Causes and Environmental Justice Consequences of Local Pollution Havens

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Presenter Disclosures

Michele Morrone

(1) The following personal financial relationships with commercial interests relevant to this presentation existed during the past 12 months:

"No relationships to disclose"

Ohio University

► Athens, Ohio



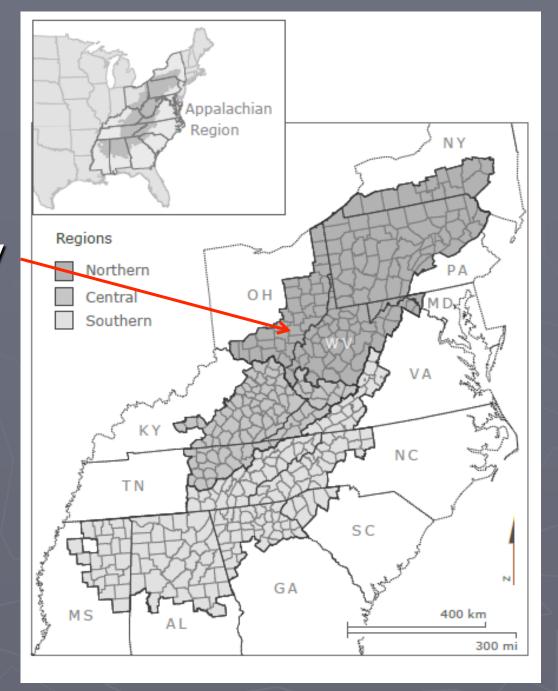








AppalachiaOhio University



Counties CANADA **FULTON** WILLIAMS GEAUGA SANDUSKY WOOD DEFIANCE HENRY ERIE LORAIN PORTAGE PAULDING HURON **SENECA** MAHONING HANCOCK VAN WERT WYANDOT CRAWFORD WAYNE COLUMBIANA AUGLAIZE MARION HOLMES MERCER INDIANA KNOX LOGAN SHELBY COSHOCTON UNION DELAWARE DARKE CHAMPAIGN QUERNSEY MIAM BELMONT MUSKINGUM FRANKLIN CLARK MADISON NOBLE MONROE FAIRFIELD GREENE PICKAWAY MORGAN HOCKING BUTLER CLINTON **RO88** VINTON HABILTON JACKSON SCALE 81* U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration. Bureau of the Census OHIO G-1

Poverty Rates, 2006-2010

Counties in color are above the state rate of 14.2%

Counties in blue are above 20.0%

Highest poverty rate: Athens County (30.3%)

Environmental Justice

- "...everyone enjoys the same degree of protection from environmental and health hazards and equal access to the decisionmaking process to have a healthy environment in which to live, learn, and work."
 - USEPA

Pollution Havens Hypothesis

- Rich countries locate manufacturing in poor countries to avoid environmental regulations and maximize profits.
 - Poor countries become harbors for pollution
 - Rich countries maximize profits

Sources: MacDermott, Raymond. 2009. "A Panel Study of the Pollution-Haven Hypothesis." *Global Economy Journal* 9, no. 1: 1-12. *Business Source Complete*, EBSCO*host* (accessed September 30, 2012); Brunnermeier, Smita B. and Arik Levinson. 2004. "Examining the Evidence on Environmental Regulations and Industry Location." *Journal of Environment & Development* 13(1): 6-41

Local Pollution Havens

- 1. High levels of pollution
 - TRI, permitted facilities
- 2. Low levels of economic rewards
 - Manufacturing jobs related to pollution levels
- 3. Low levels of regulatory controls

Matthews, T. L. (2011). The enduring conflict of 'jobs versus the environment': local pollution havens as an integrative empirical measure of economy versus environment. *Sociological Spectrum*, *31*(1), 59-85.

County Environmental Indicators

| Indicator | Non- Appalachian | Appalachian |
|---|---------------------|-------------|
| Mean total TRI releases, lbs. (2010) ¹ | 1,441,609 | 2,826,373 |
| Log TRI releases | 5.38 (1.02) | 5.42 (1.35) |
| *Number of permitted facilities | 617 | 229 |
| * TRI releases per permitted facility | 2,717 | 13,831 |
| *TRI releases per manufacturing job ² | 117 | 839 |
| TRI releases per manufacturing \$ earned | 35 | 74 |

^{*} Differences are significant to .05

^{1.} Sources: USEPA, 2010 Toxic Release Inventory & Envirofacts

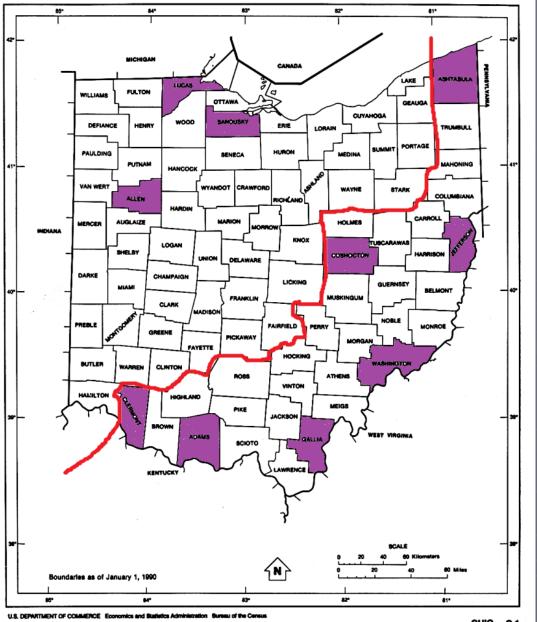
^{2.} Calculated from U.S. Census data

Top 10 TRI Counties in Ohio

7 Appalachian counties = 45.35% of total state

releases

Counties

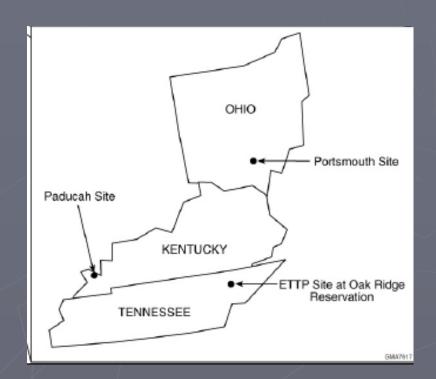


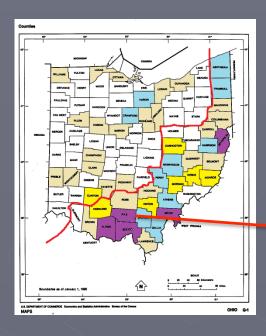
MAPS

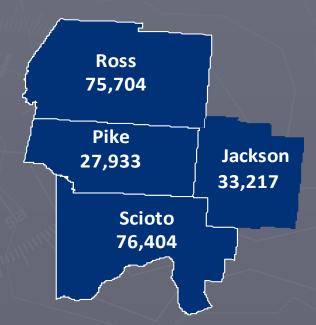
OHIO G-1

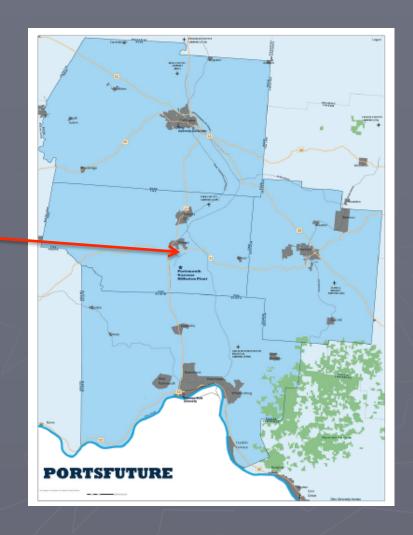
Ohio's Nuclear Legacy

- Portsmouth Gaseous Diffusion Plant (PORTS)
- "Cold standby" in 2001; cold shutdown, 2006
- Decontamination and Decommissioning (D&D), current







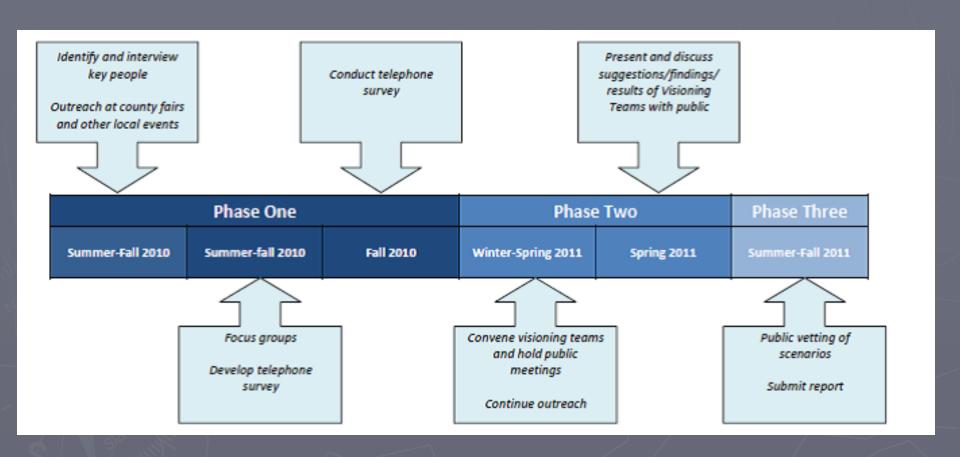


X-326 – ½ mile long, 30 acre roof, 2.6 million sq ft X-330 -- ½ mile long,33 acre roof, 2.8million sq ft



X-333 – ¼ mile long,
 33 acre roof, 2.8
 million sq ft

PORTSFuture Timeline







OHIO

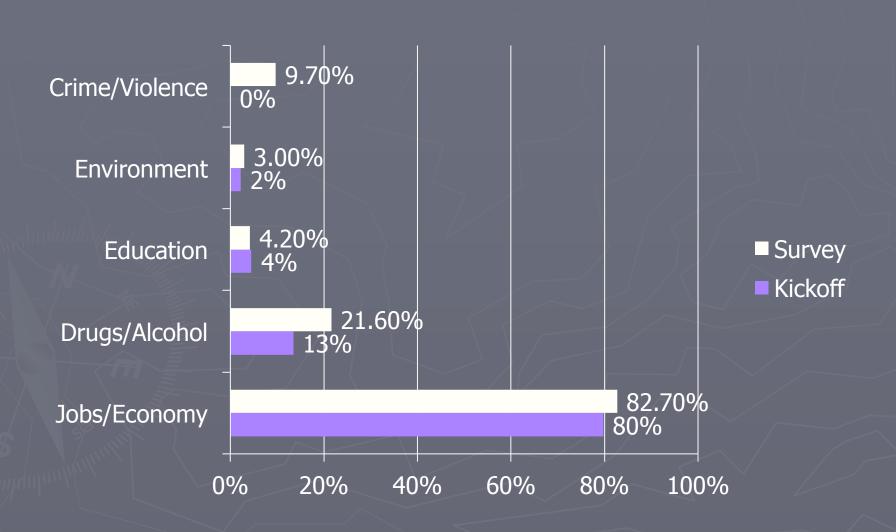
Voinovich School of dership and Public Affairs







Biggest problems facing your community?



Counties ASHITABULA **FULTON** WILLIAMS GEAUGA HENRY TRUMBULL PORTAGE HURON PAULDING PUTNAM MAHONING VAN WERT MYANDOT CRAWFORD COLUMBIANA ALLEN AUGLAIZE INDIANA LOGAN SHEL BY COSHOCTON UNION DELAWARE LICKING QUERNSEY BELMONT FRANKLIN MADISON FAIRFIELD MONROE PICKAWAY MORGAN HOCKING BUTLER CLINTON VINTON Boundaries as of January 1, 1990 OHIO G-1 MAPS

Unemployment Rates, August 2012

Counties in color are above the state rate of 6.8%

PURPLE: 10% +

YELLOW: 9.0-9.9%

BLUE: 8.0-8.9%

GRAY: 6.9-7.9%

WHITE: <=6.8%

Highest unemployment rate – Pike County (12.1%)

Creating the Vision

Advisory group

June 7, 2011

Participants: 14

8 Visioning Teams
(2 per county)

April-May, 2011

Participants: 104

2 Kickoff Meetings
March 15 & 17, 2011
Participants: 102

Health and wellness

Historical park and recreation

Open areas

Heavy mfg. Smelter

Post consumer recycling

#1. INDUSTRIAL PARK

Industrial park shipping

Renew. energy mfg,

Medical research

Chemical products

PORTS FUTURE



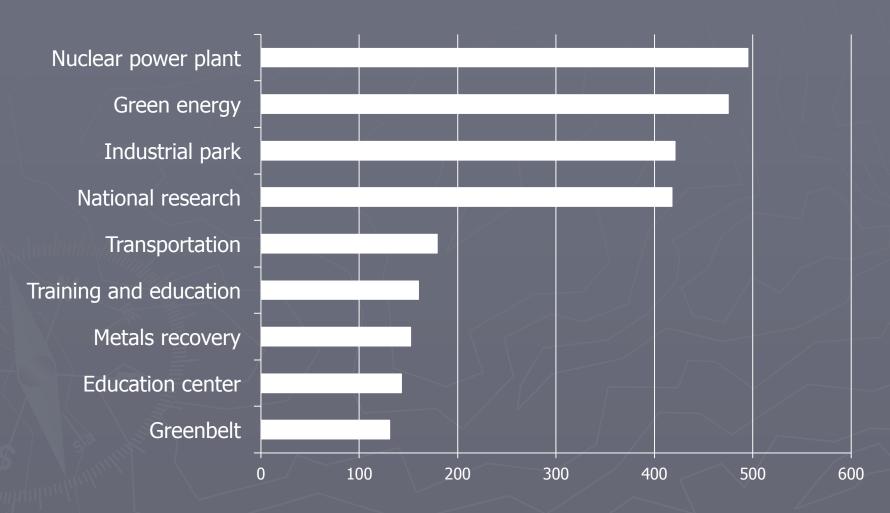


YOUR COMMUNITY - YOUR VOICE

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Public Voting Results (N=1,141)



Comparison of Public Voting to Advisory Group Ranking

| Scenario | Public Preferences | Advisory Group Rank |
|--------------------------------|--------------------|---------------------|
| Nuclear Power Plant | 1 | 8 |
| Green Energy Production | 2 | 2 |
| Industrial Park | 3 | 1 |
| National Research & | 4 | 4 |
| Development | | |
| Warehousing, Distribution, and | 5 | 7 |
| Transportation | | |
| Metals Recovery | 6 | 9 |
| Training and Education | 7 | 5 |
| Multi-Use Southern Ohio | 8 | 3 |
| Education Center | | |
| Greenbelt | 9 | 6 |

Local Pollution Havens: Expanding the Characteristics

- 1. High levels of pollution
- 2. Low levels of economic rewards
- 3. Low levels of regulatory controls
- 4. Public support and the belief that local short-term economic growth should take precedence to environmental quality

Pollution, Jobs and Environmental Justice

"I think they also dangle jobs, which is the economic piece. I think jobs are dangled in poor communities and you know, "We'll come in we'll have 500 jobs." When we know that's a big fat lie."

