0.00057	0.00059	0.00055	0.00057	0.00056	0.00057
<i>Securities, commodity contracts, investments, and related services</i>	0.00166	0.00162	0.00168	0.00157	0.00163	0.00160	0.00161
<i>Insurance</i>	0.02615	0.02559	0.02648	0.02479	0.02577	0.02531	0.02548
<i>Insurance agencies, brokerages, and related services</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Real estate buying and selling, leasing, managing, and related services</i>	0.01190	0.01165	0.01205	0.01128	0.01173	0.01152	0.01160
<i>Automotive equipment rental and leasing services</i>	0.00021	0.00021	0.00021	0.00020	0.00021	0.00021	0.00021
<i>General and consumer goods rental services except video tapes and discs</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Commercial and industrial machinery and equipment rental and leasing services</i>	0.00013	0.00012	0.00013	0.00012	0.00013	0.00012	0.00012
<i>Leasing of nonfinancial intangible assets</i>	0.00216	0.00211	0.00218	0.00204	0.00212	0.00209	0.00210
<i>Legal services</i>	0.00218	0.00213	0.00220	0.00206	0.00214	0.00211	0.00212
<i>Accounting, tax preparation, bookkeeping, and payroll services</i>	0.00339	0.00332	0.00343	0.00321	0.00334	0.00328	0.00330
<i>Architectural, engineering, and related services</i>	0.00021	0.00021	0.00021	0.00020	0.00021	0.00021	0.00021
<i>Specialized design services</i>	0.00005	0.00005	0.00006	0.00005	0.00005	0.00005	0.00005
<i>Computer systems design services</i>	0.00051	0.00050	0.00052	0.00048	0.00050	0.00049	0.00050
<i>Other computer related services, including facilities management</i>	0.00223	0.00219	0.00226	0.00212	0.00220	0.00216	0.00218

<b>Sector</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Management, scientific, and technical consulting services</i>	0.00424	0.00415	0.00429	0.00402	0.00418	0.00410	0.00413
<i>Environmental and other technical consulting services</i>	0.00069	0.00067	0.00069	0.00065	0.00067	0.00066	0.00067
<i>Scientific research and development services</i>	0.00006	0.00005	0.00006	0.00005	0.00006	0.00005	0.00005
<i>Advertising and related services</i>	0.00213	0.00209	0.00216	0.00202	0.00210	0.00206	0.00208
<i>All other miscellaneous professional, scientific, and technical services</i>	0.00206	0.00201	0.00208	0.00195	0.00203	0.00199	0.00200
<i>Management of companies and enterprises</i>	0.00924	0.00904	0.00935	0.00876	0.00910	0.00894	0.00900
<i>Employment services</i>	0.02699	0.02641	0.02732	0.02559	0.02659	0.02612	0.02630
<i>Travel arrangement and reservation services</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Office administrative services</i>	0.00742	0.00726	0.00751	0.00703	0.00731	0.00718	0.00723
<i>Facilities support services</i>	0.00090	0.00088	0.00091	0.00085	0.00089	0.00087	0.00088
<i>Business support services</i>	0.00092	0.00090	0.00093	0.00087	0.00090	0.00089	0.00089
<i>Investigation and security services</i>	0.00244	0.00239	0.00247	0.00232	0.00241	0.00236	0.00238
<i>Services to buildings and dwellings</i>	0.00628	0.00614	0.00635	0.00595	0.00618	0.00607	0.00611
<i>Other support services</i>	0.00090	0.00088	0.00091	0.00085	0.00088	0.00087	0.00087
<i>Waste management and remediation services</i>	0.00048	0.00047	0.00049	0.00046	0.00047	0.00047	0.00047
<i>Performing arts</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Spectator sports</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Promotional services for performing arts and sports and public figures</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Independent artists, writers, and performers</i>	0.00007	0.00006	0.00007	0.00006	0.00007	0.00006	0.00006
<i>Fitness and recreational sports center services</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Other amusements and recreation</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Hotels and motel services, including casino hotels</i>	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
<i>Restaurant, bar, and drinking place services</i>	0.00075	0.00073	0.00076	0.00071	0.00074	0.00072	0.00073
<i>Automotive repair and maintenance services, except car washes</i>	0.00321	0.00314	0.00325	0.00304	0.00316	0.00310	0.00312
<i>Car wash services</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Electronic and precision equipment repairs and maintenance</i>	0.00063	0.00062	0.00064	0.00060	0.00062	0.00061	0.00062
<i>Commercial and industrial machinery and equipment repairs and maintenance</i>	0.00017	0.00016	0.00017	0.00016	0.00016	0.00016	0.00016
<i>Personal and household goods repairs and maintenance</i>	0.00123	0.00120	0.00124	0.00116	0.00121	0.00119	0.00120

<b>Sector</b>	<b>Northwest</b>	<b>Southwest</b>	<b>Central Basin</b>	<b>Northeast</b>	<b>Southeast</b>	<b>Puget Sound</b>	<b>State</b>
<i>Dry-cleaning and laundry services</i>	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012	0.00012
<i>Other personal services</i>	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
<i>Civic, social, and professional services</i>	0.00079	0.00077	0.00080	0.00075	0.00078	0.00076	0.00077
<i>US Postal delivery services</i>	0.02255	0.02206	0.02282	0.02137	0.02222	0.02182	0.02197
<i>Products &amp; services of State &amp; Local Govt enterprises (except electric utilities)</i>	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010	0.00010
<i>Used and secondhand goods</i>	0.00004	0.00003	0.00004	0.00003	0.00004	0.00003	0.00003

*Appendix D    Modeling Results*

## D.1 Impact Summary

### D.1.1 Central Basin

**Table D-1 Summary Impact, 20% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-2,861	-\$99,418,791	-\$205,798,081	-\$346,983,521
<i>Indirect Effect</i>	554	\$24,485,597	\$30,698,044	\$45,240,622
<i>Induced Effect</i>	514	\$18,068,965	\$33,634,548	\$57,299,946
<i>Total Effect</i>	-1,793	-\$56,864,228	-\$141,465,489	-\$244,442,954

**Table D-2 Summary Impact, 30% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-4,359	-\$151,458,005	-\$313,519,873	-\$528,606,621
<i>Indirect Effect</i>	835	\$36,783,653	\$45,512,859	\$66,979,667
<i>Induced Effect</i>	772	\$27,139,016	\$50,516,522	\$86,061,006
<i>Total Effect</i>	-2,752	-\$87,535,337	-\$217,490,491	-\$375,565,948

**Table D-3 Summary Impact, 40% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-5,822	-\$202,312,769	-\$418,789,840	-\$706,095,856
<i>Indirect Effect</i>	1,169	\$51,444,192	\$64,013,759	\$94,799,950
<i>Induced Effect</i>	1,085	\$38,118,267	\$70,959,737	\$120,884,802
<i>Total Effect</i>	-3,569	-\$112,750,311	-\$283,816,344	-\$490,411,104

**Table D-4 Summary Impact, 20% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-3,815	-\$132,558,392	-\$274,397,449	-\$462,644,706
<i>Indirect Effect</i>	738	\$32,647,462	\$40,930,726	\$60,320,829
<i>Induced Effect</i>	685	\$24,091,955	\$44,846,072	\$76,399,939
<i>Total Effect</i>	-2,391	-\$75,818,974	-\$188,620,651	-\$325,923,938

**Table D-5 Summary Impact, 30% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-5,812	-\$201,944,001	-\$418,026,493	-\$704,808,828
<i>Indirect Effect</i>	1,113	\$49,044,875	\$60,683,819	\$89,306,233
<i>Induced Effect</i>	1,029	\$36,185,355	\$67,355,364	\$114,748,009
<i>Total Effect</i>	-3,669	-\$116,713,771	-\$289,987,310	-\$500,754,586

**Table D-6 Summary Impact, 40% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-7,763	-\$269,750,346	-\$558,386,433	-\$941,461,109
<i>Indirect Effect</i>	1,558	\$68,592,255	\$85,351,679	\$126,399,936
<i>Induced Effect</i>	1,446	\$50,824,361	\$94,612,988	\$161,179,746
<i>Total Effect</i>	-4,759	-\$150,333,730	-\$378,421,766	-\$653,881,427

D.1.2 Northeast

**Table D-7 Summary Impact, 20% Congestion Increase, Northeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-3,350	-\$127,637,959	-\$243,937,912	-\$417,795,093
<i>Indirect Effect</i>	578	\$34,097,435	\$41,774,224	\$60,097,697
<i>Induced Effect</i>	559	\$22,033,394	\$39,240,729	\$68,035,811
<i>Total Effect</i>	-2,213	-\$71,507,130	-\$162,922,959	-\$289,661,584

**Table D-8 Summary Impact, 30% Congestion Increase, Northeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-4,971	-\$189,378,307	-\$361,934,245	-\$619,888,687
<i>Indirect Effect</i>	874	\$51,272,154	\$62,211,580	\$89,621,218
<i>Induced Effect</i>	849	\$33,449,185	\$59,573,690	\$103,288,320
<i>Total Effect</i>	-3,248	-\$104,656,967	-\$240,148,975	-\$426,979,149

**Table D-9 Summary Impact, 40% Congestion Increase, Northeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-6,904	-\$263,010,092	-\$502,657,152	-\$860,906,322
<i>Indirect Effect</i>	1,228	\$71,889,536	\$87,185,364	\$125,807,636
<i>Induced Effect</i>	1,195	\$47,082,691	\$83,856,907	\$145,389,518
<i>Total Effect</i>	-4,481	-\$144,037,865	-\$331,614,882	-\$589,709,168

**Table D-10 Summary Impact, 20% Congestion Increase, Northeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-4,467	-\$170,183,948	-\$325,250,555	-\$557,060,134
<i>Indirect Effect</i>	770	\$45,463,243	\$55,698,962	\$80,130,260
<i>Induced Effect</i>	746	\$29,377,854	\$52,320,963	\$90,714,401
<i>Total Effect</i>	-2,951	-\$95,342,851	-\$217,230,630	-\$386,215,473

**Table D-11 Summary Impact, 30% Congestion Increase, Northeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-6,628	-\$252,504,402	-\$482,578,982	-\$826,518,223
<i>Indirect Effect</i>	1,165	\$68,362,865	\$82,948,765	\$119,494,945
<i>Induced Effect</i>	1,132	\$44,598,913	\$79,431,593	\$137,717,770
<i>Total Effect</i>	-4,331	-\$139,542,624	-\$320,198,624	-\$569,305,508

**Table D-12 Summary Impact, 40% Congestion Increase, Northeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-8,453	-\$322,042,410	-\$615,477,983	-\$1,054,135,761
<i>Indirect Effect</i>	1,861	\$106,306,176	\$133,756,896	\$199,514,308
<i>Induced Effect</i>	1,861	\$73,272,787	\$130,546,032	\$226,316,909
<i>Total Effect</i>	-4,731	-\$142,463,447	-\$351,175,055	-\$628,304,543

## D.1.3 Northwest

**Table D-13 Summary Impact, 20% Congestion Increase, Northwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-4,009	-\$139,486,819	-\$308,154,997	-\$509,687,869
<i>Indirect Effect</i>	1,045	\$51,418,157	\$64,444,362	\$208,311,196
<i>Induced Effect</i>	1,179	\$41,658,684	\$80,608,040	\$139,016,288
<i>Total Effect</i>	-1,786	-\$46,409,977	-\$163,102,595	-\$162,360,385

**Table D-14 Summary Impact, 30% Congestion Increase, Northwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-6,032	-\$209,855,289	-\$463,613,464	-\$766,815,914
<i>Indirect Effect</i>	1,640	\$80,175,119	\$100,072,685	\$324,116,902
<i>Induced Effect</i>	1,846	\$65,228,902	\$126,219,931	\$217,675,055
<i>Total Effect</i>	-2,546	-\$64,451,268	-\$237,320,848	-\$225,023,957

**Table D-15 Summary Impact, 40% Congestion Increase, Northwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-8,825	-\$307,027,190	-\$678,286,180	-\$1,121,884,228
<i>Indirect Effect</i>	2,835	\$136,794,062	\$174,144,951	\$546,885,850
<i>Induced Effect</i>	3,170	\$112,028,873	\$216,809,932	\$373,880,701
<i>Total Effect</i>	-2,819	-\$58,204,256	-\$287,331,296	-\$201,117,677

**Table D-16 Summary Impact, 20% Congestion Increase, Northwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-5,346	-\$185,982,232	-\$410,872,969	-\$679,583,223
<i>Indirect Effect</i>	1,394	\$68,557,461	\$85,925,693	\$277,748,002
<i>Induced Effect</i>	1,571	\$55,544,942	\$107,477,441	\$185,355,145
<i>Total Effect</i>	-2,381	-\$61,879,829	-\$217,469,835	-\$216,480,076

**Table D-17 Summary Impact, 30% Congestion Increase, Northwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-8,043	-\$279,807,047	-\$618,151,271	-\$1,022,421,204
<i>Indirect Effect</i>	2,187	\$106,899,954	\$133,429,922	\$432,155,205
<i>Induced Effect</i>	2,461	\$86,971,841	\$168,293,189	\$290,233,319
<i>Total Effect</i>	-3,395	-\$85,935,253	-\$316,428,160	-\$300,032,680

**Table D-18 Summary Impact, 40% Congestion Increase, Northwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-11,767	-\$409,369,574	-\$904,381,541	-\$1,495,845,593
<i>Indirect Effect</i>	3,780	\$182,391,752	\$232,192,745	\$729,180,072
<i>Induced Effect</i>	4,227	\$149,371,788	\$289,079,840	\$498,507,472
<i>Total Effect</i>	-3,759	-\$77,606,033	-\$383,108,956	-\$268,158,048

## D.1.4 Puget Sound

**Table D-19 Summary Impact, 20% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-37,158	-\$1,699,917,364	-\$3,505,828,028	-\$5,720,689,266
<i>Indirect Effect</i>	8,282	\$481,952,096	\$547,920,558	\$974,020,639
<i>Induced Effect</i>	7,135	\$355,449,222	\$652,863,247	\$1,107,399,532
<i>Total Effect</i>	-21,741	-\$862,516,046	-\$2,305,044,223	-\$3,639,269,096

**Table D-20 Summary Impact, 30% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-56,772	-\$2,597,185,542	-\$5,356,310,856	-\$8,740,243,405
<i>Indirect Effect</i>	12,790	\$740,064,280	\$832,307,621	\$1,485,566,355
<i>Induced Effect</i>	11,005	\$548,268,054	\$1,007,024,242	\$1,708,132,381
<i>Total Effect</i>	-32,976	-\$1,308,853,209	-\$3,516,978,993	-\$5,546,544,669

**Table D-21 Summary Impact, 40% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-70,042	-\$3,204,267,770	-\$6,608,328,072	-\$10,783,241,986
<i>Indirect Effect</i>	14,841	\$858,525,516	\$949,789,351	\$1,695,386,759
<i>Induced Effect</i>	12,656	\$630,614,852	\$1,158,206,611	\$1,964,595,852
<i>Total Effect</i>	-42,546	-\$1,715,127,402	-\$4,500,332,110	-\$7,123,259,376

**Table D-22 Summary Impact, 20% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-49,545	-\$2,266,556,389	-\$4,674,437,119	-\$7,627,585,334
<i>Indirect Effect</i>	11,043	\$642,602,759	\$730,560,730	\$1,298,694,079
<i>Induced Effect</i>	9,513	\$473,932,391	\$870,484,513	\$1,476,533,017
<i>Total Effect</i>	-28,989	-\$1,150,021,239	-\$3,073,391,876	-\$4,852,358,238

**Table D-23 Summary Impact, 30% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-75,696	-\$3,462,914,105	-\$7,141,748,003	-\$11,653,658,172
<i>Indirect Effect</i>	17,053	\$986,752,384	\$1,109,743,512	\$1,980,755,210
<i>Induced Effect</i>	14,674	\$731,024,211	\$1,342,699,303	\$2,277,510,354
<i>Total Effect</i>	-43,969	-\$1,745,137,509	-\$4,689,305,188	-\$7,395,392,608

**Table D-24 Summary Impact, 40% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-93,389	-\$4,272,357,240	-\$8,811,104,564	-\$14,377,656,629
<i>Indirect Effect</i>	19,788	\$1,144,700,924	\$1,266,386,154	\$2,260,516,286
<i>Induced Effect</i>	16,874	\$840,819,365	\$1,544,274,700	\$2,619,459,822
<i>Total Effect</i>	-56,728	-\$2,286,836,950	-\$6,000,443,710	-\$9,497,680,521

D.1.5 Southeast

**Table D-25 Summary Impact, 20% Congestion Increase, Southeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-691	-\$23,998,627	-\$50,471,582	-\$84,808,967
<i>Indirect Effect</i>	180	\$8,794,649	\$12,045,513	\$34,728,963
<i>Induced Effect</i>	166	\$5,713,691	\$11,017,714	\$19,231,764
<i>Total Effect</i>	-345	-\$9,490,286	-\$27,408,355	-\$30,848,239

**Table D-26 Summary Impact, 30% Congestion Increase, Southeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-1,033	-\$35,887,492	-\$75,475,087	-\$126,823,136
<i>Indirect Effect</i>	266	\$12,962,377	\$17,580,553	\$51,246,733
<i>Induced Effect</i>	245	\$8,447,318	\$16,288,717	\$28,432,648
<i>Total Effect</i>	-522	-\$14,477,797	-\$41,605,817	-\$47,143,756

**Table D-27 Summary Impact, 40% Congestion Increase, Southeast 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-1,447	-\$50,279,685	-\$105,743,352	-\$177,683,840
<i>Indirect Effect</i>	386	\$18,784,805	\$25,479,254	\$74,196,065
<i>Induced Effect</i>	356	\$12,286,396	\$23,692,401	\$41,355,433
<i>Total Effect</i>	-705	-\$19,208,484	-\$56,571,697	-\$62,132,343

**Table D-28 Summary Impact, 20% Congestion Increase, Southeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-921	-\$31,998,171	-\$67,295,446	-\$113,078,629
<i>Indirect Effect</i>	240	\$11,726,199	\$16,060,683	\$46,305,280
<i>Induced Effect</i>	221	\$7,618,256	\$14,690,287	\$25,642,355
<i>Total Effect</i>	-460	-\$12,653,717	-\$36,544,476	-\$41,130,994

**Table D-29 Summary Impact, 30% Congestion Increase, Southeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-1,378	-\$47,849,985	-\$100,633,442	-\$169,097,500
<i>Indirect Effect</i>	354	\$17,283,168	\$23,440,736	\$68,328,970
<i>Induced Effect</i>	327	\$11,263,089	\$21,718,287	\$37,910,194
<i>Total Effect</i>	-697	-\$19,303,728	-\$55,474,420	-\$62,858,336

**Table D-30 Summary Impact, 40% Congestion Increase, Southeast 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-1,930	-\$67,039,582	-\$140,991,139	-\$236,911,792
<i>Indirect Effect</i>	515	\$25,046,408	\$33,972,339	\$98,928,094
<i>Induced Effect</i>	475	\$16,381,862	\$31,589,866	\$55,140,575
<i>Total Effect</i>	-940	-\$25,611,312	-\$75,428,934	-\$82,843,123

## D.1.6 Southwest

**Table D-31 Summary Impact, 20% Congestion Increase, Southwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-3,529	-\$138,624,901	-\$293,699,379	-\$491,413,480
<i>Indirect Effect</i>	1,067	\$45,474,950	\$57,141,382	\$118,803,100
<i>Induced Effect</i>	841	\$32,749,331	\$62,082,649	\$106,799,973
<i>Total Effect</i>	-1,622	-\$60,400,620	-\$174,475,347	-\$265,810,407

**Table D-32 Summary Impact, 30% Congestion Increase, Southwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-5,188	-\$203,779,548	-\$431,740,084	-\$722,381,159
<i>Indirect Effect</i>	1,560	\$66,232,863	\$82,428,538	\$172,341,422
<i>Induced Effect</i>	1,224	\$47,703,604	\$90,429,569	\$155,566,241
<i>Total Effect</i>	-2,404	-\$89,843,081	-\$258,881,977	-\$394,473,496

**Table D-33 Summary Impact, 40% Congestion Increase, Southwest 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-7,612	-\$298,966,951	-\$633,410,087	-\$1,059,812,430
<i>Indirect Effect</i>	2,399	\$101,875,831	\$127,302,178	\$265,936,014
<i>Induced Effect</i>	1,894	\$73,779,912	\$139,871,215	\$240,612,838
<i>Total Effect</i>	-3,319	-\$123,311,208	-\$366,236,694	-\$553,263,578

**Table D-34 Summary Impact, 20% Congestion Increase, Southwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-4,706	-\$184,833,201	-\$391,599,171	-\$655,217,979
<i>Indirect Effect</i>	1,423	\$60,633,266	\$76,188,505	\$158,404,124
<i>Induced Effect</i>	1,121	\$43,665,769	\$82,776,860	\$142,399,955
<i>Total Effect</i>	-2,162	-\$80,534,167	-\$232,633,805	-\$354,413,900

**Table D-35 Summary Impact, 30% Congestion Increase, Southwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-6,918	-\$271,706,060	-\$575,653,447	-\$963,174,876
<i>Indirect Effect</i>	2,080	\$88,310,480	\$109,904,710	\$229,788,549
<i>Induced Effect</i>	1,633	\$63,604,802	\$120,572,749	\$207,421,640
<i>Total Effect</i>	-3,205	-\$119,790,779	-\$345,175,988	-\$525,964,687

**Table D-36 Summary Impact, 40% Congestion Increase, Southwest 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-10,149	-\$398,622,597	-\$844,546,774	-\$1,413,083,221
<i>Indirect Effect</i>	3,198	\$135,834,459	\$169,736,260	\$354,581,389
<i>Induced Effect</i>	2,525	\$98,373,231	\$186,494,983	\$320,817,167
<i>Total Effect</i>	-4,425	-\$164,414,907	-\$488,315,531	-\$737,684,664

## D.1.7 State

**Table D-37 Summary Impact, 20% Congestion Increase, State 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-49,033	-\$2,068,168,357	-\$4,259,110,941	-\$7,051,171,371
<i>Indirect Effect</i>	11,146	\$642,886,281	\$754,724,562	\$2,167,768,066
<i>Induced Effect</i>	10,631	\$486,119,608	\$894,924,391	\$1,568,440,631
<i>Total Effect</i>	-27,256	-\$939,162,468	-\$2,609,461,988	-\$3,314,962,675

**Table D-38 Summary Impact, 30% Congestion Increase, State 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-74,243	-\$3,131,512,954	-\$6,448,924,313	-\$10,676,517,002
<i>Indirect Effect</i>	17,096	\$980,915,459	\$1,139,861,427	\$3,303,415,644
<i>Induced Effect</i>	16,287	\$744,760,477	\$1,371,080,624	\$2,402,939,268
<i>Total Effect</i>	-40,859	-\$1,405,837,018	-\$3,937,982,262	-\$4,970,162,090

**Table D-39 Summary Impact, 40% Congestion Increase, State 60% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-104,194	-\$4,394,829,436	-\$9,050,552,403	-\$14,983,642,460
<i>Indirect Effect</i>	24,049	\$1,378,539,270	\$1,598,967,550	\$4,641,438,445
<i>Induced Effect</i>	22,906	\$1,047,422,430	\$1,928,274,299	\$3,379,467,474
<i>Total Effect</i>	-57,239	-\$1,968,867,736	-\$5,523,310,554	-\$6,962,736,541

**Table D-40 Summary Impact, 20% Congestion Increase, State 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-65,377	-\$2,757,557,825	-\$5,678,814,547	-\$9,401,561,746
<i>Indirect Effect</i>	14,862	\$857,181,581	\$1,006,299,227	\$2,890,357,020
<i>Induced Effect</i>	14,174	\$648,159,370	\$1,193,232,340	\$2,091,253,835
<i>Total Effect</i>	-36,341	-\$1,252,216,874	-\$3,479,282,980	-\$4,419,950,890

**Table D-41 Summary Impact, 30% Congestion Increase, State 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-98,991	-\$4,175,350,600	-\$8,598,565,695	-\$14,235,356,036
<i>Indirect Effect</i>	22,795	\$1,307,887,338	\$1,519,815,281	\$4,404,554,062
<i>Induced Effect</i>	21,716	\$993,013,913	\$1,828,107,435	\$3,203,918,880
<i>Total Effect</i>	-54,479	-\$1,874,449,349	-\$5,250,642,979	-\$6,626,883,094

**Table D-42 Summary Impact, 40% Congestion Increase, State 80% Cost Realization.**

<b>Impact Type</b>	<b>Employment</b>	<b>Labor Income</b>	<b>Total Value</b>	<b>Output</b>
<i>Direct Effect</i>	-138,925	-\$5,859,772,483	-\$12,067,402,847	-\$19,978,189,528
<i>Indirect Effect</i>	32,065	\$1,838,052,240	\$2,131,956,674	\$6,188,584,331
<i>Induced Effect</i>	30,542	\$1,396,562,669	\$2,571,031,368	\$4,505,954,774
<i>Total Effect</i>	-76,318	-\$2,625,157,574	-\$7,364,414,804	-\$9,283,650,423

## D.2 Employment Impact

### D.2.1 Central Basin

**Table D-43 Employment Impact, 20% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-2,861	554	514	-1,793
<i>Ag, Forestry, Fish &amp; Hunting</i>	-6	-3	4	-5
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-5	0	1	-5
<i>Construction</i>	0	-35	5	-30
<i>Manufacturing</i>	0	-1	3	2
<i>Wholesale Trade</i>	0	25	19	44
<i>Retail trade</i>	0	44	116	161
<i>Transportation &amp; Warehousing</i>	0	304	7	311
<i>Information</i>	-29	-5	6	-28
<i>Finance &amp; insurance</i>	-77	-3	16	-65
<i>Real estate &amp; rental</i>	-143	-26	20	-149
<i>Professional- scientific &amp; tech svcs</i>	-64	-13	15	-62
<i>Management of companies</i>	0	3	1	3
<i>Administrative services</i>	-15	202	12	200
<i>Waste Management</i>	0	-2	1	-1
<i>Educational svcs</i>	-105	-3	13	-96
<i>Health &amp; social services</i>	-1,219	-9	129	-1,099
<i>Arts- entertainment &amp; recreation</i>	-142	-4	16	-129
<i>Accomodation &amp; food services</i>	-535	-15	65	-485
<i>Other services</i>	-451	-7	54	-403
<i>Government &amp; non NAICs</i>	-70	102	11	43

**Table D-44 Employment Impact, 30% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-4,359	835	772	-2,752
<i>Ag, Forestry, Fish &amp; Hunting</i>	-9	-4	6	-7
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-8	-1	1	-8
<i>Construction</i>	0	-53	7	-46
<i>Manufacturing</i>	0	-2	5	3
<i>Wholesale Trade</i>	0	38	28	67
<i>Retail trade</i>	0	68	175	243
<i>Transportation &amp; Warehousing</i>	0	463	11	473
<i>Information</i>	-44	-8	9	-43
<i>Finance &amp; insurance</i>	-117	-12	24	-106

<i>Real estate &amp; rental</i>	-218	-41	30	-228
<i>Professional- scientific &amp; tech svcs</i>	-98	-19	23	-94
<i>Management of companies</i>	0	4	1	5
<i>Administrative services</i>	-23	308	18	304
<i>Waste Management</i>	0	-3	2	-1
<i>Educational svcs</i>	-161	-5	19	-146
<i>Health &amp; social services</i>	-1,857	-14	194	-1,677
<i>Arts- entertainment &amp; recreation</i>	-216	-6	24	-198
<i>Accomodation &amp; food services</i>	-816	-23	98	-741
<i>Other services</i>	-687	-11	82	-616
<i>Government &amp; non NAICs</i>	-106	156	16	66

**Table D-45 Employment Impact, 40% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-5,822	1,169	1,085	-3,569
<i>Ag, Forestry, Fish &amp; Hunting</i>	-12	-5	8	-9
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-11	-1	1	-10
<i>Construction</i>	0	-70	10	-60
<i>Manufacturing</i>	0	-2	7	5
<i>Wholesale Trade</i>	0	53	40	93
<i>Retail trade</i>	0	94	246	339
<i>Transportation &amp; Warehousing</i>	0	635	15	650
<i>Information</i>	-58	-10	12	-56
<i>Finance &amp; insurance</i>	-157	-14	33	-138
<i>Real estate &amp; rental</i>	-291	-53	43	-302
<i>Professional- scientific &amp; tech svcs</i>	-131	-24	32	-122
<i>Management of companies</i>	0	6	1	7
<i>Administrative services</i>	-30	426	26	422
<i>Waste Management</i>	0	-4	2	-2
<i>Educational svcs</i>	-215	-7	27	-194
<i>Health &amp; social services</i>	-2,480	-19	272	-2,227
<i>Arts- entertainment &amp; recreation</i>	-288	-7	33	-262
<i>Accomodation &amp; food services</i>	-1,090	-30	138	-982
<i>Other services</i>	-917	-13	115	-815
<i>Government &amp; non NAICs</i>	-142	215	23	95

**Table D-46 Employment Impact, 20% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-3,815	738	685	-2,391
<i>Ag, Forestry, Fish &amp; Hunting</i>	-8	-4	5	-6
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-7	0	1	-7

<i>Construction</i>	0	-46	6	-40
<i>Manufacturing</i>	0	-2	4	3
<i>Wholesale Trade</i>	0	33	25	59
<i>Retail trade</i>	0	59	155	214
<i>Transportation &amp; Warehousing</i>	0	405	9	415
<i>Information</i>	-38	-7	8	-38
<i>Finance &amp; insurance</i>	-103	-4	21	-86
<i>Real estate &amp; rental</i>	-191	-35	27	-199
<i>Professional- scientific &amp; tech svcs</i>	-86	-17	20	-82
<i>Management of companies</i>	0	4	1	4
<i>Administrative services</i>	-20	270	16	266
<i>Waste Management</i>	0	-3	1	-1
<i>Educational svcs</i>	-141	-4	17	-128
<i>Health &amp; social services</i>	-1,625	-12	172	-1,466
<i>Arts- entertainment &amp; recreation</i>	-189	-5	21	-173
<i>Accomodation &amp; food services</i>	-714	-20	87	-647
<i>Other services</i>	-601	-9	73	-538
<i>Government &amp; non NAICs</i>	-93	136	14	58

**Table D-47 Employment Impact, 30% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-5,812	1,113	1,029	-3,669
<i>Ag, Forestry, Fish &amp; Hunting</i>	-12	-5	8	-10
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-11	-1	1	-10
<i>Construction</i>	0	-71	9	-61
<i>Manufacturing</i>	0	-3	7	4
<i>Wholesale Trade</i>	0	51	38	89
<i>Retail trade</i>	0	90	233	323
<i>Transportation &amp; Warehousing</i>	0	617	14	631
<i>Information</i>	-58	-11	12	-57
<i>Finance &amp; insurance</i>	-157	-16	32	-141
<i>Real estate &amp; rental</i>	-291	-54	41	-304
<i>Professional- scientific &amp; tech svcs</i>	-131	-26	31	-126
<i>Management of companies</i>	0	5	1	7
<i>Administrative services</i>	-30	411	24	405
<i>Waste Management</i>	0	-4	2	-2
<i>Educational svcs</i>	-214	-7	26	-195
<i>Health &amp; social services</i>	-2,476	-19	258	-2,236
<i>Arts- entertainment &amp; recreation</i>	-288	-7	31	-264
<i>Accomodation &amp; food services</i>	-1,088	-31	131	-988
<i>Other services</i>	-916	-15	109	-821
<i>Government &amp; non NAICs</i>	-142	208	21	88

**Table D-48 Employment Impact, 40% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-7,763	1,558	1,446	-4,759
<i>Ag, Forestry, Fish &amp; Hunting</i>	-16	-7	11	-12
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-15	-1	2	-14
<i>Construction</i>	0	-94	13	-80
<i>Manufacturing</i>	0	-3	9	6
<i>Wholesale Trade</i>	0	71	53	124
<i>Retail trade</i>	0	125	328	453
<i>Transportation &amp; Warehousing</i>	0	847	20	866
<i>Information</i>	-78	-14	16	-75
<i>Finance &amp; insurance</i>	-209	-19	44	-183
<i>Real estate &amp; rental</i>	-388	-71	57	-402
<i>Professional- scientific &amp; tech svcs</i>	-174	-32	43	-163
<i>Management of companies</i>	0	8	2	9
<i>Administrative services</i>	-40	569	34	563
<i>Waste Management</i>	0	-5	3	-2
<i>Educational svcs</i>	-286	-9	36	-259
<i>Health &amp; social services</i>	-3,307	-25	362	-2,969
<i>Arts- entertainment &amp; recreation</i>	-384	-10	44	-350
<i>Accomodation &amp; food services</i>	-1,453	-41	184	-1,309
<i>Other services</i>	-1,223	-17	153	-1,087
<i>Government &amp; non NAICs</i>	-189	287	30	127

D.2.2 Northeast

**Table D-49 Employment Impact, 20% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-3,350	578	559	-2,213
<i>Ag, Forestry, Fish &amp; Hunting</i>	0	-2	2	-1
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-7	-1	1	-7
<i>Construction</i>	0	-41	5	-36
<i>Manufacturing</i>	0	-5	6	1
<i>Wholesale Trade</i>	0	31	23	54
<i>Retail trade</i>	0	49	105	154
<i>Transportation &amp; Warehousing</i>	0	447	10	457
<i>Information</i>	-31	-11	7	-36
<i>Finance &amp; insurance</i>	-160	-16	36	-140
<i>Real estate &amp; rental</i>	-207	-70	31	-246
<i>Professional- scientific &amp; tech svcs</i>	-70	-30	23	-77
<i>Management of companies</i>	0	7	3	10
<i>Administrative services</i>	-23	166	20	163
<i>Waste Management</i>	0	-3	1	-2
<i>Educational svcs</i>	-233	-4	19	-218
<i>Health &amp; social services</i>	-1,352	-14	124	-1,242
<i>Arts- entertainment &amp; recreation</i>	-148	-9	15	-142
<i>Accomodation &amp; food services</i>	-539	-27	60	-505
<i>Other services</i>	-515	-17	57	-476
<i>Government &amp; non NAICs</i>	-65	129	12	76

**Table D-50 Employment Impact, 30% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-4,971	874	849	-3,248
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-3	2	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-10	-2	1	-11
<i>Construction</i>	0	-61	8	-53
<i>Manufacturing</i>	0	-7	9	1
<i>Wholesale Trade</i>	0	47	35	82
<i>Retail trade</i>	0	75	159	234
<i>Transportation &amp; Warehousing</i>	0	673	15	689
<i>Information</i>	-47	-17	11	-52
<i>Finance &amp; insurance</i>	-237	-33	54	-216
<i>Real estate &amp; rental</i>	-307	-103	47	-363

<i>Professional- scientific &amp; tech svcs</i>	-104	-43	34	-112
<i>Management of companies</i>	0	11	4	16
<i>Administrative services</i>	-34	251	31	248
<i>Waste Management</i>	0	-4	1	-3
<i>Educational svcs</i>	-345	-6	29	-323
<i>Health &amp; social services</i>	-2,006	-21	189	-1,838
<i>Arts- entertainment &amp; recreation</i>	-220	-13	24	-209
<i>Accomodation &amp; food services</i>	-799	-40	91	-747
<i>Other services</i>	-765	-25	86	-704
<i>Government &amp; non NAICs</i>	-97	195	18	116

**Table D-51 Employment Impact, 40% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-6,904	1,228	1,195	-4,481
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-5	3	-2
<i>Mining</i>	0	-1	0	-1
<i>Utilities</i>	-15	-3	2	-15
<i>Construction</i>	0	-85	11	-74
<i>Manufacturing</i>	0	-10	12	2
<i>Wholesale Trade</i>	0	66	49	115
<i>Retail trade</i>	0	105	224	329
<i>Transportation &amp; Warehousing</i>	0	941	21	963
<i>Information</i>	-65	-23	16	-72
<i>Finance &amp; insurance</i>	-329	-48	76	-301
<i>Real estate &amp; rental</i>	-426	-143	66	-503
<i>Professional- scientific &amp; tech svcs</i>	-144	-59	49	-154
<i>Management of companies</i>	0	16	6	22
<i>Administrative services</i>	-47	353	43	349
<i>Waste Management</i>	0	-5	2	-3
<i>Educational svcs</i>	-480	-9	41	-447
<i>Health &amp; social services</i>	-2,786	-29	266	-2,549
<i>Arts- entertainment &amp; recreation</i>	-305	-18	33	-290
<i>Accomodation &amp; food services</i>	-1,110	-55	129	-1,036
<i>Other services</i>	-1,062	-34	121	-975
<i>Government &amp; non NAICs</i>	-135	273	25	164

**Table D-52 Employment Impact, 20% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-4,467	770	746	-2,951
<i>Ag, Forestry, Fish &amp; Hunting</i>	0	-3	2	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-9	-2	1	-10
<i>Construction</i>	0	-55	7	-48
<i>Manufacturing</i>	0	-7	8	1
<i>Wholesale Trade</i>	0	41	30	72
<i>Retail trade</i>	0	66	140	205
<i>Transportation &amp; Warehousing</i>	0	596	13	609
<i>Information</i>	-42	-15	10	-47
<i>Finance &amp; insurance</i>	-213	-21	47	-187
<i>Real estate &amp; rental</i>	-276	-93	41	-327
<i>Professional- scientific &amp; tech svcs</i>	-93	-40	30	-102
<i>Management of companies</i>	0	10	4	14
<i>Administrative services</i>	-30	221	27	217
<i>Waste Management</i>	0	-3	1	-2
<i>Educational svcs</i>	-310	-6	26	-290
<i>Health &amp; social services</i>	-1,803	-19	166	-1,655
<i>Arts- entertainment &amp; recreation</i>	-198	-12	21	-189
<i>Accomodation &amp; food services</i>	-718	-36	80	-673
<i>Other services</i>	-687	-23	75	-635
<i>Government &amp; non NAICs</i>	-87	172	16	101

**Table D-53 Employment Impact, 30% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-6,628	1,165	1,132	-4,331
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-5	3	-2
<i>Mining</i>	0	-1	0	0
<i>Utilities</i>	-14	-2	2	-15
<i>Construction</i>	0	-82	11	-71
<i>Manufacturing</i>	0	-10	11	2
<i>Wholesale Trade</i>	0	63	46	109
<i>Retail trade</i>	0	100	212	312
<i>Transportation &amp; Warehousing</i>	0	898	20	918
<i>Information</i>	-62	-22	15	-70
<i>Finance &amp; insurance</i>	-316	-44	72	-289
<i>Real estate &amp; rental</i>	-409	-138	63	-484
<i>Professional- scientific &amp; tech svcs</i>	-138	-57	46	-150
<i>Management of companies</i>	0	15	6	21
<i>Administrative services</i>	-45	335	41	331
<i>Waste Management</i>	0	-5	2	-3
<i>Educational svcs</i>	-461	-8	39	-430
<i>Health &amp; social services</i>	-2,675	-28	252	-2,451
<i>Arts- entertainment &amp; recreation</i>	-293	-18	31	-279
<i>Accomodation &amp; food services</i>	-1,065	-53	122	-996
<i>Other services</i>	-1,020	-33	115	-938
<i>Government &amp; non NAICs</i>	-129	260	24	155

**Table D-54 Employment Impact, 40% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-8,453	1,861	1,861	-4,731
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-6	5	-2
<i>Mining</i>	0	-1	0	-1
<i>Utilities</i>	-18	-3	3	-18
<i>Construction</i>	0	-101	18	-84
<i>Manufacturing</i>	0	-9	19	10
<i>Wholesale Trade</i>	0	96	75	172
<i>Retail trade</i>	0	146	349	495
<i>Transportation &amp; Warehousing</i>	0	1,261	33	1,294
<i>Information</i>	-79	-24	24	-79
<i>Finance &amp; insurance</i>	-403	-25	118	-310
<i>Real estate &amp; rental</i>	-522	-162	103	-581
<i>Professional- scientific &amp; tech svcs</i>	-176	-50	76	-150
<i>Management of companies</i>	0	26	9	35
<i>Administrative services</i>	-57	504	67	513
<i>Waste Management</i>	0	-6	3	-3
<i>Educational svcs</i>	-587	-11	64	-534
<i>Health &amp; social services</i>	-3,411	-36	414	-3,033
<i>Arts- entertainment &amp; recreation</i>	-374	-21	52	-344
<i>Accomodation &amp; food services</i>	-1,359	-61	200	-1,219
<i>Other services</i>	-1,300	-30	189	-1,142
<i>Government &amp; non NAICs</i>	-165	373	39	247

D.2.3 Northwest

**Table D-55 Employment Impact, 20% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-4,009	1,045	1,179	-1,786
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-2	6	2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-16	0	3	-13
<i>Construction</i>	0	-47	11	-37
<i>Manufacturing</i>	0	8	8	17
<i>Wholesale Trade</i>	0	38	32	69
<i>Retail trade</i>	0	91	279	370
<i>Transportation &amp; Warehousing</i>	0	538	15	552
<i>Information</i>	-41	-5	14	-33
<i>Finance &amp; insurance</i>	-196	7	63	-125
<i>Real estate &amp; rental</i>	-338	-68	79	-328
<i>Professional- scientific &amp; tech svcs</i>	-84	-8	34	-58
<i>Management of companies</i>	0	10	2	12
<i>Administrative services</i>	-21	324	33	335
<i>Waste Management</i>	0	-4	3	-1
<i>Educational svcs</i>	-166	-4	33	-137
<i>Health &amp; social services</i>	-1,423	-11	230	-1,205
<i>Arts- entertainment &amp; recreation</i>	-210	-5	37	-178
<i>Accomodation &amp; food services</i>	-783	-18	147	-654
<i>Other services</i>	-622	-5	120	-507
<i>Government &amp; non NAICs</i>	-106	209	30	133

**Table D-56 Employment Impact, 30% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-6,032	1,640	1,846	-2,546
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-4	9	4
<i>Mining</i>	0	-1	0	0
<i>Utilities</i>	-24	0	5	-20
<i>Construction</i>	0	-71	17	-54
<i>Manufacturing</i>	0	14	13	26
<i>Wholesale Trade</i>	0	59	49	109
<i>Retail trade</i>	0	141	437	578
<i>Transportation &amp; Warehousing</i>	0	835	23	857
<i>Information</i>	-62	-7	22	-48
<i>Finance &amp; insurance</i>	-295	1	99	-194
<i>Real estate &amp; rental</i>	-509	-99	123	-485
<i>Professional- scientific &amp; tech svcs</i>	-127	-9	54	-82
<i>Management of companies</i>	0	16	3	20
<i>Administrative services</i>	-32	508	52	528
<i>Waste Management</i>	0	-6	4	-1
<i>Educational svcs</i>	-250	-6	51	-205
<i>Health &amp; social services</i>	-2,142	-17	360	-1,798
<i>Arts- entertainment &amp; recreation</i>	-316	-9	58	-266
<i>Accomodation &amp; food services</i>	-1,179	-26	231	-974
<i>Other services</i>	-936	-4	188	-752
<i>Government &amp; non NAICs</i>	-160	325	48	212

**Table D-57 Employment Impact, 40% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-8,825	2,835	3,170	-2,819
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-5	16	8
<i>Mining</i>	0	-1	1	0
<i>Utilities</i>	-35	0	8	-27
<i>Construction</i>	0	-100	29	-71
<i>Manufacturing</i>	0	25	22	46
<i>Wholesale Trade</i>	0	100	85	185
<i>Retail trade</i>	0	233	751	984
<i>Transportation &amp; Warehousing</i>	0	1,350	39	1,389
<i>Information</i>	-91	-5	37	-59
<i>Finance &amp; insurance</i>	-431	22	171	-238
<i>Real estate &amp; rental</i>	-744	-125	211	-658
<i>Professional- scientific &amp; tech svcs</i>	-186	5	92	-88
<i>Management of companies</i>	0	28	6	34
<i>Administrative services</i>	-47	850	89	892
<i>Waste Management</i>	0	-7	8	0
<i>Educational svcs</i>	-366	-9	88	-286
<i>Health &amp; social services</i>	-3,133	-25	618	-2,540
<i>Arts- entertainment &amp; recreation</i>	-463	-12	100	-374
<i>Accomodation &amp; food services</i>	-1,724	-31	396	-1,359
<i>Other services</i>	-1,369	10	322	-1,036
<i>Government &amp; non NAICs</i>	-234	531	82	379

**Table D-58 Employment Impact, 20% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-5,346	1,394	1,571	-2,381
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-3	8	3
<i>Mining</i>	0	-1	0	0
<i>Utilities</i>	-21	0	4	-18
<i>Construction</i>	0	-63	14	-49
<i>Manufacturing</i>	0	11	11	22
<i>Wholesale Trade</i>	0	50	42	92
<i>Retail trade</i>	0	121	372	493
<i>Transportation &amp; Warehousing</i>	0	717	19	736
<i>Information</i>	-55	-7	19	-44
<i>Finance &amp; insurance</i>	-261	10	85	-167
<i>Real estate &amp; rental</i>	-451	-91	105	-437
<i>Professional- scientific &amp; tech svcs</i>	-112	-11	46	-78
<i>Management of companies</i>	0	14	3	17
<i>Administrative services</i>	-28	431	44	447
<i>Waste Management</i>	0	-5	4	-1
<i>Educational svcs</i>	-221	-6	44	-183
<i>Health &amp; social services</i>	-1,898	-15	307	-1,606
<i>Arts- entertainment &amp; recreation</i>	-280	-7	50	-237
<i>Accomodation &amp; food services</i>	-1,045	-24	196	-872
<i>Other services</i>	-829	-6	160	-676
<i>Government &amp; non NAICs</i>	-142	278	40	177

**Table D-59 Employment Impact, 30% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-8,043	2,187	2,461	-3,395
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-5	12	5
<i>Mining</i>	0	-1	0	0
<i>Utilities</i>	-32	-1	6	-26
<i>Construction</i>	0	-94	22	-72
<i>Manufacturing</i>	0	18	17	35
<i>Wholesale Trade</i>	0	79	66	145
<i>Retail trade</i>	0	188	582	770
<i>Transportation &amp; Warehousing</i>	0	1,113	30	1,143
<i>Information</i>	-83	-9	29	-63
<i>Finance &amp; insurance</i>	-393	2	133	-258
<i>Real estate &amp; rental</i>	-678	-132	164	-647
<i>Professional- scientific &amp; tech svcs</i>	-169	-13	72	-110
<i>Management of companies</i>	0	22	5	26
<i>Administrative services</i>	-43	677	69	704
<i>Waste Management</i>	0	-8	6	-2
<i>Educational svcs</i>	-333	-8	68	-273
<i>Health &amp; social services</i>	-2,855	-23	480	-2,398
<i>Arts- entertainment &amp; recreation</i>	-422	-11	78	-355
<i>Accomodation &amp; food services</i>	-1,572	-35	307	-1,299
<i>Other services</i>	-1,247	-6	250	-1,003
<i>Government &amp; non NAICs</i>	-213	433	63	283

**Table D-60 Employment Impact, 40% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-11,767	3,780	4,227	-3,759
<i>Ag, Forestry, Fish &amp; Hunting</i>	-3	-7	21	11
<i>Mining</i>	0	-1	1	0
<i>Utilities</i>	-47	0	11	-36
<i>Construction</i>	0	-133	39	-95
<i>Manufacturing</i>	0	33	29	62
<i>Wholesale Trade</i>	0	134	113	246
<i>Retail trade</i>	0	311	1,001	1,312
<i>Transportation &amp; Warehousing</i>	0	1,800	52	1,852
<i>Information</i>	-122	-6	50	-78
<i>Finance &amp; insurance</i>	-575	30	228	-317
<i>Real estate &amp; rental</i>	-992	-166	281	-878
<i>Professional- scientific &amp; tech svcs</i>	-247	6	123	-118
<i>Management of companies</i>	0	37	8	45
<i>Administrative services</i>	-63	1,134	119	1,190
<i>Waste Management</i>	0	-10	10	0
<i>Educational svcs</i>	-487	-12	118	-382
<i>Health &amp; social services</i>	-4,178	-33	824	-3,386
<i>Arts- entertainment &amp; recreation</i>	-617	-16	134	-499
<i>Accomodation &amp; food services</i>	-2,299	-41	528	-1,812
<i>Other services</i>	-1,825	14	430	-1,382
<i>Government &amp; non NAICs</i>	-312	708	109	505

D.2.4 Puget Sound

**Table D-61 Employment Impact, 20% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-37,158	8,282	7,135	-21,741
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-23	26	2
<i>Mining</i>	0	23	2	25
<i>Utilities</i>	-81	-8	10	-79
<i>Construction</i>	0	-470	67	-403
<i>Manufacturing</i>	0	-44	148	103
<i>Wholesale Trade</i>	0	356	258	614
<i>Retail trade</i>	0	505	1,279	1,784
<i>Transportation &amp; Warehousing</i>	0	6,356	187	6,543
<i>Information</i>	-680	-177	138	-719
<i>Finance &amp; insurance</i>	-2,115	-744	501	-2,358
<i>Real estate &amp; rental</i>	-3,090	-1,031	518	-3,604
<i>Professional- scientific &amp; tech svcs</i>	-920	-496	320	-1,096
<i>Management of companies</i>	0	103	35	138
<i>Administrative services</i>	-240	3,285	277	3,323
<i>Waste Management</i>	0	-50	18	-32
<i>Educational svcs</i>	-2,059	-36	222	-1,873
<i>Health &amp; social services</i>	-13,199	-126	1,311	-12,013
<i>Arts- entertainment &amp; recreation</i>	-2,354	-209	282	-2,280
<i>Accomodation &amp; food services</i>	-6,628	-270	788	-6,110
<i>Other services</i>	-5,100	-157	619	-4,637
<i>Government &amp; non NAICs</i>	-693	1,494	129	931

**Table D-62 Employment Impact, 30% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-56,772	12,790	11,005	-32,976
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-35	40	3
<i>Mining</i>	0	36	3	39
<i>Utilities</i>	-123	-13	16	-120
<i>Construction</i>	0	-719	104	-615
<i>Manufacturing</i>	-1	-63	228	164
<i>Wholesale Trade</i>	0	553	398	951
<i>Retail trade</i>	0	784	1,973	2,757
<i>Transportation &amp; Warehousing</i>	0	9,812	288	10,100
<i>Information</i>	-1,039	-269	213	-1,094
<i>Finance &amp; insurance</i>	-3,231	-1,232	772	-3,691
<i>Real estate &amp; rental</i>	-4,722	-1,576	798	-5,500
<i>Professional- scientific &amp; tech svcs</i>	-1,406	-752	493	-1,665
<i>Management of companies</i>	0	160	54	214
<i>Administrative services</i>	-366	5,088	428	5,150
<i>Waste Management</i>	0	-76	28	-48
<i>Educational svcs</i>	-3,146	-55	342	-2,859
<i>Health &amp; social services</i>	-20,165	-193	2,023	-18,335
<i>Arts- entertainment &amp; recreation</i>	-3,596	-319	435	-3,480
<i>Accomodation &amp; food services</i>	-10,126	-414	1,215	-9,325
<i>Other services</i>	-7,791	-236	955	-7,072
<i>Government &amp; non NAICs</i>	-1,058	2,310	200	1,451

**Table D-63 Employment Impact, 40% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-70,042	14,841	12,656	-42,546
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-44	46	0
<i>Mining</i>	0	43	4	46
<i>Utilities</i>	-152	-17	19	-150
<i>Construction</i>	0	-893	119	-774
<i>Manufacturing</i>	-1	-95	262	167
<i>Wholesale Trade</i>	0	651	458	1,109
<i>Retail trade</i>	0	931	2,267	3,198
<i>Transportation &amp; Warehousing</i>	0	11,784	331	12,115
<i>Information</i>	-1,281	-346	245	-1,383
<i>Finance &amp; insurance</i>	-3,986	-1,549	888	-4,647
<i>Real estate &amp; rental</i>	-5,825	-1,985	920	-6,890
<i>Professional- scientific &amp; tech svcs</i>	-1,735	-978	567	-2,145
<i>Management of companies</i>	0	183	62	246
<i>Administrative services</i>	-452	6,034	492	6,075
<i>Waste Management</i>	0	-95	32	-63
<i>Educational svcs</i>	-3,881	-68	393	-3,557
<i>Health &amp; social services</i>	-24,879	-238	2,326	-22,790
<i>Arts- entertainment &amp; recreation</i>	-4,437	-398	500	-4,335
<i>Accomodation &amp; food services</i>	-12,493	-525	1,398	-11,621
<i>Other services</i>	-9,613	-317	1,097	-8,832
<i>Government &amp; non NAICs</i>	-1,306	2,762	230	1,685

**Table D-64 Employment Impact, 20% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-49,545	11,043	9,513	-28,989
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-31	35	2
<i>Mining</i>	0	31	3	34
<i>Utilities</i>	-108	-11	14	-105
<i>Construction</i>	0	-627	90	-537
<i>Manufacturing</i>	-1	-59	197	138
<i>Wholesale Trade</i>	0	475	344	818
<i>Retail trade</i>	0	674	1,705	2,379
<i>Transportation &amp; Warehousing</i>	0	8,475	249	8,724
<i>Information</i>	-906	-236	184	-958
<i>Finance &amp; insurance</i>	-2,820	-991	668	-3,143
<i>Real estate &amp; rental</i>	-4,120	-1,374	690	-4,805
<i>Professional- scientific &amp; tech svcs</i>	-1,227	-661	426	-1,462
<i>Management of companies</i>	0	137	47	183
<i>Administrative services</i>	-319	4,381	370	4,431
<i>Waste Management</i>	0	-66	24	-42
<i>Educational svcs</i>	-2,745	-48	296	-2,498
<i>Health &amp; social services</i>	-17,598	-168	1,748	-16,018
<i>Arts- entertainment &amp; recreation</i>	-3,138	-278	376	-3,040
<i>Accomodation &amp; food services</i>	-8,837	-360	1,050	-8,147
<i>Other services</i>	-6,800	-209	825	-6,183
<i>Government &amp; non NAICs</i>	-924	1,992	173	1,241

**Table D-65 Employment Impact, 30% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-75,696	17,053	14,674	-43,969
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-47	53	4
<i>Mining</i>	0	48	4	52
<i>Utilities</i>	-164	-17	21	-160
<i>Construction</i>	0	-959	138	-820
<i>Manufacturing</i>	-1	-84	304	219
<i>Wholesale Trade</i>	0	738	530	1,268
<i>Retail trade</i>	0	1,046	2,630	3,676
<i>Transportation &amp; Warehousing</i>	0	13,083	384	13,467
<i>Information</i>	-1,385	-358	284	-1,459
<i>Finance &amp; insurance</i>	-4,308	-1,643	1,030	-4,921
<i>Real estate &amp; rental</i>	-6,295	-2,102	1,064	-7,333
<i>Professional- scientific &amp; tech svcs</i>	-1,875	-1,003	658	-2,220
<i>Management of companies</i>	0	213	72	285
<i>Administrative services</i>	-488	6,784	570	6,866
<i>Waste Management</i>	0	-101	37	-64
<i>Educational svcs</i>	-4,195	-74	456	-3,812
<i>Health &amp; social services</i>	-26,887	-257	2,697	-24,447
<i>Arts- entertainment &amp; recreation</i>	-4,795	-426	580	-4,641
<i>Accomodation &amp; food services</i>	-13,501	-553	1,620	-12,434
<i>Other services</i>	-10,389	-315	1,273	-9,430
<i>Government &amp; non NAICs</i>	-1,411	3,080	266	1,935

**Table D-66 Employment Impact, 40% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-93,389	19,788	16,874	-56,728
<i>Ag, Forestry, Fish &amp; Hunting</i>	-3	-59	62	0
<i>Mining</i>	0	57	5	62
<i>Utilities</i>	-203	-22	25	-200
<i>Construction</i>	0	-1,191	159	-1,032
<i>Manufacturing</i>	-1	-126	350	222
<i>Wholesale Trade</i>	0	868	611	1,478
<i>Retail trade</i>	0	1,242	3,023	4,265
<i>Transportation &amp; Warehousing</i>	0	15,712	442	16,154
<i>Information</i>	-1,708	-462	326	-1,844
<i>Finance &amp; insurance</i>	-5,315	-2,065	1,184	-6,196
<i>Real estate &amp; rental</i>	-7,767	-2,646	1,226	-9,187
<i>Professional- scientific &amp; tech svcs</i>	-2,313	-1,304	756	-2,860
<i>Management of companies</i>	0	245	83	327
<i>Administrative services</i>	-602	8,046	656	8,100
<i>Waste Management</i>	0	-127	42	-84
<i>Educational svcs</i>	-5,175	-91	524	-4,742
<i>Health &amp; social services</i>	-33,172	-317	3,102	-30,387
<i>Arts- entertainment &amp; recreation</i>	-5,916	-531	667	-5,780
<i>Accomodation &amp; food services</i>	-16,657	-700	1,864	-15,494
<i>Other services</i>	-12,817	-422	1,463	-11,777
<i>Government &amp; non NAICs</i>	-1,741	3,682	306	2,247

D.2.5 Southeast

**Table D-67 Employment Impact, 20% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-691	180	166	-345
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	0	1	-1
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-4	0	1	-3
<i>Construction</i>	0	-5	1	-4
<i>Manufacturing</i>	0	2	1	4
<i>Wholesale Trade</i>	0	8	5	14
<i>Retail trade</i>	0	13	37	50
<i>Transportation &amp; Warehousing</i>	0	90	2	92
<i>Information</i>	-9	-1	2	-8
<i>Finance &amp; insurance</i>	-24	6	6	-12
<i>Real estate &amp; rental</i>	-27	-2	5	-24
<i>Professional- scientific &amp; tech svcs</i>	-15	3	4	-8
<i>Management of companies</i>	0	0	0	0
<i>Administrative services</i>	-3	28	2	28
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-47	0	6	-41
<i>Health &amp; social services</i>	-283	-1	43	-241
<i>Arts- entertainment &amp; recreation</i>	-26	-1	4	-23
<i>Accomodation &amp; food services</i>	-123	-1	21	-103
<i>Other services</i>	-112	2	19	-92
<i>Government &amp; non NAICs</i>	-15	39	3	27

**Table D-68 Employment Impact, 30% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-1,033	266	245	-522
<i>Ag, Forestry, Fish &amp; Hunting</i>	-3	-1	2	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-6	0	1	-5
<i>Construction</i>	0	-8	2	-6
<i>Manufacturing</i>	0	3	2	5
<i>Wholesale Trade</i>	0	12	8	20
<i>Retail trade</i>	0	20	55	75
<i>Transportation &amp; Warehousing</i>	0	135	3	138
<i>Information</i>	-14	-1	3	-12
<i>Finance &amp; insurance</i>	-36	7	9	-20
<i>Real estate &amp; rental</i>	-40	-3	7	-36
<i>Professional- scientific &amp; tech svcs</i>	-22	4	6	-12
<i>Management of companies</i>	0	1	0	1
<i>Administrative services</i>	-4	42	3	41
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-71	0	9	-62
<i>Health &amp; social services</i>	-423	-1	64	-361
<i>Arts- entertainment &amp; recreation</i>	-39	-1	6	-34
<i>Accomodation &amp; food services</i>	-183	-2	31	-154
<i>Other services</i>	-168	2	28	-138
<i>Government &amp; non NAICs</i>	-23	58	5	40

**Table D-69 Employment Impact, 40% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-1,447	386	356	-705
<i>Ag, Forestry, Fish &amp; Hunting</i>	-4	-1	3	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-9	0	1	-7
<i>Construction</i>	0	-11	2	-9
<i>Manufacturing</i>	0	5	3	8
<i>Wholesale Trade</i>	0	18	12	29
<i>Retail trade</i>	0	29	79	109
<i>Transportation &amp; Warehousing</i>	0	194	4	199
<i>Information</i>	-20	-1	5	-16
<i>Finance &amp; insurance</i>	-50	10	13	-27
<i>Real estate &amp; rental</i>	-57	-3	11	-50
<i>Professional- scientific &amp; tech svcs</i>	-31	6	9	-17
<i>Management of companies</i>	0	1	0	1
<i>Administrative services</i>	-5	60	5	60
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-99	-1	14	-86
<i>Health &amp; social services</i>	-592	-2	93	-502
<i>Arts- entertainment &amp; recreation</i>	-55	-2	9	-47
<i>Accomodation &amp; food services</i>	-257	-3	46	-214
<i>Other services</i>	-236	4	41	-191
<i>Government &amp; non NAICs</i>	-32	83	7	58

**Table D-70 Employment Impact, 20% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-921	240	221	-460
<i>Ag, Forestry, Fish &amp; Hunting</i>	-3	-1	2	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-6	0	1	-5
<i>Construction</i>	0	-7	1	-6
<i>Manufacturing</i>	0	3	2	5
<i>Wholesale Trade</i>	0	11	7	18
<i>Retail trade</i>	0	18	49	67
<i>Transportation &amp; Warehousing</i>	0	121	3	123
<i>Information</i>	-13	-1	3	-11
<i>Finance &amp; insurance</i>	-32	8	8	-16
<i>Real estate &amp; rental</i>	-36	-2	7	-32
<i>Professional- scientific &amp; tech svcs</i>	-20	4	5	-11
<i>Management of companies</i>	0	0	0	1
<i>Administrative services</i>	-3	37	3	37
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-63	0	9	-55
<i>Health &amp; social services</i>	-377	-1	58	-321
<i>Arts- entertainment &amp; recreation</i>	-35	-1	6	-30
<i>Accomodation &amp; food services</i>	-163	-2	28	-137
<i>Other services</i>	-150	2	25	-122
<i>Government &amp; non NAICs</i>	-20	51	4	35

**Table D-71 Employment Impact, 30% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-1,378	354	327	-697
<i>Ag, Forestry, Fish &amp; Hunting</i>	-4	-1	2	-2
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-8	0	1	-7
<i>Construction</i>	0	-10	2	-8
<i>Manufacturing</i>	0	4	3	7
<i>Wholesale Trade</i>	0	16	11	27
<i>Retail trade</i>	0	27	73	100
<i>Transportation &amp; Warehousing</i>	0	180	4	184
<i>Information</i>	-19	-2	5	-16
<i>Finance &amp; insurance</i>	-48	9	12	-27
<i>Real estate &amp; rental</i>	-54	-4	10	-48
<i>Professional- scientific &amp; tech svcs</i>	-30	5	8	-17
<i>Management of companies</i>	0	1	0	1
<i>Administrative services</i>	-5	55	4	55
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-95	-1	13	-83
<i>Health &amp; social services</i>	-564	-2	85	-481
<i>Arts- entertainment &amp; recreation</i>	-52	-2	9	-45
<i>Accomodation &amp; food services</i>	-244	-3	42	-206
<i>Other services</i>	-224	3	38	-184
<i>Government &amp; non NAICs</i>	-30	77	6	53

**Table D-72 Employment Impact, 40% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-1,930	515	475	-940
<i>Ag, Forestry, Fish &amp; Hunting</i>	-5	-1	3	-3
<i>Mining</i>	0	0	0	0
<i>Utilities</i>	-12	0	2	-10
<i>Construction</i>	0	-14	3	-11
<i>Manufacturing</i>	0	6	4	10
<i>Wholesale Trade</i>	0	24	15	39
<i>Retail trade</i>	0	39	106	145
<i>Transportation &amp; Warehousing</i>	0	259	6	265
<i>Information</i>	-27	-2	7	-22
<i>Finance &amp; insurance</i>	-67	13	17	-37
<i>Real estate &amp; rental</i>	-76	-5	14	-66
<i>Professional- scientific &amp; tech svcs</i>	-42	8	12	-22
<i>Management of companies</i>	0	1	0	1
<i>Administrative services</i>	-7	81	6	80
<i>Waste Management</i>	0	0	0	0
<i>Educational svcs</i>	-133	-1	18	-115
<i>Health &amp; social services</i>	-790	-3	124	-669
<i>Arts- entertainment &amp; recreation</i>	-73	-2	12	-63
<i>Accomodation &amp; food services</i>	-342	-4	61	-286
<i>Other services</i>	-314	5	55	-254
<i>Government &amp; non NAICs</i>	-43	111	9	77

D.2.6 Southwest

**Table D-73 Employment Impact, 20% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-3,529	1,067	841	-1,622
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-3	4	0
<i>Mining</i>	0	13	1	14
<i>Utilities</i>	-5	0	1	-5
<i>Construction</i>	0	-52	10	-42
<i>Manufacturing</i>	0	-4	10	6
<i>Wholesale Trade</i>	0	30	26	56
<i>Retail trade</i>	0	65	198	263
<i>Transportation &amp; Warehousing</i>	0	563	15	579
<i>Information</i>	-49	-4	11	-42
<i>Finance &amp; insurance</i>	-116	-23	32	-107
<i>Real estate &amp; rental</i>	-160	-27	29	-158
<i>Professional- scientific &amp; tech svcs</i>	-76	-15	26	-66
<i>Management of companies</i>	0	5	1	6
<i>Administrative services</i>	-32	416	34	418
<i>Waste Management</i>	0	-3	2	-1
<i>Educational svcs</i>	-120	-6	19	-107
<i>Health &amp; social services</i>	-1,411	-11	183	-1,239
<i>Arts- entertainment &amp; recreation</i>	-185	-4	25	-163
<i>Accomodation &amp; food services</i>	-668	-22	102	-588
<i>Other services</i>	-616	-13	93	-535
<i>Government &amp; non NAICs</i>	-90	162	18	91

**Table D-74 Employment Impact, 30% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-5,188	1,560	1,224	-2,404
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-4	6	1
<i>Mining</i>	0	19	1	20
<i>Utilities</i>	-8	0	1	-7
<i>Construction</i>	0	-76	14	-62
<i>Manufacturing</i>	0	-6	14	8
<i>Wholesale Trade</i>	0	43	38	82
<i>Retail trade</i>	0	96	289	384
<i>Transportation &amp; Warehousing</i>	0	829	22	852
<i>Information</i>	-73	-6	17	-62
<i>Finance &amp; insurance</i>	-171	-41	46	-166
<i>Real estate &amp; rental</i>	-235	-40	42	-233
<i>Professional- scientific &amp; tech svcs</i>	-112	-23	38	-98
<i>Management of companies</i>	0	7	2	9
<i>Administrative services</i>	-47	612	50	614
<i>Waste Management</i>	0	-5	3	-2
<i>Educational svcs</i>	-177	-9	28	-158
<i>Health &amp; social services</i>	-2,075	-16	267	-1,824
<i>Arts- entertainment &amp; recreation</i>	-272	-6	37	-240
<i>Accomodation &amp; food services</i>	-981	-33	148	-866
<i>Other services</i>	-906	-19	136	-789
<i>Government &amp; non NAICs</i>	-132	238	27	133

**Table D-75 Employment Impact, 40% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-7,612	2,399	1,894	-3,319
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-6	9	1
<i>Mining</i>	0	29	2	31
<i>Utilities</i>	-12	-1	2	-10
<i>Construction</i>	0	-111	21	-90
<i>Manufacturing</i>	0	-8	22	14
<i>Wholesale Trade</i>	0	67	59	126
<i>Retail trade</i>	0	147	446	593
<i>Transportation &amp; Warehousing</i>	0	1,253	35	1,288
<i>Information</i>	-107	-8	26	-89
<i>Finance &amp; insurance</i>	-250	-61	71	-240
<i>Real estate &amp; rental</i>	-344	-57	65	-337
<i>Professional- scientific &amp; tech svcs</i>	-164	-29	58	-136
<i>Management of companies</i>	0	12	3	14
<i>Administrative services</i>	-70	934	77	941
<i>Waste Management</i>	0	-7	4	-2
<i>Educational svcs</i>	-259	-13	43	-229
<i>Health &amp; social services</i>	-3,044	-23	412	-2,655
<i>Arts- entertainment &amp; recreation</i>	-398	-8	57	-350
<i>Accomodation &amp; food services</i>	-1,440	-47	230	-1,257
<i>Other services</i>	-1,329	-25	211	-1,143
<i>Government &amp; non NAICs</i>	-193	361	41	210

**Table D-76 Employment Impact, 20% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-4,706	1,423	1,121	-2,162
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-4	5	1
<i>Mining</i>	0	17	1	18
<i>Utilities</i>	-7	0	1	-6
<i>Construction</i>	0	-69	13	-56
<i>Manufacturing</i>	0	-5	13	8
<i>Wholesale Trade</i>	0	39	35	74
<i>Retail trade</i>	0	87	264	351
<i>Transportation &amp; Warehousing</i>	0	751	21	772
<i>Information</i>	-66	-6	15	-56
<i>Finance &amp; insurance</i>	-155	-30	42	-143
<i>Real estate &amp; rental</i>	-213	-36	38	-211
<i>Professional- scientific &amp; tech svcs</i>	-102	-20	34	-88
<i>Management of companies</i>	0	7	2	8
<i>Administrative services</i>	-43	555	46	557
<i>Waste Management</i>	0	-4	3	-2
<i>Educational svcs</i>	-160	-8	25	-143
<i>Health &amp; social services</i>	-1,882	-14	244	-1,652
<i>Arts- entertainment &amp; recreation</i>	-246	-5	34	-218
<i>Accomodation &amp; food services</i>	-890	-29	136	-783
<i>Other services</i>	-821	-17	125	-714
<i>Government &amp; non NAICs</i>	-119	216	24	121

**Table D-77 Employment Impact, 30% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-6,918	2,080	1,633	-3,205
<i>Ag, Forestry, Fish &amp; Hunting</i>	-1	-6	8	1
<i>Mining</i>	0	26	2	27
<i>Utilities</i>	-11	-1	2	-10
<i>Construction</i>	0	-102	19	-83
<i>Manufacturing</i>	0	-8	19	11
<i>Wholesale Trade</i>	0	58	51	109
<i>Retail trade</i>	0	128	385	513
<i>Transportation &amp; Warehousing</i>	0	1,105	30	1,135
<i>Information</i>	-97	-8	22	-83
<i>Finance &amp; insurance</i>	-227	-55	61	-221
<i>Real estate &amp; rental</i>	-313	-53	56	-311
<i>Professional- scientific &amp; tech svcs</i>	-149	-31	50	-130
<i>Management of companies</i>	0	10	2	12
<i>Administrative services</i>	-63	816	66	819
<i>Waste Management</i>	0	-6	4	-3
<i>Educational svcs</i>	-235	-12	37	-210
<i>Health &amp; social services</i>	-2,766	-21	355	-2,432
<i>Arts- entertainment &amp; recreation</i>	-362	-8	49	-321
<i>Accomodation &amp; food services</i>	-1,308	-44	198	-1,154
<i>Other services</i>	-1,207	-26	181	-1,052
<i>Government &amp; non NAICs</i>	-175	317	36	178

**Table D-78 Employment Impact, 40% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-10,149	3,198	2,525	-4,425
<i>Ag, Forestry, Fish &amp; Hunting</i>	-2	-8	12	2
<i>Mining</i>	0	39	3	41
<i>Utilities</i>	-16	-1	2	-14
<i>Construction</i>	0	-148	29	-119
<i>Manufacturing</i>	0	-10	29	19
<i>Wholesale Trade</i>	0	89	78	168
<i>Retail trade</i>	0	195	595	791
<i>Transportation &amp; Warehousing</i>	0	1,671	46	1,717
<i>Information</i>	-142	-10	34	-118
<i>Finance &amp; insurance</i>	-334	-81	95	-320
<i>Real estate &amp; rental</i>	-459	-76	86	-449
<i>Professional- scientific &amp; tech svcs</i>	-219	-39	77	-181
<i>Management of companies</i>	0	15	4	19
<i>Administrative services</i>	-93	1,245	103	1,255
<i>Waste Management</i>	0	-9	6	-3
<i>Educational svcs</i>	-345	-18	57	-306
<i>Health &amp; social services</i>	-4,059	-31	550	-3,540
<i>Arts- entertainment &amp; recreation</i>	-531	-11	76	-466
<i>Accomodation &amp; food services</i>	-1,920	-62	306	-1,676
<i>Other services</i>	-1,771	-33	281	-1,524
<i>Government &amp; non NAICs</i>	-257	482	55	279

D.2.7 State

**Table D-79 Employment Impact, 20% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-49,033	11,146	10,631	-27,256
<i>Ag, Forestry, Fish &amp; Hunting</i>	-21	-79	99	-1
<i>Mining</i>	0	62	5	67
<i>Utilities</i>	-119	-10	18	-111
<i>Construction</i>	0	-621	105	-516
<i>Manufacturing</i>	0	12	231	243
<i>Wholesale Trade</i>	0	479	382	861
<i>Retail trade</i>	0	716	1,962	2,678
<i>Transportation &amp; Warehousing</i>	0	8,325	270	8,595
<i>Information</i>	-825	-221	195	-852
<i>Finance &amp; insurance</i>	-2,420	-630	647	-2,403
<i>Real estate &amp; rental</i>	-4,045	-1,267	746	-4,566
<i>Professional- scientific &amp; tech svcs</i>	-1,122	-568	439	-1,252
<i>Management of companies</i>	0	124	45	169
<i>Administrative services</i>	-310	3,969	403	4,062
<i>Waste Management</i>	0	-64	26	-38
<i>Educational svcs</i>	-2,477	-61	302	-2,236
<i>Health &amp; social services</i>	-17,974	-167	2,012	-16,130
<i>Arts- entertainment &amp; recreation</i>	-2,947	-241	392	-2,795
<i>Accomodation &amp; food services</i>	-8,613	-363	1,164	-7,812
<i>Other services</i>	-7,132	-215	972	-6,376
<i>Government &amp; non NAICs</i>	-1,027	1,965	217	1,156

**Table D-80 Employment Impact, 30% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-74,243	17,096	16,287	-40,859
<i>Ag, Forestry, Fish &amp; Hunting</i>	-31	-120	151	0
<i>Mining</i>	0	96	7	103
<i>Utilities</i>	-180	-15	27	-167
<i>Construction</i>	0	-940	161	-780
<i>Manufacturing</i>	-1	27	354	381
<i>Wholesale Trade</i>	0	740	586	1,326
<i>Retail trade</i>	0	1,104	3,007	4,111
<i>Transportation &amp; Warehousing</i>	0	12,759	413	13,172
<i>Information</i>	-1,250	-332	298	-1,283
<i>Finance &amp; insurance</i>	-3,664	-1,094	991	-3,767
<i>Real estate &amp; rental</i>	-6,125	-1,919	1,143	-6,902
<i>Professional- scientific &amp; tech svcs</i>	-1,700	-851	672	-1,878
<i>Management of companies</i>	0	192	69	262
<i>Administrative services</i>	-470	6,109	617	6,257
<i>Waste Management</i>	0	-96	39	-57
<i>Educational svcs</i>	-3,750	-92	463	-3,379
<i>Health &amp; social services</i>	-27,216	-253	3,082	-24,387
<i>Arts- entertainment &amp; recreation</i>	-4,462	-365	601	-4,225
<i>Accomodation &amp; food services</i>	-13,041	-552	1,783	-11,810
<i>Other services</i>	-10,800	-320	1,489	-9,631
<i>Government &amp; non NAICs</i>	-1,554	3,018	333	1,796

**Table D-81 Employment Impact, 40% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-104,194	24,049	22,906	-57,239
<i>Ag, Forestry, Fish &amp; Hunting</i>	-44	-169	213	0
<i>Mining</i>	0	135	10	145
<i>Utilities</i>	-252	-21	38	-235
<i>Construction</i>	0	-1,320	226	-1,094
<i>Manufacturing</i>	-1	40	498	538
<i>Wholesale Trade</i>	0	1,043	824	1,867
<i>Retail trade</i>	0	1,555	4,229	5,784
<i>Transportation &amp; Warehousing</i>	0	17,945	582	18,526
<i>Information</i>	-1,754	-465	420	-1,799
<i>Finance &amp; insurance</i>	-5,142	-1,570	1,394	-5,319
<i>Real estate &amp; rental</i>	-8,596	-2,694	1,607	-9,683
<i>Professional- scientific &amp; tech svcs</i>	-2,385	-1,191	945	-2,631
<i>Management of companies</i>	0	271	97	368
<i>Administrative services</i>	-659	8,598	868	8,808
<i>Waste Management</i>	0	-135	55	-80
<i>Educational svcs</i>	-5,263	-129	651	-4,741
<i>Health &amp; social services</i>	-38,195	-355	4,334	-34,217
<i>Arts- entertainment &amp; recreation</i>	-6,262	-512	846	-5,928
<i>Accomodation &amp; food services</i>	-18,302	-776	2,508	-16,570
<i>Other services</i>	-15,156	-448	2,094	-13,510
<i>Government &amp; non NAICs</i>	-2,182	4,246	468	2,533

**Table D-82 Employment Impact, 20% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-65,377	14,862	14,174	-36,341
<i>Ag, Forestry, Fish &amp; Hunting</i>	-28	-106	132	-2
<i>Mining</i>	0	83	6	89
<i>Utilities</i>	-158	-13	24	-148
<i>Construction</i>	0	-828	140	-688
<i>Manufacturing</i>	-1	16	308	324
<i>Wholesale Trade</i>	0	638	510	1,148
<i>Retail trade</i>	0	954	2,616	3,570
<i>Transportation &amp; Warehousing</i>	0	11,101	360	11,460
<i>Information</i>	-1,100	-295	260	-1,136
<i>Finance &amp; insurance</i>	-3,227	-840	862	-3,204
<i>Real estate &amp; rental</i>	-5,394	-1,690	995	-6,089
<i>Professional- scientific &amp; tech svcs</i>	-1,497	-757	585	-1,669
<i>Management of companies</i>	0	165	60	226
<i>Administrative services</i>	-413	5,292	537	5,416
<i>Waste Management</i>	0	-85	34	-50
<i>Educational svcs</i>	-3,302	-81	403	-2,981
<i>Health &amp; social services</i>	-23,966	-223	2,682	-21,507
<i>Arts- entertainment &amp; recreation</i>	-3,929	-321	523	-3,726
<i>Accomodation &amp; food services</i>	-11,484	-485	1,552	-10,416
<i>Other services</i>	-9,510	-287	1,296	-8,501
<i>Government &amp; non NAICs</i>	-1,369	2,621	290	1,541

**Table D-83 Employment Impact, 30% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-98,991	22,795	21,716	-54,479
<i>Ag, Forestry, Fish &amp; Hunting</i>	-42	-160	202	0
<i>Mining</i>	0	128	9	137
<i>Utilities</i>	-240	-20	36	-223
<i>Construction</i>	0	-1,254	214	-1,040
<i>Manufacturing</i>	-1	36	472	508
<i>Wholesale Trade</i>	0	987	781	1,768
<i>Retail trade</i>	0	1,472	4,009	5,481
<i>Transportation &amp; Warehousing</i>	0	17,012	551	17,563
<i>Information</i>	-1,666	-443	398	-1,711
<i>Finance &amp; insurance</i>	-4,886	-1,458	1,321	-5,023
<i>Real estate &amp; rental</i>	-8,167	-2,559	1,524	-9,202
<i>Professional- scientific &amp; tech svcs</i>	-2,266	-1,134	896	-2,504
<i>Management of companies</i>	0	257	92	349
<i>Administrative services</i>	-626	8,145	823	8,342
<i>Waste Management</i>	0	-128	52	-76
<i>Educational svcs</i>	-5,000	-123	617	-4,506
<i>Health &amp; social services</i>	-36,288	-338	4,109	-32,516
<i>Arts- entertainment &amp; recreation</i>	-5,949	-486	802	-5,634
<i>Accomodation &amp; food services</i>	-17,388	-737	2,378	-15,747
<i>Other services</i>	-14,400	-427	1,985	-12,841
<i>Government &amp; non NAICs</i>	-2,073	4,024	444	2,395

**Table D-84 Employment Impact, 40% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-138,925	32,065	30,542	-76,318
<i>Ag, Forestry, Fish &amp; Hunting</i>	-59	-225	284	0
<i>Mining</i>	0	180	13	193
<i>Utilities</i>	-336	-27	51	-313
<i>Construction</i>	0	-1,759	301	-1,458
<i>Manufacturing</i>	-1	54	664	717
<i>Wholesale Trade</i>	0	1,391	1,099	2,489
<i>Retail trade</i>	0	2,073	5,638	7,711
<i>Transportation &amp; Warehousing</i>	0	23,926	775	24,702
<i>Information</i>	-2,338	-620	560	-2,399
<i>Finance &amp; insurance</i>	-6,857	-2,094	1,858	-7,092
<i>Real estate &amp; rental</i>	-11,462	-3,592	2,143	-12,910
<i>Professional- scientific &amp; tech svcs</i>	-3,180	-1,589	1,260	-3,509
<i>Management of companies</i>	0	362	130	491
<i>Administrative services</i>	-879	11,464	1,158	11,743
<i>Waste Management</i>	0	-180	74	-106
<i>Educational svcs</i>	-7,017	-173	868	-6,322
<i>Health &amp; social services</i>	-50,927	-474	5,779	-45,622
<i>Arts- entertainment &amp; recreation</i>	-8,349	-683	1,128	-7,904
<i>Accomodation &amp; food services</i>	-24,403	-1,035	3,344	-22,094
<i>Other services</i>	-20,209	-597	2,792	-18,013
<i>Government &amp; non NAICs</i>	-2,909	5,662	624	3,377

## D.3 Value Added Impact

### D.3.1 Central Basin

**Table D-85 Value Added Impact, 20% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$205,798,081	\$30,698,044	\$33,634,548	-\$141,465,489
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$271,828	-\$81,531	\$192,558	-\$160,802
<i>Mining</i>	\$0	-\$17,699	\$2,625	-\$15,075
<i>Utilities</i>	-\$1,767,049	-\$97,210	\$207,853	-\$1,656,406
<i>Construction</i>	\$0	-\$2,282,003	\$309,649	-\$1,972,354
<i>Manufacturing</i>	-\$889	-\$165,303	\$256,964	\$90,772
<i>Wholesale Trade</i>	\$0	\$2,461,046	\$1,858,671	\$4,319,716
<i>Retail trade</i>	\$0	\$2,051,855	\$5,506,372	\$7,558,227
<i>Transportation &amp; Warehousing</i>	\$0	\$20,420,146	\$460,239	\$20,880,385
<i>Information</i>	-\$3,227,561	\$55,122	\$537,301	-\$2,635,137
<i>Finance &amp; insurance</i>	-\$9,537,756	\$656,455	\$1,813,720	-\$7,067,581
<i>Real estate &amp; rental</i>	-\$78,904,319	-\$2,892,508	\$8,860,952	-\$72,935,875
<i>Professional- scientific &amp; tech svcs</i>	-\$2,872,683	-\$783,182	\$896,174	-\$2,759,692
<i>Management of companies</i>	\$0	\$338,648	\$66,914	\$405,562
<i>Administrative services</i>	-\$504,868	\$5,927,365	\$404,148	\$5,826,644
<i>Waste Management</i>	-\$640	-\$353,841	\$188,499	-\$165,982
<i>Educational svcs</i>	-\$2,295,406	-\$74,177	\$277,973	-\$2,091,610
<i>Health &amp; social services</i>	-\$67,723,939	-\$966,081	\$7,042,331	-\$61,647,690
<i>Arts- entertainment &amp; recreation</i>	-\$4,589,838	-\$66,940	\$504,852	-\$4,151,926
<i>Accomodation &amp; food services</i>	-\$14,895,749	-\$438,182	\$1,821,798	-\$13,512,132
<i>Other services</i>	-\$11,381,304	\$250,504	\$1,395,822	-\$9,734,978
<i>Government &amp; non NAICs</i>	-\$7,824,252	\$6,755,563	\$1,029,135	-\$39,555

**Table D-86 Value Added Impact, 30% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	<i>-\$313,519,873</i>	<i>\$45,512,859</i>	<i>\$50,516,522</i>	<i>-\$217,490,491</i>
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>-\$414,113</i>	<i>-\$124,290</i>	<i>\$289,243</i>	<i>-\$249,160</i>
<i>Mining</i>	<i>\$0</i>	<i>-\$26,996</i>	<i>\$3,942</i>	<i>-\$23,054</i>
<i>Utilities</i>	<i>-\$2,691,983</i>	<i>-\$157,038</i>	<i>\$312,237</i>	<i>-\$2,536,784</i>
<i>Construction</i>	<i>\$0</i>	<i>-\$3,487,725</i>	<i>\$465,037</i>	<i>-\$3,022,688</i>
<i>Manufacturing</i>	<i>-\$1,355</i>	<i>-\$252,784</i>	<i>\$386,001</i>	<i>\$131,862</i>
<i>Wholesale Trade</i>	<i>\$0</i>	<i>\$3,751,280</i>	<i>\$2,792,075</i>	<i>\$6,543,355</i>
<i>Retail trade</i>	<i>\$0</i>	<i>\$3,136,122</i>	<i>\$8,269,342</i>	<i>\$11,405,464</i>
<i>Transportation &amp; Warehousing</i>	<i>\$0</i>	<i>\$31,095,990</i>	<i>\$691,212</i>	<i>\$31,787,202</i>
<i>Information</i>	<i>-\$4,916,977</i>	<i>\$75,498</i>	<i>\$807,072</i>	<i>-\$4,034,406</i>
<i>Finance &amp; insurance</i>	<i>-\$14,530,144</i>	<i>-\$84,104</i>	<i>\$2,724,193</i>	<i>-\$11,890,056</i>
<i>Real estate &amp; rental</i>	<i>-\$120,205,552</i>	<i>-\$4,468,261</i>	<i>\$13,307,555</i>	<i>-\$111,366,259</i>
<i>Professional- scientific &amp; tech svcs</i>	<i>-\$4,376,345</i>	<i>-\$1,219,032</i>	<i>\$1,346,041</i>	<i>-\$4,249,335</i>
<i>Management of companies</i>	<i>\$0</i>	<i>\$513,739</i>	<i>\$100,506</i>	<i>\$614,246</i>
<i>Administrative services</i>	<i>-\$769,134</i>	<i>\$9,024,739</i>	<i>\$606,995</i>	<i>\$8,862,600</i>
<i>Waste Management</i>	<i>-\$975</i>	<i>-\$545,933</i>	<i>\$283,148</i>	<i>-\$263,760</i>
<i>Educational svcs</i>	<i>-\$3,496,900</i>	<i>-\$113,110</i>	<i>\$417,434</i>	<i>-\$3,192,576</i>
<i>Health &amp; social services</i>	<i>-\$103,172,982</i>	<i>-\$1,471,768</i>	<i>\$10,577,855</i>	<i>-\$94,066,895</i>
<i>Arts- entertainment &amp; recreation</i>	<i>-\$6,992,317</i>	<i>-\$102,945</i>	<i>\$758,181</i>	<i>-\$6,337,081</i>
<i>Accomodation &amp; food services</i>	<i>-\$22,692,694</i>	<i>-\$677,148</i>	<i>\$2,736,288</i>	<i>-\$20,633,553</i>
<i>Other services</i>	<i>-\$17,338,670</i>	<i>\$364,424</i>	<i>\$2,096,289</i>	<i>-\$14,877,957</i>
<i>Government &amp; non NAICs</i>	<i>-\$11,919,735</i>	<i>\$10,282,202</i>	<i>\$1,545,876</i>	<i>-\$91,657</i>

**Table D-87 Value Added Impact, 40% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$418,789,840	\$64,013,759	\$70,959,737	-\$283,816,344
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$553,158	-\$165,420	\$406,143	-\$312,435
<i>Mining</i>	\$0	-\$35,807	\$5,537	-\$30,270
<i>Utilities</i>	-\$3,595,865	-\$198,707	\$438,346	-\$3,356,225
<i>Construction</i>	\$0	-\$4,633,798	\$653,368	-\$3,980,430
<i>Manufacturing</i>	-\$1,809	-\$323,535	\$541,952	\$216,608
<i>Wholesale Trade</i>	\$0	\$5,238,239	\$3,919,872	\$9,158,111
<i>Retail trade</i>	\$0	\$4,345,302	\$11,619,259	\$15,964,561
<i>Transportation &amp; Warehousing</i>	\$0	\$42,657,095	\$971,069	\$43,628,164
<i>Information</i>	-\$6,567,940	\$177,994	\$1,133,310	-\$5,256,637
<i>Finance &amp; insurance</i>	-\$19,408,903	\$75,920	\$3,826,102	-\$15,506,881
<i>Real estate &amp; rental</i>	-\$160,566,741	-\$5,811,016	\$18,696,839	-\$147,680,918
<i>Professional- scientific &amp; tech svcs</i>	-\$5,845,782	-\$1,453,097	\$1,890,520	-\$5,408,359
<i>Management of companies</i>	\$0	\$725,021	\$141,154	\$866,175
<i>Administrative services</i>	-\$1,027,384	\$12,501,371	\$852,655	\$12,326,642
<i>Waste Management</i>	-\$1,302	-\$712,362	\$397,574	-\$316,090
<i>Educational svcs</i>	-\$4,671,048	-\$150,741	\$586,618	-\$4,235,171
<i>Health &amp; social services</i>	-\$137,815,173	-\$1,965,925	\$14,855,066	-\$124,926,032
<i>Arts- entertainment &amp; recreation</i>	-\$9,340,113	-\$136,196	\$1,065,294	-\$8,411,015
<i>Accomodation &amp; food services</i>	-\$30,312,178	-\$879,272	\$3,843,250	-\$27,348,199
<i>Other services</i>	-\$23,160,442	\$566,700	\$2,945,173	-\$19,648,568
<i>Government &amp; non NAICs</i>	-\$15,922,002	\$14,191,992	\$2,170,636	\$440,626

**Table D-88 Value Added Impact, 20% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$274,397,449	\$40,930,726	\$44,846,072	-\$188,620,651
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$362,438	-\$108,708	\$256,744	-\$214,402
<i>Mining</i>	\$0	-\$23,599	\$3,500	-\$20,100
<i>Utilities</i>	-\$2,356,065	-\$129,614	\$277,137	-\$2,208,542
<i>Construction</i>	\$0	-\$3,042,671	\$412,865	-\$2,629,806
<i>Manufacturing</i>	-\$1,185	-\$220,405	\$342,619	\$121,029
<i>Wholesale Trade</i>	\$0	\$3,281,395	\$2,478,228	\$5,759,622
<i>Retail trade</i>	\$0	\$2,735,807	\$7,341,829	\$10,077,637
<i>Transportation &amp; Warehousing</i>	\$0	\$27,226,860	\$613,652	\$27,840,512
<i>Information</i>	-\$4,303,414	\$73,496	\$716,402	-\$3,513,516
<i>Finance &amp; insurance</i>	-\$12,717,008	\$875,274	\$2,418,294	-\$9,423,440
<i>Real estate &amp; rental</i>	-\$105,205,761	-\$3,856,675	\$11,814,608	-\$97,247,828
<i>Professional- scientific &amp; tech svcs</i>	-\$3,830,245	-\$1,044,244	\$1,194,898	-\$3,679,590
<i>Management of companies</i>	\$0	\$451,530	\$89,219	\$540,750
<i>Administrative services</i>	-\$673,158	\$7,903,153	\$538,864	\$7,768,859
<i>Waste Management</i>	-\$853	-\$471,788	\$251,332	-\$221,310
<i>Educational svcs</i>	-\$3,060,541	-\$98,903	\$370,630	-\$2,788,814
<i>Health &amp; social services</i>	-\$90,298,589	-\$1,288,109	\$9,389,774	-\$82,196,924
<i>Arts- entertainment &amp; recreation</i>	-\$6,119,784	-\$89,253	\$673,136	-\$5,535,901
<i>Accomodation &amp; food services</i>	-\$19,860,997	-\$584,241	\$2,429,065	-\$18,016,174
<i>Other services</i>	-\$15,175,072	\$334,005	\$1,861,096	-\$12,979,971
<i>Government &amp; non NAICs</i>	-\$10,432,337	\$9,007,416	\$1,372,180	-\$52,742

**Table D-89 Value Added Impact, 30% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$418,026,493	\$60,683,819	\$67,355,364	-\$289,987,310
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$552,150	-\$165,719	\$385,657	-\$332,213
<i>Mining</i>	\$0	-\$35,995	\$5,256	-\$30,739
<i>Utilities</i>	-\$3,589,311	-\$209,384	\$416,316	-\$3,382,378
<i>Construction</i>	\$0	-\$4,650,299	\$620,049	-\$4,030,251
<i>Manufacturing</i>	-\$1,806	-\$337,046	\$514,668	\$175,816
<i>Wholesale Trade</i>	\$0	\$5,001,707	\$3,722,768	\$8,724,475
<i>Retail trade</i>	\$0	\$4,181,496	\$11,025,791	\$15,207,287
<i>Transportation &amp; Warehousing</i>	\$0	\$41,461,322	\$921,616	\$42,382,938
<i>Information</i>	-\$6,555,969	\$100,665	\$1,076,097	-\$5,379,208
<i>Finance &amp; insurance</i>	-\$19,373,527	-\$112,137	\$3,632,258	-\$15,853,406
<i>Real estate &amp; rental</i>	-\$160,274,071	-\$5,957,681	\$17,743,405	-\$148,488,346
<i>Professional- scientific &amp; tech svcs</i>	-\$5,835,126	-\$1,625,375	\$1,794,722	-\$5,665,780
<i>Management of companies</i>	\$0	\$684,986	\$134,009	\$818,995
<i>Administrative services</i>	-\$1,025,512	\$12,032,985	\$809,326	\$11,816,800
<i>Waste Management</i>	-\$1,300	-\$727,911	\$377,531	-\$351,680
<i>Educational svcs</i>	-\$4,662,533	-\$150,813	\$556,579	-\$4,256,768
<i>Health &amp; social services</i>	-\$137,563,966	-\$1,962,358	\$14,103,806	-\$125,422,518
<i>Arts- entertainment &amp; recreation</i>	-\$9,323,089	-\$137,261	\$1,010,908	-\$8,449,442
<i>Accomodation &amp; food services</i>	-\$30,256,926	-\$902,865	\$3,648,384	-\$27,511,407
<i>Other services</i>	-\$23,118,227	\$485,899	\$2,795,052	-\$19,837,275
<i>Government &amp; non NAICs</i>	-\$15,892,981	\$13,709,603	\$2,061,168	-\$122,209

**Table D-90 Value Added Impact, 40% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$558,386,433	\$85,351,679	\$94,612,988	-\$378,421,766
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$737,545	-\$220,560	\$541,525	-\$416,580
<i>Mining</i>	\$0	-\$47,742	\$7,383	-\$40,359
<i>Utilities</i>	-\$4,794,486	-\$264,942	\$584,462	-\$4,474,967
<i>Construction</i>	\$0	-\$6,178,397	\$871,157	-\$5,307,240
<i>Manufacturing</i>	-\$2,412	-\$431,380	\$722,603	\$288,810
<i>Wholesale Trade</i>	\$0	\$6,984,318	\$5,226,495	\$12,210,813
<i>Retail trade</i>	\$0	\$5,793,737	\$15,492,347	\$21,286,084
<i>Transportation &amp; Warehousing</i>	\$0	\$56,876,122	\$1,294,759	\$58,170,881
<i>Information</i>	-\$8,757,254	\$237,326	\$1,511,080	-\$7,008,849
<i>Finance &amp; insurance</i>	-\$25,878,536	\$101,227	\$5,101,469	-\$20,675,840
<i>Real estate &amp; rental</i>	-\$214,088,984	-\$7,748,020	\$24,929,118	-\$196,907,886
<i>Professional- scientific &amp; tech svcs</i>	-\$7,794,375	-\$1,937,462	\$2,520,693	-\$7,211,144
<i>Management of companies</i>	\$0	\$966,695	\$188,206	\$1,154,900
<i>Administrative services</i>	-\$1,369,846	\$16,668,495	\$1,136,873	\$16,435,522
<i>Waste Management</i>	-\$1,736	-\$949,816	\$530,098	-\$421,454
<i>Educational svcs</i>	-\$6,228,063	-\$200,988	\$782,157	-\$5,646,894
<i>Health &amp; social services</i>	-\$183,753,553	-\$2,621,233	\$19,806,758	-\$166,568,029
<i>Arts- entertainment &amp; recreation</i>	-\$12,453,484	-\$181,594	\$1,420,392	-\$11,214,686
<i>Accomodation &amp; food services</i>	-\$40,416,235	-\$1,172,361	\$5,124,334	-\$36,464,263
<i>Other services</i>	-\$30,880,588	\$755,600	\$3,926,898	-\$26,198,089
<i>Government &amp; non NAICs</i>	-\$21,229,335	\$18,922,656	\$2,894,181	\$587,502

D.3.2 Northeast

**Table D-91 Value Added Impact, 20% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$243,937,912	\$41,774,224	\$39,240,729	-\$162,922,959
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$17,510	-\$105,368	\$73,660	-\$49,219
<i>Mining</i>	\$0	-\$76,979	\$9,751	-\$67,228
<i>Utilities</i>	-\$2,361,974	-\$393,847	\$291,715	-\$2,464,106
<i>Construction</i>	\$0	-\$2,721,678	\$355,153	-\$2,366,525
<i>Manufacturing</i>	-\$1,690	-\$535,553	\$451,410	-\$85,833
<i>Wholesale Trade</i>	\$0	\$3,224,237	\$2,377,850	\$5,602,087
<i>Retail trade</i>	\$0	\$2,554,511	\$5,465,633	\$8,020,144
<i>Transportation &amp; Warehousing</i>	\$0	\$36,276,671	\$741,552	\$37,018,223
<i>Information</i>	-\$4,399,353	-\$675,649	\$837,044	-\$4,237,958
<i>Finance &amp; insurance</i>	-\$20,741,870	\$184,067	\$4,253,943	-\$16,303,861
<i>Real estate &amp; rental</i>	-\$81,495,049	-\$7,709,644	\$8,872,057	-\$80,332,637
<i>Professional- scientific &amp; tech svcs</i>	-\$3,732,292	-\$1,786,212	\$1,416,522	-\$4,101,982
<i>Management of companies</i>	\$0	\$906,604	\$349,544	\$1,256,148
<i>Administrative services</i>	-\$1,100,011	\$6,154,066	\$836,947	\$5,891,001
<i>Waste Management</i>	-\$40	-\$204,151	\$67,694	-\$136,497
<i>Educational svcs</i>	-\$8,518,426	-\$162,791	\$689,815	-\$7,991,403
<i>Health &amp; social services</i>	-\$78,769,052	-\$1,593,340	\$7,192,283	-\$73,170,109
<i>Arts- entertainment &amp; recreation</i>	-\$5,633,936	-\$183,617	\$561,115	-\$5,256,438
<i>Accomodation &amp; food services</i>	-\$15,521,332	-\$804,932	\$1,739,868	-\$14,586,396
<i>Other services</i>	-\$14,534,079	\$40,520	\$1,649,477	-\$12,844,081
<i>Government &amp; non NAICs</i>	-\$7,111,296	\$9,387,309	\$1,007,696	\$3,283,709

**Table D-92 Value Added Impact, 30% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$361,934,245	\$62,211,580	\$59,573,690	-\$240,148,975
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$25,980	-\$155,620	\$111,807	-\$69,793
<i>Mining</i>	\$0	-\$113,865	\$14,803	-\$99,061
<i>Utilities</i>	-\$3,504,494	-\$584,396	\$442,753	-\$3,646,137
<i>Construction</i>	\$0	-\$4,036,376	\$539,224	-\$3,497,152
<i>Manufacturing</i>	-\$2,507	-\$777,897	\$685,198	-\$95,207
<i>Wholesale Trade</i>	\$0	\$4,930,263	\$3,609,003	\$8,539,265
<i>Retail trade</i>	\$0	\$3,882,671	\$8,299,386	\$12,182,057
<i>Transportation &amp; Warehousing</i>	\$0	\$54,713,440	\$1,125,868	\$55,839,308
<i>Information</i>	-\$6,527,385	-\$969,657	\$1,270,605	-\$6,226,437
<i>Finance &amp; insurance</i>	-\$30,775,018	-\$1,358,910	\$6,458,340	-\$25,675,588
<i>Real estate &amp; rental</i>	-\$120,915,393	-\$11,396,686	\$13,469,910	-\$118,842,169
<i>Professional- scientific &amp; tech svcs</i>	-\$5,537,656	-\$2,576,220	\$2,150,405	-\$5,963,471
<i>Management of companies</i>	\$0	\$1,403,208	\$530,616	\$1,933,825
<i>Administrative services</i>	-\$1,632,103	\$9,350,337	\$1,270,640	\$8,988,873
<i>Waste Management</i>	-\$60	-\$302,087	\$102,748	-\$199,399
<i>Educational svcs</i>	-\$12,638,914	-\$241,288	\$1,047,547	-\$11,832,655
<i>Health &amp; social services</i>	-\$116,870,795	-\$2,364,066	\$10,917,505	-\$108,317,357
<i>Arts- entertainment &amp; recreation</i>	-\$8,359,154	-\$272,821	\$851,994	-\$7,779,980
<i>Accomodation &amp; food services</i>	-\$23,029,227	-\$1,195,320	\$2,641,309	-\$21,583,238
<i>Other services</i>	-\$21,564,425	\$86,683	\$2,504,434	-\$18,973,309
<i>Government &amp; non NAICs</i>	-\$10,551,134	\$14,190,186	\$1,529,597	\$5,168,649

**Table D-93 Value Added Impact, 40% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	<i>-\$502,657,152</i>	<i>\$87,185,364</i>	<i>\$83,856,907</i>	<i>-\$331,614,882</i>
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>-\$36,081</i>	<i>-\$215,652</i>	<i>\$157,362</i>	<i>-\$94,371</i>
<i>Mining</i>	<i>\$0</i>	<i>-\$157,907</i>	<i>\$20,837</i>	<i>-\$137,069</i>
<i>Utilities</i>	<i>-\$4,867,070</i>	<i>-\$808,818</i>	<i>\$623,120</i>	<i>-\$5,052,768</i>
<i>Construction</i>	<i>\$0</i>	<i>-\$5,599,971</i>	<i>\$759,063</i>	<i>-\$4,840,909</i>
<i>Manufacturing</i>	<i>-\$3,482</i>	<i>-\$1,069,556</i>	<i>\$964,391</i>	<i>-\$108,648</i>
<i>Wholesale Trade</i>	<i>\$0</i>	<i>\$6,931,368</i>	<i>\$5,079,227</i>	<i>\$12,010,595</i>
<i>Retail trade</i>	<i>\$0</i>	<i>\$5,442,532</i>	<i>\$11,683,879</i>	<i>\$17,126,412</i>
<i>Transportation &amp; Warehousing</i>	<i>\$0</i>	<i>\$76,475,913</i>	<i>\$1,584,859</i>	<i>\$78,060,772</i>
<i>Information</i>	<i>-\$9,065,284</i>	<i>-\$1,320,585</i>	<i>\$1,788,378</i>	<i>-\$8,597,491</i>
<i>Finance &amp; insurance</i>	<i>-\$42,740,587</i>	<i>-\$2,242,264</i>	<i>\$9,091,022</i>	<i>-\$35,891,829</i>
<i>Real estate &amp; rental</i>	<i>-\$167,928,264</i>	<i>-\$15,773,827</i>	<i>\$18,961,118</i>	<i>-\$164,740,973</i>
<i>Professional- scientific &amp; tech svcs</i>	<i>-\$7,690,741</i>	<i>-\$3,515,509</i>	<i>\$3,026,853</i>	<i>-\$8,179,397</i>
<i>Management of companies</i>	<i>\$0</i>	<i>\$1,985,922</i>	<i>\$746,862</i>	<i>\$2,732,784</i>
<i>Administrative services</i>	<i>-\$2,266,678</i>	<i>\$13,121,625</i>	<i>\$1,788,592</i>	<i>\$12,643,539</i>
<i>Waste Management</i>	<i>-\$83</i>	<i>-\$418,415</i>	<i>\$144,609</i>	<i>-\$273,889</i>
<i>Educational svcs</i>	<i>-\$17,553,023</i>	<i>-\$334,867</i>	<i>\$1,474,815</i>	<i>-\$16,413,075</i>
<i>Health &amp; social services</i>	<i>-\$162,311,087</i>	<i>-\$3,283,226</i>	<i>\$15,366,268</i>	<i>-\$150,228,046</i>
<i>Arts- entertainment &amp; recreation</i>	<i>-\$11,609,258</i>	<i>-\$378,485</i>	<i>\$1,199,401</i>	<i>-\$10,788,343</i>
<i>Accomodation &amp; food services</i>	<i>-\$31,983,171</i>	<i>-\$1,655,222</i>	<i>\$3,717,869</i>	<i>-\$29,920,524</i>
<i>Other services</i>	<i>-\$29,948,845</i>	<i>\$143,264</i>	<i>\$3,525,522</i>	<i>-\$26,280,059</i>
<i>Government &amp; non NAICs</i>	<i>-\$14,653,498</i>	<i>\$19,859,044</i>	<i>\$2,152,861</i>	<i>\$7,358,407</i>

**Table D-94 Value Added Impact, 20% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	<i>-\$325,250,555</i>	<i>\$55,698,962</i>	<i>\$52,320,963</i>	<i>-\$217,230,630</i>
<i>Ag, Forestry, Fish &amp; Hunting</i>	<i>-\$23,347</i>	<i>-\$140,491</i>	<i>\$98,213</i>	<i>-\$65,625</i>
<i>Mining</i>	<i>\$0</i>	<i>-\$102,638</i>	<i>\$13,001</i>	<i>-\$89,637</i>
<i>Utilities</i>	<i>-\$3,149,298</i>	<i>-\$525,130</i>	<i>\$388,953</i>	<i>-\$3,285,475</i>
<i>Construction</i>	<i>\$0</i>	<i>-\$3,628,904</i>	<i>\$473,537</i>	<i>-\$3,155,367</i>
<i>Manufacturing</i>	<i>-\$2,253</i>	<i>-\$714,071</i>	<i>\$601,880</i>	<i>-\$114,444</i>
<i>Wholesale Trade</i>	<i>\$0</i>	<i>\$4,298,983</i>	<i>\$3,170,467</i>	<i>\$7,469,450</i>
<i>Retail trade</i>	<i>\$0</i>	<i>\$3,406,014</i>	<i>\$7,287,510</i>	<i>\$10,693,524</i>
<i>Transportation &amp; Warehousing</i>	<i>\$0</i>	<i>\$48,368,894</i>	<i>\$988,735</i>	<i>\$49,357,630</i>
<i>Information</i>	<i>-\$5,865,805</i>	<i>-\$900,865</i>	<i>\$1,116,059</i>	<i>-\$5,650,611</i>
<i>Finance &amp; insurance</i>	<i>-\$27,655,828</i>	<i>\$245,421</i>	<i>\$5,671,924</i>	<i>-\$21,738,484</i>
<i>Real estate &amp; rental</i>	<i>-\$108,660,067</i>	<i>-\$10,279,525</i>	<i>\$11,829,405</i>	<i>-\$107,110,187</i>
<i>Professional- scientific &amp; tech svcs</i>	<i>-\$4,976,389</i>	<i>-\$2,381,617</i>	<i>\$1,888,696</i>	<i>-\$5,469,311</i>
<i>Management of companies</i>	<i>\$0</i>	<i>\$1,208,805</i>	<i>\$466,058</i>	<i>\$1,674,864</i>
<i>Administrative services</i>	<i>-\$1,466,682</i>	<i>\$8,205,421</i>	<i>\$1,115,930</i>	<i>\$7,854,669</i>
<i>Waste Management</i>	<i>-\$54</i>	<i>-\$272,201</i>	<i>\$90,259</i>	<i>-\$181,996</i>
<i>Educational svcs</i>	<i>-\$11,357,902</i>	<i>-\$217,054</i>	<i>\$919,753</i>	<i>-\$10,655,204</i>
<i>Health &amp; social services</i>	<i>-\$105,025,405</i>	<i>-\$2,124,457</i>	<i>\$9,589,707</i>	<i>-\$97,560,154</i>
<i>Arts- entertainment &amp; recreation</i>	<i>-\$7,511,915</i>	<i>-\$244,821</i>	<i>\$748,153</i>	<i>-\$7,008,584</i>
<i>Accomodation &amp; food services</i>	<i>-\$20,695,110</i>	<i>-\$1,073,242</i>	<i>\$2,319,825</i>	<i>-\$19,448,526</i>
<i>Other services</i>	<i>-\$19,378,772</i>	<i>\$54,027</i>	<i>\$2,199,303</i>	<i>-\$17,125,442</i>
<i>Government &amp; non NAICs</i>	<i>-\$9,481,728</i>	<i>\$12,516,412</i>	<i>\$1,343,594</i>	<i>\$4,378,278</i>

**Table D-95 Value Added Impact, 30% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$482,578,982	\$82,948,765	\$79,431,593	-\$320,198,624
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$34,640	-\$207,493	\$149,076	-\$93,058
<i>Mining</i>	\$0	-\$151,820	\$19,738	-\$132,082
<i>Utilities</i>	-\$4,672,659	-\$779,194	\$590,337	-\$4,861,516
<i>Construction</i>	\$0	-\$5,381,835	\$718,966	-\$4,662,869
<i>Manufacturing</i>	-\$3,343	-\$1,037,196	\$913,597	-\$126,942
<i>Wholesale Trade</i>	\$0	\$6,573,683	\$4,812,006	\$11,385,689
<i>Retail trade</i>	\$0	\$5,176,895	\$11,065,846	\$16,242,741
<i>Transportation &amp; Warehousing</i>	\$0	\$72,951,243	\$1,501,158	\$74,452,401
<i>Information</i>	-\$8,703,179	-\$1,292,875	\$1,694,140	-\$8,301,914
<i>Finance &amp; insurance</i>	-\$41,033,352	-\$1,811,881	\$8,611,117	-\$34,234,116
<i>Real estate &amp; rental</i>	-\$161,220,523	-\$15,195,579	\$17,959,886	-\$158,456,216
<i>Professional- scientific &amp; tech svcs</i>	-\$7,383,542	-\$3,434,960	\$2,867,207	-\$7,951,295
<i>Management of companies</i>	\$0	\$1,870,944	\$707,489	\$2,578,433
<i>Administrative services</i>	-\$2,176,137	\$12,467,114	\$1,694,186	\$11,985,162
<i>Waste Management</i>	-\$80	-\$402,782	\$136,997	-\$265,865
<i>Educational svcs</i>	-\$16,851,884	-\$321,718	\$1,396,729	-\$15,776,873
<i>Health &amp; social services</i>	-\$155,827,727	-\$3,152,084	\$14,556,671	-\$144,423,141
<i>Arts- entertainment &amp; recreation</i>	-\$11,145,537	-\$363,761	\$1,135,992	-\$10,373,306
<i>Accomodation &amp; food services</i>	-\$30,705,635	-\$1,593,759	\$3,521,746	-\$28,777,648
<i>Other services</i>	-\$28,752,565	\$115,576	\$3,339,245	-\$25,297,744
<i>Government &amp; non NAICs</i>	-\$14,068,177	\$18,920,246	\$2,039,463	\$6,891,532

**Table D-96 Value Added Impact, 40% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$615,477,983	\$133,756,896	\$130,546,032	-\$351,175,055
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$44,180	-\$253,905	\$244,488	-\$53,597
<i>Mining</i>	\$0	-\$188,470	\$32,435	-\$156,036
<i>Utilities</i>	-\$5,959,478	-\$880,950	\$967,295	-\$5,873,133
<i>Construction</i>	\$0	-\$6,656,218	\$1,182,765	-\$5,473,453
<i>Manufacturing</i>	-\$4,264	-\$1,083,192	\$1,498,619	\$411,163
<i>Wholesale Trade</i>	\$0	\$10,073,719	\$7,884,730	\$17,958,449
<i>Retail trade</i>	\$0	\$7,552,160	\$18,228,743	\$25,780,903
<i>Transportation &amp; Warehousing</i>	\$0	\$102,434,535	\$2,469,023	\$104,903,558
<i>Information</i>	-\$11,099,977	-\$988,790	\$2,780,293	-\$9,308,473
<i>Finance &amp; insurance</i>	-\$52,333,660	\$1,421,777	\$14,156,733	-\$36,755,150
<i>Real estate &amp; rental</i>	-\$205,619,576	-\$17,704,996	\$29,535,003	-\$193,789,569
<i>Professional- scientific &amp; tech svcs</i>	-\$9,416,919	-\$2,751,720	\$4,709,725	-\$7,458,913
<i>Management of companies</i>	\$0	\$3,204,104	\$1,161,589	\$4,365,693
<i>Administrative services</i>	-\$2,775,431	\$18,811,224	\$2,784,898	\$18,820,690
<i>Waste Management</i>	-\$102	-\$477,920	\$224,586	-\$253,436
<i>Educational svcs</i>	-\$21,492,779	-\$403,778	\$2,302,968	-\$19,593,589
<i>Health &amp; social services</i>	-\$198,741,626	-\$4,019,961	\$23,885,741	-\$178,875,846
<i>Arts- entertainment &amp; recreation</i>	-\$14,214,943	-\$443,570	\$1,870,312	-\$12,788,201
<i>Accomodation &amp; food services</i>	-\$39,161,760	-\$1,832,905	\$5,785,732	-\$35,208,932
<i>Other services</i>	-\$36,670,828	\$753,698	\$5,494,645	-\$30,422,485
<i>Government &amp; non NAICs</i>	-\$17,942,460	\$27,192,054	\$3,345,708	\$12,595,302

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**Table D-97 Value Added Impact, 20% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$308,154,997	\$64,444,362	\$80,608,040	-\$163,102,595
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$54,670	-\$124,043	\$361,179	\$182,466
<i>Mining</i>	\$0	-\$63,370	\$24,867	-\$38,503
<i>Utilities</i>	-\$5,495,973	-\$164,785	\$1,038,591	-\$4,622,167
<i>Construction</i>	\$0	-\$3,412,508	\$771,371	-\$2,641,137
<i>Manufacturing</i>	-\$1,459	\$4,409,110	\$756,022	\$5,163,672
<i>Wholesale Trade</i>	\$0	\$4,033,581	\$3,381,592	\$7,415,173
<i>Retail trade</i>	\$0	\$4,244,182	\$13,185,397	\$17,429,579
<i>Transportation &amp; Warehousing</i>	\$0	\$32,883,935	\$899,616	\$33,783,551
<i>Information</i>	-\$5,560,422	-\$85,566	\$1,690,508	-\$3,955,481
<i>Finance &amp; insurance</i>	-\$21,955,545	\$4,643,286	\$6,750,187	-\$10,562,073
<i>Real estate &amp; rental</i>	-\$129,324,776	-\$7,189,444	\$23,299,820	-\$113,214,400
<i>Professional- scientific &amp; tech svcs</i>	-\$3,744,636	-\$226,928	\$1,884,303	-\$2,087,261
<i>Management of companies</i>	\$0	\$1,197,830	\$253,804	\$1,451,634
<i>Administrative services</i>	-\$750,076	\$11,130,949	\$1,139,220	\$11,520,093
<i>Waste Management</i>	-\$126	-\$345,793	\$251,612	-\$94,306
<i>Educational svcs</i>	-\$3,712,166	-\$102,052	\$720,560	-\$3,093,657
<i>Health &amp; social services</i>	-\$80,577,866	-\$1,185,324	\$12,897,246	-\$68,865,944
<i>Arts- entertainment &amp; recreation</i>	-\$7,401,285	-\$130,802	\$1,286,552	-\$6,245,534
<i>Accomodation &amp; food services</i>	-\$21,846,815	-\$519,031	\$4,111,252	-\$18,254,594
<i>Other services</i>	-\$17,318,745	\$1,183,838	\$3,403,745	-\$12,731,162
<i>Government &amp; non NAICs</i>	-\$10,410,437	\$14,267,296	\$2,500,597	\$6,357,456

**Table D-98 Value Added Impact, 30% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$463,613,464	\$100,072,685	\$126,219,931	-\$237,320,848
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$82,249	-\$186,530	\$565,384	\$296,605
<i>Mining</i>	\$0	-\$92,167	\$38,937	-\$53,230
<i>Utilities</i>	-\$8,268,587	-\$200,693	\$1,625,671	-\$6,843,609
<i>Construction</i>	\$0	-\$5,096,331	\$1,207,999	-\$3,888,332
<i>Manufacturing</i>	-\$2,196	\$6,870,842	\$1,183,553	\$8,052,200
<i>Wholesale Trade</i>	\$0	\$6,357,741	\$5,293,020	\$11,650,761
<i>Retail trade</i>	\$0	\$6,548,086	\$20,650,518	\$27,198,604
<i>Transportation &amp; Warehousing</i>	\$0	\$51,068,702	\$1,408,809	\$52,477,511
<i>Information</i>	-\$8,365,557	\$6,357	\$2,646,587	-\$5,712,613
<i>Finance &amp; insurance</i>	-\$33,031,699	\$5,193,694	\$10,569,146	-\$17,268,859
<i>Real estate &amp; rental</i>	-\$194,566,776	-\$10,399,408	\$36,485,805	-\$168,480,379
<i>Professional- scientific &amp; tech svcs</i>	-\$5,633,734	-\$121,410	\$2,950,353	-\$2,804,790
<i>Management of companies</i>	\$0	\$1,896,738	\$397,382	\$2,294,120
<i>Administrative services</i>	-\$1,128,476	\$17,467,650	\$1,783,879	\$18,123,053
<i>Waste Management</i>	-\$189	-\$505,691	\$393,873	-\$112,008
<i>Educational svcs</i>	-\$5,584,886	-\$153,174	\$1,128,889	-\$4,609,171
<i>Health &amp; social services</i>	-\$121,227,855	-\$1,783,268	\$20,192,397	-\$102,818,726
<i>Arts- entertainment &amp; recreation</i>	-\$11,135,093	-\$213,703	\$2,014,958	-\$9,333,838
<i>Accomodation &amp; food services</i>	-\$32,868,138	-\$754,997	\$6,437,190	-\$27,185,945
<i>Other services</i>	-\$26,055,723	\$1,916,731	\$5,330,573	-\$18,808,419
<i>Government &amp; non NAICs</i>	-\$15,662,306	\$22,253,517	\$3,915,006	\$10,506,217

**Table D-99 Value Added Impact, 40% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$678,286,180	\$174,144,951	\$216,809,932	-\$287,331,296
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$120,334	-\$267,601	\$970,007	\$582,072
<i>Mining</i>	\$0	-\$118,455	\$66,876	-\$51,579
<i>Utilities</i>	-\$12,097,293	-\$47,649	\$2,788,220	-\$9,356,723
<i>Construction</i>	\$0	-\$7,215,255	\$2,076,047	-\$5,139,209
<i>Manufacturing</i>	-\$3,212	\$11,315,269	\$2,031,176	\$13,343,233
<i>Wholesale Trade</i>	\$0	\$10,743,134	\$9,077,645	\$19,820,778
<i>Retail trade</i>	\$0	\$10,788,578	\$35,501,014	\$46,289,593
<i>Transportation &amp; Warehousing</i>	\$0	\$82,581,762	\$2,420,967	\$85,002,730
<i>Information</i>	-\$12,239,165	\$796,083	\$4,542,654	-\$6,900,429
<i>Finance &amp; insurance</i>	-\$48,326,778	\$9,568,628	\$18,150,452	-\$20,607,698
<i>Real estate &amp; rental</i>	-\$284,659,460	-\$13,024,814	\$62,685,041	-\$234,999,233
<i>Professional- scientific &amp; tech svcs</i>	-\$8,242,392	\$1,085,025	\$5,066,626	-\$2,090,740
<i>Management of companies</i>	\$0	\$3,274,782	\$682,336	\$3,957,118
<i>Administrative services</i>	-\$1,651,008	\$29,202,459	\$3,064,425	\$30,615,876
<i>Waste Management</i>	-\$277	-\$661,696	\$675,764	\$13,791
<i>Educational svcs</i>	-\$8,170,926	-\$221,304	\$1,943,315	-\$6,448,914
<i>Health &amp; social services</i>	-\$177,361,497	-\$2,608,822	\$34,665,710	-\$145,304,610
<i>Arts- entertainment &amp; recreation</i>	-\$16,291,113	-\$297,922	\$3,464,016	-\$13,125,020
<i>Accomodation &amp; food services</i>	-\$48,087,478	-\$886,649	\$11,054,435	-\$37,919,692
<i>Other services</i>	-\$38,120,628	\$3,626,675	\$9,162,185	-\$25,331,768
<i>Government &amp; non NAICs</i>	-\$22,914,617	\$36,512,723	\$6,721,021	\$20,319,127

**Table D-100 Value Added Impact, 20% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$410,872,969	\$85,925,693	\$107,477,441	-\$217,469,835
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$72,893	-\$165,391	\$481,572	\$243,288
<i>Mining</i>	\$0	-\$84,493	\$33,156	-\$51,337
<i>Utilities</i>	-\$7,327,956	-\$219,713	\$1,384,788	-\$6,162,880
<i>Construction</i>	\$0	-\$4,550,008	\$1,028,495	-\$3,521,513
<i>Manufacturing</i>	-\$1,946	\$5,878,810	\$1,008,030	\$6,884,894
<i>Wholesale Trade</i>	\$0	\$5,378,087	\$4,508,793	\$9,886,881
<i>Retail trade</i>	\$0	\$5,658,902	\$17,580,540	\$23,239,442
<i>Transportation &amp; Warehousing</i>	\$0	\$43,845,164	\$1,199,488	\$45,044,652
<i>Information</i>	-\$7,413,894	-\$114,087	\$2,254,012	-\$5,273,969
<i>Finance &amp; insurance</i>	-\$29,274,025	\$6,191,046	\$9,000,254	-\$14,082,724
<i>Real estate &amp; rental</i>	-\$172,432,930	-\$9,585,923	\$31,066,438	-\$150,952,415
<i>Professional- scientific &amp; tech svcs</i>	-\$4,992,842	-\$302,571	\$2,512,405	-\$2,783,009
<i>Management of companies</i>	\$0	\$1,597,105	\$338,405	\$1,935,511
<i>Administrative services</i>	-\$1,000,101	\$14,841,261	\$1,518,961	\$15,360,121
<i>Waste Management</i>	-\$168	-\$461,057	\$335,483	-\$125,741
<i>Educational svcs</i>	-\$4,949,552	-\$136,069	\$960,748	-\$4,124,873
<i>Health &amp; social services</i>	-\$107,437,022	-\$1,580,429	\$17,196,336	-\$91,821,116
<i>Arts- entertainment &amp; recreation</i>	-\$9,868,369	-\$174,402	\$1,715,403	-\$8,327,368
<i>Accomodation &amp; food services</i>	-\$29,129,070	-\$692,038	\$5,481,673	-\$24,339,436
<i>Other services</i>	-\$23,091,634	\$1,578,446	\$4,538,329	-\$16,974,860
<i>Government &amp; non NAICs</i>	-\$13,880,568	\$19,023,053	\$3,334,132	\$8,476,617

**Table D-101 Value Added Impact, 30% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$618,151,271	\$133,429,922	\$168,293,189	-\$316,428,160
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$109,666	-\$248,707	\$753,846	\$395,473
<i>Mining</i>	\$0	-\$122,890	\$51,916	-\$70,974
<i>Utilities</i>	-\$11,024,783	-\$267,594	\$2,167,561	-\$9,124,815
<i>Construction</i>	\$0	-\$6,795,110	\$1,610,665	-\$5,184,445
<i>Manufacturing</i>	-\$2,928	\$9,161,116	\$1,578,071	\$10,736,259
<i>Wholesale Trade</i>	\$0	\$8,476,951	\$7,057,358	\$15,534,309
<i>Retail trade</i>	\$0	\$8,730,767	\$27,534,015	\$36,264,783
<i>Transportation &amp; Warehousing</i>	\$0	\$68,091,472	\$1,878,412	\$69,969,884
<i>Information</i>	-\$11,154,076	\$8,471	\$3,528,782	-\$7,616,823
<i>Finance &amp; insurance</i>	-\$44,042,263	\$6,924,896	\$14,092,190	-\$23,025,177
<i>Real estate &amp; rental</i>	-\$259,422,360	-\$13,865,905	\$48,647,724	-\$224,640,540
<i>Professional- scientific &amp; tech svcs</i>	-\$7,511,645	-\$161,893	\$3,933,803	-\$3,739,734
<i>Management of companies</i>	\$0	\$2,528,979	\$529,842	\$3,058,821
<i>Administrative services</i>	-\$1,504,635	\$23,290,184	\$2,378,504	\$24,164,053
<i>Waste Management</i>	-\$252	-\$674,256	\$525,164	-\$149,345
<i>Educational svcs</i>	-\$7,446,515	-\$204,232	\$1,505,185	-\$6,145,562
<i>Health &amp; social services</i>	-\$161,637,142	-\$2,377,694	\$26,923,187	-\$137,091,649
<i>Arts- entertainment &amp; recreation</i>	-\$14,846,791	-\$284,938	\$2,686,609	-\$12,445,119
<i>Accomodation &amp; food services</i>	-\$43,824,182	-\$1,006,664	\$8,582,920	-\$36,247,926
<i>Other services</i>	-\$34,740,963	\$2,555,628	\$7,107,428	-\$25,077,907
<i>Government &amp; non NAICs</i>	-\$20,883,073	\$29,671,340	\$5,220,005	\$14,008,272

**Table D-102 Value Added Impact, 40% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$904,381,541	\$232,192,745	\$289,079,840	-\$383,108,956
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$160,446	-\$356,801	\$1,293,342	\$776,095
<i>Mining</i>	\$0	-\$157,940	\$89,168	-\$68,772
<i>Utilities</i>	-\$16,129,724	-\$63,536	\$3,717,625	-\$12,475,635
<i>Construction</i>	\$0	-\$9,620,343	\$2,768,061	-\$6,852,282
<i>Manufacturing</i>	-\$4,283	\$15,087,014	\$2,708,234	\$17,790,965
<i>Wholesale Trade</i>	\$0	\$14,324,118	\$12,103,524	\$26,427,642
<i>Retail trade</i>	\$0	\$14,384,749	\$47,334,670	\$61,719,419
<i>Transportation &amp; Warehousing</i>	\$0	\$110,108,804	\$3,227,955	\$113,336,759
<i>Information</i>	-\$16,318,887	\$1,061,435	\$6,056,869	-\$9,200,583
<i>Finance &amp; insurance</i>	-\$64,435,697	\$12,758,116	\$24,200,594	-\$27,476,987
<i>Real estate &amp; rental</i>	-\$379,545,933	-\$17,366,457	\$83,580,046	-\$313,332,343
<i>Professional- scientific &amp; tech svcs</i>	-\$10,989,855	\$1,446,680	\$6,755,499	-\$2,787,676
<i>Management of companies</i>	\$0	\$4,366,368	\$909,781	\$5,276,149
<i>Administrative services</i>	-\$2,201,344	\$38,936,583	\$4,085,899	\$40,821,138
<i>Waste Management</i>	-\$369	-\$882,262	\$901,019	\$18,387
<i>Educational svcs</i>	-\$10,894,567	-\$295,071	\$2,591,086	-\$8,598,552
<i>Health &amp; social services</i>	-\$236,481,988	-\$3,478,436	\$46,220,933	-\$193,739,491
<i>Arts- entertainment &amp; recreation</i>	-\$21,721,485	-\$397,229	\$4,618,686	-\$17,500,028
<i>Accomodation &amp; food services</i>	-\$64,116,637	-\$1,182,200	\$14,739,246	-\$50,559,590
<i>Other services</i>	-\$50,827,502	\$4,835,546	\$12,216,243	-\$33,775,713
<i>Government &amp; non NAICs</i>	-\$30,552,823	\$48,683,605	\$8,961,359	\$27,092,141

D.3.4 Puget Sound

**Table D-103 Value Added Impact, 20% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-	\$547,920,558	\$652,863,24	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$46,982	-\$1,217,551	\$1,482,893	\$218,360
<i>Mining</i>	\$0	\$1,287,678	\$218,101	\$1,505,779
<i>Utilities</i>	-\$54,380,479	-\$5,838,229	\$7,089,369	-\$53,129,339
<i>Construction</i>	\$0	-\$37,814,120	\$5,423,993	-\$32,390,127
<i>Manufacturing</i>	-\$35,582	-\$4,594,829	\$17,123,753	\$12,493,342
<i>Wholesale Trade</i>	\$0	\$54,203,333	\$39,274,842	\$93,478,175
<i>Retail trade</i>	\$0	\$33,534,814	\$82,033,561	\$115,568,375
<i>Transportation &amp; Warehousing</i>	\$0	\$534,702,398	\$15,367,944	\$550,070,342
<i>Information</i>	-\$133,820,792	-\$32,574,230	\$29,339,285	-\$137,055,737
<i>Finance &amp; insurance</i>	-\$341,275,948	-\$66,266,251	\$77,184,920	-\$330,357,278
<i>Real estate &amp; rental</i>	-	-	\$155,397,33	-
<i>Professional- scientific &amp; tech svcs</i>	-\$65,669,041	-\$41,227,975	\$27,048,854	-\$79,848,161
<i>Management of companies</i>	\$0	\$16,831,290	\$5,751,358	\$22,582,648
<i>Administrative services</i>	-\$13,317,973	\$152,474,414	\$13,518,959	\$152,675,400
<i>Waste Management</i>	-\$953	-\$5,341,645	\$1,934,621	-\$3,407,977
<i>Educational svcs</i>	-\$63,753,005	-\$1,042,018	\$6,717,396	-\$58,077,627
<i>Health &amp; social services</i>	-\$919,495,773	-\$16,104,034	\$90,786,524	-\$844,813,283
<i>Arts- entertainment &amp; recreation</i>	-\$103,886,354	-\$5,115,570	\$11,599,760	-\$97,402,163
<i>Accomodation &amp; food services</i>	-\$231,847,471	-\$9,691,723	\$27,590,651	-\$213,948,543
<i>Other services</i>	-\$202,985,128	\$2,401,415	\$25,501,956	-\$175,081,757
<i>Government &amp; non NAICs</i>	-\$82,813,027	\$112,583,666	\$12,477,173	\$42,247,812

**Table D-104 Value Added Impact, 30% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$832,307,621	\$1,007,024,24	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$71,780	-\$1,851,587	\$2,287,161	\$363,793
<i>Mining</i>	\$0	\$2,012,296	\$336,400	\$2,348,696
<i>Utilities</i>	-\$83,084,152	-\$9,024,895	\$10,933,876	-\$81,175,171
<i>Construction</i>	\$0	-\$57,819,636	\$8,366,758	-\$49,452,878
<i>Manufacturing</i>	-\$54,363	-\$6,528,689	\$26,410,914	\$19,827,861
<i>Wholesale Trade</i>	\$0	\$84,275,285	\$60,571,585	\$144,846,870
<i>Retail trade</i>	\$0	\$52,073,223	\$126,543,954	\$178,617,177
<i>Transportation &amp; Warehousing</i>	\$0	\$825,518,627	\$23,705,949	\$849,224,576
<i>Information</i>	-\$204,455,479	-\$49,238,734	\$45,252,900	-\$208,441,312
<i>Finance &amp; insurance</i>	-\$521,411,807	-	\$119,058,202	-\$526,469,626
<i>Real estate &amp; rental</i>	-	-	\$239,698,151	-
<i>Professional- scientific &amp; tech</i>	-\$100,331,162	-\$62,466,898	\$41,721,381	-\$121,076,679
<i>Management of companies</i>	\$0	\$26,247,193	\$8,870,958	\$35,118,151
<i>Administrative services</i>	-\$20,347,606	\$236,089,242	\$20,852,826	\$236,594,462
<i>Waste Management</i>	-\$1,456	-\$8,162,279	\$2,983,823	-\$5,179,912
<i>Educational svcs</i>	-\$97,403,789	-\$1,591,529	\$10,363,691	-\$88,631,626
<i>Health &amp; social services</i>	-	-\$24,604,307	\$140,031,023	-
<i>Arts- entertainment &amp; recreation</i>	-\$158,720,736	-\$7,831,918	\$17,893,778	-\$148,658,876
<i>Accomodation &amp; food services</i>	-\$354,223,611	-\$14,875,323	\$42,557,259	-\$326,541,674
<i>Other services</i>	-\$310,126,873	\$3,833,610	\$39,338,930	-\$266,954,333
<i>Government &amp; non NAICs</i>	-\$126,524,265	\$174,062,919	\$19,244,725	\$66,783,378

**Table D-105 Value Added Impact, 40% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$949,789,351	\$1,158,206,61	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$88,558	-\$2,319,778	\$2,632,545	\$224,209
<i>Mining</i>	\$0	\$2,344,868	\$387,092	\$2,731,960
<i>Utilities</i>	-\$102,504,754	-\$11,543,883	\$12,591,322	-\$101,457,315
<i>Construction</i>	\$0	-\$71,830,333	\$9,617,988	-\$62,212,345
<i>Manufacturing</i>	-\$67,070	-\$9,950,190	\$30,400,985	\$20,383,725
<i>Wholesale Trade</i>	\$0	\$99,106,264	\$69,773,980	\$168,880,243
<i>Retail trade</i>	\$0	\$61,833,479	\$145,425,773	\$207,259,252
<i>Transportation &amp; Warehousing</i>	\$0	\$991,467,853	\$27,248,645	\$1,018,716,498
<i>Information</i>	-\$252,246,190	-\$64,625,269	\$52,073,456	-\$264,798,002
<i>Finance &amp; insurance</i>	-\$643,289,815	-	\$136,900,885	-\$662,390,917
<i>Real estate &amp; rental</i>	-	-	\$275,660,210	-
<i>Professional- scientific &amp; tech</i>	-\$123,783,191	-\$81,779,914	\$47,994,286	-\$157,568,819
<i>Management of companies</i>	\$0	\$30,100,935	\$10,207,121	\$40,308,056
<i>Administrative services</i>	-\$25,103,781	\$279,990,521	\$23,981,023	\$278,867,763
<i>Waste Management</i>	-\$1,797	-\$10,240,149	\$3,435,244	-\$6,806,701
<i>Educational svcs</i>	-\$120,171,548	-\$1,971,224	\$11,891,247	-\$110,251,525
<i>Health &amp; social services</i>	-	-\$30,355,891	\$161,112,793	-
<i>Arts- entertainment &amp; recreation</i>	-\$195,821,099	-\$9,754,093	\$20,562,090	-\$185,013,103
<i>Accomodation &amp; food services</i>	-\$437,022,067	-\$18,847,712	\$48,954,172	-\$406,915,606
<i>Other services</i>	-\$382,617,852	\$3,081,311	\$45,209,644	-\$334,326,897
<i>Government &amp; non NAICs</i>	-\$156,098,830	\$207,903,382	\$22,146,109	\$73,950,661

**Table D-106 Value Added Impact, 20% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-	\$730,560,730	\$870,484,51	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$62,642	-\$1,623,402	\$1,977,191	\$291,147
<i>Mining</i>	\$0	\$1,716,903	\$290,802	\$2,007,705
<i>Utilities</i>	-\$72,507,300	-\$7,784,301	\$9,452,490	-\$70,839,110
<i>Construction</i>	\$0	-\$50,418,819	\$7,231,995	-\$43,186,824
<i>Manufacturing</i>	-\$47,442	-\$6,126,444	\$22,831,675	\$16,657,789
<i>Wholesale Trade</i>	\$0	\$72,271,111	\$52,366,455	\$124,637,567
<i>Retail trade</i>	\$0	\$44,713,084	\$109,378,09	\$154,091,175
<i>Transportation &amp; Warehousing</i>	\$0	\$712,936,488	\$20,490,594	\$733,427,081
<i>Information</i>	-\$178,427,718	-\$43,432,305	\$39,119,057	-\$182,740,966
<i>Finance &amp; insurance</i>	-\$455,034,582	-\$88,355,012	\$102,913,25	-\$440,476,335
<i>Real estate &amp; rental</i>	-	-	\$207,196,49	-
<i>Professional- scientific &amp; tech svcs</i>	-\$87,558,714	-\$54,970,634	\$36,065,154	-\$106,464,194
<i>Management of companies</i>	\$0	\$22,441,721	\$7,668,479	\$30,110,199
<i>Administrative services</i>	-\$17,757,297	\$203,299,207	\$18,025,286	\$203,567,196
<i>Waste Management</i>	-\$1,271	-\$7,122,192	\$2,579,494	-\$4,543,968
<i>Educational svcs</i>	-\$85,004,001	-\$1,389,354	\$8,956,530	-\$77,436,826
<i>Health &amp; social services</i>	-	-\$21,472,047	\$121,048,72	-
<i>Arts- entertainment &amp; recreation</i>	-\$138,515,129	-\$6,820,762	\$15,466,347	-\$129,869,543
<i>Accomodation &amp; food services</i>	-\$309,129,944	-\$12,922,327	\$36,787,542	-\$285,264,729
<i>Other services</i>	-\$270,646,833	\$3,201,879	\$34,002,615	-\$233,442,338
<i>Government &amp; non NAICs</i>	-\$110,417,365	\$150,111,570	\$16,636,235	\$56,330,440

**Table D-107 Value Added Impact, 30% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$7,141,748,003	\$1,109,743,512	\$1,342,699,303	-\$4,689,305,188
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$95,707	-\$2,468,783	\$3,049,548	\$485,059
<i>Mining</i>	\$0	\$2,683,062	\$448,534	\$3,131,596
<i>Utilities</i>	-\$110,778,865	-\$12,033,193	\$14,578,505	-\$108,233,554
<i>Construction</i>	\$0	-\$77,092,849	\$11,155,678	-\$65,937,172
<i>Manufacturing</i>	-\$72,484	-\$8,704,922	\$35,214,557	\$26,437,151
<i>Wholesale Trade</i>	\$0	\$112,367,040	\$80,762,161	\$193,129,200
<i>Retail trade</i>	\$0	\$69,430,961	\$168,725,293	\$238,156,254
<i>Transportation &amp; Warehousing</i>	\$0	\$1,100,691,578	\$31,607,944	\$1,132,299,521
<i>Information</i>	-\$272,607,320	-\$65,651,668	\$60,337,217	-\$277,921,771
<i>Finance &amp; insurance</i>	-\$695,215,727	-\$165,488,093	\$158,744,327	-\$701,959,493
<i>Real estate &amp; rental</i>	-\$2,632,960,267	-\$271,590,587	\$319,597,621	-\$2,584,953,232
<i>Professional- scientific &amp; tech svcs</i>	-\$133,774,889	-\$83,289,189	\$55,628,530	-\$161,435,548
<i>Management of companies</i>	\$0	\$34,996,264	\$11,827,949	\$46,824,213
<i>Administrative services</i>	-\$27,130,141	\$314,785,637	\$27,803,776	\$315,459,272
<i>Waste Management</i>	-\$1,942	-\$10,883,040	\$3,978,430	-\$6,906,552
<i>Educational svcs</i>	-\$129,871,717	-\$2,122,038	\$13,818,258	-\$118,175,497
<i>Health &amp; social services</i>	-\$1,873,111,586	-\$32,805,716	\$186,708,040	-\$1,719,209,262
<i>Arts- entertainment &amp; recreation</i>	-\$211,627,655	-\$10,442,555	\$23,858,378	-\$198,211,831
<i>Accomodation &amp; food services</i>	-\$472,298,167	-\$19,833,741	\$56,743,002	-\$435,388,906
<i>Other services</i>	-\$413,502,511	\$5,111,470	\$52,451,911	-\$355,939,130
<i>Government &amp; non NAICs</i>	-\$168,699,026	\$232,083,875	\$25,659,645	\$89,044,494

**Table D-108 Value Added Impact, 40% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$8,811,104,564	\$1,266,386,154	\$1,544,274,700	-\$6,000,443,710
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$118,078	-\$3,093,037	\$3,510,058	\$298,943
<i>Mining</i>	\$0	\$3,126,492	\$516,122	\$3,642,613
<i>Utilities</i>	-\$136,673,016	-\$15,391,840	\$16,788,426	-\$135,276,430
<i>Construction</i>	\$0	-\$95,773,778	\$12,823,976	-\$82,949,802
<i>Manufacturing</i>	-\$89,427	-\$13,266,920	\$40,534,628	\$27,178,282
<i>Wholesale Trade</i>	\$0	\$132,141,681	\$93,031,932	\$225,173,613
<i>Retail trade</i>	\$0	\$82,444,649	\$193,900,967	\$276,345,616
<i>Transportation &amp; Warehousing</i>	\$0	\$1,321,957,206	\$36,331,503	\$1,358,288,710
<i>Information</i>	-\$336,328,243	-\$86,166,994	\$69,431,250	-\$353,063,988
<i>Finance &amp; insurance</i>	-\$857,719,769	-\$208,002,657	\$182,534,431	-\$883,187,994
<i>Real estate &amp; rental</i>	-\$3,248,404,681	-\$342,425,044	\$367,546,718	-\$3,223,283,006
<i>Professional- scientific &amp; tech svcs</i>	-\$165,044,263	-\$109,039,891	\$63,992,368	-\$210,091,786
<i>Management of companies</i>	\$0	\$40,134,582	\$13,609,488	\$53,744,070
<i>Administrative services</i>	-\$33,471,710	\$373,320,746	\$31,974,691	\$371,823,728
<i>Waste Management</i>	-\$2,396	-\$13,653,532	\$4,580,319	-\$9,075,608
<i>Educational svcs</i>	-\$160,228,744	-\$2,628,302	\$15,854,980	-\$147,002,066
<i>Health &amp; social services</i>	-\$2,310,944,356	-\$40,474,459	\$214,816,902	-\$2,136,601,913
<i>Arts- entertainment &amp; recreation</i>	-\$261,094,817	-\$13,005,453	\$27,416,106	-\$246,684,163
<i>Accomodation &amp; food services</i>	-\$582,696,117	-\$25,130,231	\$65,272,200	-\$542,554,149
<i>Other services</i>	-\$510,157,166	\$4,108,407	\$60,279,510	-\$445,769,249
<i>Government &amp; non NAICs</i>	-\$208,131,783	\$277,204,528	\$29,528,124	\$98,600,869

D.3.5 Southeast

**Table D-109 Value Added Impact, 20% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$50,471,582	\$12,045,513	\$11,017,714	-\$27,408,355
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$112,545	-\$16,632	\$70,831	-\$58,347
<i>Mining</i>	\$0	-\$4,791	\$2,866	-\$1,925
<i>Utilities</i>	-\$1,801,388	\$17,153	\$280,898	-\$1,503,337
<i>Construction</i>	\$0	-\$324,824	\$68,215	-\$256,610
<i>Manufacturing</i>	-\$317	\$364,371	\$109,421	\$473,475
<i>Wholesale Trade</i>	\$0	\$801,547	\$527,767	\$1,329,313
<i>Retail trade</i>	\$0	\$636,417	\$1,760,025	\$2,396,442
<i>Transportation &amp; Warehousing</i>	\$0	\$5,802,634	\$142,951	\$5,945,584
<i>Information</i>	-\$876,464	\$93,818	\$195,177	-\$587,469
<i>Finance &amp; insurance</i>	-\$2,983,170	\$1,148,033	\$697,056	-\$1,138,081
<i>Real estate &amp; rental</i>	-\$19,058,593	-\$193,114	\$2,992,595	-\$16,259,112
<i>Professional- scientific &amp; tech svcs</i>	-\$612,781	\$214,738	\$197,524	-\$200,520
<i>Management of companies</i>	\$0	\$25,726	\$2,981	\$28,707
<i>Administrative services</i>	-\$86,909	\$864,562	\$67,565	\$845,218
<i>Waste Management</i>	-\$3	-\$1,498	\$4,298	\$2,796
<i>Educational svcs</i>	-\$1,612,478	-\$6,931	\$195,664	-\$1,423,745
<i>Health &amp; social services</i>	-\$15,194,216	-\$112,503	\$2,281,364	-\$13,025,354
<i>Arts- entertainment &amp; recreation</i>	-\$974,490	-\$15,683	\$157,079	-\$833,095
<i>Accomodation &amp; food services</i>	-\$3,086,175	-\$37,175	\$533,846	-\$2,589,504
<i>Other services</i>	-\$2,611,138	\$241,799	\$443,633	-\$1,925,706
<i>Government &amp; non NAICs</i>	-\$1,460,914	\$2,547,868	\$285,959	\$1,372,913

**Table D-110 Value Added Impact, 30% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$75,475,087	\$17,580,553	\$16,288,717	-\$41,605,817
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$168,300	-\$24,914	\$104,722	-\$88,492
<i>Mining</i>	\$0	-\$7,198	\$4,237	-\$2,961
<i>Utilities</i>	-\$2,693,792	\$16,614	\$415,324	-\$2,261,854
<i>Construction</i>	\$0	-\$487,945	\$100,846	-\$387,099
<i>Manufacturing</i>	-\$474	\$543,191	\$161,781	\$704,498
<i>Wholesale Trade</i>	\$0	\$1,195,025	\$780,315	\$1,975,341
<i>Retail trade</i>	\$0	\$950,725	\$2,601,920	\$3,552,645
<i>Transportation &amp; Warehousing</i>	\$0	\$8,658,554	\$211,337	\$8,869,891
<i>Information</i>	-\$1,310,663	\$136,471	\$288,566	-\$885,626
<i>Finance &amp; insurance</i>	-\$4,461,025	\$1,365,674	\$1,030,571	-\$2,064,780
<i>Real estate &amp; rental</i>	-\$28,500,175	-\$300,397	\$4,424,110	-\$24,376,462
<i>Professional- scientific &amp; tech svcs</i>	-\$916,351	\$314,252	\$292,028	-\$310,072
<i>Management of companies</i>	\$0	\$38,247	\$4,407	\$42,654
<i>Administrative services</i>	-\$129,964	\$1,287,013	\$99,888	\$1,256,936
<i>Waste Management</i>	-\$4	-\$2,359	\$6,354	\$3,991
<i>Educational svcs</i>	-\$2,411,296	-\$10,383	\$289,249	-\$2,132,430
<i>Health &amp; social services</i>	-\$22,721,396	-\$168,236	\$3,372,942	-\$19,516,690
<i>Arts- entertainment &amp; recreation</i>	-\$1,457,251	-\$23,733	\$232,219	-\$1,248,765
<i>Accomodation &amp; food services</i>	-\$4,615,059	-\$57,817	\$789,256	-\$3,883,620
<i>Other services</i>	-\$3,904,689	\$357,829	\$655,858	-\$2,891,001
<i>Government &amp; non NAICs</i>	-\$2,184,647	\$3,799,938	\$422,785	\$2,038,077

**Table D-111 Value Added Impact, 40% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$105,743,352	\$25,479,254	\$23,692,401	-\$56,571,697
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$235,795	-\$34,708	\$152,303	-\$118,200
<i>    Mining</i>	\$0	-\$9,421	\$6,162	-\$3,259
<i>    Utilities</i>	-\$3,774,101	\$35,442	\$603,951	-\$3,134,708
<i>    Construction</i>	\$0	-\$678,261	\$146,695	-\$531,567
<i>    Manufacturing</i>	-\$665	\$788,595	\$235,274	\$1,023,204
<i>    Wholesale Trade</i>	\$0	\$1,736,462	\$1,134,777	\$2,871,240
<i>    Retail trade</i>	\$0	\$1,377,108	\$3,785,005	\$5,162,112
<i>Transportation &amp; Warehousing</i>	\$0	\$12,475,137	\$307,406	\$12,782,543
<i>    Information</i>	-\$1,836,286	\$215,968	\$419,676	-\$1,200,643
<i>    Finance &amp; insurance</i>	-\$6,250,059	\$1,906,148	\$1,498,868	-\$2,845,043
<i>    Real estate &amp; rental</i>	-\$39,929,787	-\$388,489	\$6,435,630	-\$33,882,645
<i>Professional- scientific &amp; tech svcs</i>	-\$1,283,842	\$478,794	\$424,739	-\$380,310
<i>    Management of companies</i>	\$0	\$55,740	\$6,410	\$62,150
<i>    Administrative services</i>	-\$182,084	\$1,868,234	\$145,294	\$1,831,443
<i>    Waste Management</i>	-\$6	-\$2,972	\$9,241	\$6,263
<i>    Educational svcs</i>	-\$3,378,314	-\$14,442	\$420,807	-\$2,971,949
<i>    Health &amp; social services</i>	-\$31,833,504	-\$235,704	\$4,905,513	-\$27,163,694
<i>Arts- entertainment &amp; recreation</i>	-\$2,041,662	-\$32,750	\$337,799	-\$1,736,613
<i>Accomodation &amp; food services</i>	-\$6,465,866	-\$75,740	\$1,147,953	-\$5,393,653
<i>    Other services</i>	-\$5,470,613	\$525,946	\$954,015	-\$3,990,651
<i>Government &amp; non NAICs</i>	-\$3,060,770	\$5,488,169	\$614,883	\$3,042,282

**Table D-112 Value Added Impact, 20% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$67,295,446	\$16,060,683	\$14,690,287	-\$36,544,476
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$150,061	-\$22,176	\$94,441	-\$77,796
<i>Mining</i>	\$0	-\$6,388	\$3,821	-\$2,567
<i>Utilities</i>	-\$2,401,851	\$22,871	\$374,531	-\$2,004,450
<i>Construction</i>	\$0	-\$433,099	\$90,953	-\$342,146
<i>Manufacturing</i>	-\$423	\$485,828	\$145,895	\$631,300
<i>Wholesale Trade</i>	\$0	\$1,068,729	\$703,689	\$1,772,418
<i>Retail trade</i>	\$0	\$848,557	\$2,346,700	\$3,195,257
<i>Transportation &amp; Warehousing</i>	\$0	\$7,736,844	\$190,601	\$7,927,445
<i>Information</i>	-\$1,168,619	\$125,091	\$260,236	-\$783,292
<i>Finance &amp; insurance</i>	-\$3,977,559	\$1,530,711	\$929,408	-\$1,517,441
<i>Real estate &amp; rental</i>	-\$25,411,458	-\$257,486	\$3,990,127	-\$21,678,817
<i>Professional- scientific &amp; tech svcs</i>	-\$817,042	\$286,317	\$263,365	-\$267,360
<i>Management of companies</i>	\$0	\$34,301	\$3,975	\$38,276
<i>Administrative services</i>	-\$115,879	\$1,152,750	\$90,087	\$1,126,957
<i>Waste Management</i>	-\$4	-\$1,998	\$5,730	\$3,729
<i>Educational svcs</i>	-\$2,149,971	-\$9,242	\$260,886	-\$1,898,326
<i>Health &amp; social services</i>	-\$20,258,956	-\$150,003	\$3,041,820	-\$17,367,140
<i>Arts- entertainment &amp; recreation</i>	-\$1,299,321	-\$20,911	\$209,439	-\$1,110,793
<i>Accomodation &amp; food services</i>	-\$4,114,900	-\$49,567	\$711,795	-\$3,452,672
<i>Other services</i>	-\$3,481,517	\$322,398	\$591,511	-\$2,567,608
<i>Government &amp; non NAICs</i>	-\$1,947,885	\$3,397,156	\$381,279	\$1,830,551

**Table D-113 Value Added Impact, 30% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$100,633,442	\$23,440,736	\$21,718,287	-\$55,474,420
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$224,400	-\$33,219	\$139,629	-\$117,990
<i>Mining</i>	\$0	-\$9,597	\$5,649	-\$3,948
<i>Utilities</i>	-\$3,591,722	\$22,152	\$553,766	-\$3,015,805
<i>Construction</i>	\$0	-\$650,594	\$134,462	-\$516,132
<i>Manufacturing</i>	-\$633	\$724,255	\$215,708	\$939,331
<i>Wholesale Trade</i>	\$0	\$1,593,367	\$1,040,421	\$2,633,788
<i>Retail trade</i>	\$0	\$1,267,634	\$3,469,226	\$4,736,860
<i>Transportation &amp; Warehousing</i>	\$0	\$11,544,738	\$281,783	\$11,826,521
<i>Information</i>	-\$1,747,550	\$181,961	\$384,755	-\$1,180,834
<i>Finance &amp; insurance</i>	-\$5,948,033	\$1,820,899	\$1,374,094	-\$2,753,040
<i>Real estate &amp; rental</i>	-\$38,000,233	-\$400,529	\$5,898,813	-\$32,501,948
<i>Professional- scientific &amp; tech svcs</i>	-\$1,221,802	\$419,003	\$389,371	-\$413,429
<i>Management of companies</i>	\$0	\$50,996	\$5,877	\$56,872
<i>Administrative services</i>	-\$173,285	\$1,716,017	\$133,183	\$1,675,915
<i>Waste Management</i>	-\$6	-\$3,145	\$8,472	\$5,322
<i>Educational svcs</i>	-\$3,215,061	-\$13,844	\$385,665	-\$2,843,240
<i>Health &amp; social services</i>	-\$30,295,191	-\$224,315	\$4,497,256	-\$26,022,251
<i>Arts- entertainment &amp; recreation</i>	-\$1,943,001	-\$31,644	\$309,625	-\$1,665,020
<i>Accomodation &amp; food services</i>	-\$6,153,411	-\$77,089	\$1,052,341	-\$5,178,160
<i>Other services</i>	-\$5,206,252	\$477,106	\$874,478	-\$3,854,668
<i>Government &amp; non NAICs</i>	-\$2,912,862	\$5,066,584	\$563,713	\$2,717,435

**Table D-114 Value Added Impact, 40% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$140,991,139	\$33,972,339	\$31,589,866	-\$75,428,934
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$314,393	-\$46,277	\$203,070	-\$157,600
<i>Mining</i>	\$0	-\$12,562	\$8,217	-\$4,345
<i>Utilities</i>	-\$5,032,135	\$47,255	\$805,268	-\$4,179,611
<i>Construction</i>	\$0	-\$904,349	\$195,593	-\$708,756
<i>Manufacturing</i>	-\$886	\$1,051,460	\$313,699	\$1,364,272
<i>Wholesale Trade</i>	\$0	\$2,315,283	\$1,513,037	\$3,828,320
<i>Retail trade</i>	\$0	\$1,836,143	\$5,046,673	\$6,882,816
<i>Transportation &amp; Warehousing</i>	\$0	\$16,633,515	\$409,875	\$17,043,390
<i>Information</i>	-\$2,448,382	\$287,957	\$559,568	-\$1,600,857
<i>Finance &amp; insurance</i>	-\$8,333,411	\$2,541,531	\$1,998,491	-\$3,793,389
<i>Real estate &amp; rental</i>	-\$53,239,718	-\$517,986	\$8,580,838	-\$45,176,865
<i>Professional- scientific &amp; tech svcs</i>	-\$1,711,789	\$638,391	\$566,318	-\$507,080
<i>Management of companies</i>	\$0	\$74,320	\$8,547	\$82,867
<i>Administrative services</i>	-\$242,779	\$2,490,978	\$193,725	\$2,441,924
<i>Waste Management</i>	-\$8	-\$3,963	\$12,321	\$8,351
<i>Educational svcs</i>	-\$4,504,418	-\$19,256	\$561,076	-\$3,962,599
<i>Health &amp; social services</i>	-\$42,444,673	-\$314,270	\$6,540,684	-\$36,218,259
<i>Arts- entertainment &amp; recreation</i>	-\$2,722,216	-\$43,667	\$450,399	-\$2,315,484
<i>Accomodation &amp; food services</i>	-\$8,621,154	-\$100,986	\$1,530,604	-\$7,191,536
<i>Other services</i>	-\$7,294,150	\$701,261	\$1,272,020	-\$5,320,868
<i>Government &amp; non NAICs</i>	-\$4,081,027	\$7,317,559	\$819,844	\$4,056,376

D.3.6 Southwest

**Table D-115 Value Added Impact, 20% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$293,699,379	\$57,141,382	\$62,082,649	-\$174,475,347
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$28,329	-\$99,967	\$172,413	\$44,117
<i>Mining</i>	\$0	\$907,938	\$74,139	\$982,077
<i>Utilities</i>	-\$1,872,396	-\$92,415	\$287,160	-\$1,677,651
<i>Construction</i>	\$0	-\$3,686,798	\$668,956	-\$3,017,842
<i>Manufacturing</i>	-\$1,776	\$160,865	\$841,045	\$1,000,135
<i>Wholesale Trade</i>	\$0	\$3,651,597	\$3,229,508	\$6,881,105
<i>Retail trade</i>	\$0	\$3,207,762	\$9,862,926	\$13,070,689
<i>Transportation &amp; Warehousing</i>	\$0	\$40,405,407	\$1,097,740	\$41,503,147
<i>Information</i>	-\$8,158,787	\$137,954	\$1,683,057	-\$6,337,776
<i>Finance &amp; insurance</i>	-\$18,860,359	-\$2,224,303	\$4,803,426	-\$16,281,236
<i>Real estate &amp; rental</i>	-\$114,604,935	-\$5,104,913	\$16,244,371	-\$103,465,476
<i>Professional- scientific &amp; tech svcs</i>	-\$3,465,452	-\$773,561	\$1,466,011	-\$2,773,001
<i>Management of companies</i>	\$0	\$635,325	\$152,389	\$787,714
<i>Administrative services</i>	-\$1,131,527	\$11,179,740	\$1,123,993	\$11,172,206
<i>Waste Management</i>	-\$80	-\$266,740	\$164,542	-\$102,279
<i>Educational svcs</i>	-\$2,518,563	-\$133,564	\$399,482	-\$2,252,645
<i>Health &amp; social services</i>	-\$88,728,489	-\$1,470,522	\$11,393,775	-\$78,805,236
<i>Arts- entertainment &amp; recreation</i>	-\$7,769,815	-\$79,696	\$1,055,029	-\$6,794,482
<i>Accomodation &amp; food services</i>	-\$19,058,956	-\$648,750	\$2,912,817	-\$16,794,889
<i>Other services</i>	-\$17,641,266	\$624,135	\$2,760,604	-\$14,256,527
<i>Government &amp; non NAICs</i>	-\$9,858,649	\$10,811,884	\$1,689,267	\$2,642,502

**Table D-116 Value Added Impact, 30% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$431,740,084	\$82,428,538	\$90,429,569	-\$258,881,977
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$41,643	-\$147,103	\$251,159	\$62,413
<i>Mining</i>	\$0	\$1,337,557	\$108,000	\$1,445,557
<i>Utilities</i>	-\$2,752,435	-\$142,171	\$418,334	-\$2,476,272
<i>Construction</i>	\$0	-\$5,432,293	\$974,370	-\$4,457,923
<i>Manufacturing</i>	-\$2,610	\$235,886	\$1,225,166	\$1,458,443
<i>Wholesale Trade</i>	\$0	\$5,372,222	\$4,704,744	\$10,076,966
<i>Retail trade</i>	\$0	\$4,727,707	\$14,365,156	\$19,092,862
<i>Transportation &amp; Warehousing</i>	\$0	\$59,460,988	\$1,598,905	\$61,059,893
<i>Information</i>	-\$11,993,472	\$189,804	\$2,451,764	-\$9,351,904
<i>Finance &amp; insurance</i>	-\$27,724,855	-\$4,749,581	\$6,996,900	-\$25,477,536
<i>Real estate &amp; rental</i>	-\$168,470,032	-\$7,577,648	\$23,660,520	-\$152,387,159
<i>Professional- scientific &amp; tech svcs</i>	-\$5,094,238	-\$1,162,009	\$2,135,459	-\$4,120,787
<i>Management of companies</i>	\$0	\$931,895	\$221,978	\$1,153,874
<i>Administrative services</i>	-\$1,663,353	\$16,427,968	\$1,637,206	\$16,401,821
<i>Waste Management</i>	-\$118	-\$395,111	\$239,697	-\$155,532
<i>Educational svcs</i>	-\$3,702,305	-\$196,629	\$581,833	-\$3,317,101
<i>Health &amp; social services</i>	-\$130,431,487	-\$2,161,677	\$16,597,151	-\$115,996,014
<i>Arts- entertainment &amp; recreation</i>	-\$11,421,681	-\$118,284	\$1,536,634	-\$10,003,330
<i>Accomodation &amp; food services</i>	-\$28,016,792	-\$965,540	\$4,242,904	-\$24,739,429
<i>Other services</i>	-\$25,932,782	\$898,367	\$4,020,886	-\$21,013,529
<i>Government &amp; non NAICs</i>	-\$14,492,281	\$15,894,189	\$2,460,804	\$3,862,712

**Table D-117 Value Added Impact, 40% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$633,410,087	\$127,302,178	\$139,871,215	-\$366,236,694
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$61,096	-\$212,241	\$388,351	\$115,015
<i>    Mining</i>	\$0	\$2,042,266	\$166,997	\$2,209,263
<i>    Utilities</i>	-\$4,038,124	-\$192,319	\$646,732	-\$3,583,711
<i>    Construction</i>	\$0	-\$7,904,559	\$1,507,272	-\$6,397,287
<i>    Manufacturing</i>	-\$3,829	\$467,412	\$1,894,456	\$2,358,039
<i>    Wholesale Trade</i>	\$0	\$8,282,085	\$7,273,426	\$15,555,511
<i>    Retail trade</i>	\$0	\$7,227,252	\$22,225,792	\$29,453,043
<i>Transportation &amp; Warehousing</i>	\$0	\$89,868,841	\$2,473,450	\$92,342,291
<i>    Information</i>	-\$17,595,740	\$522,114	\$3,790,992	-\$13,282,634
<i>    Finance &amp; insurance</i>	-\$40,675,408	-\$7,252,906	\$10,821,099	-\$37,107,215
<i>    Real estate &amp; rental</i>	-\$247,164,037	-\$10,788,534	\$36,602,478	-\$221,350,093
<i>Professional- scientific &amp; tech svcs</i>	-\$7,473,806	-\$1,408,802	\$3,302,626	-\$5,579,981
<i>    Management of companies</i>	\$0	\$1,450,416	\$343,293	\$1,793,709
<i>    Administrative services</i>	-\$2,440,321	\$25,122,464	\$2,532,342	\$25,214,486
<i>    Waste Management</i>	-\$173	-\$565,847	\$370,609	-\$195,410
<i>    Educational svcs</i>	-\$5,431,687	-\$287,623	\$900,233	-\$4,819,077
<i>    Health &amp; social services</i>	-\$191,357,294	-\$3,171,386	\$25,666,014	-\$168,862,666
<i>Arts- entertainment &amp; recreation</i>	-\$16,756,859	-\$171,293	\$2,377,454	-\$14,550,698
<i>Accomodation &amp; food services</i>	-\$41,103,709	-\$1,374,519	\$6,562,149	-\$35,916,079
<i>    Other services</i>	-\$38,046,236	\$1,491,963	\$6,220,442	-\$30,333,831
<i>Government &amp; non NAICs</i>	-\$21,261,767	\$24,157,394	\$3,805,006	\$6,700,633

**Table D-118 Value Added Impact, 20% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$391,599,171	\$76,188,505	\$82,776,860	-\$232,633,805
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$37,772	-\$133,289	\$229,884	\$58,823
<i>    Mining</i>	\$0	\$1,210,584	\$98,852	\$1,309,436
<i>    Utilities</i>	-\$2,496,528	-\$123,220	\$382,879	-\$2,236,868
<i>    Construction</i>	\$0	-\$4,915,731	\$891,941	-\$4,023,789
<i>    Manufacturing</i>	-\$2,367	\$214,486	\$1,121,394	\$1,333,513
<i>    Wholesale Trade</i>	\$0	\$4,868,795	\$4,306,010	\$9,174,806
<i>    Retail trade</i>	\$0	\$4,277,016	\$13,150,567	\$17,427,583
<i>Transportation &amp; Warehousing</i>	\$0	\$53,873,871	\$1,463,654	\$55,337,525
<i>    Information</i>	-\$10,878,383	\$183,938	\$2,244,076	-\$8,450,369
<i>    Finance &amp; insurance</i>	-\$25,147,146	-\$2,965,739	\$6,404,566	-\$21,708,319
<i>    Real estate &amp; rental</i>	-\$152,806,577	-\$6,806,551	\$21,659,163	-\$137,953,965
<i>Professional- scientific &amp; tech svcs</i>	-\$4,620,603	-\$1,031,415	\$1,954,681	-\$3,697,336
<i>    Management of companies</i>	\$0	\$847,100	\$203,185	\$1,050,285
<i>    Administrative services</i>	-\$1,508,703	\$14,906,321	\$1,498,657	\$14,896,274
<i>    Waste Management</i>	-\$107	-\$355,654	\$219,389	-\$136,371
<i>    Educational svcs</i>	-\$3,358,084	-\$178,085	\$532,642	-\$3,003,527
<i>    Health &amp; social services</i>	-\$118,304,654	-\$1,960,689	\$15,191,697	-\$105,073,646
<i>Arts- entertainment &amp; recreation</i>	-\$10,359,753	-\$106,260	\$1,406,705	-\$9,059,308
<i>Accomodation &amp; food services</i>	-\$25,411,939	-\$864,999	\$3,883,756	-\$22,393,183
<i>    Other services</i>	-\$23,521,689	\$832,180	\$3,680,806	-\$19,008,704
<i>Government &amp; non NAICs</i>	-\$13,144,865	\$14,415,845	\$2,252,355	\$3,523,336

**Table D-119 Value Added Impact, 30% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$575,653,447	\$109,904,710	\$120,572,749	-\$345,175,988
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$55,525	-\$196,137	\$334,879	\$83,217
<i>Mining</i>	\$0	\$1,783,409	\$144,001	\$1,927,409
<i>Utilities</i>	-\$3,669,913	-\$189,562	\$557,779	-\$3,301,696
<i>Construction</i>	\$0	-\$7,243,058	\$1,299,160	-\$5,943,898
<i>Manufacturing</i>	-\$3,480	\$314,515	\$1,633,555	\$1,944,590
<i>Wholesale Trade</i>	\$0	\$7,162,963	\$6,272,991	\$13,435,955
<i>Retail trade</i>	\$0	\$6,303,609	\$19,153,539	\$25,457,148
<i>Transportation &amp; Warehousing</i>	\$0	\$79,281,318	\$2,131,873	\$81,413,191
<i>Information</i>	-\$15,991,297	\$253,071	\$3,269,019	-\$12,469,207
<i>Finance &amp; insurance</i>	-\$36,966,477	-\$6,332,776	\$9,329,199	-\$33,970,054
<i>Real estate &amp; rental</i>	-\$224,626,714	-\$10,103,530	\$31,547,355	-\$203,182,889
<i>Professional- scientific &amp; tech svcs</i>	-\$6,792,317	-\$1,549,345	\$2,847,278	-\$5,494,384
<i>Management of companies</i>	\$0	\$1,242,527	\$295,971	\$1,538,498
<i>Administrative services</i>	-\$2,217,804	\$21,903,957	\$2,182,941	\$21,869,094
<i>Waste Management</i>	-\$157	-\$526,814	\$319,595	-\$207,376
<i>Educational svcs</i>	-\$4,936,406	-\$262,172	\$775,778	-\$4,422,800
<i>Health &amp; social services</i>	-\$173,908,641	-\$2,882,240	\$22,129,532	-\$154,661,349
<i>Arts- entertainment &amp; recreation</i>	-\$15,228,907	-\$157,712	\$2,048,845	-\$13,337,774
<i>Accomodation &amp; food services</i>	-\$37,355,724	-\$1,287,385	\$5,657,205	-\$32,985,904
<i>Other services</i>	-\$34,577,042	\$1,197,821	\$5,361,181	-\$28,018,039
<i>Government &amp; non NAICs</i>	-\$19,323,042	\$21,192,252	\$3,281,072	\$5,150,281

**Table D-120 Value Added Impact, 40% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$844,546,774	\$169,736,260	\$186,494,983	-\$488,315,531
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$81,461	-\$282,988	\$517,802	\$153,353
<i>Mining</i>	\$0	\$2,723,021	\$222,663	\$2,945,684
<i>Utilities</i>	-\$5,384,165	-\$256,426	\$862,310	-\$4,778,282
<i>Construction</i>	\$0	-\$10,539,412	\$2,009,697	-\$8,529,715
<i>Manufacturing</i>	-\$5,106	\$623,217	\$2,525,942	\$3,144,053
<i>Wholesale Trade</i>	\$0	\$11,042,782	\$9,697,904	\$20,740,686
<i>Retail trade</i>	\$0	\$9,636,337	\$29,634,396	\$39,270,732
<i>Transportation &amp; Warehousing</i>	\$0	\$119,825,135	\$3,297,934	\$123,123,068
<i>Information</i>	-\$23,460,988	\$696,154	\$5,054,654	-\$17,710,180
<i>Finance &amp; insurance</i>	-\$54,233,873	-\$9,670,538	\$14,428,132	-\$49,476,279
<i>Real estate &amp; rental</i>	-\$329,552,048	-\$14,384,714	\$48,803,316	-\$295,133,446
<i>Professional- scientific &amp; tech svcs</i>	-\$9,965,075	-\$1,878,402	\$4,403,503	-\$7,439,974
<i>Management of companies</i>	\$0	\$1,933,888	\$457,724	\$2,391,612
<i>Administrative services</i>	-\$3,253,761	\$33,496,621	\$3,376,457	\$33,619,317
<i>Waste Management</i>	-\$231	-\$754,462	\$494,146	-\$260,547
<i>Educational svcs</i>	-\$7,242,249	-\$383,497	\$1,200,311	-\$6,425,435
<i>Health &amp; social services</i>	-\$255,143,054	-\$4,228,514	\$34,221,355	-\$225,150,214
<i>Arts- entertainment &amp; recreation</i>	-\$22,342,479	-\$228,392	\$3,169,938	-\$19,400,933
<i>Accomodation &amp; food services</i>	-\$54,804,947	-\$1,832,693	\$8,749,534	-\$47,888,107
<i>Other services</i>	-\$50,728,314	\$1,989,283	\$8,293,925	-\$40,445,107
<i>Government &amp; non NAICs</i>	-\$28,349,023	\$32,209,862	\$5,073,342	\$8,934,181

D.3.7 State

**Table D-121 Value Added Impact, 20% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-	\$754,724,562	\$894,924,39	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$998,883	-\$3,371,942	\$4,903,984	\$533,158
<i>Mining</i>	\$0	\$3,533,020	\$526,819	\$4,059,839
<i>Utilities</i>	-\$60,660,405	-\$5,299,187	\$9,053,882	-\$56,905,710
<i>Construction</i>	\$0	-\$47,241,839	\$7,983,796	-\$39,258,042
<i>Manufacturing</i>	-\$38,198	\$27,683,466	\$24,646,615	\$52,291,884
<i>Wholesale Trade</i>	\$0	\$66,017,208	\$52,743,354	\$118,760,562
<i>Retail trade</i>	\$0	\$43,912,091	\$117,590,45	\$161,502,545
<i>Transportation &amp; Warehousing</i>	\$0	\$661,634,518	\$21,422,779	\$683,057,297
<i>Information</i>	-\$155,566,817	-\$36,382,481	\$38,359,060	-\$153,590,238
<i>Finance &amp; insurance</i>	-\$370,593,132	-\$40,010,356	\$93,703,525	-\$316,899,963
<i>Real estate &amp; rental</i>	-	-	\$214,615,49	-
<i>Professional- scientific &amp; tech svcs</i>	-\$71,834,964	-\$43,917,470	\$34,303,442	-\$81,448,992
<i>Management of companies</i>	\$0	\$19,505,019	\$7,088,754	\$26,593,772
<i>Administrative services</i>	-\$16,156,429	\$172,427,443	\$18,372,845	\$174,643,859
<i>Waste Management</i>	-\$2,653	-\$8,631,296	\$3,490,680	-\$5,143,269
<i>Educational svcs</i>	-\$74,550,424	-\$1,694,377	\$8,790,742	-\$67,454,059
<i>Health &amp; social services</i>	-	-\$20,535,426	\$128,651,45	-
<i>Arts- entertainment &amp; recreation</i>	-\$121,057,706	-\$6,013,672	\$15,217,335	-\$111,854,043
<i>Accomodation &amp; food services</i>	-\$278,732,335	-\$12,146,647	\$37,726,355	-\$253,152,627
<i>Other services</i>	-\$249,121,442	\$3,295,991	\$35,268,608	-\$210,556,843
<i>Government &amp; non NAICs</i>	-\$119,539,832	\$142,702,344	\$20,464,408	\$43,626,920

**Table D-122 Value Added Impact, 30% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$6,448,924,313	\$1,139,861,427	\$1,371,080,624	-\$3,937,982,262
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,512,457	-\$5,091,664	\$7,512,472	\$908,351
<i>Mining</i>	\$0	\$5,476,011	\$807,088	\$6,283,099
<i>Utilities</i>	-\$91,848,831	-\$8,108,606	\$13,869,367	-\$86,088,070
<i>Construction</i>	\$0	-\$71,540,917	\$12,232,190	-\$59,308,727
<i>Manufacturing</i>	-\$57,837	\$43,343,176	\$37,757,215	\$81,042,554
<i>Wholesale Trade</i>	\$0	\$102,087,163	\$80,794,356	\$182,881,520
<i>Retail trade</i>	\$0	\$67,764,761	\$180,171,823	\$247,936,584
<i>Transportation &amp; Warehousing</i>	\$0	\$1,014,205,560	\$32,822,854	\$1,047,028,415
<i>Information</i>	-\$235,551,190	-\$54,254,442	\$58,765,446	-\$231,040,186
<i>Finance &amp; insurance</i>	-\$561,132,862	-\$90,695,065	\$143,562,113	-\$508,265,814
<i>Real estate &amp; rental</i>	-\$2,394,121,721	-\$243,331,941	\$328,807,753	-\$2,308,645,909
<i>Professional- scientific &amp; tech svcs</i>	-\$108,768,768	-\$65,645,531	\$52,553,952	-\$121,860,347
<i>Management of companies</i>	\$0	\$30,251,224	\$10,859,942	\$41,111,166
<i>Administrative services</i>	-\$24,463,223	\$265,316,005	\$28,148,623	\$269,001,405
<i>Waste Management</i>	-\$4,017	-\$13,061,112	\$5,347,406	-\$7,717,723
<i>Educational svcs</i>	-\$112,880,373	-\$2,565,083	\$13,470,922	-\$101,974,534
<i>Health &amp; social services</i>	-\$1,755,034,030	-\$31,093,738	\$197,094,292	-\$1,589,033,476
<i>Arts- entertainment &amp; recreation</i>	-\$183,299,289	-\$9,122,654	\$23,315,890	-\$169,106,053
<i>Accomodation &amp; food services</i>	-\$422,041,988	-\$18,462,192	\$57,798,390	-\$382,705,791
<i>Other services</i>	-\$377,206,726	\$5,261,601	\$54,037,774	-\$317,907,350
<i>Government &amp; non NAICs</i>	-\$181,001,000	\$219,128,869	\$31,350,756	\$69,478,625

**Table D-123 Value Added Impact, 40% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$9,050,552,403	\$1,598,967,550	\$1,928,274,299	-\$5,523,310,554
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$2,122,613	-\$7,142,202	\$10,565,280	\$1,300,465
<i>Mining</i>	\$0	\$7,717,271	\$1,135,072	\$8,852,344
<i>Utilities</i>	-\$128,902,530	-\$11,401,323	\$19,505,288	-\$120,798,564
<i>Construction</i>	\$0	-\$100,404,468	\$17,203,359	-\$83,201,110
<i>Manufacturing</i>	-\$81,170	\$61,190,944	\$53,100,637	\$114,210,412
<i>Wholesale Trade</i>	\$0	\$143,811,486	\$113,625,402	\$257,436,889
<i>Retail trade</i>	\$0	\$95,426,360	\$253,395,826	\$348,822,186
<i>Transportation &amp; Warehousing</i>	\$0	\$1,426,504,426	\$46,162,194	\$1,472,666,620
<i>Information</i>	-\$330,577,341	-\$75,929,982	\$82,646,393	-\$323,860,930
<i>Finance &amp; insurance</i>	-\$787,505,291	-\$134,931,237	\$201,904,945	-\$720,531,582
<i>Real estate &amp; rental</i>	-\$3,359,959,402	-\$341,483,142	\$462,432,837	-\$3,239,009,706
<i>Professional- scientific &amp; tech svcs</i>	-\$152,648,308	-\$91,911,880	\$73,911,072	-\$170,649,117
<i>Management of companies</i>	\$0	\$42,637,478	\$15,273,201	\$57,910,679
<i>Administrative services</i>	-\$34,332,188	\$373,425,577	\$39,588,016	\$378,681,405
<i>Waste Management</i>	-\$5,638	-\$18,328,214	\$7,520,404	-\$10,813,447
<i>Educational svcs</i>	-\$158,418,619	-\$3,599,778	\$18,946,107	-\$143,072,291
<i>Health &amp; social services</i>	-\$2,463,050,778	-\$43,637,651	\$277,189,497	-\$2,229,498,931
<i>Arts- entertainment &amp; recreation</i>	-\$257,245,973	-\$12,807,264	\$32,791,736	-\$237,261,501
<i>Accomodation &amp; food services</i>	-\$592,302,421	-\$25,928,095	\$81,286,920	-\$536,943,596
<i>Other services</i>	-\$529,379,632	\$7,453,051	\$75,999,209	-\$445,927,372
<i>Government &amp; non NAICs</i>	-\$254,020,502	\$308,306,192	\$44,090,903	\$98,376,593

**Table D-124 Value Added Impact, 20% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$5,678,814,547	\$1,006,299,227	\$1,193,232,340	-\$3,479,282,980
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,331,844	-\$4,495,923	\$6,538,643	\$710,876
<i>Mining</i>	\$0	\$4,710,693	\$702,425	\$5,413,118
<i>Utilities</i>	-\$80,880,538	-\$7,065,579	\$12,071,844	-\$75,874,273
<i>Construction</i>	\$0	-\$62,989,114	\$10,645,062	-\$52,344,052
<i>Manufacturing</i>	-\$50,930	\$36,911,281	\$32,862,150	\$69,722,500
<i>Wholesale Trade</i>	\$0	\$88,022,920	\$70,324,449	\$158,347,369
<i>Retail trade</i>	\$0	\$58,549,454	\$156,787,266	\$215,336,720
<i>Transportation &amp; Warehousing</i>	\$0	\$882,179,306	\$28,563,701	\$910,743,006
<i>Information</i>	-\$207,422,421	-\$48,509,968	\$51,145,400	-\$204,786,990
<i>Finance &amp; insurance</i>	-\$494,124,165	-\$53,347,140	\$124,938,011	-\$422,533,293
<i>Real estate &amp; rental</i>	-\$2,108,223,351	-\$214,322,525	\$286,153,961	-\$2,036,391,915
<i>Professional- scientific &amp; tech svcs</i>	-\$95,779,954	-\$58,556,622	\$45,737,925	-\$108,598,651
<i>Management of companies</i>	\$0	\$26,006,682	\$9,451,666	\$35,458,348
<i>Administrative services</i>	-\$21,541,904	\$229,903,234	\$24,497,125	\$232,858,454
<i>Waste Management</i>	-\$3,537	-\$11,508,393	\$4,654,239	-\$6,857,691
<i>Educational svcs</i>	-\$99,400,560	-\$2,259,173	\$11,720,986	-\$89,938,747
<i>Health &amp; social services</i>	-\$1,545,453,578	-\$27,380,583	\$171,535,259	-\$1,401,298,903
<i>Arts- entertainment &amp; recreation</i>	-\$161,410,276	-\$8,018,226	\$20,289,775	-\$149,138,727
<i>Accomodation &amp; food services</i>	-\$371,643,134	-\$16,195,507	\$50,301,775	-\$337,536,865
<i>Other services</i>	-\$332,161,914	\$4,394,653	\$47,024,804	-\$280,742,457
<i>Government &amp; non NAICs</i>	-\$159,386,440	\$190,269,759	\$27,285,874	\$58,169,193

**Table D-125 Value Added Impact, 30% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$8,598,565,695	\$1,519,815,281	\$1,828,107,435	-\$5,250,642,979
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$2,016,609	-\$6,788,886	\$10,016,628	\$1,211,133
<i>Mining</i>	\$0	\$7,301,348	\$1,076,117	\$8,377,465
<i>Utilities</i>	-\$122,465,108	-\$10,811,462	\$18,492,479	-\$114,784,091
<i>Construction</i>	\$0	-\$95,387,886	\$16,309,582	-\$79,078,304
<i>Manufacturing</i>	-\$77,116	\$57,790,897	\$50,342,953	\$108,056,733
<i>Wholesale Trade</i>	\$0	\$136,116,233	\$107,725,751	\$243,841,984
<i>Retail trade</i>	\$0	\$90,353,021	\$240,229,113	\$330,582,134
<i>Transportation &amp; Warehousing</i>	\$0	\$1,352,274,179	\$43,763,801	\$1,396,037,979
<i>Information</i>	-\$314,068,258	-\$72,339,246	\$78,353,916	-\$308,053,587
<i>Finance &amp; insurance</i>	-\$748,177,149	-\$120,926,808	\$191,416,168	-\$677,687,789
<i>Real estate &amp; rental</i>	-\$3,192,162,238	-\$324,442,635	\$438,410,380	-\$3,078,194,493
<i>Professional- scientific &amp; tech svcs</i>	-\$145,025,021	-\$87,527,355	\$70,071,931	-\$162,480,445
<i>Management of companies</i>	\$0	\$40,334,962	\$14,479,929	\$54,814,892
<i>Administrative services</i>	-\$32,617,631	\$353,754,716	\$37,531,497	\$358,668,581
<i>Waste Management</i>	-\$5,356	-\$17,414,817	\$7,129,877	-\$10,290,296
<i>Educational svcs</i>	-\$150,507,164	-\$3,420,114	\$17,961,228	-\$135,966,050
<i>Health &amp; social services</i>	-\$2,340,045,368	-\$41,458,371	\$262,792,350	-\$2,118,711,389
<i>Arts- entertainment &amp; recreation</i>	-\$244,399,050	-\$12,163,551	\$31,087,850	-\$225,474,751
<i>Accomodation &amp; food services</i>	-\$562,722,659	-\$24,616,257	\$77,064,507	-\$510,274,409
<i>Other services</i>	-\$502,942,300	\$7,015,463	\$72,050,362	-\$423,876,475
<i>Government &amp; non NAICs</i>	-\$241,334,667	\$292,171,850	\$41,801,016	\$92,638,199

**Table D-126 Value Added Impact, 40% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$12,067,402,847	\$2,131,956,674	\$2,571,031,368	-\$7,364,414,804
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$2,830,151	-\$9,522,936	\$14,087,037	\$1,733,951
<i>Mining</i>	\$0	\$10,289,697	\$1,513,429	\$11,803,126
<i>Utilities</i>	-\$171,870,034	-\$15,201,780	\$26,007,052	-\$161,064,762
<i>Construction</i>	\$0	-\$133,872,620	\$22,937,799	-\$110,934,820
<i>Manufacturing</i>	-\$108,226	\$81,587,919	\$70,800,822	\$152,280,515
<i>Wholesale Trade</i>	\$0	\$191,748,689	\$151,500,508	\$343,249,197
<i>Retail trade</i>	\$0	\$127,235,146	\$337,860,977	\$465,096,123
<i>Transportation &amp; Warehousing</i>	\$0	\$1,902,005,708	\$61,549,559	\$1,963,555,267
<i>Information</i>	-\$440,769,797	-\$101,239,960	\$110,195,137	-\$431,814,620
<i>Finance &amp; insurance</i>	-\$1,050,007,077	-\$179,908,273	\$269,206,439	-\$960,708,912
<i>Real estate &amp; rental</i>	-\$4,479,945,623	-\$455,310,719	\$616,576,926	-\$4,318,679,415
<i>Professional- scientific &amp; tech svcs</i>	-\$203,531,080	-\$122,549,170	\$98,548,069	-\$227,532,181
<i>Management of companies</i>	\$0	\$56,849,974	\$20,364,270	\$77,214,244
<i>Administrative services</i>	-\$45,776,251	\$497,900,765	\$52,784,007	\$504,908,520
<i>Waste Management</i>	-\$7,517	-\$24,437,617	\$10,027,204	-\$14,417,929
<i>Educational svcs</i>	-\$211,224,832	-\$4,799,702	\$25,261,468	-\$190,763,066
<i>Health &amp; social services</i>	-\$3,284,067,624	-\$58,183,563	\$369,585,823	-\$2,972,665,364
<i>Arts- entertainment &amp; recreation</i>	-\$342,994,620	-\$17,076,358	\$43,722,293	-\$316,348,686
<i>Accomodation &amp; food services</i>	-\$789,736,501	-\$34,570,844	\$108,382,467	-\$715,924,879
<i>Other services</i>	-\$705,839,507	\$9,937,402	\$101,332,244	-\$594,569,862
<i>Government &amp; non NAICs</i>	-\$338,694,005	\$411,074,915	\$58,787,838	\$131,168,748

## D.4 Output Impact

### D.4.1 Central Basin

**Table D-127 Output Impact, 20% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$346,983,521	\$45,240,622	\$57,299,946	-\$244,442,954
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$520,465	-\$183,106	\$388,114	-\$315,456
<i>Mining</i>	\$0	-\$29,490	\$4,531	-\$24,958
<i>Utilities</i>	-\$2,740,551	-\$143,237	\$328,256	-\$2,555,532
<i>Construction</i>	\$0	-\$3,767,444	\$525,339	-\$3,242,105
<i>Manufacturing</i>	-\$2,363	-\$1,119,557	\$1,713,238	\$591,319
<i>Wholesale Trade</i>	\$0	\$3,692,669	\$2,788,836	\$6,481,505
<i>Retail trade</i>	\$0	\$3,031,479	\$8,190,189	\$11,221,668
<i>Transportation &amp; Warehousing</i>	\$0	\$31,834,867	\$816,129	\$32,650,996
<i>Information</i>	-\$8,913,615	-\$138,093	\$1,460,089	-\$7,591,619
<i>Finance &amp; insurance</i>	-\$17,591,394	\$1,316,200	\$3,319,409	-\$12,955,784
<i>Real estate &amp; rental</i>	-\$103,823,356	-\$3,836,894	\$11,705,781	-\$95,954,469
<i>Professional- scientific &amp; tech svcs</i>	-\$5,815,571	-\$1,606,788	\$1,705,785	-\$5,716,574
<i>Management of companies</i>	\$0	\$627,622	\$124,014	\$751,636
<i>Administrative services</i>	-\$876,824	\$8,713,022	\$676,447	\$8,512,645
<i>Waste Management</i>	-\$1,125	-\$622,167	\$331,442	-\$291,851
<i>Educational svcs</i>	-\$5,318,754	-\$174,450	\$631,518	-\$4,861,685
<i>Health &amp; social services</i>	-\$110,561,310	-\$1,542,474	\$11,488,091	-\$100,615,693
<i>Arts- entertainment &amp; recreation</i>	-\$12,318,817	-\$154,872	\$1,349,112	-\$11,124,578
<i>Accomodation &amp; food services</i>	-\$31,358,314	-\$907,906	\$3,833,589	-\$28,432,631
<i>Other services</i>	-\$23,675,123	\$132,907	\$2,933,705	-\$20,608,512
<i>Government &amp; non NAICs</i>	-\$23,465,939	\$10,118,334	\$2,986,331	-\$10,361,274

**Table D-128 Output Impact, 30% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$528,606,621	\$66,979,667	\$86,061,006	-\$375,565,948
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$792,894	-\$279,140	\$582,991	-\$489,043
<i>Mining</i>	\$0	-\$44,977	\$6,806	-\$38,171
<i>Utilities</i>	-\$4,175,050	-\$230,762	\$493,104	-\$3,912,708
<i>Construction</i>	\$0	-\$5,760,128	\$788,971	-\$4,971,157
<i>Manufacturing</i>	-\$3,599	-\$1,709,041	\$2,573,597	\$860,957
<i>Wholesale Trade</i>	\$0	\$5,628,596	\$4,189,361	\$9,817,957
<i>Retail trade</i>	\$0	\$4,633,410	\$12,299,837	\$16,933,247
<i>Transportation &amp; Warehousing</i>	\$0	\$48,504,889	\$1,225,696	\$49,730,585
<i>Information</i>	-\$13,579,308	-\$231,162	\$2,193,163	-\$11,617,307
<i>Finance &amp; insurance</i>	-\$26,799,333	\$364,755	\$4,985,560	-\$21,449,018
<i>Real estate &amp; rental</i>	-\$158,168,069	-\$5,929,899	\$17,580,000	-\$146,517,968
<i>Professional- scientific &amp; tech svcs</i>	-\$8,859,641	-\$2,495,158	\$2,562,051	-\$8,792,749
<i>Management of companies</i>	\$0	\$952,122	\$186,270	\$1,138,392
<i>Administrative services</i>	-\$1,335,783	\$13,261,151	\$1,015,959	\$12,941,327
<i>Waste Management</i>	-\$1,714	-\$959,927	\$497,866	-\$463,775
<i>Educational svcs</i>	-\$8,102,772	-\$266,011	\$948,385	-\$7,420,398
<i>Health &amp; social services</i>	-\$168,432,902	-\$2,349,869	\$17,255,539	-\$153,527,231
<i>Arts- entertainment &amp; recreation</i>	-\$18,766,910	-\$238,368	\$2,026,079	-\$16,979,198
<i>Accomodation &amp; food services</i>	-\$47,772,328	-\$1,403,068	\$5,757,935	-\$43,417,462
<i>Other services</i>	-\$36,067,497	\$173,775	\$4,405,971	-\$31,487,751
<i>Government &amp; non NAICs</i>	-\$35,748,820	\$15,358,480	\$4,485,865	-\$15,904,476

**Table D-129 Output Impact, 40% Congestion Increase, Central Basin 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$706,095,856	\$94,799,950	\$120,884,802	-\$490,411,104
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,059,122	-\$371,240	\$818,604	-\$611,759
<i>Mining</i>	\$0	-\$59,593	\$9,559	-\$50,034
<i>Utilities</i>	-\$5,576,898	-\$289,041	\$692,277	-\$5,173,661
<i>Construction</i>	\$0	-\$7,647,737	\$1,108,459	-\$6,539,278
<i>Manufacturing</i>	-\$4,808	-\$2,231,413	\$3,613,190	\$1,376,969
<i>Wholesale Trade</i>	\$0	\$7,859,700	\$5,881,559	\$13,741,259
<i>Retail trade</i>	\$0	\$6,419,893	\$17,282,511	\$23,702,404
<i>Transportation &amp; Warehousing</i>	\$0	\$66,547,826	\$1,722,002	\$68,269,828
<i>Information</i>	-\$18,138,806	-\$115,954	\$3,079,755	-\$15,175,004
<i>Finance &amp; insurance</i>	-\$35,797,694	\$854,624	\$7,002,877	-\$27,940,193
<i>Real estate &amp; rental</i>	-\$211,275,861	-\$7,700,242	\$24,699,431	-\$194,276,672
<i>Professional- scientific &amp; tech svcs</i>	-\$11,834,426	-\$3,025,062	\$3,598,481	-\$11,261,008
<i>Management of companies</i>	\$0	\$1,343,694	\$261,604	\$1,605,298
<i>Administrative services</i>	-\$1,784,297	\$18,396,377	\$1,427,158	\$18,039,238
<i>Waste Management</i>	-\$2,290	-\$1,252,562	\$699,063	-\$555,789
<i>Educational svcs</i>	-\$10,823,425	-\$354,505	\$1,332,640	-\$9,845,290
<i>Health &amp; social services</i>	-\$224,987,289	-\$3,138,853	\$24,232,996	-\$203,893,146
<i>Arts- entertainment &amp; recreation</i>	-\$25,068,239	-\$315,196	\$2,846,784	-\$22,536,651
<i>Accomodation &amp; food services</i>	-\$63,812,755	-\$1,821,728	\$8,087,317	-\$57,547,166
<i>Other services</i>	-\$48,177,812	\$387,446	\$6,189,976	-\$41,600,390
<i>Government &amp; non NAICs</i>	-\$47,752,133	\$21,313,514	\$6,298,559	-\$20,140,059

**Table D-130 Output Impact, 20% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$462,644,706	\$60,320,829	\$76,399,939	-\$325,923,938
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$693,953	-\$244,141	\$517,485	-\$420,609
<i>Mining</i>	\$0	-\$39,319	\$6,042	-\$33,278
<i>Utilities</i>	-\$3,654,068	-\$190,983	\$437,675	-\$3,407,376
<i>Construction</i>	\$0	-\$5,023,260	\$700,452	-\$4,322,808
<i>Manufacturing</i>	-\$3,150	-\$1,492,742	\$2,284,318	\$788,425
<i>Wholesale Trade</i>	\$0	\$4,923,558	\$3,718,449	\$8,642,007
<i>Retail trade</i>	\$0	\$4,041,972	\$10,920,253	\$14,962,225
<i>Transportation &amp; Warehousing</i>	\$0	\$42,446,488	\$1,088,172	\$43,534,659
<i>Information</i>	-\$11,884,821	-\$184,124	\$1,946,785	-\$10,122,160
<i>Finance &amp; insurance</i>	-\$23,455,193	\$1,754,935	\$4,425,881	-\$17,274,377
<i>Real estate &amp; rental</i>	-\$138,431,146	-\$5,115,856	\$15,607,714	-\$127,939,288
<i>Professional- scientific &amp; tech svcs</i>	-\$7,754,096	-\$2,142,385	\$2,274,381	-\$7,622,100
<i>Management of companies</i>	\$0	\$836,829	\$165,352	\$1,002,181
<i>Administrative services</i>	-\$1,169,098	\$11,617,362	\$901,930	\$11,350,194
<i>Waste Management</i>	-\$1,500	-\$829,556	\$441,923	-\$389,134
<i>Educational svcs</i>	-\$7,091,672	-\$232,600	\$842,024	-\$6,482,248
<i>Health &amp; social services</i>	-\$147,415,081	-\$2,056,632	\$15,317,455	-\$134,154,259
<i>Arts- entertainment &amp; recreation</i>	-\$16,425,090	-\$206,496	\$1,798,816	-\$14,832,771
<i>Accomodation &amp; food services</i>	-\$41,811,082	-\$1,210,539	\$5,111,452	-\$37,910,169
<i>Other services</i>	-\$31,566,832	\$177,209	\$3,911,607	-\$27,478,017
<i>Government &amp; non NAICs</i>	-\$31,287,921	\$13,491,108	\$3,981,776	-\$13,815,037

**Table D-131 Output Impact, 30% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$704,808,828	\$89,306,233	\$114,748,009	-\$500,754,586
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,057,192	-\$372,187	\$777,322	-\$652,057
<i>Mining</i>	\$0	-\$59,969	\$9,074	-\$50,895
<i>Utilities</i>	-\$5,566,733	-\$307,683	\$657,472	-\$5,216,944
<i>Construction</i>	\$0	-\$7,680,170	\$1,051,961	-\$6,628,209
<i>Manufacturing</i>	-\$4,799	-\$2,278,722	\$3,431,463	\$1,147,942
<i>Wholesale Trade</i>	\$0	\$7,504,796	\$5,585,815	\$13,090,611
<i>Retail trade</i>	\$0	\$6,177,880	\$16,399,785	\$22,577,665
<i>Transportation &amp; Warehousing</i>	\$0	\$64,673,188	\$1,634,261	\$66,307,449
<i>Information</i>	-\$18,105,745	-\$308,215	\$2,924,218	-\$15,489,742
<i>Finance &amp; insurance</i>	-\$35,732,445	\$486,343	\$6,647,415	-\$28,598,687
<i>Real estate &amp; rental</i>	-\$210,890,762	-\$7,906,532	\$23,439,998	-\$195,357,296
<i>Professional- scientific &amp; tech svcs</i>	-\$11,812,855	-\$3,326,877	\$3,416,068	-\$11,723,664
<i>Management of companies</i>	\$0	\$1,269,496	\$248,360	\$1,517,857
<i>Administrative services</i>	-\$1,781,045	\$17,681,535	\$1,354,612	\$17,255,102
<i>Waste Management</i>	-\$2,286	-\$1,279,903	\$663,822	-\$618,367
<i>Educational svcs</i>	-\$10,803,696	-\$354,680	\$1,264,513	-\$9,893,864
<i>Health &amp; social services</i>	-\$224,577,193	-\$3,133,157	\$23,007,383	-\$204,702,967
<i>Arts- entertainment &amp; recreation</i>	-\$25,022,547	-\$317,824	\$2,701,439	-\$22,638,932
<i>Accomodation &amp; food services</i>	-\$63,696,441	-\$1,870,761	\$7,677,247	-\$57,889,954
<i>Other services</i>	-\$48,089,996	\$231,703	\$5,874,628	-\$41,983,666
<i>Government &amp; non NAICs</i>	-\$47,665,094	\$20,477,973	\$5,981,152	-\$21,205,969

**Table D-132 Output Impact, 40% Congestion Increase, Central Basin 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$941,461,109	\$126,399,936	\$161,179,746	-\$653,881,427
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,412,163	-\$494,987	\$1,091,472	-\$815,678
<i>Mining</i>	\$0	-\$79,457	\$12,746	-\$66,712
<i>Utilities</i>	-\$7,435,864	-\$385,387	\$923,036	-\$6,898,215
<i>Construction</i>	\$0	-\$10,196,982	\$1,477,946	-\$8,719,037
<i>Manufacturing</i>	-\$6,410	-\$2,975,217	\$4,817,588	\$1,835,961
<i>Wholesale Trade</i>	\$0	\$10,479,599	\$7,842,078	\$18,321,677
<i>Retail trade</i>	\$0	\$8,559,858	\$23,043,350	\$31,603,208
<i>Transportation &amp; Warehousing</i>	\$0	\$88,730,428	\$2,296,002	\$91,026,430
<i>Information</i>	-\$24,185,075	-\$154,603	\$4,106,341	-\$20,233,337
<i>Finance &amp; insurance</i>	-\$47,730,256	\$1,139,499	\$9,337,169	-\$37,253,588
<i>Real estate &amp; rental</i>	-\$281,701,145	-\$10,266,987	\$32,932,574	-\$259,035,558
<i>Professional- scientific &amp; tech svcs</i>	-\$15,779,235	-\$4,033,416	\$4,797,975	-\$15,014,676
<i>Management of companies</i>	\$0	\$1,791,592	\$348,805	\$2,140,397
<i>Administrative services</i>	-\$2,379,062	\$24,528,502	\$1,902,877	\$24,052,317
<i>Waste Management</i>	-\$3,053	-\$1,670,083	\$932,084	-\$741,052
<i>Educational svcs</i>	-\$14,431,233	-\$472,672	\$1,776,853	-\$13,127,052
<i>Health &amp; social services</i>	-\$299,983,042	-\$4,185,137	\$32,310,667	-\$271,857,512
<i>Arts- entertainment &amp; recreation</i>	-\$33,424,317	-\$420,260	\$3,795,712	-\$30,048,865
<i>Accomodation &amp; food services</i>	-\$85,083,668	-\$2,428,967	\$10,783,090	-\$76,729,545
<i>Other services</i>	-\$64,237,079	\$516,594	\$8,253,302	-\$55,467,183
<i>Government &amp; non NAICs</i>	-\$63,669,506	\$28,418,020	\$8,398,079	-\$26,853,408

D.4.2 Northeast

**Table D-133 Output Impact, 20% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$417,795,093	\$60,097,697	\$68,035,811	-\$289,661,584
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$35,557	-\$321,248	\$195,624	-\$161,182
<i>Mining</i>	\$0	-\$124,894	\$18,310	-\$106,584
<i>Utilities</i>	-\$5,004,412	-\$871,669	\$637,836	-\$5,238,245
<i>Construction</i>	\$0	-\$4,506,588	\$602,986	-\$3,903,602
<i>Manufacturing</i>	-\$4,206	-\$2,140,427	\$2,260,552	\$115,919
<i>Wholesale Trade</i>	\$0	\$4,813,618	\$3,550,005	\$8,363,622
<i>Retail trade</i>	\$0	\$3,743,638	\$8,068,567	\$11,812,205
<i>Transportation &amp; Warehousing</i>	\$0	\$55,291,417	\$1,340,215	\$56,631,631
<i>Information</i>	-\$10,790,697	-\$1,924,510	\$2,005,070	-\$10,710,138
<i>Finance &amp; insurance</i>	-\$41,257,785	\$2,728,569	\$8,184,096	-\$30,345,121
<i>Real estate &amp; rental</i>	-\$107,696,117	-\$10,137,071	\$11,856,605	-\$105,976,583
<i>Professional- scientific &amp; tech svcs</i>	-\$7,155,731	-\$3,672,452	\$2,687,659	-\$8,140,523
<i>Management of companies</i>	\$0	\$1,688,756	\$651,104	\$2,339,860
<i>Administrative services</i>	-\$1,815,009	\$8,779,127	\$1,380,794	\$8,344,912
<i>Waste Management</i>	-\$96	-\$486,504	\$161,320	-\$325,280
<i>Educational svcs</i>	-\$16,579,900	-\$303,803	\$1,319,686	-\$15,564,017
<i>Health &amp; social services</i>	-\$130,095,079	-\$2,546,914	\$11,851,014	-\$120,790,978
<i>Arts- entertainment &amp; recreation</i>	-\$14,193,306	-\$386,799	\$1,403,165	-\$13,176,941
<i>Accomodation &amp; food services</i>	-\$32,234,349	-\$1,645,043	\$3,610,087	-\$30,269,306
<i>Other services</i>	-\$28,859,491	-\$340,569	\$3,308,674	-\$25,891,385
<i>Government &amp; non NAICs</i>	-\$22,073,357	\$12,461,065	\$2,942,443	-\$6,669,850

**Table D-134 Output Impact, 30% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$619,888,687	\$89,621,218	\$103,288,320	-\$426,979,149
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$52,756	-\$474,508	\$296,926	-\$230,338
<i>Mining</i>	\$0	-\$184,249	\$27,797	-\$156,452
<i>Utilities</i>	-\$7,425,119	-\$1,288,122	\$968,097	-\$7,745,145
<i>Construction</i>	\$0	-\$6,682,969	\$915,494	-\$5,767,475
<i>Manufacturing</i>	-\$6,241	-\$3,110,095	\$3,431,114	\$314,777
<i>Wholesale Trade</i>	\$0	\$7,360,624	\$5,388,052	\$12,748,676
<i>Retail trade</i>	\$0	\$5,690,059	\$12,251,857	\$17,941,916
<i>Transportation &amp; Warehousing</i>	\$0	\$83,411,736	\$2,034,821	\$85,446,557
<i>Information</i>	-\$16,010,316	-\$2,780,672	\$3,043,643	-\$15,747,345
<i>Finance &amp; insurance</i>	-\$61,214,783	\$1,536,931	\$12,425,641	-\$47,252,212
<i>Real estate &amp; rental</i>	-\$159,790,300	-\$14,970,729	\$18,001,120	-\$156,759,909
<i>Professional- scientific &amp; tech svcs</i>	-\$10,617,063	-\$5,319,247	\$4,080,130	-\$11,856,180
<i>Management of companies</i>	\$0	\$2,613,792	\$988,393	\$3,602,185
<i>Administrative services</i>	-\$2,692,955	\$13,355,328	\$2,096,307	\$12,758,681
<i>Waste Management</i>	-\$143	-\$719,892	\$244,855	-\$475,180
<i>Educational svcs</i>	-\$24,599,838	-\$450,263	\$2,004,022	-\$23,046,079
<i>Health &amp; social services</i>	-\$193,023,970	-\$3,778,901	\$17,989,157	-\$178,813,713
<i>Arts- entertainment &amp; recreation</i>	-\$21,058,817	-\$574,879	\$2,130,576	-\$19,503,120
<i>Accomodation &amp; food services</i>	-\$47,826,576	-\$2,443,012	\$5,480,509	-\$44,789,079
<i>Other services</i>	-\$42,819,248	-\$452,558	\$5,023,585	-\$38,248,221
<i>Government &amp; non NAICs</i>	-\$32,750,563	\$18,882,844	\$4,466,224	-\$9,401,494

**Table D-135 Output Impact, 40% Congestion Increase, Northeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$860,906,322	\$125,807,636	\$145,389,518	-\$589,709,168
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$73,268	-\$657,590	\$417,903	-\$312,955
<i>Mining</i>	\$0	-\$255,229	\$39,126	-\$216,102
<i>Utilities</i>	-\$10,312,064	-\$1,780,755	\$1,362,491	-\$10,730,328
<i>Construction</i>	\$0	-\$9,270,884	\$1,288,724	-\$7,982,160
<i>Manufacturing</i>	-\$8,668	-\$4,277,613	\$4,828,997	\$542,716
<i>Wholesale Trade</i>	\$0	\$10,348,170	\$7,583,020	\$17,931,190
<i>Retail trade</i>	\$0	\$7,976,037	\$17,248,171	\$25,224,208
<i>Transportation &amp; Warehousing</i>	\$0	\$116,597,468	\$2,864,394	\$119,461,863
<i>Information</i>	-\$22,235,253	-\$3,802,605	\$4,283,943	-\$21,753,915
<i>Finance &amp; insurance</i>	-\$85,015,572	\$1,633,164	\$17,491,328	-\$65,891,079
<i>Real estate &amp; rental</i>	-\$221,918,034	-\$20,710,439	\$25,339,496	-\$217,288,978
<i>Professional- scientific &amp; tech svcs</i>	-\$14,745,061	-\$7,275,242	\$5,743,107	-\$16,277,196
<i>Management of companies</i>	\$0	\$3,699,228	\$1,391,199	\$5,090,428
<i>Administrative services</i>	-\$3,739,997	\$18,754,476	\$2,950,836	\$17,965,315
<i>Waste Management</i>	-\$198	-\$997,110	\$344,612	-\$652,695
<i>Educational svcs</i>	-\$34,164,452	-\$624,871	\$2,821,377	-\$31,967,946
<i>Health &amp; social services</i>	-\$268,073,222	-\$5,248,156	\$25,319,491	-\$248,001,887
<i>Arts- entertainment &amp; recreation</i>	-\$29,246,651	-\$797,511	\$2,999,348	-\$27,044,815
<i>Accomodation &amp; food services</i>	-\$66,421,927	-\$3,382,946	\$7,714,294	-\$62,090,579
<i>Other services</i>	-\$59,467,712	-\$584,734	\$7,071,724	-\$52,980,723
<i>Government &amp; non NAICs</i>	-\$45,484,242	\$26,464,780	\$6,285,936	-\$12,733,527

**Table D-136 Output Impact, 20% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$557,060,134	\$80,130,260	\$90,714,401	-\$386,215,473
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$47,409	-\$428,331	\$260,831	-\$214,909
<i>Mining</i>	\$0	-\$166,526	\$24,414	-\$142,112
<i>Utilities</i>	-\$6,672,550	-\$1,162,225	\$850,448	-\$6,984,326
<i>Construction</i>	\$0	-\$6,008,784	\$803,981	-\$5,204,803
<i>Manufacturing</i>	-\$5,609	-\$2,853,903	\$3,014,069	\$154,558
<i>Wholesale Trade</i>	\$0	\$6,418,157	\$4,733,341	\$11,151,498
<i>Retail trade</i>	\$0	\$4,991,517	\$10,758,089	\$15,749,606
<i>Transportation &amp; Warehousing</i>	\$0	\$73,721,889	\$1,786,953	\$75,508,842
<i>Information</i>	-\$14,387,597	-\$2,566,014	\$2,673,427	-\$14,280,184
<i>Finance &amp; insurance</i>	-\$55,010,384	\$3,638,090	\$10,912,127	-\$40,460,168
<i>Real estate &amp; rental</i>	-\$143,594,820	-\$13,516,094	\$15,808,801	-\$141,302,114
<i>Professional- scientific &amp; tech svcs</i>	-\$9,540,975	-\$4,896,604	\$3,583,545	-\$10,854,033
<i>Management of companies</i>	\$0	\$2,251,673	\$868,139	\$3,119,812
<i>Administrative services</i>	-\$2,420,012	\$11,705,503	\$1,841,058	\$11,126,549
<i>Waste Management</i>	-\$128	-\$648,672	\$215,093	-\$433,707
<i>Educational svcs</i>	-\$22,106,533	-\$405,070	\$1,759,581	-\$20,752,022
<i>Health &amp; social services</i>	-\$173,460,109	-\$3,395,890	\$15,801,347	-\$161,054,652
<i>Arts- entertainment &amp; recreation</i>	-\$18,924,409	-\$515,731	\$1,870,886	-\$17,569,254
<i>Accomodation &amp; food services</i>	-\$42,979,134	-\$2,193,388	\$4,813,450	-\$40,359,071
<i>Other services</i>	-\$38,479,322	-\$454,092	\$4,411,565	-\$34,521,848
<i>Government &amp; non NAICs</i>	-\$29,431,144	\$16,614,754	\$3,923,257	-\$8,893,133

**Table D-137 Output Impact, 30% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$826,518,223	\$119,494,945	\$137,717,770	-\$569,305,508
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$70,342	-\$632,677	\$395,902	-\$307,117
<i>Mining</i>	\$0	-\$245,665	\$37,062	-\$208,602
<i>Utilities</i>	-\$9,900,158	-\$1,717,497	\$1,290,796	-\$10,326,859
<i>Construction</i>	\$0	-\$8,910,625	\$1,220,659	-\$7,689,967
<i>Manufacturing</i>	-\$8,322	-\$4,146,793	\$4,574,819	\$419,704
<i>Wholesale Trade</i>	\$0	\$9,814,164	\$7,184,073	\$16,998,238
<i>Retail trade</i>	\$0	\$7,586,745	\$16,335,808	\$23,922,553
<i>Transportation &amp; Warehousing</i>	\$0	\$111,215,632	\$2,713,095	\$113,928,727
<i>Information</i>	-\$21,347,087	-\$3,707,561	\$4,058,191	-\$20,996,457
<i>Finance &amp; insurance</i>	-\$81,619,703	\$2,049,241	\$16,567,518	-\$63,002,945
<i>Real estate &amp; rental</i>	-\$213,053,728	-\$19,960,969	\$24,001,501	-\$209,013,196
<i>Professional- scientific &amp; tech svcs</i>	-\$14,156,083	-\$7,092,330	\$5,440,173	-\$15,808,240
<i>Management of companies</i>	\$0	\$3,485,057	\$1,317,858	\$4,802,915
<i>Administrative services</i>	-\$3,590,606	\$17,807,101	\$2,795,077	\$17,011,571
<i>Waste Management</i>	-\$190	-\$959,856	\$326,473	-\$633,573
<i>Educational svcs</i>	-\$32,799,783	-\$600,352	\$2,672,031	-\$30,728,104
<i>Health &amp; social services</i>	-\$257,365,294	-\$5,038,527	\$23,985,540	-\$238,418,281
<i>Arts- entertainment &amp; recreation</i>	-\$28,078,420	-\$766,506	\$2,840,767	-\$26,004,159
<i>Accomodation &amp; food services</i>	-\$63,768,765	-\$3,257,348	\$7,307,347	-\$59,718,765
<i>Other services</i>	-\$57,092,327	-\$603,411	\$6,698,113	-\$50,997,626
<i>Government &amp; non NAICs</i>	-\$43,667,415	\$25,177,123	\$5,954,967	-\$12,535,325

**Table D-138 Output Impact, 40% Congestion Increase, Northeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,054,135,761	\$199,514,308	\$226,316,909	-\$628,304,543
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$89,713	-\$775,003	\$649,135	-\$215,581
<i>Mining</i>	\$0	-\$299,192	\$60,886	-\$238,306
<i>Utilities</i>	-\$12,626,595	-\$1,921,017	\$2,115,441	-\$12,432,170
<i>Construction</i>	\$0	-\$10,990,556	\$2,007,793	-\$8,982,763
<i>Manufacturing</i>	-\$10,613	-\$4,374,616	\$7,499,611	\$3,114,382
<i>Wholesale Trade</i>	\$0	\$15,039,535	\$11,771,490	\$26,811,024
<i>Retail trade</i>	\$0	\$11,067,699	\$26,909,946	\$37,977,644
<i>Transportation &amp; Warehousing</i>	\$0	\$156,275,874	\$4,463,012	\$160,738,885
<i>Information</i>	-\$27,225,931	-\$3,232,628	\$6,660,328	-\$23,798,232
<i>Finance &amp; insurance</i>	-\$104,097,216	\$10,092,228	\$27,250,582	-\$66,754,406
<i>Real estate &amp; rental</i>	-\$271,727,290	-\$23,017,465	\$39,469,179	-\$255,275,577
<i>Professional- scientific &amp; tech svcs</i>	-\$18,054,573	-\$6,077,496	\$8,936,794	-\$15,195,274
<i>Management of companies</i>	\$0	\$5,968,368	\$2,163,721	\$8,132,089
<i>Administrative services</i>	-\$4,579,435	\$27,182,631	\$4,594,773	\$27,197,968
<i>Waste Management</i>	-\$242	-\$1,138,913	\$535,203	-\$603,953
<i>Educational svcs</i>	-\$41,832,623	-\$753,128	\$4,404,697	-\$38,181,054
<i>Health &amp; social services</i>	-\$328,241,946	-\$6,425,809	\$39,356,000	-\$295,311,755
<i>Arts- entertainment &amp; recreation</i>	-\$35,811,029	-\$931,951	\$4,677,466	-\$32,065,514
<i>Accomodation &amp; food services</i>	-\$81,330,253	-\$3,744,021	\$12,005,109	-\$73,069,165
<i>Other services</i>	-\$72,815,171	\$367,917	\$11,020,569	-\$61,426,686
<i>Government &amp; non NAICs</i>	-\$55,693,130	\$37,201,855	\$9,765,175	-\$8,726,100

D.4.3 Northwest

**Table D-139 Output Impact, 20% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$509,687,869	\$208,311,196	\$139,016,288	-\$162,360,385
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$127,159	-\$297,427	\$748,914	\$324,328
<i>Mining</i>	\$0	\$28,425	\$48,637	\$77,062
<i>Utilities</i>	-\$8,735,675	\$41,720	\$1,687,765	-\$7,006,190
<i>Construction</i>	\$0	-\$5,572,943	\$1,293,590	-\$4,279,352
<i>Manufacturing</i>	-\$3,968	\$117,428,078	\$6,910,772	\$124,334,882
<i>Wholesale Trade</i>	\$0	\$6,009,177	\$5,037,853	\$11,047,031
<i>Retail trade</i>	\$0	\$6,257,094	\$19,496,719	\$25,753,813
<i>Transportation &amp; Warehousing</i>	\$0	\$50,125,269	\$1,612,565	\$51,737,834
<i>Information</i>	-\$14,328,874	-\$722,276	\$4,368,252	-\$10,682,898
<i>Finance &amp; insurance</i>	-\$44,988,849	\$8,029,799	\$13,478,482	-\$23,480,568
<i>Real estate &amp; rental</i>	-\$170,320,831	-\$9,473,819	\$30,866,442	-\$148,928,207
<i>Professional- scientific &amp; tech svcs</i>	-\$7,613,800	-\$782,877	\$3,695,637	-\$4,701,040
<i>Management of companies</i>	\$0	\$2,271,292	\$481,256	\$2,752,548
<i>Administrative services</i>	-\$1,320,732	\$16,420,369	\$1,946,887	\$17,046,525
<i>Waste Management</i>	-\$283	-\$777,339	\$565,623	-\$211,999
<i>Educational svcs</i>	-\$7,797,435	-\$230,948	\$1,486,032	-\$6,542,351
<i>Health &amp; social services</i>	-\$128,389,878	-\$1,888,092	\$20,531,740	-\$109,746,230
<i>Arts- entertainment &amp; recreation</i>	-\$18,750,770	-\$248,079	\$3,229,012	-\$15,769,838
<i>Accomodation &amp; food services</i>	-\$45,953,740	-\$1,074,844	\$8,644,004	-\$38,384,580
<i>Other services</i>	-\$34,280,563	\$1,416,895	\$6,840,573	-\$26,023,094
<i>Government &amp; non NAICs</i>	-\$27,075,314	\$21,351,722	\$6,045,533	\$321,941

**Table D-140 Output Impact, 30% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$766,815,914	\$324,116,902	\$217,675,055	-\$225,023,957
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$191,308	-\$447,397	\$1,172,329	\$533,623
<i>Mining</i>	\$0	\$55,321	\$76,154	\$131,475
<i>Utilities</i>	-\$13,142,655	\$156,225	\$2,641,842	-\$10,344,588
<i>Construction</i>	\$0	-\$8,316,857	\$2,025,788	-\$6,291,069
<i>Manufacturing</i>	-\$5,970	\$182,486,701	\$10,818,158	\$193,298,888
<i>Wholesale Trade</i>	\$0	\$9,471,682	\$7,885,473	\$17,357,155
<i>Retail trade</i>	\$0	\$9,644,863	\$30,535,095	\$40,179,959
<i>Transportation &amp; Warehousing</i>	\$0	\$77,849,511	\$2,525,342	\$80,374,853
<i>Information</i>	-\$21,557,536	-\$751,640	\$6,838,813	-\$15,470,364
<i>Finance &amp; insurance</i>	-\$67,684,873	\$9,534,654	\$21,105,569	-\$37,044,650
<i>Real estate &amp; rental</i>	-\$256,244,604	-\$13,672,984	\$48,334,428	-\$221,583,160
<i>Professional- scientific &amp; tech svcs</i>	-\$11,454,818	-\$778,530	\$5,786,530	-\$6,446,819
<i>Management of companies</i>	\$0	\$3,596,540	\$753,504	\$4,350,045
<i>Administrative services</i>	-\$1,987,016	\$25,814,942	\$3,048,613	\$26,876,538
<i>Waste Management</i>	-\$425	-\$1,136,790	\$885,423	-\$251,793
<i>Educational svcs</i>	-\$11,731,099	-\$346,636	\$2,327,910	-\$9,749,825
<i>Health &amp; social services</i>	-\$193,160,110	-\$2,840,553	\$32,145,237	-\$163,855,426
<i>Arts- entertainment &amp; recreation</i>	-\$28,210,181	-\$413,683	\$5,057,193	-\$23,566,671
<i>Accomodation &amp; food services</i>	-\$69,136,569	-\$1,563,553	\$13,534,358	-\$57,165,764
<i>Other services</i>	-\$51,574,454	\$2,389,397	\$10,712,747	-\$38,472,311
<i>Government &amp; non NAICs</i>	-\$40,734,293	\$33,385,690	\$9,464,549	\$2,115,945

**Table D-141 Output Impact, 40% Congestion Increase, Northwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,121,884,228	\$546,885,850	\$373,880,701	-\$201,117,677
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$279,892	-\$641,252	\$2,011,234	\$1,090,090
<i>Mining</i>	\$0	\$144,060	\$130,781	\$274,841
<i>Utilities</i>	-\$19,228,263	\$711,801	\$4,531,358	-\$13,985,103
<i>Construction</i>	\$0	-\$11,737,478	\$3,481,284	-\$8,256,194
<i>Manufacturing</i>	-\$8,735	\$295,848,184	\$18,561,135	\$314,400,583
<i>Wholesale Trade</i>	\$0	\$16,004,984	\$13,523,760	\$29,528,743
<i>Retail trade</i>	\$0	\$15,881,883	\$52,493,932	\$68,375,815
<i>Transportation &amp; Warehousing</i>	\$0	\$125,923,490	\$4,339,982	\$130,263,472
<i>Information</i>	-\$31,539,590	\$858,863	\$11,738,709	-\$18,942,018
<i>Finance &amp; insurance</i>	-\$99,025,842	\$18,226,894	\$36,255,578	-\$44,543,370
<i>Real estate &amp; rental</i>	-\$374,896,739	-\$16,949,045	\$83,040,714	-\$308,805,070
<i>Professional- scientific &amp; tech svcs</i>	-\$16,758,886	\$1,175,541	\$9,937,693	-\$5,645,651
<i>Management of companies</i>	\$0	\$6,209,548	\$1,293,826	\$7,503,375
<i>Administrative services</i>	-\$2,907,089	\$43,403,186	\$5,237,234	\$45,733,331
<i>Waste Management</i>	-\$622	-\$1,487,487	\$1,519,112	\$31,003
<i>Educational svcs</i>	-\$17,163,096	-\$500,783	\$4,005,749	-\$13,658,130
<i>Health &amp; social services</i>	-\$282,601,440	-\$4,155,570	\$55,185,975	-\$231,571,036
<i>Arts- entertainment &amp; recreation</i>	-\$41,272,691	-\$577,666	\$8,694,168	-\$33,156,189
<i>Accomodation &amp; food services</i>	-\$101,149,729	-\$1,833,533	\$23,242,334	-\$79,740,928
<i>Other services</i>	-\$75,455,614	\$5,057,446	\$18,411,591	-\$51,986,577
<i>Government &amp; non NAICs</i>	-\$59,596,000	\$55,322,785	\$16,244,552	\$11,971,337

**Table D-142 Output Impact, 20% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$679,583,223	\$277,748,002	\$185,355,145	-\$216,480,076
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$169,545	-\$396,569	\$998,553	\$432,438
<i>Mining</i>	\$0	\$37,900	\$64,850	\$102,749
<i>Utilities</i>	-\$11,647,552	\$55,627	\$2,250,354	-\$9,341,571
<i>Construction</i>	\$0	-\$7,430,586	\$1,724,788	-\$5,705,797
<i>Manufacturing</i>	-\$5,291	\$156,570,695	\$9,214,367	\$165,779,770
<i>Wholesale Trade</i>	\$0	\$8,012,206	\$6,717,143	\$14,729,349
<i>Retail trade</i>	\$0	\$8,342,781	\$25,995,641	\$34,338,422
<i>Transportation &amp; Warehousing</i>	\$0	\$66,833,572	\$2,150,088	\$68,983,660
<i>Information</i>	-\$19,105,157	-\$963,031	\$5,824,340	-\$14,243,848
<i>Finance &amp; insurance</i>	-\$59,985,066	\$10,706,393	\$17,971,319	-\$31,307,354
<i>Real estate &amp; rental</i>	-\$227,094,312	-\$12,631,756	\$41,155,270	-\$198,570,798
<i>Professional- scientific &amp; tech svcs</i>	-\$10,151,722	-\$1,043,838	\$4,927,518	-\$6,268,042
<i>Management of companies</i>	\$0	\$3,028,386	\$641,675	\$3,670,061
<i>Administrative services</i>	-\$1,760,974	\$21,893,819	\$2,595,851	\$22,728,697
<i>Waste Management</i>	-\$377	-\$1,036,451	\$754,164	-\$282,665
<i>Educational svcs</i>	-\$10,396,573	-\$307,931	\$1,981,378	-\$8,723,127
<i>Health &amp; social services</i>	-\$171,186,292	-\$2,517,452	\$27,375,665	-\$146,328,079
<i>Arts- entertainment &amp; recreation</i>	-\$25,001,002	-\$330,772	\$4,305,350	-\$21,026,424
<i>Accomodation &amp; food services</i>	-\$61,271,618	-\$1,433,119	\$11,525,346	-\$51,179,390
<i>Other services</i>	-\$45,707,364	\$1,889,183	\$9,120,769	-\$34,697,411
<i>Government &amp; non NAICs</i>	-\$36,100,376	\$28,468,944	\$8,060,717	\$429,284

**Table D-143 Output Impact, 30% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,022,421,204	\$432,155,205	\$290,233,319	-\$300,032,680
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$255,078	-\$596,530	\$1,563,105	\$711,497
<i>Mining</i>	\$0	\$73,760	\$101,539	\$175,300
<i>Utilities</i>	-\$17,523,541	\$208,295	\$3,522,455	-\$13,792,792
<i>Construction</i>	\$0	-\$11,089,146	\$2,701,050	-\$8,388,096
<i>Manufacturing</i>	-\$7,961	\$243,315,456	\$14,424,207	\$257,731,702
<i>Wholesale Trade</i>	\$0	\$12,628,853	\$10,513,962	\$23,142,815
<i>Retail trade</i>	\$0	\$12,859,797	\$40,713,447	\$53,573,244
<i>Transportation &amp; Warehousing</i>	\$0	\$103,799,161	\$3,367,121	\$107,166,282
<i>Information</i>	-\$28,743,380	-\$1,002,199	\$9,118,415	-\$20,627,164
<i>Finance &amp; insurance</i>	-\$90,246,495	\$12,712,814	\$28,140,751	-\$49,392,929
<i>Real estate &amp; rental</i>	-\$341,659,469	-\$18,230,685	\$64,445,883	-\$295,444,271
<i>Professional- scientific &amp; tech svcs</i>	-\$15,273,091	-\$1,038,064	\$7,715,371	-\$8,595,783
<i>Management of companies</i>	\$0	\$4,795,379	\$1,004,672	\$5,800,051
<i>Administrative services</i>	-\$2,649,355	\$34,419,895	\$4,064,816	\$35,835,356
<i>Waste Management</i>	-\$567	-\$1,515,721	\$1,180,563	-\$335,725
<i>Educational svcs</i>	-\$15,641,465	-\$462,182	\$3,103,880	-\$12,999,767
<i>Health &amp; social services</i>	-\$257,546,813	-\$3,787,409	\$42,860,301	-\$218,473,922
<i>Arts- entertainment &amp; recreation</i>	-\$37,613,574	-\$551,580	\$6,742,920	-\$31,422,234
<i>Accomodation &amp; food services</i>	-\$92,182,086	-\$2,084,741	\$18,045,810	-\$76,221,017
<i>Other services</i>	-\$68,765,938	\$3,185,836	\$14,283,658	-\$51,296,443
<i>Government &amp; non NAICs</i>	-\$54,312,391	\$44,514,215	\$12,619,393	\$2,821,217

**Table D-144 Output Impact, 40% Congestion Increase, Northwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,495,845,593	\$729,180,072	\$498,507,472	-\$268,158,048
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$373,190	-\$855,002	\$2,681,644	\$1,453,452
<i>Mining</i>	\$0	\$192,079	\$174,375	\$366,454
<i>Utilities</i>	-\$25,637,683	\$949,061	\$6,041,810	-\$18,646,813
<i>Construction</i>	\$0	-\$15,649,974	\$4,641,709	-\$11,008,265
<i>Manufacturing</i>	-\$11,647	\$394,464,020	\$24,748,172	\$419,200,545
<i>Wholesale Trade</i>	\$0	\$21,339,888	\$18,031,676	\$39,371,564
<i>Retail trade</i>	\$0	\$21,175,810	\$69,991,886	\$91,167,696
<i>Transportation &amp; Warehousing</i>	\$0	\$167,897,680	\$5,786,640	\$173,684,321
<i>Information</i>	-\$42,052,786	\$1,145,129	\$15,651,605	-\$25,256,052
<i>Finance &amp; insurance</i>	-\$132,034,445	\$24,302,420	\$48,340,751	-\$59,391,274
<i>Real estate &amp; rental</i>	-\$499,862,295	-\$22,598,782	\$110,720,940	-\$411,740,137
<i>Professional- scientific &amp; tech svcs</i>	-\$22,345,180	\$1,567,351	\$13,250,253	-\$7,527,576
<i>Management of companies</i>	\$0	\$8,279,384	\$1,725,101	\$10,004,485
<i>Administrative services</i>	-\$3,876,119	\$57,870,868	\$6,982,977	\$60,977,726
<i>Waste Management</i>	-\$830	-\$1,983,318	\$2,025,482	\$41,335
<i>Educational svcs</i>	-\$22,884,128	-\$667,710	\$5,340,998	-\$18,210,841
<i>Health &amp; social services</i>	-\$376,801,910	-\$5,540,771	\$73,581,278	-\$308,761,403
<i>Arts- entertainment &amp; recreation</i>	-\$55,030,255	-\$770,222	\$11,592,220	-\$44,208,256
<i>Accomodation &amp; food services</i>	-\$134,866,309	-\$2,444,713	\$30,989,777	-\$106,321,245
<i>Other services</i>	-\$100,607,482	\$6,743,224	\$24,548,780	-\$69,315,478
<i>Government &amp; non NAICs</i>	-\$79,461,335	\$73,763,652	\$21,659,396	\$15,961,713

D.4.4 Puget Sound

**Table D-145 Output Impact, 20% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$974,020,639	\$1,107,399,53	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$110,727	-\$2,791,190	\$3,159,320	\$257,403
<i>Mining</i>	\$0	\$10,760,199	\$792,334	\$11,552,533
<i>Utilities</i>	-\$77,656,699	-\$7,831,010	\$10,259,917	-\$75,227,792
<i>Construction</i>	\$0	-\$61,365,958	\$8,923,116	-\$52,442,842
<i>Manufacturing</i>	-\$74,790	\$223,246,413	\$69,625,264	\$292,796,887
<i>Wholesale Trade</i>	\$0	\$78,868,411	\$57,146,750	\$136,015,161
<i>Retail trade</i>	\$0	\$48,731,870	\$120,215,295	\$168,947,166
<i>Transportation &amp; Warehousing</i>	\$0	\$797,448,807	\$27,427,983	\$824,876,790
<i>Information</i>	-\$290,712,149	-\$82,012,201	\$64,355,487	-\$308,368,864
<i>Finance &amp; insurance</i>	-\$678,563,805	-\$94,097,316	\$144,316,687	-\$628,344,435
<i>Real estate &amp; rental</i>	-	-	\$207,090,844	-
<i>Professional- scientific &amp; tech</i>	-\$118,566,958	-\$75,981,769	\$48,187,944	-\$146,360,783
<i>Management of companies</i>	\$0	\$28,883,833	\$9,869,787	\$38,753,620
<i>Administrative services</i>	-\$21,791,124	\$205,380,323	\$20,831,833	\$204,421,032
<i>Waste Management</i>	-\$1,978	-\$11,085,594	\$4,014,947	-\$7,072,626
<i>Educational svcs</i>	-\$123,905,767	-\$2,190,525	\$12,808,713	-\$113,287,580
<i>Health &amp; social services</i>	-	-\$25,571,244	\$142,284,782	-
<i>Arts- entertainment &amp; recreation</i>	-\$226,797,867	-\$9,653,465	\$25,121,750	-\$211,329,581
<i>Accommodation &amp; food services</i>	-\$448,501,341	-\$18,604,963	\$53,352,884	-\$413,753,420
<i>Other services</i>	-\$367,186,809	-\$164,590	\$46,385,380	-\$320,966,018
<i>Government &amp; non NAICs</i>	-\$220,092,489	\$147,567,153	\$31,228,515	-\$41,296,822

**Table D-146 Output Impact, 30% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-	\$1,485,566,35	\$1,708,132,38	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$169,172	-\$4,244,039	\$4,872,770	\$459,558
<i>Mining</i>	\$0	\$16,696,267	\$1,222,073	\$17,918,340
<i>Utilities</i>	-\$118,646,268	-\$12,076,919	\$15,823,849	-\$114,899,338
<i>Construction</i>	\$0	-\$93,833,488	\$13,764,276	-\$80,069,212
<i>Manufacturing</i>	-\$114,266	\$346,912,591	\$107,385,878	\$454,184,202
<i>Wholesale Trade</i>	\$0	\$122,624,522	\$88,134,517	\$210,759,039
<i>Retail trade</i>	\$0	\$75,671,377	\$185,442,623	\$261,114,000
<i>Transportation &amp; Warehousing</i>	\$0	\$1,231,459,49	\$42,309,700	\$1,273,769,191
<i>Information</i>	-\$444,158,859	-\$124,228,469	\$99,261,974	-\$469,125,354
<i>Finance &amp; insurance</i>	-	-\$178,826,109	\$222,614,080	-\$992,942,514
<i>Real estate &amp; rental</i>	-	-\$268,152,728	\$319,434,307	-
<i>Professional- scientific &amp; tech</i>	-\$181,150,211	-\$115,222,284	\$74,327,418	-\$222,045,077
<i>Management of companies</i>	\$0	\$45,042,271	\$15,223,269	\$60,265,539
<i>Administrative services</i>	-\$33,293,144	\$318,102,745	\$32,132,919	\$316,942,520
<i>Waste Management</i>	-\$3,022	-\$16,939,296	\$6,192,371	-\$10,749,947
<i>Educational svcs</i>	-\$189,307,011	-\$3,345,730	\$19,760,870	-\$172,891,872
<i>Health &amp; social services</i>	-	-\$39,068,641	\$219,463,085	-
<i>Arts- entertainment &amp; recreation</i>	-\$346,508,680	-\$14,784,822	\$38,753,043	-\$322,540,460
<i>Accomodation &amp; food services</i>	-\$685,233,980	-\$28,556,309	\$82,294,278	-\$631,496,011
<i>Other services</i>	-\$560,999,202	\$71,202	\$71,553,060	-\$489,374,939
<i>Government &amp; non NAICs</i>	-\$336,264,010	\$228,264,725	\$48,166,020	-\$59,833,265

**Table D-147 Output Impact, 40% Congestion Increase, Puget Sound 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$1,695,386,75	\$1,964,595,85	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$208,715	-\$5,320,151	\$5,609,245	\$80,379
<i>Mining</i>	\$0	\$19,839,213	\$1,406,548	\$21,245,761
<i>Utilities</i>	-\$146,379,382	-\$15,544,662	\$18,221,785	-\$143,702,260
<i>Construction</i>	\$0	-\$116,607,032	\$15,823,174	-\$100,783,858
<i>Manufacturing</i>	-\$140,975	\$410,050,420	\$123,622,139	\$533,531,583
<i>Wholesale Trade</i>	\$0	\$144,204,295	\$101,524,436	\$245,728,732
<i>Retail trade</i>	\$0	\$89,854,713	\$213,112,792	\$302,967,505
<i>Transportation &amp; Warehousing</i>	\$0	\$1,478,666,42	\$48,627,180	\$1,527,293,607
<i>Information</i>	-\$547,979,353	-\$161,383,002	\$114,221,572	-\$595,140,783
<i>Finance &amp; insurance</i>	-\$1,279,062,264	-\$227,808,370	\$255,917,598	-
<i>Real estate &amp; rental</i>	-\$3,212,820,785	-\$338,709,032	\$367,363,504	-
<i>Professional- scientific &amp; tech</i>	-\$223,493,388	-\$150,287,282	\$85,500,935	-\$288,279,735
<i>Management of companies</i>	\$0	\$51,655,598	\$17,516,232	\$69,171,830
<i>Administrative services</i>	-\$41,075,290	\$376,546,757	\$36,952,329	\$372,423,796
<i>Waste Management</i>	-\$3,729	-\$21,251,532	\$7,129,213	-\$14,126,047
<i>Educational svcs</i>	-\$233,556,801	-\$4,143,847	\$22,680,816	-\$215,019,832
<i>Health &amp; social services</i>	-\$2,718,617,553	-\$48,201,452	\$252,502,456	-
<i>Arts- entertainment &amp; recreation</i>	-\$427,503,763	-\$18,419,109	\$44,528,652	-\$401,394,220
<i>Accomodation &amp; food services</i>	-\$845,404,896	-\$36,185,037	\$94,664,097	-\$786,925,837
<i>Other services</i>	-\$692,130,650	-\$2,846,584	\$82,235,182	-\$612,742,052
<i>Government &amp; non NAICs</i>	-\$414,864,442	\$271,276,427	\$55,435,969	-\$88,152,046

**Table D-148 Output Impact, 20% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$1,298,694,07	\$1,476,533,01	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$147,636	-\$3,721,587	\$4,212,427	\$343,205
<i>Mining</i>	\$0	\$14,346,929	\$1,056,446	\$15,403,375
<i>Utilities</i>	-\$103,542,261	-\$10,441,342	\$13,679,889	-\$100,303,715
<i>Construction</i>	\$0	-\$81,821,265	\$11,897,494	-\$69,923,771
<i>Manufacturing</i>	-\$99,720	\$297,661,791	\$92,833,705	\$390,395,776
<i>Wholesale Trade</i>	\$0	\$105,157,881	\$76,195,666	\$181,353,547
<i>Retail trade</i>	\$0	\$64,975,825	\$160,287,076	\$225,262,901
<i>Transportation &amp; Warehousing</i>	\$0	\$1,063,265,02	\$36,570,645	\$1,099,835,670
<i>Information</i>	-\$387,616,178	-\$109,349,595	\$85,807,335	-\$411,158,438
<i>Finance &amp; insurance</i>	-\$904,751,704	-\$125,463,103	\$192,422,303	-\$837,792,504
<i>Real estate &amp; rental</i>	-	-\$234,021,971	\$276,121,194	-
<i>Professional- scientific &amp; tech</i>	-\$158,089,267	-\$101,309,028	\$64,250,619	-\$195,147,676
<i>Management of companies</i>	\$0	\$38,511,777	\$13,159,719	\$51,671,496
<i>Administrative services</i>	-\$29,054,831	\$273,840,413	\$27,775,787	\$272,561,369
<i>Waste Management</i>	-\$2,638	-\$14,780,789	\$5,353,263	-\$9,430,164
<i>Educational svcs</i>	-\$165,207,678	-\$2,920,695	\$17,078,287	-\$151,050,085
<i>Health &amp; social services</i>	-	-\$34,094,996	\$189,713,090	-
<i>Arts- entertainment &amp; recreation</i>	-\$302,397,134	-\$12,871,291	\$33,495,665	-\$281,772,760
<i>Accomodation &amp; food services</i>	-\$598,001,776	-\$24,806,674	\$71,137,194	-\$551,671,257
<i>Other services</i>	-\$489,582,406	-\$219,465	\$61,847,183	-\$427,954,687
<i>Government &amp; non NAICs</i>	-\$293,456,648	\$196,756,240	\$41,638,029	-\$55,062,379

**Table D-149 Output Impact, 30% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$1,980,755,21	\$2,277,510,35	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$225,563	-\$5,658,720	\$6,497,027	\$612,745
<i>Mining</i>	\$0	\$22,261,692	\$1,629,431	\$23,891,123
<i>Utilities</i>	-\$158,195,022	-\$16,102,560	\$21,098,470	-\$153,199,113
<i>Construction</i>	\$0	-\$125,111,319	\$18,352,369	-\$106,758,950
<i>Manufacturing</i>	-\$152,355	\$462,550,188	\$143,181,188	\$605,579,022
<i>Wholesale Trade</i>	\$0	\$163,499,351	\$117,512,759	\$281,012,110
<i>Retail trade</i>	\$0	\$100,895,166	\$247,256,864	\$348,152,030
<i>Transportation &amp; Warehousing</i>	\$0	\$1,641,946,09	\$56,412,949	\$1,698,359,046
<i>Information</i>	-\$592,211,850	-\$165,638,010	\$132,349,335	-\$625,500,525
<i>Finance &amp; insurance</i>	-\$1,382,307,278	-\$238,434,932	\$296,818,877	-
<i>Real estate &amp; rental</i>	-\$3,472,157,670	-\$357,536,937	\$425,912,525	-
<i>Professional- scientific &amp; tech</i>	-\$241,533,627	-\$153,629,697	\$99,103,262	-\$296,060,062
<i>Management of companies</i>	\$0	\$60,056,373	\$20,297,701	\$80,354,073
<i>Administrative services</i>	-\$44,390,858	\$424,136,970	\$42,843,903	\$422,590,014
<i>Waste Management</i>	-\$4,030	-\$22,585,732	\$8,256,494	-\$14,333,268
<i>Educational svcs</i>	-\$252,409,356	-\$4,460,973	\$26,347,832	-\$230,522,498
<i>Health &amp; social services</i>	-\$2,938,062,585	-\$52,091,476	\$292,617,461	-
<i>Arts- entertainment &amp; recreation</i>	-\$462,011,601	-\$19,713,090	\$51,670,742	-\$430,053,949
<i>Accomodation &amp; food services</i>	-\$913,645,380	-\$38,075,035	\$109,725,686	-\$841,994,729
<i>Other services</i>	-\$747,998,966	\$94,915	\$95,404,091	-\$652,499,960
<i>Government &amp; non NAICs</i>	-\$448,352,031	\$304,352,941	\$64,221,389	-\$79,777,701

**Table D-150 Output Impact, 40% Congestion Increase, Puget Sound 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$2,260,516,28	\$2,619,459,82	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$278,287	-\$7,093,536	\$7,478,990	\$107,167
<i>Mining</i>	\$0	\$26,452,285	\$1,875,397	\$28,327,682
<i>Utilities</i>	-\$195,172,525	-\$20,726,211	\$24,295,707	-\$191,603,028
<i>Construction</i>	\$0	-\$155,476,042	\$21,097,552	-\$134,378,490
<i>Manufacturing</i>	-\$187,967	\$546,733,919	\$164,829,448	\$711,375,399
<i>Wholesale Trade</i>	\$0	\$192,272,388	\$135,365,855	\$327,638,243
<i>Retail trade</i>	\$0	\$119,806,300	\$284,150,296	\$403,956,596
<i>Transportation &amp; Warehousing</i>	\$0	\$1,971,555,33	\$64,836,194	\$2,036,391,526
<i>Information</i>	-\$730,639,128	-\$215,177,270	\$152,295,379	-\$793,521,019
<i>Finance &amp; insurance</i>	-\$1,705,416,384	-\$303,744,466	\$341,223,312	-
<i>Real estate &amp; rental</i>	-\$4,283,761,229	-\$451,611,940	\$489,817,702	-
<i>Professional- scientific &amp; tech</i>	-\$297,991,197	-\$200,383,051	\$114,001,223	-\$384,373,025
<i>Management of companies</i>	\$0	\$68,874,134	\$23,354,964	\$92,229,098
<i>Administrative services</i>	-\$54,767,055	\$502,062,411	\$49,269,761	\$496,565,117
<i>Waste Management</i>	-\$4,972	-\$28,335,375	\$9,505,603	-\$18,834,743
<i>Educational svcs</i>	-\$311,409,085	-\$5,525,136	\$30,241,054	-\$286,693,167
<i>Health &amp; social services</i>	-\$3,624,823,663	-\$64,268,502	\$336,669,693	-
<i>Arts- entertainment &amp; recreation</i>	-\$570,005,060	-\$24,558,801	\$59,371,507	-\$535,192,354
<i>Accomodation &amp; food services</i>	-\$1,127,206,555	-\$48,246,617	\$126,218,738	-
<i>Other services</i>	-\$922,840,909	-\$3,795,460	\$109,646,875	-\$816,989,495
<i>Government &amp; non NAICs</i>	-\$553,152,613	\$361,701,922	\$73,914,573	-\$117,536,117

D.4.5 Southeast

**Table D-151 Output Impact, 20% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$84,808,967	\$34,728,963	\$19,231,764	-\$30,848,239
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$223,187	-\$46,026	\$153,781	-\$115,431
<i>Mining</i>	\$0	\$17,339	\$5,577	\$22,916
<i>Utilities</i>	-\$2,336,508	\$28,156	\$366,207	-\$1,942,146
<i>Construction</i>	\$0	-\$529,435	\$114,978	-\$414,457
<i>Manufacturing</i>	-\$787	\$16,584,002	\$1,026,736	\$17,609,950
<i>Wholesale Trade</i>	\$0	\$1,203,074	\$792,146	\$1,995,220
<i>Retail trade</i>	\$0	\$943,561	\$2,628,425	\$3,571,986
<i>Transportation &amp; Warehousing</i>	\$0	\$9,156,472	\$265,271	\$9,421,743
<i>Information</i>	-\$2,595,354	\$29,589	\$602,980	-\$1,962,785
<i>Finance &amp; insurance</i>	-\$5,551,040	\$1,915,326	\$1,313,035	-\$2,322,679
<i>Real estate &amp; rental</i>	-\$25,075,237	-\$231,668	\$3,948,638	-\$21,358,268
<i>Professional- scientific &amp; tech svcs</i>	-\$1,269,217	\$359,714	\$396,262	-\$513,241
<i>Management of companies</i>	\$0	\$57,152	\$6,623	\$63,774
<i>Administrative services</i>	-\$158,557	\$1,376,591	\$123,085	\$1,341,119
<i>Waste Management</i>	-\$7	-\$3,480	\$9,981	\$6,495
<i>Educational svcs</i>	-\$3,163,210	-\$16,386	\$384,015	-\$2,795,581
<i>Health &amp; social services</i>	-\$25,239,191	-\$180,397	\$3,779,877	-\$21,639,711
<i>Arts- entertainment &amp; recreation</i>	-\$2,506,730	-\$29,920	\$400,108	-\$2,136,542
<i>Accomodation &amp; food services</i>	-\$6,768,664	-\$80,373	\$1,170,698	-\$5,678,339
<i>Other services</i>	-\$5,404,224	\$358,558	\$934,356	-\$4,111,310
<i>Government &amp; non NAICs</i>	-\$4,517,054	\$3,817,118	\$808,983	\$109,047

**Table D-152 Output Impact, 30% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$126,823,136	\$51,246,733	\$28,432,648	-\$47,143,756
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$333,753	-\$68,933	\$227,364	-\$175,321
<i>Mining</i>	\$0	\$25,839	\$8,245	\$34,084
<i>Utilities</i>	-\$3,494,009	\$30,541	\$541,458	-\$2,922,010
<i>Construction</i>	\$0	-\$795,742	\$169,981	-\$625,761
<i>Manufacturing</i>	-\$1,178,247	\$24,776,418	\$1,518,054	\$26,293,294
<i>Wholesale Trade</i>	\$0	\$1,793,662	\$1,171,207	\$2,964,869
<i>Retail trade</i>	\$0	\$1,409,558	\$3,885,712	\$5,295,270
<i>Transportation &amp; Warehousing</i>	\$0	\$13,666,658	\$392,175	\$14,058,833
<i>Information</i>	-\$3,881,086	\$33,584	\$891,489	-\$2,956,013
<i>Finance &amp; insurance</i>	-\$8,301,012	\$2,335,193	\$1,941,230	-\$4,024,590
<i>Real estate &amp; rental</i>	-\$37,497,453	-\$362,643	\$5,837,483	-\$32,022,613
<i>Professional- scientific &amp; tech svcs</i>	-\$1,897,985	\$525,018	\$585,850	-\$787,117
<i>Management of companies</i>	\$0	\$84,969	\$9,791	\$94,760
<i>Administrative services</i>	-\$237,105	\$2,048,191	\$181,968	\$1,993,054
<i>Waste Management</i>	-\$10	-\$5,478	\$14,757	\$9,270
<i>Educational svcs</i>	-\$4,730,257	-\$24,545	\$567,691	-\$4,187,111
<i>Health &amp; social services</i>	-\$37,742,628	-\$269,765	\$5,588,460	-\$32,423,933
<i>Arts- entertainment &amp; recreation</i>	-\$3,748,559	-\$45,294	\$591,502	-\$3,202,351
<i>Accomodation &amp; food services</i>	-\$10,121,845	-\$125,012	\$1,730,799	-\$8,516,058
<i>Other services</i>	-\$8,081,465	\$528,819	\$1,381,346	-\$6,171,300
<i>Government &amp; non NAICs</i>	-\$6,754,792	\$5,685,695	\$1,196,083	\$126,986

**Table D-153 Output Impact, 40% Congestion Increase, Southeast 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$177,683,840	\$74,196,065	\$41,355,433	-\$62,132,343
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$467,600	-\$96,069	\$330,665	-\$233,004
<i>Mining</i>	\$0	\$38,875	\$11,992	\$50,867
<i>Utilities</i>	-\$4,895,234	\$59,357	\$787,373	-\$4,048,504
<i>Construction</i>	\$0	-\$1,104,997	\$247,257	-\$857,740
<i>Manufacturing</i>	-\$1,650	\$35,734,090	\$2,207,638	\$37,940,078
<i>Wholesale Trade</i>	\$0	\$2,606,327	\$1,703,234	\$4,309,561
<i>Retail trade</i>	\$0	\$2,041,718	\$5,652,534	\$7,694,252
<i>Transportation &amp; Warehousing</i>	\$0	\$19,694,534	\$570,447	\$20,264,981
<i>Information</i>	-\$5,437,543	\$113,129	\$1,296,564	-\$4,027,850
<i>Finance &amp; insurance</i>	-\$11,630,021	\$3,289,769	\$2,823,490	-\$5,516,762
<i>Real estate &amp; rental</i>	-\$52,535,299	-\$461,608	\$8,491,610	-\$44,505,296
<i>Professional- scientific &amp; tech svcs</i>	-\$2,659,146	\$806,351	\$852,095	-\$1,000,700
<i>Management of companies</i>	\$0	\$123,832	\$14,241	\$138,072
<i>Administrative services</i>	-\$332,193	\$2,976,863	\$264,687	\$2,909,357
<i>Waste Management</i>	-\$14	-\$6,902	\$21,461	\$14,545
<i>Educational svcs</i>	-\$6,627,263	-\$34,169	\$825,874	-\$5,835,557
<i>Health &amp; social services</i>	-\$52,878,799	-\$377,950	\$8,127,687	-\$45,129,062
<i>Arts- entertainment &amp; recreation</i>	-\$5,251,868	-\$62,568	\$860,435	-\$4,454,001
<i>Accomodation &amp; food services</i>	-\$14,181,074	-\$163,769	\$2,517,407	-\$11,827,436
<i>Other services</i>	-\$11,322,428	\$789,958	\$2,009,269	-\$8,523,201
<i>Government &amp; non NAICs</i>	-\$9,463,711	\$8,229,294	\$1,739,472	\$505,056

**Table D-154 Output Impact,20% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$113,078,629	\$46,305,280	\$25,642,355	-\$41,130,994
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$297,582	-\$61,368	\$205,042	-\$153,908
<i>Mining</i>	\$0	\$23,119	\$7,436	\$30,555
<i>Utilities</i>	-\$3,115,344	\$37,541	\$488,276	-\$2,589,528
<i>Construction</i>	\$0	-\$705,913	\$153,304	-\$552,609
<i>Manufacturing</i>	-\$1,050	\$22,112,001	\$1,368,982	\$23,479,932
<i>Wholesale Trade</i>	\$0	\$1,604,099	\$1,056,195	\$2,660,294
<i>Retail trade</i>	\$0	\$1,258,081	\$3,504,567	\$4,762,648
<i>Transportation &amp; Warehousing</i>	\$0	\$12,208,628	\$353,695	\$12,562,323
<i>Information</i>	-\$3,460,472	\$39,451	\$803,973	-\$2,617,047
<i>Finance &amp; insurance</i>	-\$7,401,387	\$2,553,768	\$1,750,714	-\$3,096,905
<i>Real estate &amp; rental</i>	-\$33,433,651	-\$308,891	\$5,264,851	-\$28,477,691
<i>Professional- scientific &amp; tech svcs</i>	-\$1,692,290	\$479,618	\$528,350	-\$684,322
<i>Management of companies</i>	\$0	\$76,202	\$8,830	\$85,033
<i>Administrative services</i>	-\$211,409	\$1,835,454	\$164,114	\$1,788,159
<i>Waste Management</i>	-\$9	-\$4,640	\$13,308	\$8,659
<i>Educational svcs</i>	-\$4,217,613	-\$21,848	\$512,020	-\$3,727,441
<i>Health &amp; social services</i>	-\$33,652,257	-\$240,529	\$5,039,836	-\$28,852,950
<i>Arts- entertainment &amp; recreation</i>	-\$3,342,308	-\$39,893	\$533,477	-\$2,848,723
<i>Accomodation &amp; food services</i>	-\$9,024,886	-\$107,165	\$1,560,932	-\$7,571,119
<i>Other services</i>	-\$7,205,633	\$478,077	\$1,245,808	-\$5,481,748
<i>Government &amp; non NAICs</i>	-\$6,022,739	\$5,089,490	\$1,078,644	\$145,395

**Table D-155 Output Impact, 30% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$169,097,500	\$68,328,970	\$37,910,194	-\$62,858,336
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$445,004	-\$91,910	\$303,152	-\$233,761
<i>Mining</i>	\$0	\$34,451	\$10,994	\$45,445
<i>Utilities</i>	-\$4,658,678	\$40,721	\$721,944	-\$3,896,013
<i>Construction</i>	\$0	-\$1,060,989	\$226,641	-\$834,348
<i>Manufacturing</i>	-\$1,570	\$33,035,221	\$2,024,071	\$35,057,723
<i>Wholesale Trade</i>	\$0	\$2,391,550	\$1,561,609	\$3,953,159
<i>Retail trade</i>	\$0	\$1,879,411	\$5,180,949	\$7,060,360
<i>Transportation &amp; Warehousing</i>	\$0	\$18,222,210	\$522,900	\$18,745,110
<i>Information</i>	-\$5,174,781	\$44,778	\$1,188,652	-\$3,941,350
<i>Finance &amp; insurance</i>	-\$11,068,016	\$3,113,590	\$2,588,307	-\$5,366,118
<i>Real estate &amp; rental</i>	-\$49,996,600	-\$483,523	\$7,783,310	-\$42,696,813
<i>Professional- scientific &amp; tech svcs</i>	-\$2,530,646	\$700,024	\$781,134	-\$1,049,489
<i>Management of companies</i>	\$0	\$113,291	\$13,055	\$126,347
<i>Administrative services</i>	-\$316,140	\$2,730,921	\$242,624	\$2,657,405
<i>Waste Management</i>	-\$13	-\$7,304	\$19,677	\$12,360
<i>Educational svcs</i>	-\$6,307,009	-\$32,726	\$756,921	-\$5,582,814
<i>Health &amp; social services</i>	-\$50,323,499	-\$359,689	\$7,451,280	-\$43,231,908
<i>Arts- entertainment &amp; recreation</i>	-\$4,998,079	-\$60,393	\$788,670	-\$4,269,802
<i>Accomodation &amp; food services</i>	-\$13,495,791	-\$166,684	\$2,307,732	-\$11,354,743
<i>Other services</i>	-\$10,775,286	\$705,092	\$1,841,795	-\$8,228,399
<i>Government &amp; non NAICs</i>	-\$9,006,389	\$7,580,926	\$1,594,778	\$169,315

**Table D-156 Output Impact, 40% Congestion Increase, Southeast 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$236,911,792	\$98,928,094	\$55,140,575	-\$82,843,123
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$623,466	-\$128,092	\$440,886	-\$310,672
<i>Mining</i>	\$0	\$51,833	\$15,990	\$67,823
<i>Utilities</i>	-\$6,526,979	\$79,142	\$1,049,830	-\$5,398,006
<i>Construction</i>	\$0	-\$1,473,330	\$329,676	-\$1,143,654
<i>Manufacturing</i>	-\$2,200	\$47,645,459	\$2,943,517	\$50,586,777
<i>Wholesale Trade</i>	\$0	\$3,475,102	\$2,270,978	\$5,746,081
<i>Retail trade</i>	\$0	\$2,722,291	\$7,536,712	\$10,259,002
<i>Transportation &amp; Warehousing</i>	\$0	\$26,259,377	\$760,596	\$27,019,974
<i>Information</i>	-\$7,250,058	\$150,838	\$1,728,752	-\$5,370,467
<i>Finance &amp; insurance</i>	-\$15,506,695	\$4,386,360	\$3,764,653	-\$7,355,682
<i>Real estate &amp; rental</i>	-\$70,047,068	-\$615,478	\$11,322,144	-\$59,340,401
<i>Professional- scientific &amp; tech svcs</i>	-\$3,545,528	\$1,075,134	\$1,136,127	-\$1,334,267
<i>Management of companies</i>	\$0	\$165,109	\$18,988	\$184,096
<i>Administrative services</i>	-\$442,924	\$3,969,150	\$352,917	\$3,879,143
<i>Waste Management</i>	-\$18	-\$9,203	\$28,615	\$19,394
<i>Educational svcs</i>	-\$8,836,350	-\$45,558	\$1,101,165	-\$7,780,743
<i>Health &amp; social services</i>	-\$70,505,066	-\$503,930	\$10,836,916	-\$60,172,080
<i>Arts- entertainment &amp; recreation</i>	-\$7,002,491	-\$83,423	\$1,147,247	-\$5,938,668
<i>Accomodation &amp; food services</i>	-\$18,908,099	-\$218,357	\$3,356,543	-\$15,769,913
<i>Other services</i>	-\$15,096,570	\$1,053,277	\$2,679,025	-\$11,364,268
<i>Government &amp; non NAICs</i>	-\$12,618,281	\$10,972,392	\$2,319,297	\$673,408

D.4.6 Southwest

**Table D-157 Output Impact, 20% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$491,413,480	\$118,803,100	\$106,799,973	-\$265,810,407
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$61,509	-\$257,760	\$403,902	\$84,633
<i>Mining</i>	\$0	\$5,877,159	\$325,073	\$6,202,233
<i>Utilities</i>	-\$2,906,733	-\$105,608	\$457,321	-\$2,555,021
<i>Construction</i>	\$0	-\$6,089,779	\$1,135,426	-\$4,954,353
<i>Manufacturing</i>	-\$4,374	\$29,180,900	\$5,078,257	\$34,254,783
<i>Wholesale Trade</i>	\$0	\$5,383,457	\$4,761,182	\$10,144,639
<i>Retail trade</i>	\$0	\$4,708,500	\$14,587,631	\$19,296,131
<i>Transportation &amp; Warehousing</i>	\$0	\$63,347,238	\$1,923,177	\$65,270,415
<i>Information</i>	-\$19,788,209	-\$288,002	\$4,183,013	-\$15,893,197
<i>Finance &amp; insurance</i>	-\$31,698,060	-\$3,090,824	\$8,003,058	-\$26,785,826
<i>Real estate &amp; rental</i>	-\$151,676,375	-\$6,778,546	\$21,626,527	-\$136,828,393
<i>Professional- scientific &amp; tech svcs</i>	-\$7,023,621	-\$1,828,268	\$2,849,448	-\$6,002,441
<i>Management of companies</i>	\$0	\$1,175,201	\$281,883	\$1,457,084
<i>Administrative services</i>	-\$1,934,966	\$16,522,955	\$1,885,579	\$16,473,568
<i>Waste Management</i>	-\$186	-\$619,724	\$382,284	-\$237,626
<i>Educational svcs</i>	-\$5,888,245	-\$325,190	\$924,199	-\$5,289,236
<i>Health &amp; social services</i>	-\$142,785,914	-\$2,337,153	\$18,304,125	-\$126,818,942
<i>Arts- entertainment &amp; recreation</i>	-\$18,971,812	-\$178,784	\$2,570,428	-\$16,580,168
<i>Accomodation &amp; food services</i>	-\$39,721,017	-\$1,333,809	\$6,067,627	-\$34,987,199
<i>Other services</i>	-\$34,553,459	\$509,422	\$5,456,094	-\$28,587,942
<i>Government &amp; non NAICs</i>	-\$34,399,000	\$15,331,713	\$5,593,736	-\$13,473,550

**Table D-158 Output Impact, 30% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$722,381,159	\$172,341,422	\$155,566,241	-\$394,473,496
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$90,419	-\$379,310	\$588,380	\$118,651
<i>Mining</i>	\$0	\$8,657,498	\$473,548	\$9,131,046
<i>Utilities</i>	-\$4,272,917	-\$164,012	\$666,221	-\$3,770,708
<i>Construction</i>	\$0	-\$8,974,863	\$1,653,820	-\$7,321,042
<i>Manufacturing</i>	-\$6,429	\$42,983,594	\$7,397,734	\$50,374,899
<i>Wholesale Trade</i>	\$0	\$7,920,131	\$6,936,085	\$14,856,216
<i>Retail trade</i>	\$0	\$6,939,544	\$21,246,593	\$28,186,138
<i>Transportation &amp; Warehousing</i>	\$0	\$93,240,874	\$2,801,175	\$96,042,049
<i>Information</i>	-\$29,088,801	-\$455,957	\$6,093,506	-\$23,451,253
<i>Finance &amp; insurance</i>	-\$46,596,363	-\$6,739,213	\$11,657,422	-\$41,678,154
<i>Real estate &amp; rental</i>	-\$222,965,302	-\$10,066,217	\$31,499,866	-\$201,531,652
<i>Professional- scientific &amp; tech svcs</i>	-\$10,324,771	-\$2,734,879	\$4,150,616	-\$8,909,035
<i>Management of companies</i>	\$0	\$1,723,786	\$410,607	\$2,134,393
<i>Administrative services</i>	-\$2,844,414	\$24,272,542	\$2,746,523	\$24,174,651
<i>Waste Management</i>	-\$274	-\$917,970	\$556,893	-\$361,351
<i>Educational svcs</i>	-\$8,655,760	-\$478,736	\$1,346,104	-\$7,788,391
<i>Health &amp; social services</i>	-\$209,896,275	-\$3,435,632	\$26,663,367	-\$186,668,540
<i>Arts- entertainment &amp; recreation</i>	-\$27,888,693	-\$265,286	\$3,743,792	-\$24,410,188
<i>Accomodation &amp; food services</i>	-\$58,390,158	-\$1,985,222	\$8,838,297	-\$51,537,083
<i>Other services</i>	-\$50,793,820	\$715,688	\$7,946,998	-\$42,131,134
<i>Government &amp; non NAICs</i>	-\$50,566,763	\$22,485,064	\$8,148,692	-\$19,933,008

**Table D-159 Output Impact, 40% Congestion Increase, Southwest 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,059,812,430	\$265,936,014	\$240,612,838	-\$553,263,578
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$132,655	-\$546,877	\$909,757	\$230,225
<i>Mining</i>	\$0	\$13,157,792	\$732,197	\$13,889,989
<i>Utilities</i>	-\$6,268,838	-\$209,707	\$1,029,978	-\$5,448,567
<i>Construction</i>	\$0	-\$13,048,794	\$2,558,263	-\$10,490,531
<i>Manufacturing</i>	-\$9,432	\$65,474,985	\$11,438,210	\$76,903,763
<i>Wholesale Trade</i>	\$0	\$12,210,069	\$10,723,028	\$22,933,097
<i>Retail trade</i>	\$0	\$10,608,490	\$32,872,764	\$43,481,254
<i>Transportation &amp; Warehousing</i>	\$0	\$140,946,239	\$4,333,393	\$145,279,632
<i>Information</i>	-\$42,676,465	-\$81,231	\$9,422,114	-\$33,335,582
<i>Finance &amp; insurance</i>	-\$68,361,981	-\$10,191,411	\$18,030,056	-\$60,523,336
<i>Real estate &amp; rental</i>	-\$327,114,570	-\$14,299,456	\$48,729,611	-\$292,684,415
<i>Professional- scientific &amp; tech svcs</i>	-\$15,147,572	-\$3,476,401	\$6,419,315	-\$12,204,658
<i>Management of companies</i>	\$0	\$2,682,926	\$635,011	\$3,317,937
<i>Administrative services</i>	-\$4,173,067	\$37,183,659	\$4,248,224	\$37,258,816
<i>Waste Management</i>	-\$402	-\$1,314,646	\$861,045	-\$454,002
<i>Educational svcs</i>	-\$12,698,951	-\$700,274	\$2,082,545	-\$11,316,679
<i>Health &amp; social services</i>	-\$307,940,853	-\$5,040,398	\$41,232,486	-\$271,748,765
<i>Arts- entertainment &amp; recreation</i>	-\$40,915,773	-\$383,974	\$5,792,324	-\$35,507,423
<i>Accomodation &amp; food services</i>	-\$85,664,773	-\$2,825,950	\$13,669,490	-\$74,821,233
<i>Other services</i>	-\$74,520,107	\$1,373,876	\$12,293,899	-\$60,852,332
<i>Government &amp; non NAICs</i>	-\$74,186,991	\$34,417,096	\$12,599,127	-\$27,170,767

**Table D-160 Output Impact, 20% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$655,217,979	\$158,404,124	\$142,399,955	-\$354,413,900
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$82,012	-\$343,680	\$538,536	\$112,844
<i>Mining</i>	\$0	\$7,836,212	\$433,431	\$8,269,643
<i>Utilities</i>	-\$3,875,644	-\$140,811	\$609,761	-\$3,406,694
<i>Construction</i>	\$0	-\$8,119,706	\$1,513,902	-\$6,605,804
<i>Manufacturing</i>	-\$5,832	\$38,907,863	\$6,771,010	\$45,673,041
<i>Wholesale Trade</i>	\$0	\$7,177,942	\$6,348,242	\$13,526,184
<i>Retail trade</i>	\$0	\$6,278,000	\$19,450,173	\$25,728,172
<i>Transportation &amp; Warehousing</i>	\$0	\$84,462,976	\$2,564,236	\$87,027,213
<i>Information</i>	-\$26,384,280	-\$384,003	\$5,577,351	-\$21,190,932
<i>Finance &amp; insurance</i>	-\$42,264,081	-\$4,121,101	\$10,670,740	-\$35,714,442
<i>Real estate &amp; rental</i>	-\$202,235,166	-\$9,038,063	\$28,835,372	-\$182,437,856
<i>Professional- scientific &amp; tech svcs</i>	-\$9,364,829	-\$2,437,692	\$3,799,264	-\$8,003,257
<i>Management of companies</i>	\$0	\$1,566,934	\$375,844	\$1,942,778
<i>Administrative services</i>	-\$2,579,955	\$22,030,607	\$2,514,106	\$21,964,758
<i>Waste Management</i>	-\$248	-\$826,299	\$509,712	-\$316,835
<i>Educational svcs</i>	-\$7,850,994	-\$433,586	\$1,232,266	-\$7,052,314
<i>Health &amp; social services</i>	-\$190,381,226	-\$3,116,194	\$24,405,496	-\$169,091,924
<i>Arts- entertainment &amp; recreation</i>	-\$25,295,750	-\$238,377	\$3,427,238	-\$22,106,890
<i>Accomodation &amp; food services</i>	-\$52,961,351	-\$1,778,411	\$8,090,168	-\$46,649,594
<i>Other services</i>	-\$46,071,280	\$679,228	\$7,274,792	-\$38,117,259
<i>Government &amp; non NAICs</i>	-\$45,865,332	\$20,442,283	\$7,458,315	-\$17,964,733

**Table D-161 Output Impact, 30% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$963,174,876	\$229,788,549	\$207,421,640	-\$525,964,687
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$120,559	-\$505,747	\$784,507	\$158,201
<i>Mining</i>	\$0	\$11,543,330	\$631,397	\$12,174,727
<i>Utilities</i>	-\$5,697,223	-\$218,683	\$888,295	-\$5,027,611
<i>Construction</i>	\$0	-\$11,966,484	\$2,205,094	-\$9,761,390
<i>Manufacturing</i>	-\$8,572	\$57,311,455	\$9,863,645	\$67,166,528
<i>Wholesale Trade</i>	\$0	\$10,560,175	\$9,248,113	\$19,808,288
<i>Retail trade</i>	\$0	\$9,252,725	\$28,328,788	\$37,581,514
<i>Transportation &amp; Warehousing</i>	\$0	\$124,321,166	\$3,734,900	\$128,056,065
<i>Information</i>	-\$38,785,071	-\$607,943	\$8,124,675	-\$31,268,340
<i>Finance &amp; insurance</i>	-\$62,128,486	-\$8,985,621	\$15,543,228	-\$55,570,879
<i>Real estate &amp; rental</i>	-\$297,287,070	-\$13,421,622	\$41,999,815	-\$268,708,877
<i>Professional- scientific &amp; tech svcs</i>	-\$13,766,362	-\$3,646,507	\$5,534,153	-\$11,878,715
<i>Management of companies</i>	\$0	\$2,298,381	\$547,476	\$2,845,857
<i>Administrative services</i>	-\$3,792,551	\$32,363,389	\$3,662,030	\$32,232,868
<i>Waste Management</i>	-\$365	-\$1,223,961	\$742,524	-\$481,802
<i>Educational svcs</i>	-\$11,541,014	-\$638,313	\$1,794,806	-\$10,384,520
<i>Health &amp; social services</i>	-\$279,861,687	-\$4,580,848	\$35,551,153	-\$248,891,383
<i>Arts- entertainment &amp; recreation</i>	-\$37,184,925	-\$353,716	\$4,991,723	-\$32,546,918
<i>Accomodation &amp; food services</i>	-\$77,853,547	-\$2,646,960	\$11,784,396	-\$68,716,111
<i>Other services</i>	-\$67,725,092	\$954,249	\$10,595,997	-\$56,174,846
<i>Government &amp; non NAICs</i>	-\$67,422,352	\$29,980,084	\$10,864,923	-\$26,577,345

**Table D-162 Output Impact, 40% Congestion Increase, Southwest 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-\$1,413,083,221	\$354,581,389	\$320,817,167	-\$737,684,664
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$176,873	-\$729,169	\$1,213,010	\$306,967
<i>Mining</i>	\$0	\$17,543,724	\$976,263	\$18,519,987
<i>Utilities</i>	-\$8,358,451	-\$279,609	\$1,373,305	-\$7,264,756
<i>Construction</i>	\$0	-\$17,398,393	\$3,411,019	-\$13,987,373
<i>Manufacturing</i>	-\$12,577	\$87,299,979	\$15,250,949	\$102,538,352
<i>Wholesale Trade</i>	\$0	\$16,280,094	\$14,297,374	\$30,577,468
<i>Retail trade</i>	\$0	\$14,144,655	\$43,830,362	\$57,975,017
<i>Transportation &amp; Warehousing</i>	\$0	\$187,928,341	\$5,777,858	\$193,706,199
<i>Information</i>	-\$56,901,956	-\$108,305	\$12,562,815	-\$44,447,446
<i>Finance &amp; insurance</i>	-\$91,149,301	-\$13,588,544	\$24,040,075	-\$80,697,770
<i>Real estate &amp; rental</i>	-\$436,152,755	-\$19,065,943	\$64,972,830	-\$390,245,868
<i>Professional- scientific &amp; tech svcs</i>	-\$20,196,763	-\$4,635,199	\$8,559,088	-\$16,272,874
<i>Management of companies</i>	\$0	\$3,577,235	\$846,681	\$4,423,916
<i>Administrative services</i>	-\$5,564,089	\$49,578,216	\$5,664,300	\$49,678,426
<i>Waste Management</i>	-\$536	-\$1,752,861	\$1,148,061	-\$605,336
<i>Educational svcs</i>	-\$16,931,933	-\$933,698	\$2,776,728	-\$15,088,903
<i>Health &amp; social services</i>	-\$410,587,799	-\$6,720,531	\$54,976,653	-\$362,331,677
<i>Arts- entertainment &amp; recreation</i>	-\$54,554,366	-\$511,967	\$7,723,099	-\$47,343,234
<i>Accomodation &amp; food services</i>	-\$114,219,697	-\$3,767,936	\$18,225,989	-\$99,761,644
<i>Other services</i>	-\$99,360,140	\$1,831,832	\$16,391,867	-\$81,136,441
<i>Government &amp; non NAICs</i>	-\$98,915,985	\$45,889,469	\$16,798,841	-\$36,227,676

D.4.7 State

**Table D-163 Output Impact, 20% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>	-	\$2,167,768,06	\$1,568,440,63	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$1,991,361	-\$8,723,831	\$10,997,050	\$281,859
<i>Mining</i>	\$0	\$28,528,034	\$1,692,982	\$30,221,017
<i>Utilities</i>	-\$91,025,071	-\$5,919,494	\$13,920,562	-\$83,024,003
<i>Construction</i>	\$0	-\$77,187,283	\$13,309,847	-\$63,877,436
<i>Manufacturing</i>	-\$83,128	\$1,136,890,86	\$129,457,206	\$1,266,264,942
<i>Wholesale Trade</i>	\$0	\$96,628,815	\$77,199,990	\$173,828,805
<i>Retail trade</i>	\$0	\$64,102,497	\$173,025,896	\$237,128,393
<i>Transportation &amp; Warehousing</i>	\$0	\$1,001,496,02	\$38,515,954	\$1,040,011,974
<i>Information</i>	-\$343,894,109	-\$93,433,149	\$85,507,502	-\$351,819,756
<i>Finance &amp; insurance</i>	-\$726,800,305	-\$49,403,325	\$174,726,156	-\$601,477,474
<i>Real estate &amp; rental</i>	-	-\$210,984,514	\$286,283,197	-
<i>Professional- scientific &amp; tech</i>	-\$132,882,063	-\$82,934,476	\$62,143,998	-\$153,672,541
<i>Management of companies</i>	\$0	\$33,854,176	\$12,303,701	\$46,157,877
<i>Administrative services</i>	-\$26,731,020	\$235,126,528	\$28,871,785	\$237,267,293
<i>Waste Management</i>	-\$5,058	-\$16,455,599	\$6,654,995	-\$9,805,661
<i>Educational svcs</i>	-\$147,785,270	-\$3,621,824	\$17,153,255	-\$134,253,839
<i>Health &amp; social services</i>	-	-\$32,650,855	\$204,024,327	-
<i>Arts- entertainment &amp; recreation</i>	-\$275,885,950	-\$11,282,841	\$34,271,127	-\$252,897,663
<i>Accommodation &amp; food services</i>	-\$554,248,732	-\$23,889,908	\$74,978,788	-\$503,159,853
<i>Other services</i>	-\$471,252,021	-\$690,884	\$66,980,490	-\$404,962,415
<i>Government &amp; non NAICs</i>	-\$350,750,144	\$188,319,115	\$56,421,822	-\$106,009,207

**Table D-164 Output Impact, 30% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$3,303,415,64	\$2,402,939,26	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$3,015,215	-\$13,173,655	\$16,846,397	\$657,527
<i>Mining</i>	\$0	\$43,907,008	\$2,593,595	\$46,500,603
<i>Utilities</i>	-\$137,825,427	-\$8,993,708	\$21,324,604	-\$125,494,532
<i>Construction</i>	\$0	-\$116,887,493	\$20,392,287	-\$96,495,206
<i>Manufacturing</i>	-\$125,868	\$1,748,277,93	\$198,318,794	\$1,946,470,860
<i>Wholesale Trade</i>	\$0	\$149,424,096	\$118,257,999	\$267,682,095
<i>Retail trade</i>	\$0	\$98,922,422	\$265,109,883	\$364,032,305
<i>Transportation &amp; Warehousing</i>	\$0	\$1,535,642,06	\$59,012,679	\$1,594,654,742
<i>Information</i>	-\$520,706,574	-\$139,736,385	\$130,996,261	-\$529,446,699
<i>Finance &amp; insurance</i>	-\$1,100,483,253	-\$120,719,507	\$267,702,268	-\$953,500,492
<i>Real estate &amp; rental</i>	-\$3,160,963,117	-\$319,216,646	\$438,607,787	-
<i>Professional- scientific &amp; tech</i>	-\$201,203,111	-\$124,136,026	\$95,206,798	-\$230,132,340
<i>Management of companies</i>	\$0	\$52,505,988	\$18,849,220	\$71,355,207
<i>Administrative services</i>	-\$40,474,719	\$361,952,825	\$44,233,921	\$365,712,027
<i>Waste Management</i>	-\$7,658	-\$24,901,060	\$10,194,850	-\$14,713,868
<i>Educational svcs</i>	-\$223,768,777	-\$5,483,092	\$26,284,814	-\$202,967,056
<i>Health &amp; social services</i>	-\$2,786,363,624	-\$49,438,327	\$312,565,759	-
<i>Arts- entertainment &amp; recreation</i>	-\$417,732,165	-\$17,122,446	\$52,510,381	-\$382,344,231
<i>Accomodation &amp; food services</i>	-\$839,214,572	-\$36,311,896	\$114,870,726	-\$760,655,742
<i>Other services</i>	-\$713,545,292	-\$508,177	\$102,625,507	-\$611,427,962
<i>Government &amp; non NAICs</i>	-\$531,087,629	\$289,411,727	\$86,434,740	-\$155,241,162

**Table D-165 Output Impact, 40% Congestion Increase, State 60% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$4,641,438,44	\$3,379,467,47	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$4,231,614	-\$18,479,158	\$23,692,160	\$981,388
<i>Mining</i>	\$0	\$61,800,646	\$3,647,566	\$65,448,212
<i>Utilities</i>	-\$193,427,026	-\$12,629,745	\$29,990,047	-\$176,066,723
<i>Construction</i>	\$0	-\$164,045,984	\$28,679,702	-\$135,366,282
<i>Manufacturing</i>	-\$176,645	\$2,460,389,92	\$278,909,108	\$2,739,122,385
<i>Wholesale Trade</i>	\$0	\$210,495,626	\$166,312,516	\$376,808,142
<i>Retail trade</i>	\$0	\$139,302,590	\$372,853,739	\$512,156,329
<i>Transportation &amp; Warehousing</i>	\$0	\$2,160,035,28	\$82,995,806	\$2,243,031,089
<i>Information</i>	-\$730,770,234	-\$195,668,214	\$184,230,222	-\$742,208,226
<i>Finance &amp; insurance</i>	-\$1,544,440,629	-\$181,081,414	\$376,496,551	-
<i>Real estate &amp; rental</i>	-\$4,436,160,312	-\$447,933,029	\$616,854,685	-
<i>Professional- scientific &amp; tech</i>	-\$282,372,557	-\$173,849,542	\$133,897,443	-\$322,324,656
<i>Management of companies</i>	\$0	\$74,004,373	\$26,509,159	\$100,513,532
<i>Administrative services</i>	-\$56,803,049	\$509,479,708	\$62,210,289	\$514,886,948
<i>Waste Management</i>	-\$10,748	-\$34,942,809	\$14,337,679	-\$20,615,878
<i>Educational svcs</i>	-\$314,041,663	-\$7,694,865	\$36,967,933	-\$284,768,596
<i>Health &amp; social services</i>	-\$3,910,439,839	-\$69,382,850	\$439,586,297	-
<i>Arts- entertainment &amp; recreation</i>	-\$586,253,872	-\$24,039,809	\$73,851,307	-\$536,442,374
<i>Accomodation &amp; food services</i>	-\$1,177,770,973	-\$50,996,178	\$161,552,733	-
<i>Other services</i>	-\$1,001,404,056	-\$576,590	\$144,333,303	-\$857,647,343
<i>Government &amp; non NAICs</i>	-\$745,339,243	\$407,250,482	\$121,559,232	-\$216,529,529

**Table D-166 Output Impact, 20% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$2,890,357,02	\$2,091,253,83	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$2,655,148	-\$11,631,775	\$14,662,730	\$375,807
<i>Mining</i>	\$0	\$38,037,377	\$2,257,309	\$40,294,686
<i>Utilities</i>	-\$121,366,755	-\$7,892,654	\$18,560,750	-\$110,698,659
<i>Construction</i>	\$0	-\$102,916,370	\$17,746,462	-\$85,169,908
<i>Manufacturing</i>	-\$110,837	\$1,515,854,34	\$172,609,583	\$1,688,353,090
<i>Wholesale Trade</i>	\$0	\$128,838,385	\$102,933,287	\$231,771,672
<i>Retail trade</i>	\$0	\$85,469,995	\$230,701,187	\$316,171,183
<i>Transportation &amp; Warehousing</i>	\$0	\$1,335,327,95	\$51,354,596	\$1,386,682,554
<i>Information</i>	-\$458,525,478	-\$124,577,518	\$114,009,973	-\$469,093,022
<i>Finance &amp; insurance</i>	-\$969,067,057	-\$65,871,108	\$232,968,164	-\$801,970,001
<i>Real estate &amp; rental</i>	-	-\$281,312,775	\$381,710,879	-
<i>Professional- scientific &amp; tech</i>	-\$177,176,087	-\$110,579,293	\$82,858,667	-\$204,896,713
<i>Management of companies</i>	\$0	\$45,138,884	\$16,404,925	\$61,543,808
<i>Administrative services</i>	-\$35,641,359	\$313,502,007	\$38,495,709	\$316,356,357
<i>Waste Management</i>	-\$6,744	-\$21,940,796	\$8,873,325	-\$13,074,214
<i>Educational svcs</i>	-\$197,047,020	-\$4,829,108	\$22,871,000	-\$179,005,128
<i>Health &amp; social services</i>	-	-\$43,534,495	\$272,032,411	-
<i>Arts- entertainment &amp; recreation</i>	-\$367,847,931	-\$15,043,779	\$45,694,826	-\$337,196,883
<i>Accomodation &amp; food services</i>	-\$738,998,350	-\$31,853,168	\$99,971,656	-\$670,879,863
<i>Other services</i>	-\$628,336,017	-\$921,184	\$89,307,310	-\$539,949,891
<i>Government &amp; non NAICs</i>	-\$467,666,849	\$251,092,090	\$75,229,088	-\$141,345,670

**Table D-167 Output Impact, 30% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$4,404,554,06	\$3,203,918,88	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$4,020,287	-\$17,564,874	\$22,461,861	\$876,701
<i>Mining</i>	\$0	\$58,542,675	\$3,458,126	\$62,000,801
<i>Utilities</i>	-\$183,767,237	-\$11,991,596	\$28,432,791	-\$167,326,042
<i>Construction</i>	\$0	-\$155,849,986	\$27,189,710	-\$128,660,276
<i>Manufacturing</i>	-\$167,823	\$2,331,037,07	\$264,425,026	\$2,595,294,279
<i>Wholesale Trade</i>	\$0	\$199,232,150	\$157,677,248	\$356,909,399
<i>Retail trade</i>	\$0	\$131,896,572	\$353,479,866	\$485,376,438
<i>Transportation &amp; Warehousing</i>	\$0	\$2,047,522,90	\$78,683,561	\$2,126,206,461
<i>Information</i>	-\$694,275,443	-\$186,315,159	\$174,661,656	-\$705,928,946
<i>Finance &amp; insurance</i>	-\$1,467,311,002	-\$160,959,450	\$356,936,389	-
<i>Real estate &amp; rental</i>	-\$4,214,617,513	-\$425,622,257	\$584,810,439	-
<i>Professional- scientific &amp; tech</i>	-\$268,270,815	-\$165,514,668	\$126,942,388	-\$306,843,095
<i>Management of companies</i>	\$0	\$70,007,978	\$25,132,304	\$95,140,282
<i>Administrative services</i>	-\$53,966,292	\$482,603,824	\$58,978,561	\$487,616,093
<i>Waste Management</i>	-\$10,211	-\$33,201,415	\$13,593,137	-\$19,618,489
<i>Educational svcs</i>	-\$298,358,363	-\$7,310,795	\$35,046,416	-\$270,622,742
<i>Health &amp; social services</i>	-\$3,715,151,456	-\$65,917,858	\$416,754,286	-
<i>Arts- entertainment &amp; recreation</i>	-\$556,976,215	-\$22,829,957	\$70,013,832	-\$509,792,340
<i>Accomodation &amp; food services</i>	-\$1,118,952,807	-\$48,415,862	\$153,160,943	-
<i>Other services</i>	-\$951,393,728	-\$677,582	\$136,833,999	-\$815,237,311
<i>Government &amp; non NAICs</i>	-\$708,116,843	\$385,882,345	\$115,246,339	-\$206,988,160

**Table D-168 Output Impact, 40% Congestion Increase, State 80% Cost Realization.**

<b>Description</b>	<b>Direct</b>	<b>Indirect</b>	<b>Induced</b>	<b>Total</b>
<i>Total</i>		- \$6,188,584,33	\$4,505,954,77	-
<i>Ag, Forestry, Fish &amp; Hunting</i>	-\$5,642,152	-\$24,638,876	\$31,589,540	\$1,308,511
<i>Mining</i>	\$0	\$82,400,872	\$4,863,419	\$87,264,291
<i>Utilities</i>	-\$257,902,695	-\$16,839,681	\$39,986,730	-\$234,755,646
<i>Construction</i>	\$0	-\$218,727,970	\$38,239,582	-\$180,488,387
<i>Manufacturing</i>	-\$235,527	\$3,280,519,71	\$371,878,698	\$3,652,162,889
<i>Wholesale Trade</i>	\$0	\$280,660,894	\$221,749,980	\$502,410,874
<i>Retail trade</i>	\$0	\$185,736,786	\$497,138,134	\$682,874,920
<i>Transportation &amp; Warehousing</i>	\$0	\$2,880,046,75	\$110,661,017	\$2,990,707,775
<i>Information</i>	-\$974,360,317	-\$260,890,916	\$245,640,174	-\$989,611,060
<i>Finance &amp; insurance</i>	-\$2,059,254,165	-\$241,441,798	\$501,995,110	-
<i>Real estate &amp; rental</i>	-\$5,914,880,274	-\$597,243,854	\$822,472,660	-
<i>Professional- scientific &amp; tech</i>	-\$376,496,740	-\$231,799,383	\$178,529,872	-\$429,766,251
<i>Management of companies</i>	\$0	\$98,672,503	\$35,345,548	\$134,018,051
<i>Administrative services</i>	-\$75,737,398	\$679,306,272	\$82,947,027	\$686,515,901
<i>Waste Management</i>	-\$14,331	-\$46,590,410	\$19,116,903	-\$27,487,837
<i>Educational svcs</i>	-\$418,722,221	-\$10,259,815	\$49,290,562	-\$379,691,474
<i>Health &amp; social services</i>	-\$5,213,919,595	-\$92,510,522	\$586,114,791	-
<i>Arts- entertainment &amp; recreation</i>	-\$781,671,801	-\$32,053,094	\$98,468,363	-\$715,256,532
<i>Accomodation &amp; food services</i>	-\$1,570,361,249	-\$67,995,006	\$215,403,458	-
<i>Other services</i>	-\$1,335,205,397	-\$768,786	\$192,444,332	-
<i>Government &amp; non NAICs</i>	-\$993,785,666	\$543,000,638	\$162,078,875	-\$288,706,153

## Appendix E Congestion Survey Questions

Washington State Department of Transportation

### 2010 Washington State Congestion Survey

#### Welcome to the 2010 Washington Statewide Congestion Survey!

We are re-contacting your company about a Washington State Department of Transportation research study. This study evaluates the economic impacts of roadways and traffic on business.

We have 12 more specific questions about inventory and costs which the person who answered our previous questions indicated you would be able to answer.

All information provided is confidential and the results will be summarized over all businesses in reports. Your participation is voluntary.

If you have any questions regarding this study, please call 1-800-833-0867 or email [sesrcweb7@wsu.edu](mailto:sesrcweb7@wsu.edu) and mention the "Trucking Congestion Survey".

Thank you very much for helping with this study. Your input to this survey is essential!

Danna Moore  
Principal Investigator

Please, enter your Access Code listed in the message we sent to you:

Submit Personal Access Code

Contact us: [sesrcweb5@wsu.edu](mailto:sesrcweb5@wsu.edu) 1-800-833-0867 | © SESRC 2009  
Social and Economic Sciences Research Center, 130 Wilson-Short Hall, Washington State University, Pullman, WA, 99164-4014 USA

Washington State Department of Transportation

### 2010 Washington State Congestion Survey

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We realize your time is valuable, so we have designed this on-line survey to allow you to stop at any point and restart the survey at your convenience. Here are just a few instructions to assist you in completing the survey.

1. To leave the survey at any time, just close or exit your Internet browser.
2. To restart the survey where you left off, re-enter your access code at the login screen.
3. You may return to previous questions at any time by clicking the survey "back" button at the bottom of your screen. DO NOT USE your browser's "Back" button, as this will take you back to the login screen.
4. If you accidentally click your browser's "Back" button you will be taken to the login screen. Simply re-enter your access code to be returned to your previous place in the survey.
5. There are several types of response fields:
  - a. Radio buttons (round) allow you to choose one option.
  - b. Check boxes (square) allow you to choose as many of the options as are applicable.
  - c. Short fields are intended for numerical values.
  - d. Longer fields allow you to type in a text response.

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## 2010 Washington State Congestion Survey

Question 1 of 9

**We previously spoke with at your company and they had answered some questions regarding freight movement and costs due to traffic congestion and delays. We have a few more specific questions about inventory and costs which indicated you would be able to answer.**

**It should take less than 5 minutes to finish the interview; there are only 12 questions.**

**Do you know inventory costs or does a different person in your company need to finish?**

- Yes, I DO know inventory costs
- No, I DO NOT know inventory costs
- Company does not carry an inventory

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## 2010 Washington State Congestion Survey

Question 16 of 9

**Thank you for taking time today answering our questions. If you have any additional comments about this survey or about WSDOT please note them below.**

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Question 2 of 9

**Please provide the contact information for the person who knows about inventory costs.**

Their Email:	<input type="text"/>
Their Name:	<input type="text"/>
Their Position Title:	<input type="text"/>
Their Telephone:	<input type="text"/>

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Question 9a of 9

**Thank you for helping me contact the correct person in your company. If you have any further contact information please note it below.**

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## 2010 Washington State Congestion Survey

Question 6a of 83

**How many days of inventory does your company keep on hand in Washington State?**

number of days

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## 2010 Washington State Congestion Survey

Question 6b of 83

**How many days of inventory would you need to add to maintain your current delivery schedules if congestion increased by 20 percent?**

number of additional days of inventory

Question 70c of 83

**How many days of inventory would you need to add to maintain your current delivery schedules if congestion increased by 30 percent?**

number of additional days of inventory

Question 70d of 83

**How many days of inventory would you need to add to maintain your current delivery schedules if congestion increased by 40 percent?**

number of additional days of inventory

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## 2010 Washington State Congestion Survey

Question 3 of 83

**What is your best estimate of the dollar value of the inventory kept on hand in Washington State?**

inventory value (dollars)

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## 2010 Washington State Congestion Survey

Question 6 of 8

**Do you agree that your company's current TOTAL INVENTORY CARRYING COSTS falls within the range of 25% to 55% of your TOTAL INVENTORY VALUE?**

- Yes
- No

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## 2010 Washington State Congestion Survey

Question 7 of 8

**You indicated that TOTAL INVENTORY CARRYING COSTS falls outside the range of 25 to 55% of TOTAL INVENTORY VALUE.**

**For your company what is the percent for TOTAL INVENTORY CARRYING COSTS?**

percent of total inventory carrying COSTS

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## 2010 Washington State Congestion Survey

Question 8 of 8

**There are several components that contribute to total inventory costs. For each one please indicate if the percent range assigned is correct or not for your company.**

	Yes	No
Cost of Money or Capital is 6% to 12% of Total Cost	<input type="radio"/>	<input type="radio"/>
Taxes are 2% to 6% of Total Cost	<input type="radio"/>	<input type="radio"/>
Insurance is 1% to 3% of Total Cost	<input type="radio"/>	<input type="radio"/>
Warehouse Expenses are 2% to 5% of Total Cost	<input type="radio"/>	<input type="radio"/>
Physical Handling is 2% to 5% of Total Cost	<input type="radio"/>	<input type="radio"/>
Clerical & Inventory Control are 3% to 6% of Total Cost	<input type="radio"/>	<input type="radio"/>
Obsolete Inventory 6% to 12% of Total Cost	<input type="radio"/>	<input type="radio"/>
Deterioration & Pilferage (recurrent petty theft) are 3% to 6% of Total Cost	<input type="radio"/>	<input type="radio"/>

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Question 8b of 8b

**You indicated that Cost of Money or Capital is outside the range of 6% to 12% of Total Cost.**

**For your company what is the percent for Cost of Money or Capital?**

percent of total cost

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Question 8d of 8b

**You indicated that Taxes are outside the range of 2% to 6% of Total Cost.**

**For your company what is the percent for Taxes?**

percent of total cost

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Question 8f of 8b

**You indicated that Insurance is outside the range of 1% to 3% of Total Cost.**

**For your company what is the percent for Insurance?**

percent of total cost

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Question 8b of 8b

**You indicated that Warehouse Expenses are outside the range of 2% to 5% of Total Cost.**

**For your company what is the percent for Warehouse Expenses?**

percent of total cost

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Question 8j of 8b

**You indicated that Physical Handling is outside the range of 2% to 5% of Total Cost.**

**For your company what is the percent for Physical Handling?**

percent of total cost

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Question 8i of 8b

**You indicated that Clerical and Inventory Control are outside the range of 3% to 6% of Total Cost.**

**For your company what is the percent for Clerical and Inventory Control?**

percent of total cost

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Question 8b of 83

**You indicated that Obsolete Inventory (no longer useful) is outside the range of 6% to 12% of Total Cost.**

**For your company what is the percent for Obsolete Inventory?**

percent of total cost

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## 2010 Washington State Congestion Survey

Question 8c of 83

**You indicated that Deterioration and Pilferage (recurrent petty theft) are outside the range of 3% to 6% of Total Cost.**

**For your company what is the percent for Deterioration and Pilferage?**

percent of total cost

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Question 8 of 8

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Your completed questionnaire has been received.  
Thank You!

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