

# THE ECONOMIC IMPACT OF THE CLEVELAND HARBOR



*A PRESENTATION TO:  
Cleveland Cuyahoga County Port Authority*

Prepared by:  
Martin Associates  
941 Wheatland Ave., Suite 203  
Lancaster, PA 17603

*[www.martinassoc.net](http://www.martinassoc.net)*

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# Why Conduct Economic Impact Studies?

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- Community - public awareness
- Legislature - funding requests
- Commissioners - project justification
- Directors - allocation of resources, policy decisions towards tenants/customers
- Planners - comparison of projects
  - economics and financial

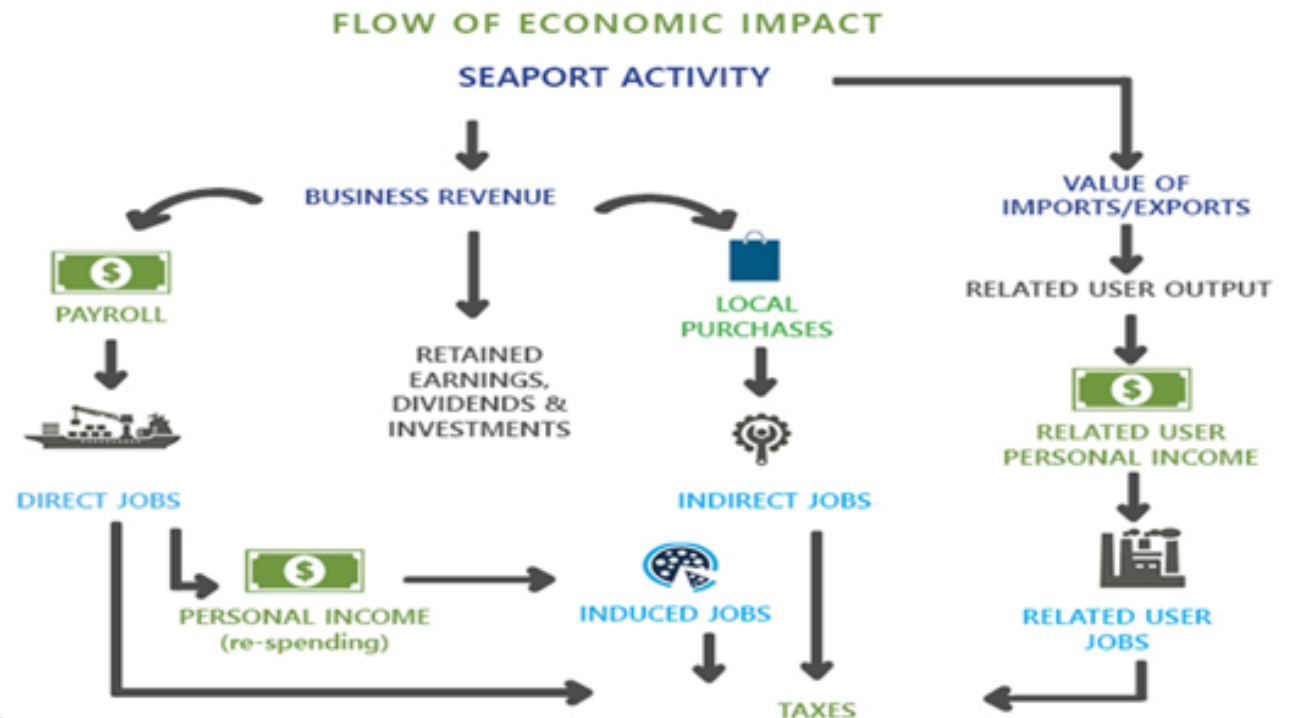
# Study Purposes

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- Measure impacts by:
  - Job Category
  - Commodity
  - Place of Residence
- Develop a Port-specific maritime impact model:
  - Sensitivity analysis
  - Terminal/tenant impact analysis
  - New carriers/cargo
  - Diverted business
  - Comparison of alternative uses for port land
  - Justification of terminal and infrastructure investment
  - Assessment of policy issues
  - Future cargo throughput

# Impacts Created and Flow of Impacts Throughout Economy

- Jobs:
  - Direct
  - Induced
  - Indirect
  - Related
- Wages and salaries:
  - Direct
  - Re-spending
  - Indirect
  - Related
- Total Economic Output
  - Maritime Business Revenue
  - Dependent Shipper Revenue
  - Related Output
- Taxes
  - State
  - Local



# Methodology

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- Data from 70+ stakeholders including telephone/personal interviews, Martin Associates' in-house data, published statistics:
  - Maritime tenants
  - Users
  - Service providers
- Formulation of direct impact model from interviews and previous study data
- Development of Cleveland/Ohio - specific induced model
- Development of indirect models for Cleveland Metropolitan Area and state of Ohio-- Bureau of Economic Analysis, RIMS II

# Economic Impacts of the Cleveland Harbor 2021 Cargo Activity

**22,368 jobs**  
supported by maritime  
activity

- Direct Jobs: 4,316
- Induced Jobs: 4,551
- Indirect Jobs: 7,131
- Related Users: 6,370

**\$4.7 billion of total  
economic value**  
supported in the region

- \$691.5 million revenue to businesses supplying cargo and vessel handling services
- \$1.3 billion revenue from Port dependent tenants
- \$684.6 million of re-spending of direct income and local consumption
- \$2 billion of related business revenue with Port users

**\$1.8 billion total  
personal income** and  
local consumption

- Direct: \$292 million
- Re-spending/Local Consumption: \$684.6 million
- Indirect: \$433 million
- Related Users: \$402.8 million

**\$240.3 million** of state  
and local **taxes**

- Direct, Induced and Indirect: \$186.9 million
- Related Users: \$53.4 million

\*Totals may not add due to rounding.

# 2021 Economic Impacts of Cleveland Harbor Cargo Activity

CLEVELAND - CUYAHOGA RIVER	
<b>JOBS</b>	
DIRECT	4,316
INDUCED	4,551
INDIRECT	7,131
RELATED JOBS	<u>6,370</u>
<b>TOTAL JOBS</b>	<b>22,368</b>
<b>PERSONAL INCOME</b>	
DIRECT	\$291,976
INDUCED/RESPENDING	\$684,625
INDIRECT	\$433,010
RELATED INCOME	<u>\$402,813</u>
<b>TOTAL PERSONAL INCOME</b>	<b>\$1,812,425</b>
<b>BUSINESS REVENUE</b>	
BUSINESS SERVICES REVENUE	\$691,451
TENANT/DEPENDENT SHIPPER REVENUE	<u>\$1,334,159</u>
<i>DEPENDENT SUBTOTAL</i>	<i>\$2,025,610</i>
VALUE OF RELATED OUTPUT	<u>\$2,022,624</u>
<b>TOTAL</b>	<b>\$4,048,234</b>
<b>LOCAL PURCHASES</b>	<b>\$792,154</b>
<b>STATE &amp; LOCAL TAXES</b>	
DIRECT, INDUCED AND INDIRECT	\$186,929
RELATED TAXES	<u>\$53,417</u>
<b>TOTAL STATE AND LOCAL TAXES</b>	<b>\$240,346</b>

\*Totals may not add due to rounding

# Distribution of Direct Jobs by Commodity and Category

COMMODITY	DIRECT JOBS
CONTAINERS	50
STEEL COILS/BREAKBULK	470
LIMESTONE/SAND/AGG.	856
COAL/COKE	6
IRON ORE	2,106
SALT/MINERALS	364
SLAG	15
CEMENT	226
PETROL/ASPHALT	65
NOT ALLOCATED	157
<b>TOTAL</b>	<b>4,316</b>

SECTOR	DIRECT JOBS
SURFACE TRANSPORTATION	
RAIL	27
TRUCK	1,202
MARITIME SERVICES	
TERMINAL EMPLOYEES/DOCKWORKERS	177
TOWING/PILOTS	36
LINES AND AGENTS	11
MARITIME SERVICES	124
GOVERNMENT	24
BARGE AND LAKER	313
DEPENDENT SHIPPERS/CONSIGNEES	2,385
PORT AUTHORITY	18
<b>TOTAL</b>	<b>4,316</b>



# Residency of Direct Job Holders – Nearly 80% Reside in Cuyahoga County

COUNTY	PERCENT	NUMBER
CLEVELAND	34.8%	1,393
CUYAHOGA	44.7%	1,791
LAKE	3.9%	156
LORAIN	5.5%	220
ASHTABULA	3.0%	122
GEAUGA	2.5%	99
MEDINA	1.2%	47
SUMMIT	3.5%	141
OTHER	<u>0.9%</u>	<u>35</u>
<b>TOTAL</b>	<b>100.0%</b>	<b>4,003</b>

\*Totals may not add due to rounding

\*\*Total excludes jobs associated with Lakers as the location of residence of crew members could not be estimated

# Distribution of Direct Business Revenue by Commodity and Category

COMMODITY	REVENUE (\$1,000)
CONTAINERS	\$8,551
STEEL/BREAKBULK	\$124,748
LIMESTONE/SAND/AGG	\$187,284
COAL/COKE	\$1,049
IRON ORE	\$193,929
SALT/MINERALS	\$65,523
SLAG	\$3,997
CEMENT	\$49,224
PETROL/ASPHALT	\$9,360
NOT ALLOCATED	\$47,786
<b>TOTAL</b>	<b>\$691,451</b>

SECTOR	REVENUE (\$1,000)
SURFACE TRANSPORTATION	
RAIL	\$39,902
TRUCK	\$213,766
MARITIME SERVICES	
TERMINAL EMPLOYEES/DOCKWORKERS	\$45,882
TOWING/PILOTS	\$24,996
LINES AND AGENTS	\$447
MARITIME SERVICES	\$34,878
GOVERNMENT	N/A
BARGE AND LAKER	\$318,644
PORT AUTHORITY	\$12,936
<b>TOTAL</b>	<b>\$691,451</b>

\*Totals may not add due to rounding

# \$240 Million in State and Local Taxes

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TAXES BY CATEGORY (\$1,000)	STATE	LOCAL	TOTAL
DIRECT, INDUCED, & INDIRECT	\$103,987	\$82,941	\$186,929
RELATED	<u>\$29,716</u>	<u>\$23,701</u>	<u>\$53,417</u>
<b>TOTAL</b>	<b>\$133,703</b>	<b>\$106,643</b>	<b>\$240,346</b>

\*Totals may not add due to rounding

# Changes in Economic Impacts Generated by Cleveland Harbor Since 2015 – 2,100 Total Job Growth

	2008	2015	2021	2015-2021 CHANGE	2015-2021 PERCENT
<b>JOBS</b>					
DIRECT	3,743	4,084	4,316	232	5.7%
INDUCED	4,315	3,993	4,551	557	14.0%
INDIRECT	6,319	6,649	7,131	482	7.3%
RELATED JOBS	3,455	<u>5,546</u>	<u>6,370</u>	<u>824</u>	14.8%
<b>TOTAL JOBS</b>	<b>17,832</b>	<b>20,273</b>	<b>22,368</b>	<b>2,095</b>	<b>10.3%</b>
<b>PERSONAL INCOME</b>					
DIRECT	\$152,445	\$237,248	\$291,976	\$54,728	23.1%
INDUCED/RESPENDING	\$514,394	\$516,797	\$684,625	\$167,829	32.5%
INDIRECT	\$273,238	\$312,276	\$433,010	\$120,734	38.7%
RELATED INCOME	\$139,773	<u>\$378,021</u>	<u>\$402,813</u>	<u>\$24,792</u>	6.6%
<b>TOTAL PERSONAL INCOME</b>	<b>\$1,079,850</b>	<b>\$1,444,342</b>	<b>\$1,812,425</b>	<b>\$368,083</b>	<b>25.5%</b>
<b>VALUE OF ECONOMIC ACTIVITY</b>					
BUSINESS SERVICES REVENUE	\$433,918	\$514,685	\$691,451	\$176,766	34.3%
TENANT/DEPENDENT SHIPPER REVENUE	\$1,077,366	<u>\$1,302,322</u>	<u>\$1,334,159</u>	<u>\$31,837</u>	2.4%
DEPENDENT SUBTOTAL	<u>\$1,511,284</u>	<u>\$1,817,006</u>	<u>\$2,025,610</u>	<u>\$208,604</u>	11.5%
RELATED OUTPUT	\$301,527	<u>\$1,143,853</u>	<u>\$2,022,624</u>	<u>\$878,770</u>	76.8%
<b>TOTAL VALUE OF ECONOMIC ACTIVITY</b>	<b>\$1,812,812</b>	<b>\$2,960,859</b>	<b>\$4,048,234</b>	<b>\$1,087,374</b>	<b>36.7%</b>
<b>LOCAL PURCHASES</b>	<b>\$507,987</b>	<b>\$626,648</b>	<b>\$792,154</b>	<b>\$165,506</b>	<b>26.4%</b>
<b>STATE &amp; LOCAL TAXES**</b>					
DIRECT, INDUCED AND INDIRECT	\$97,768	\$103,433	\$186,929	\$83,496	
RELATED TAXES	\$14,536	<u>\$36,668</u>	<u>\$53,417</u>	<u>\$16,749</u>	
<b>TOTAL STATE AND LOCAL TAXES</b>	<b>\$112,304</b>	<b>\$140,101</b>	<b>\$240,346</b>	<b>\$100,245</b>	

\*Totals may not add due to rounding

\*\*2021 Tax revenue methodology differs from previous years and should not be compared

# Changes in Direct Jobs per Commodity Since 2015

COMMODITY	DIRECT JOBS 2021	DIRECT JOBS 2015	CHANGE
CONTAINERS	50	44	6
STEEL PRODUCTS/BREAK BULK	470	664	-194
SAND/AGGREGATE	28	170	-142
LIMESTONE	828	489	338
COAL/COKE	6	14	-8
IRON ORE	2,106	1,763	344
SALT/MINERALS	364	511	-147
SLAG	15	35	-20
CEMENT	226	177	48
PETROL PRODUCTS	7	10	-3
ASPHALT	58	74	-16
NOT ALLOCATED	<u>157</u>	<u>133</u>	<u>25</u>
<b>TOTAL</b>	<b>4,316</b>	<b>4,084</b>	<b>232</b>

\*Totals may not add due to rounding

# Changes in Direct Jobs by Category Since 2015

SECTOR	DIRECT JOBS 2021	DIRECT JOBS 2015	CHANGE
SURFACE TRANSPORTATION			
RAIL	27	27	0
TRUCK	1,202	1,193	10
MARITIME SERVICES			
TERMINAL EMPLOYEES/DOCKWORKERS	177	265	-88
TOWING/PILOTS	36	31	5
LINES AND AGENTS	11	10	0
MARITIME SERVICES	124	96	28
GOVERNMENT	24	26	-2
BARGE AND LAKER	313	361	-48
DEPENDENT SHIPPERS/CONSIGNEES	2,385	2,057	328
PORT AUTHORITY	18	19	-1
<b>TOTAL</b>	<b>4,316</b>	<b>4,084</b>	<b>232</b>

# Economic impact of Construction of DP Projects

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- Economic impact of construction activity related to DP projects
  - Port provided DP projects value by jurisdiction (city/municipality)
    - Historical list of projects from 2010 through 2021
  - Martin Associates developed construction impact model using State of Ohio US BEA RIMS II multipliers
  - Results presented in terms of:
    - Jobs/person-hours
    - Income
    - Taxes
- Assessing construction impacts in disadvantaged communities
  - Using same methodology and model, Martin Associates identified the subset of the construction projects over 2010-2021 that occur in disadvantaged communities
  - US Bureau of Census 2020 DEC Redistricting data
    - Provides composition of ethnicity by jurisdiction
    - Of all projects, projects within the jurisdictions of Cleveland, Cleveland Heights, East Cleveland, Euclid, Garfield Heights, North Randall, Warrenville Heights, were identified as occurring in disadvantaged communities – 50%+ minority
  - Results presented in similar metrics

# One-time Construction Impacts of DP Projects 2010-2021 (\$6.2 billion in Project Cost/Investment)

JOBS	PERSONHOURS	EARNINGS	TAXES
80,641.7	161,283,467.5	\$4,867,592,663	\$614,290,194

69% of Projects over 2010-2021 period occurred in communities with disadvantaged populations.

## Located in Disadvantaged Communities

JOBS	PERSONHOURS	EARNINGS	TAXES
56,269	112,537,980	\$3,396,436,429	\$428,630,277