



## IMPLAN Economic Model Analysis of the closure of Clairton Coke Works

December 12, 2024

The closure of the Clairton Coke Works facility would result in the loss of 1,200 jobs in the category of “all other petroleum and coal products manufacturing.” This direct loss of 1,200 jobs would further impact 2,073 indirect jobs and 1,936 induced jobs, bringing the total number of jobs negatively affected to 5,209.

Altogether, these 5,209 jobs represent \$524,288,553.42 in labor income annually. They contribute \$1,257,894,608.04 in value added to Pennsylvania’s economy, resulting in a total economic output of \$2,905,324,728.93 each year.

Economic Indicators by Impact					
Impact	Employment	Labor Income	Value Added	Output	
1 - Direct	(1,200.00)	\$(188,419,917.21)	\$(623,669,664.11)	\$(1,750,994,826.02)	
2 - Indirect	(2,073.04)	\$(209,737,830.07)	\$(418,115,514.54)	\$(794,060,570.95)	
3 - Induced	(1,936.42)	\$(126,130,806.14)	\$(216,109,429.39)	\$(360,269,331.95)	
Totals	(5,209.46)	\$(524,288,553.42)	\$(1,257,894,608.04)	\$(2,905,324,728.93)	

The loss of this economic activity will cost governments hundreds of millions of dollars in tax revenue. At the county level, it will result in a loss of \$36,498,467.85, while at the state level, the loss will total \$56,051,210.80. At the federal level, the impact will amount to \$123,663,206.50. Altogether, these losses add up to \$216,212,885.14 in annual tax revenue.

Tax Results						
Impact	Sub County General	Sub County Special Districts	County	State	Federal	Total
1 - Direct	\$(1,660,600.41)	\$(3,153,357.24)	\$(707,197.17)	\$(14,993,619.56)	\$(47,942,871.61)	\$(68,457,646.00)
2 - Indirect	\$(5,947,367.90)	\$(13,199,094.67)	\$(3,276,966.32)	\$(29,166,123.75)	\$(47,586,396.41)	\$(99,175,949.05)
3 - Induced	\$(2,350,281.54)	\$(5,008,507.79)	\$(1,195,094.79)	\$(11,891,467.49)	\$(28,133,938.48)	\$(48,579,290.10)
Totals	\$(9,958,249.86)	\$(21,360,959.71)	\$(5,179,258.28)	\$(56,051,210.80)	\$(123,663,206.50)	\$(216,212,885.14)

The top five indirect industries negatively impacted by the loss of 1,200 direct jobs in coal products manufacturing are:

1. Custom computer programming services: -289
2. Services to buildings: -128
3. Management of companies and enterprises: -113
4. Employment services: -97
5. Truck transportation: -91

The top five induced industries negatively impacted by the loss of 1,200 direct jobs in coal products manufacturing are:

1. Hospitals: -138
2. Full-service restaurants: -85
3. Limited-service restaurants: -76
4. Individual and family services: -74
5. Offices of physicians: -61

### **Methodology:**

All impacts are confined to Pennsylvania. Two regions were defined: the first includes all 66 counties in Pennsylvania except Allegheny County, and the second consists of Allegheny County alone. The impact of losing 1,200 jobs in the IMPLAN code 158 “all other petroleum and coal products manufacturing” is a direct bridge to NAICS code 212111 “manufacturing of coke oven products” was an event occurring in only Allegheny County and run as a “multi-regional input output” model, to show all impacts across the commonwealth.

IMPLAN is a regional economic analysis software application that is designed to estimate the impact or ripple effect (specifically backward linkages) of a given economic activity within a specific geographic area through the implementation of its Input-Output and Social Accounting Matrix model.

### **Terminology:**

#### *Direct effects/jobs*

Direct effects are the set of expenditures applied to the I-O multipliers for an impact analysis. It is one or more production changes or expenditures made by producers/consumers as a result of an activity or policy. Direct effects can be positive or negative.

These initial changes are determined by an analyst and demonstrate the result of an activity or policy being analyzed. Applying these initial changes to the multipliers in IMPLAN will then display how a region will respond economically to them.

#### *Indirect effects/jobs*

Indirect effects are the business-to-business purchases in the supply chain taking place in the region that stem from the initial industry input purchases. As the industry specified spends their money in the region with their suppliers, this spending is shown through the indirect effect.

#### *Induced effects/jobs*

Induced effects are the values stemming from household spending of Labor Income, after removal of taxes, savings, and commuter income. The induced effects are generated by the spending of the employees within the business' supply chain.