

# Poor People, Poor Environments, and Poor Health

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McMaster University

# Ohio University

## ► Athens, Ohio





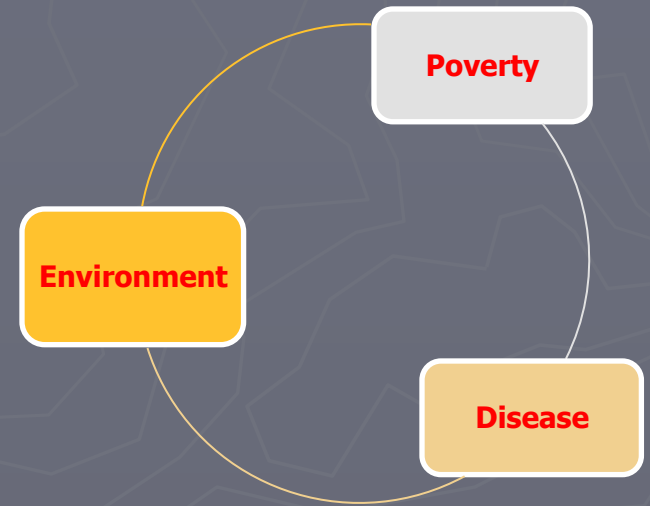
# Outline

- ▶ Context and introduction to Appalachia
- ▶ Two stories
- ▶ Rural environmental justice



# The Cycle

- ▶ Poor people live in areas with poor environmental conditions
- ▶ Poor people are vulnerable to diseases related to the environment
- ▶ Disease contributes to poverty



**Socioeconomic conditions**

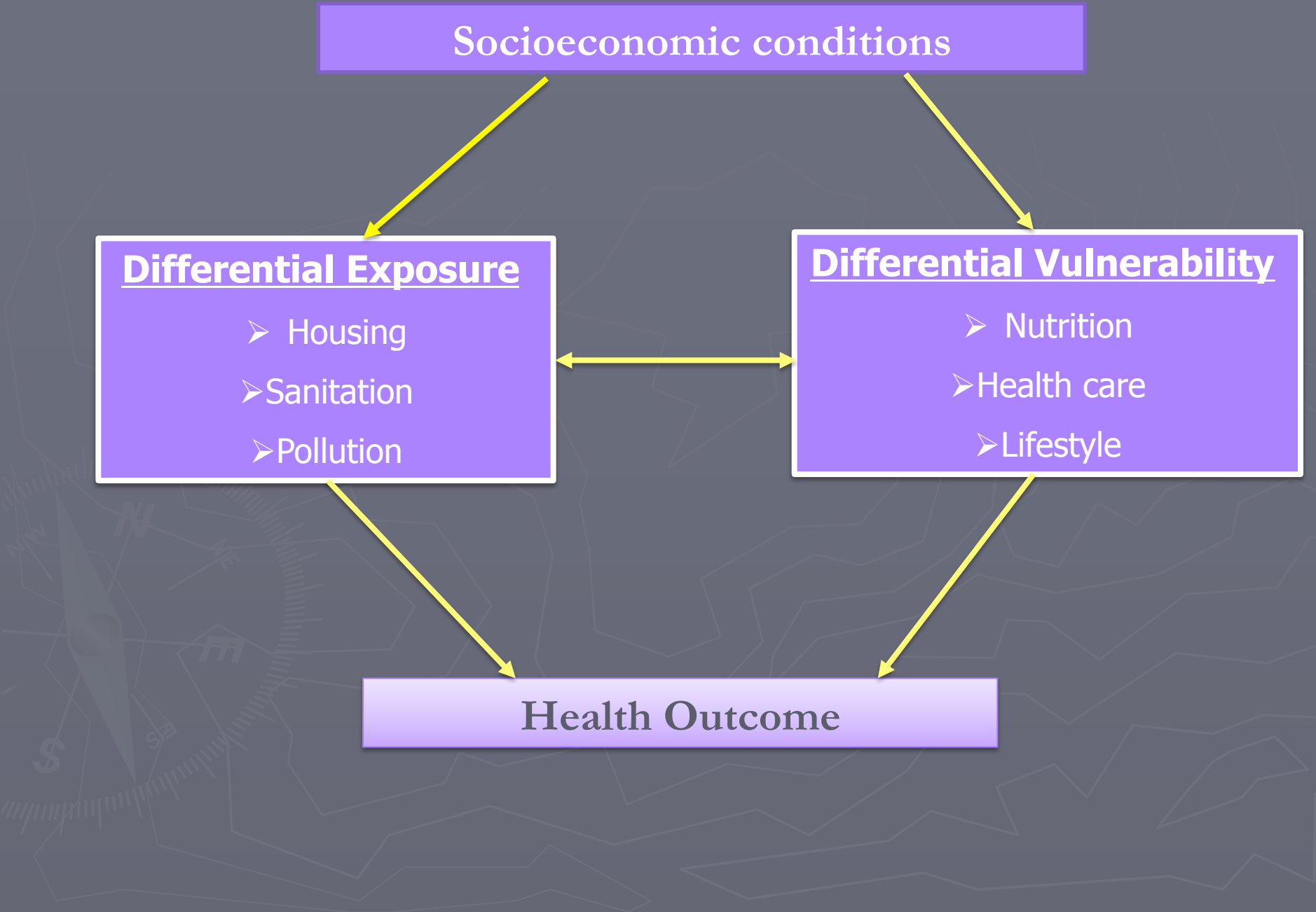
**Differential Exposure**

- Housing
- Sanitation
- Pollution

**Differential Vulnerability**

- Nutrition
- Health care
- Lifestyle

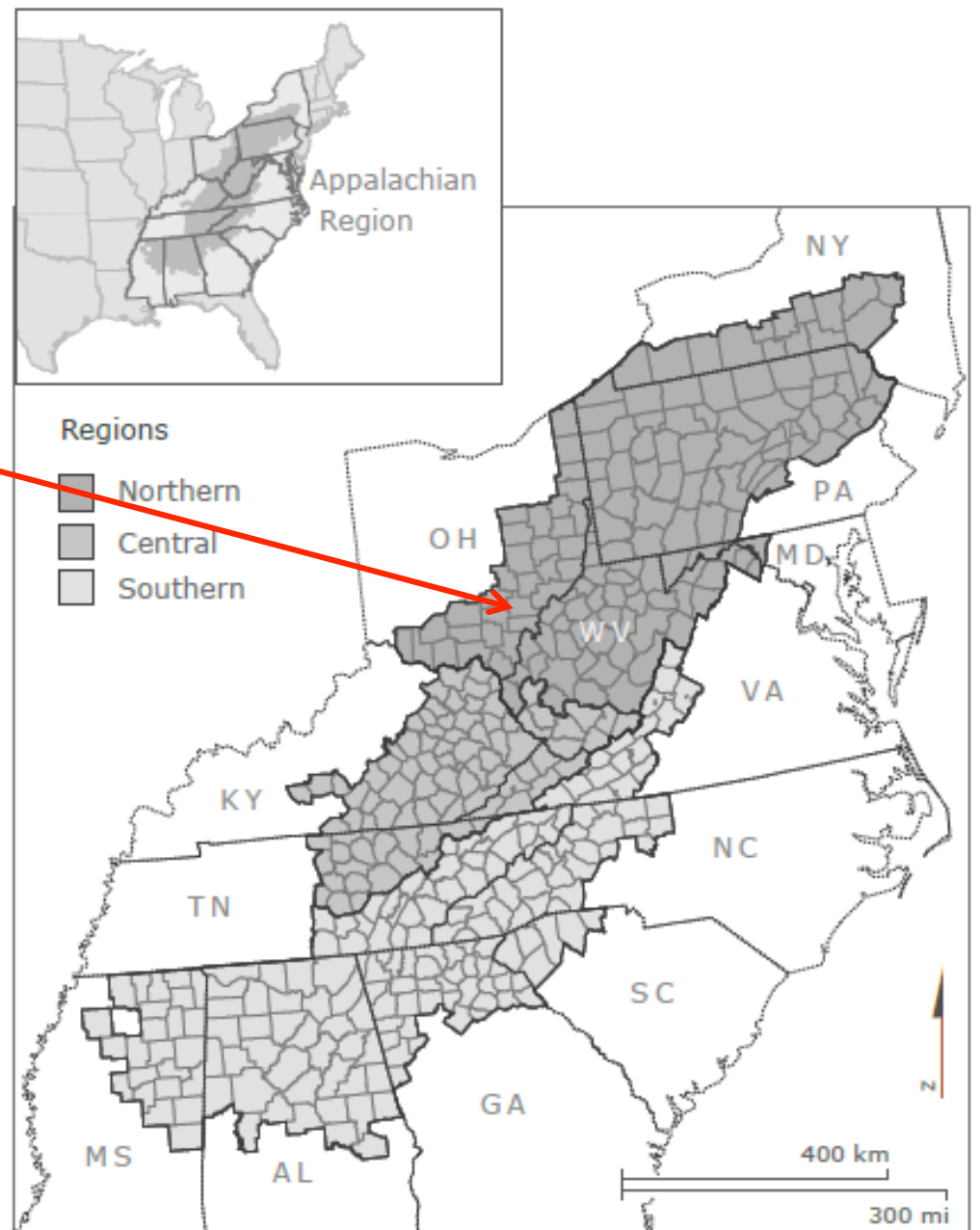
**Health Outcome**



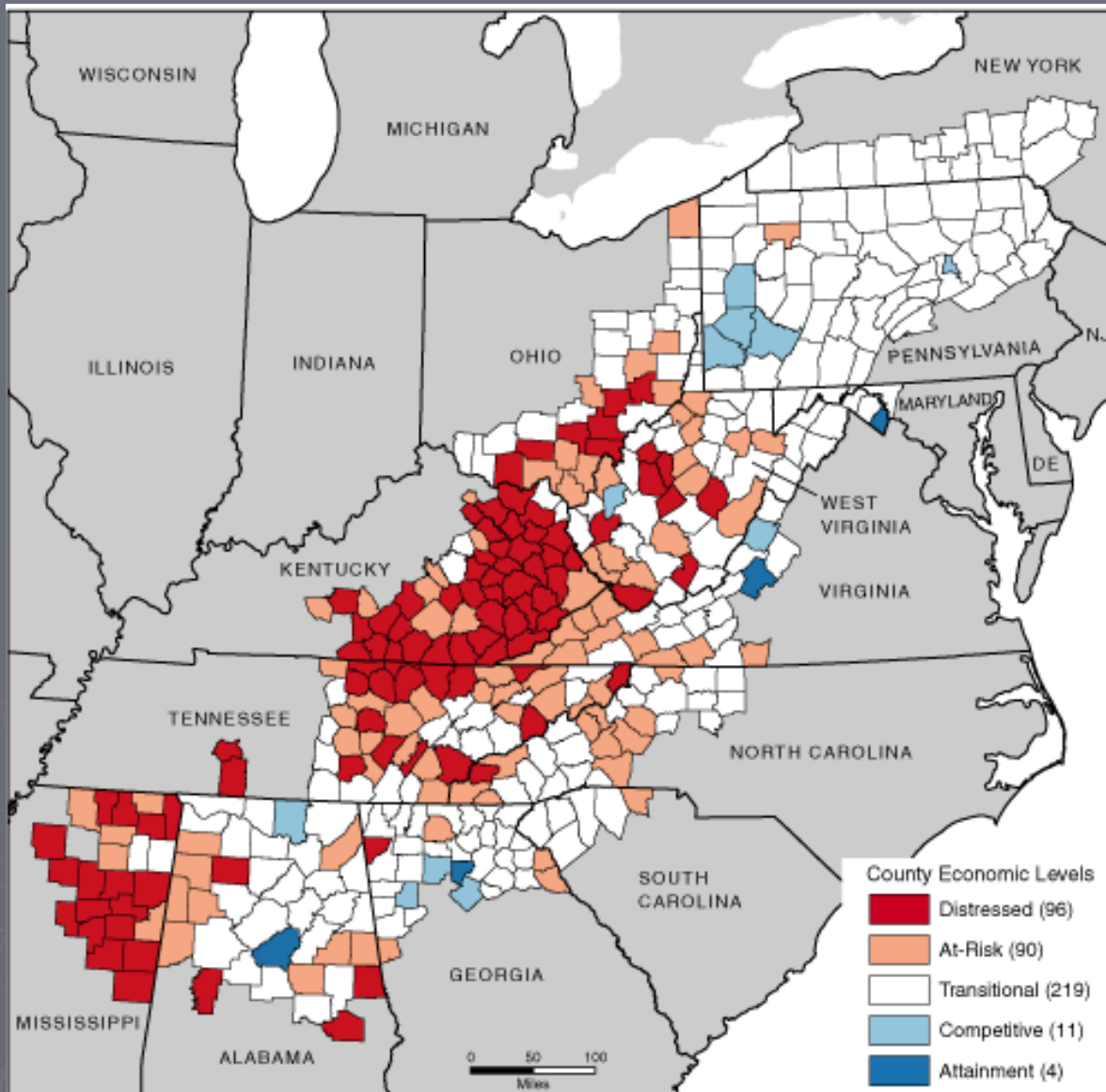


# ► Appalachia

- Ohio University



# ► County Economic Status, 2012



Created by the Appalachian Regional Commission, March 2011

Data Sources:

Unemployment data: U.S. Bureau of Labor Statistics, LAUS, 2007–2009

Income data: U.S. Bureau of Economic Analysis, REIS, 2008

Poverty data: U.S. Census Bureau, American Community Survey, 2005–2009

Effective October 1, 2011  
through September 30, 2012

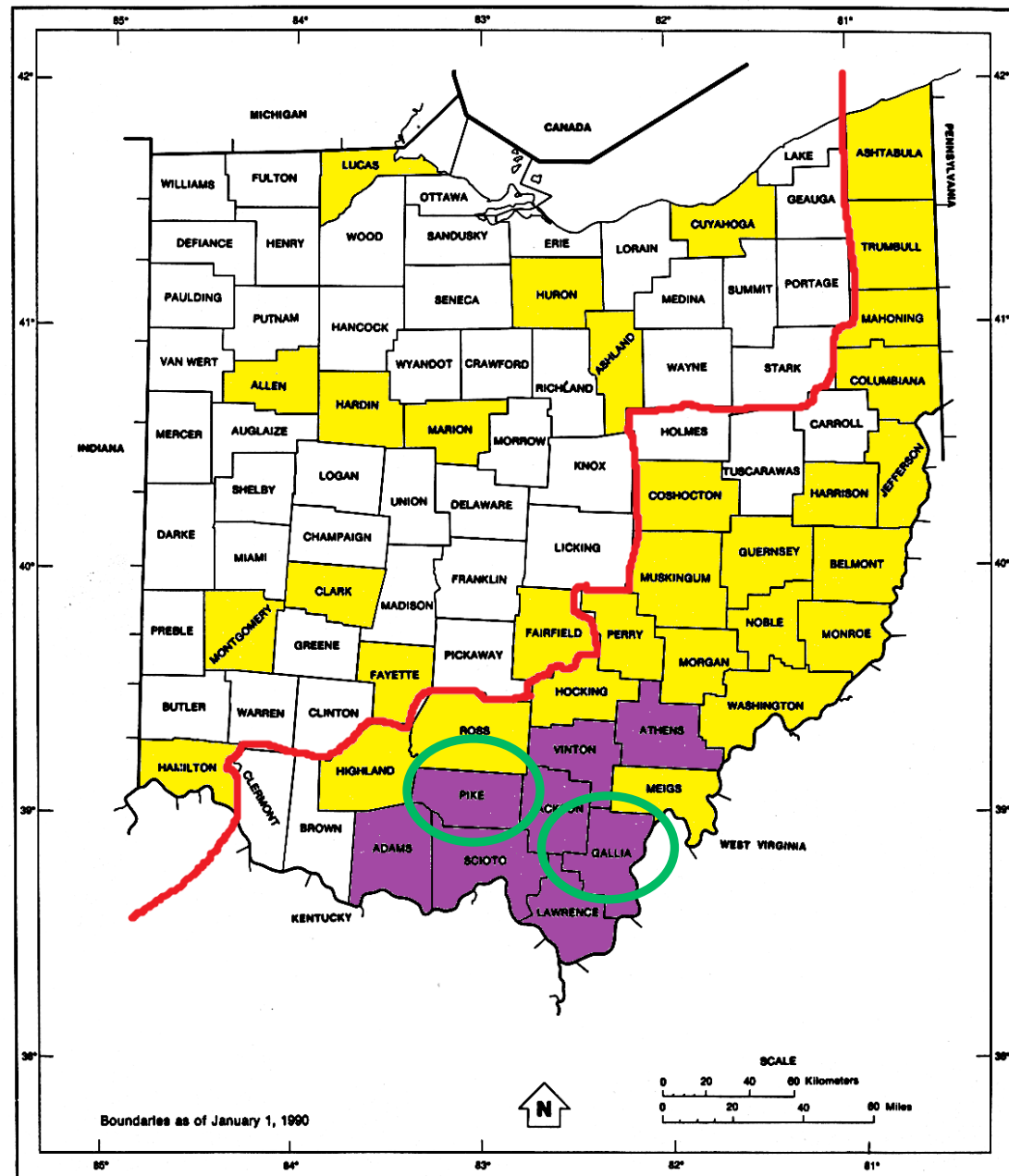
# Ohio Socio-economic Indicators

Indicator	Non-Appalachian (56)	Appalachian (32)	T-test
Median household income	<b>\$48,061</b>	<b>\$38,364</b>	<b>7.52*</b>
Mean percent unemployed	<b>7.70</b>	<b>9.09</b>	<b>-4.04*</b>
Mean # of manufacturing jobs	<b>12,740</b>	<b>4,565</b>	<b>3.94*</b>
Mean percent below the poverty line	<b>11.21</b>	<b>17.23</b>	<b>-6.63 *</b>
Median housing value	<b>\$136,110</b>	<b>\$106,259</b>	<b>5.34*</b>
Per capita income	<b>24,276</b>	<b>19,733</b>	<b>7.22*</b>

Source: US Census, 2010



Highest unemployment  
rate – Pike County  
(13.9%)



# Ohio Environmental Indicators

Indicator	Non-Appalachian	Appalachian	T-test
Median total TRI releases, lbs	<b>344,955</b>	<b>498,945</b>	
Mean total TRI releases , lbs. (2010) <sup>1</sup>	<b>1,441,609</b>	<b>2,826,373</b>	<b>-1.22</b>
Number of permitted facilities	<b>317</b>	<b>229</b>	<b>2.98*</b>
TRI releases per manufacturing job <sup>2</sup>	<b>117</b>	<b>759</b>	<b>-2.31*</b>
TRI releases per manufacturing \$ earned	<b>35</b>	<b>74</b>	<b>-1.38</b>

1. Sources: USEPA, Toxic Release Inventory & Envirofacts

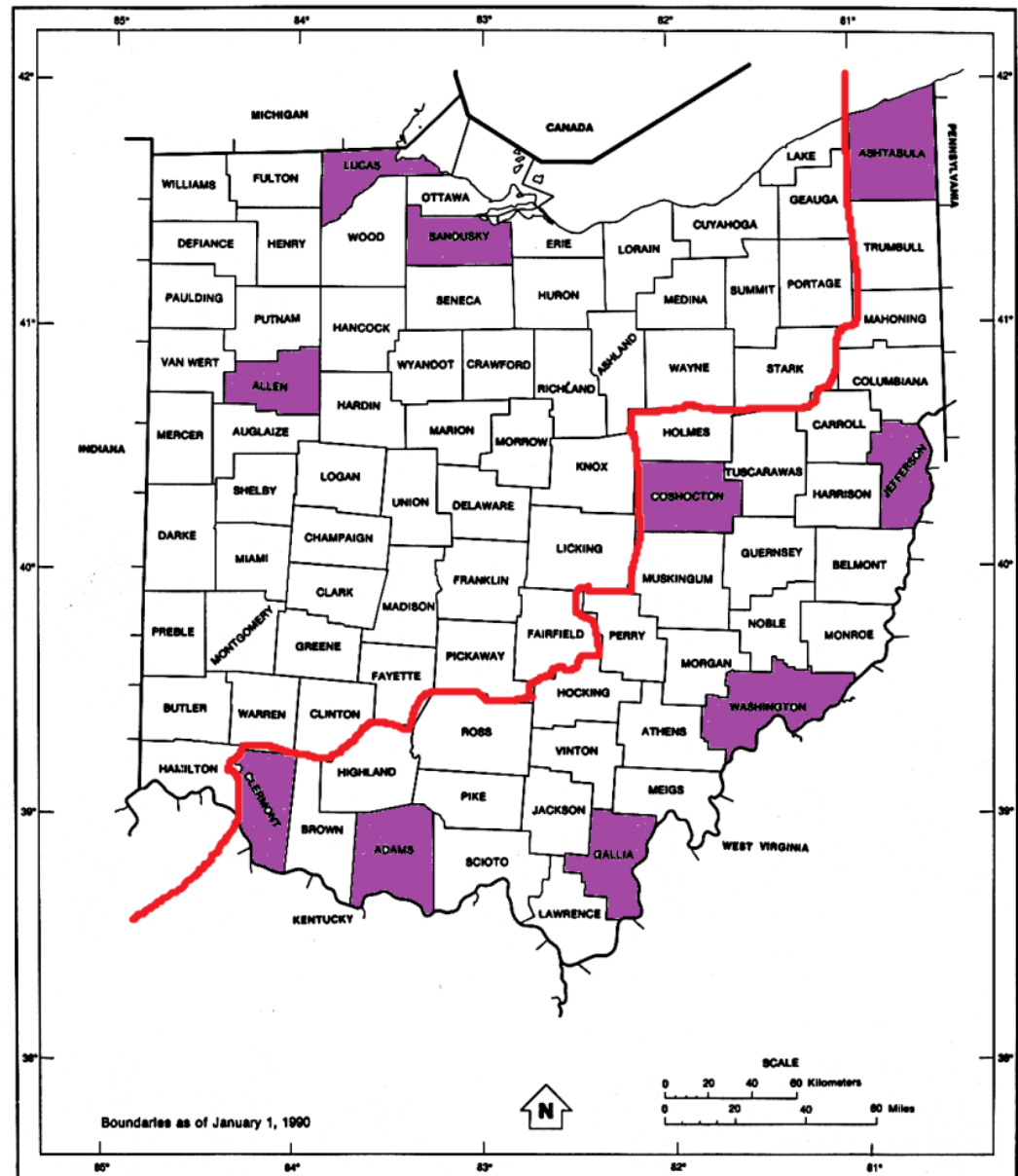
2. Calculated from U.S. Census data



# Top 10 TRI Counties in Ohio

7 Appalachian counties = 45.35% of total state releases

Counties

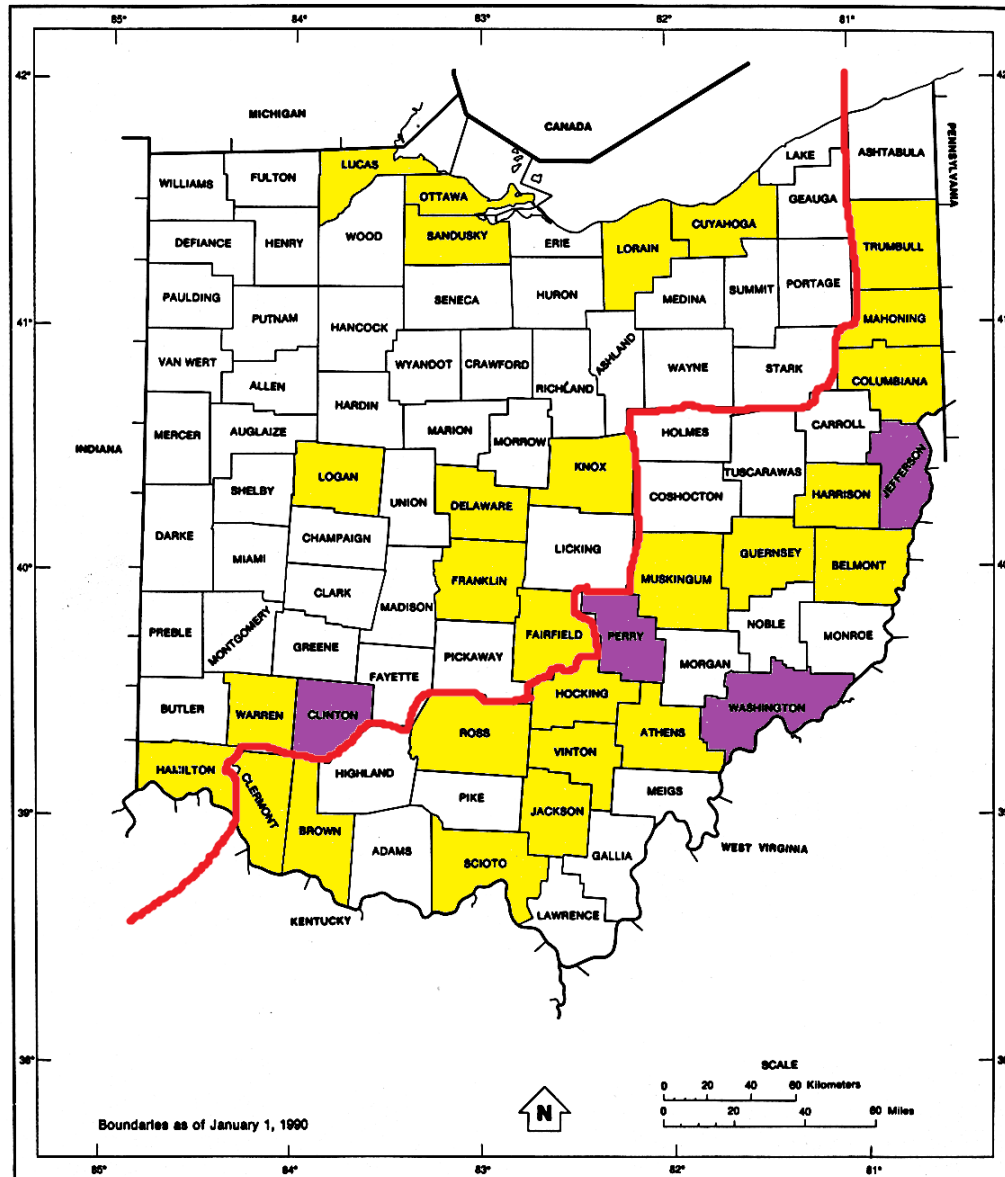


# Ohio Health Indicators

Indicator	Non-Appalachian	Appalachian	T-test
Cancer rate per 100,000, age-adjusted	<b>448.12</b>	<b>465.64</b>	<b>-2.65*</b>
Cancer mortality rate per 100,000, age-adjusted	<b>193.01</b>	<b>210.53</b>	<b>-3.50*</b>
Smoker (%)	<b>22.80</b>	<b>27.28</b>	<b>-7.50*</b>
No physical activity (%)	<b>23.51</b>	<b>26.77</b>	<b>-6.96*</b>
Overweight (%)	<b>36.05</b>	<b>32.88</b>	<b>5.89*</b>
Obese (%)	<b>26.92</b>	<b>29.77</b>	<b>-4.55*</b>
Low birth rate (%)	<b>7.58</b>	<b>8.66</b>	<b>-4.00*</b>

Source: Ohio Department of Health, Healthy Ohio Community Profiles, 2008

## Counties



# Cancer Incidence

Counties in yellow are above the state rate of 465.1/100,000

Counties in purple are above 500/100,000

Highest cancer incidence = Jefferson County (539.8/100,000)



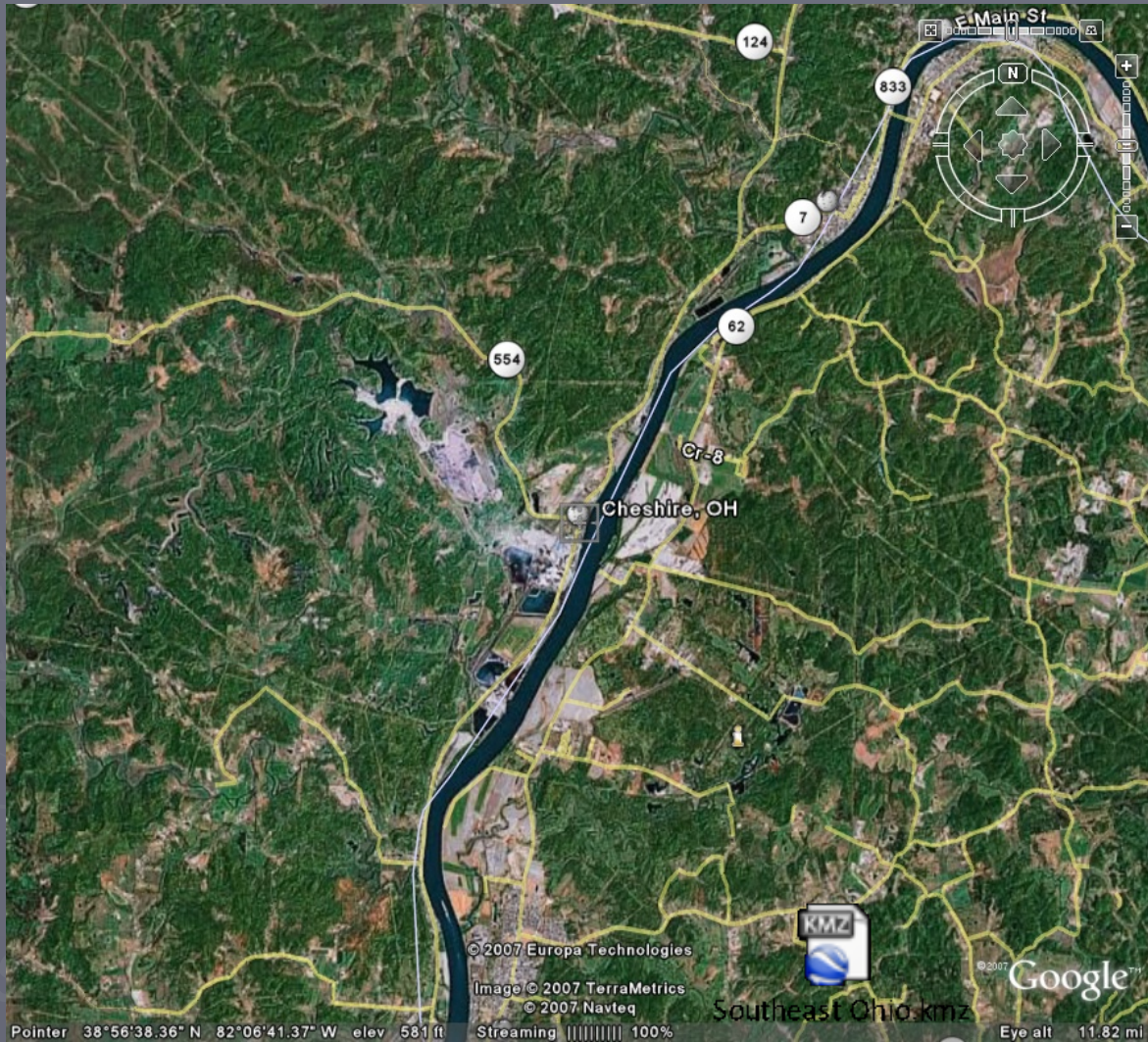
# Local Pollution Havens

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.

# Story 1: Power Plant

- ▶ Cheshire, Ohio
  - Population 2001: Approx 250
  - Current population: About 12
- ▶ General James M. Gavin power plant
  - American Electric Power (AEP)
  - 16<sup>th</sup> largest plant in the U.S.























**July 2001, Monitoring Station noted a reading of 565 ppb of sulfur dioxide for 5 minutes—4 times the regulatory limit**

# The Cheshire Transaction

- ▶ \$20 million
- ▶ 3.5 times assessed property value
- ▶ Agreement not to sue



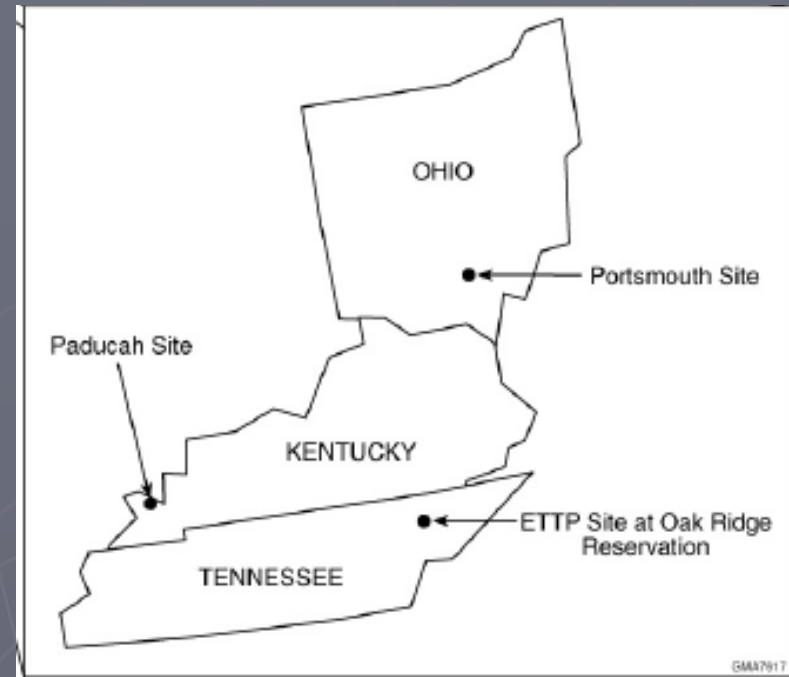


## Most Residents Moved and Houses Demolished



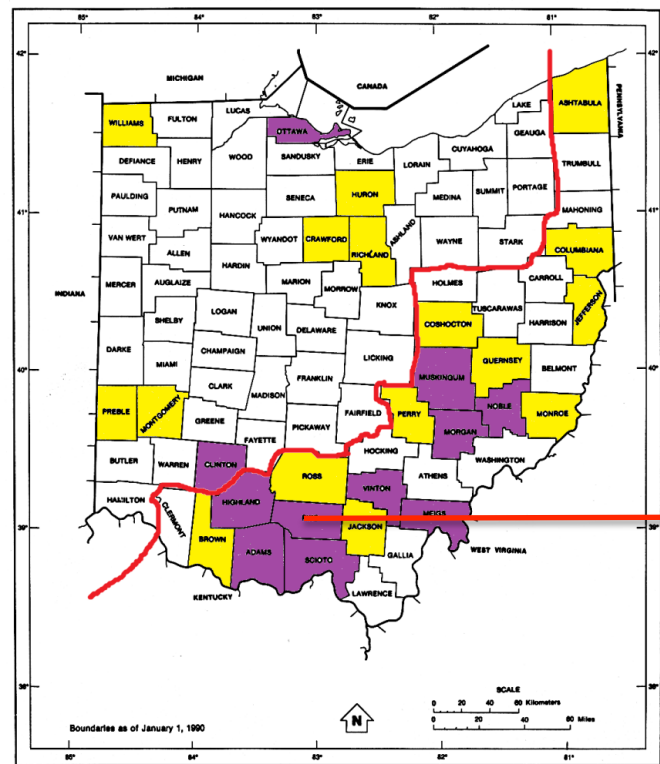
# Story 2: Nuclear Legacy

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



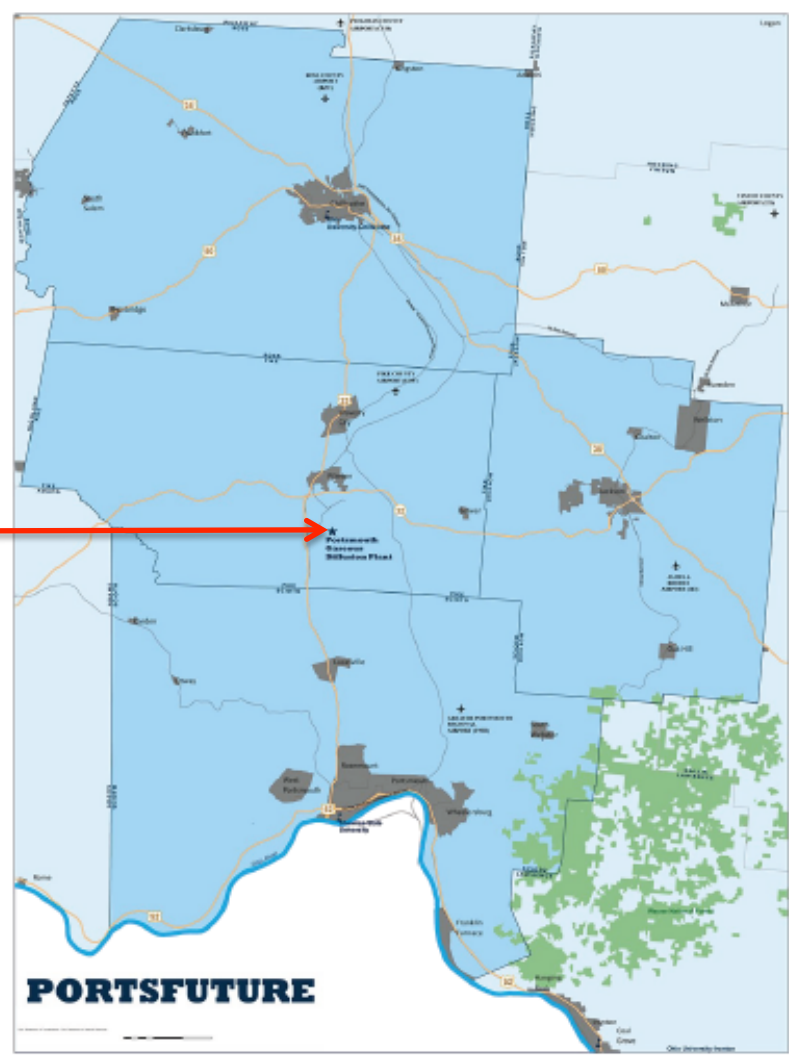


# Counties



U.S. DEPARTMENT OF COMMERCE Economics and Statistics Administration Bureau of the Census  
MAPS

OHIO G-1



Southeast Ohio.kmz







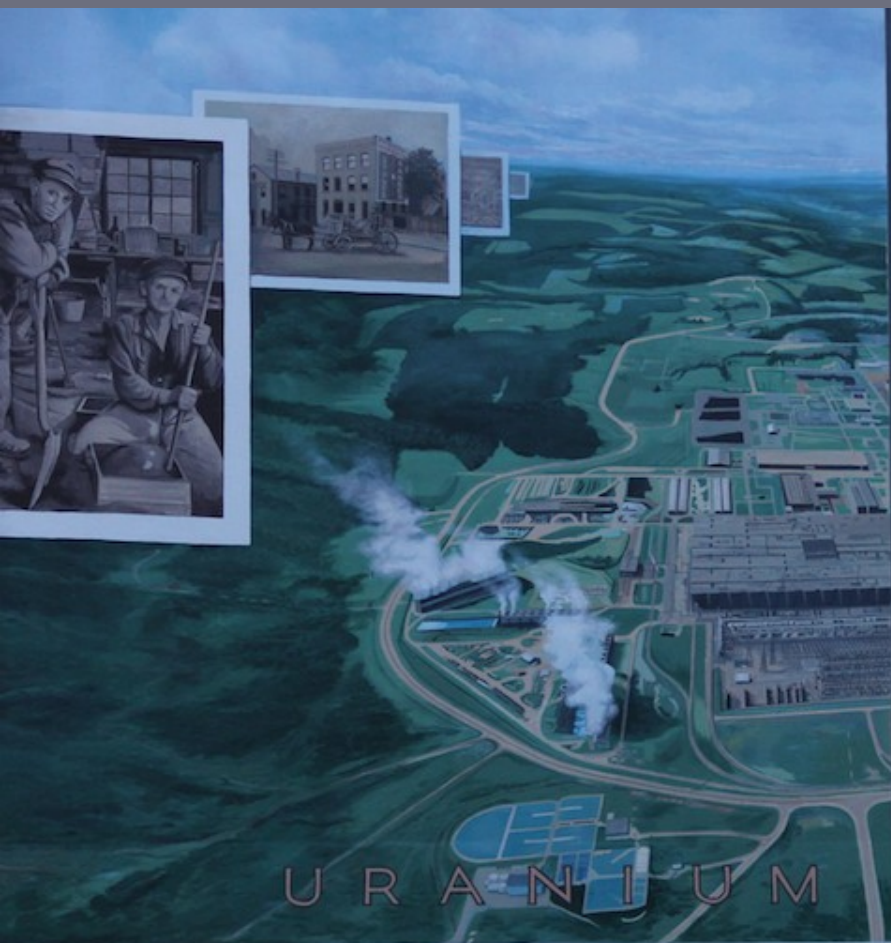
PRESERVING  
**NATIONAL  
SECURITY**

is *Your* Job

...PRESERVING PERSONAL SECURITY IS HIS JOB



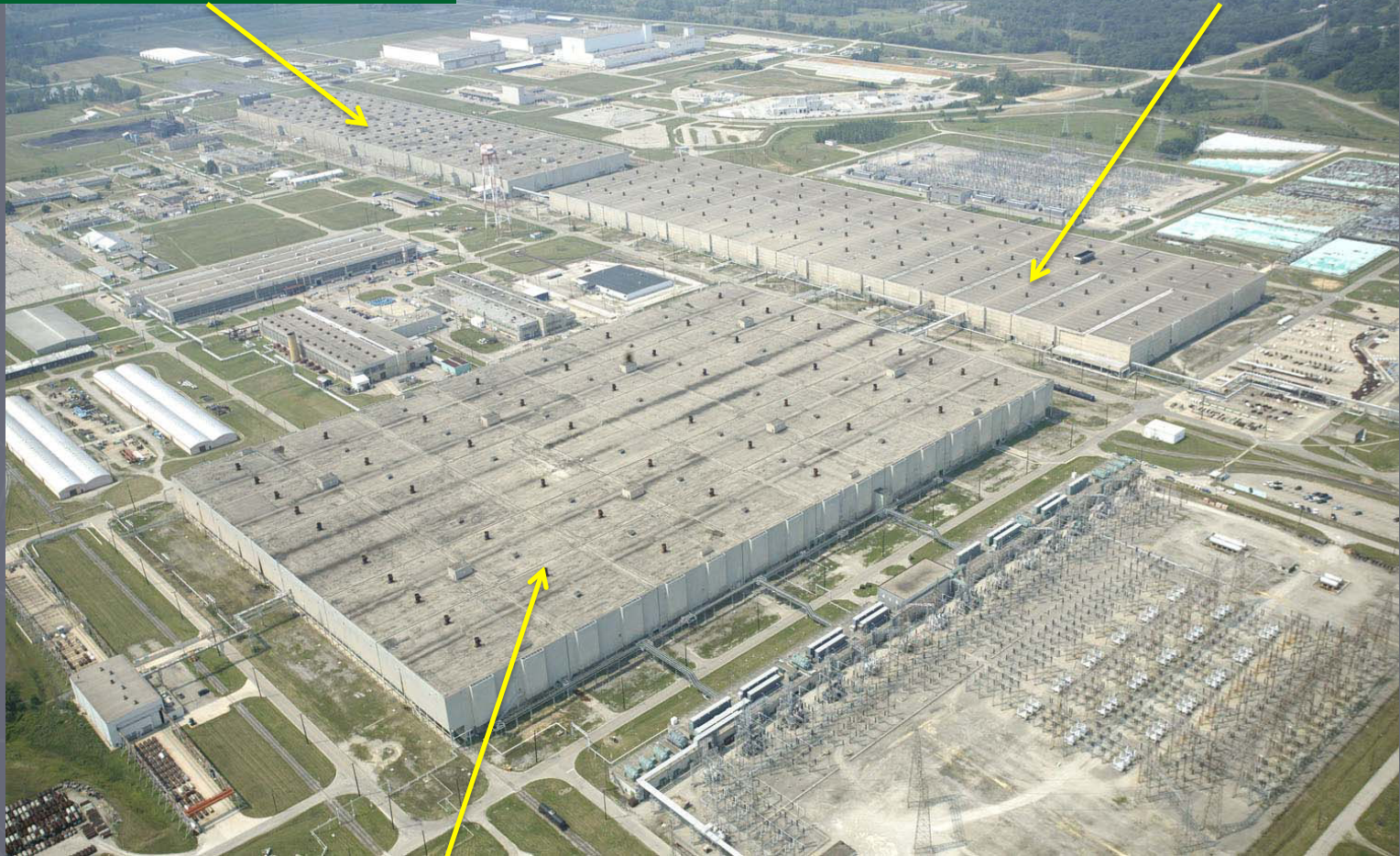






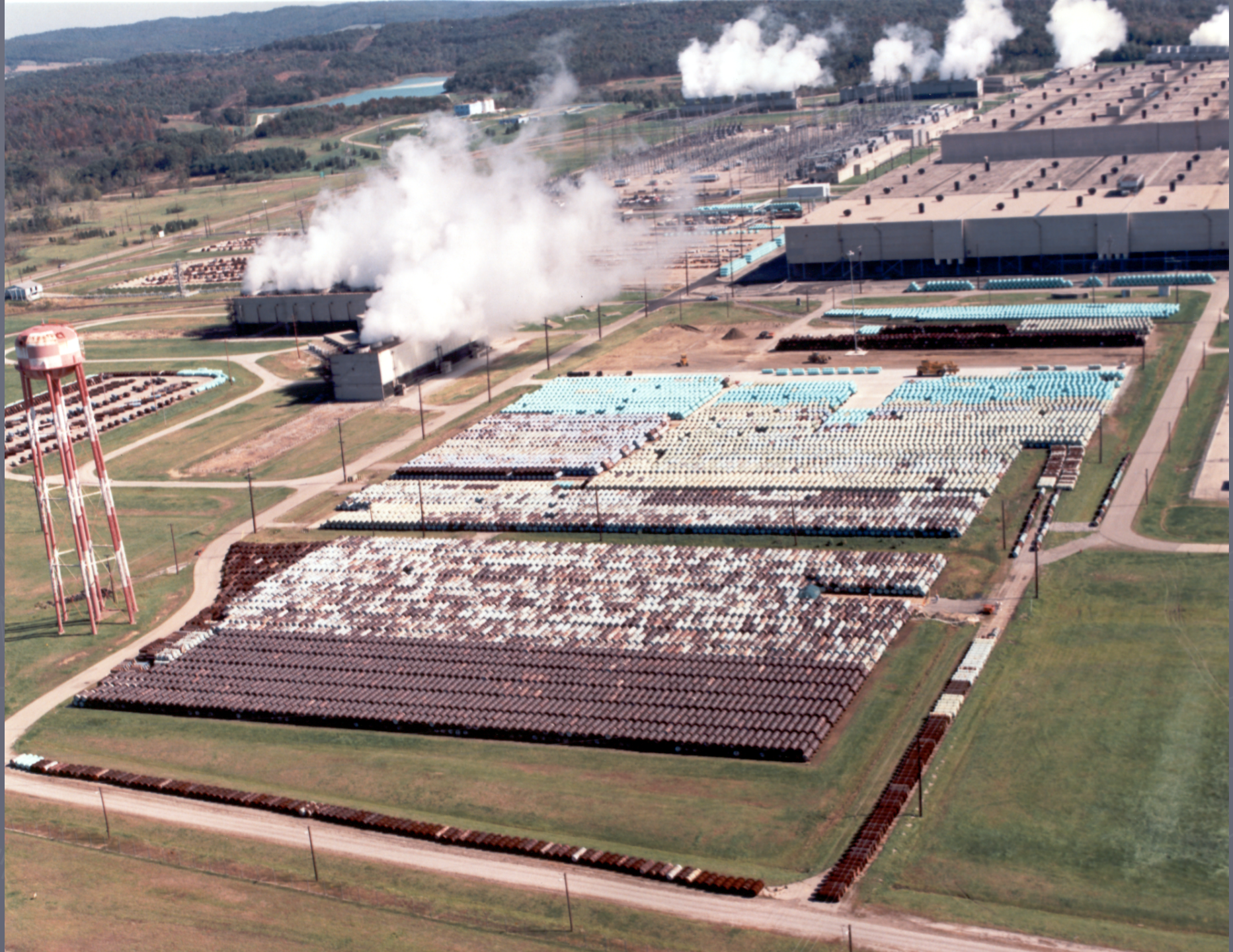
**X-326** – ½ mile long,  
30 acre roof, 2.6 million  
sq ft

• **X-330** -- ½ mile long,  
33 acre roof, 2.8  
million sq ft



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





# PORTSfuture

- June 2010-December 2011
- Community Based Participatory Research
- End State Vision

**PORTS  
FUTURE**

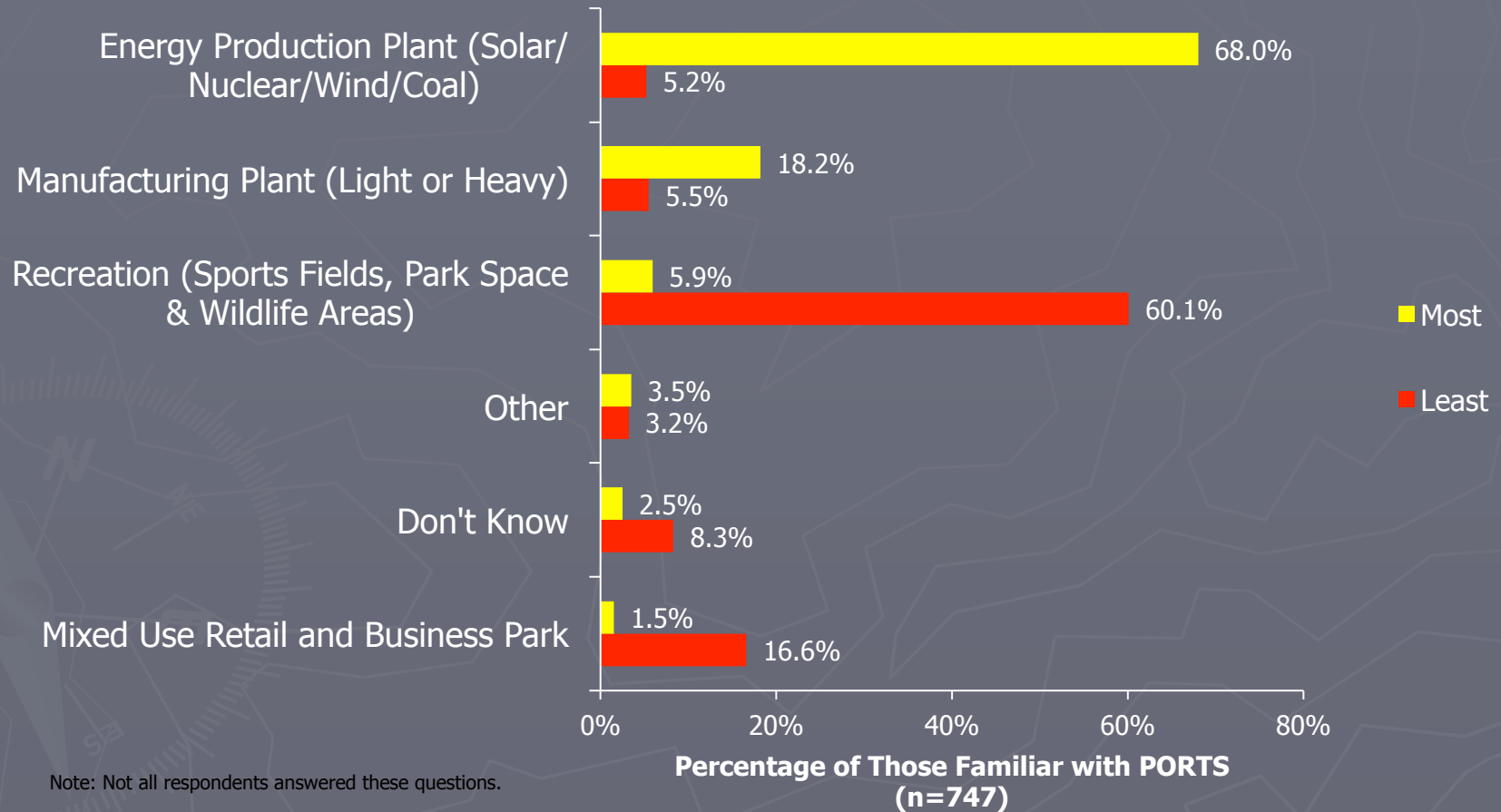








# Telephone Poll: Site Preferences





# PORTS FUTURE

## IMAGINING THE OPPORTUNITIES GATHERING YOUR IDEAS

Visit [www.portsfuture.com](http://www.portsfuture.com) and provide comments

Share your thoughts on the future use of the  
Portsmouth Gaseous Diffusion Plant

Sign up to receive information and alerts

Make suggestions to us about other interested  
persons and/or groups that we can contact



[www.portsfuture.com](http://www.portsfuture.com)

### WIN A \$25 GIFTCARD

4 winners will be selected

To enter fill out the  
Public Outreach Project  
Contact Card

Winners notified by phone or email  
and need not be present to win

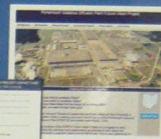
**PORTSFUTURE**  
Portsmouth Gaseous Diffusion Plant

## GETTING INVOLVED



### Stay Informed

### Give Feedback

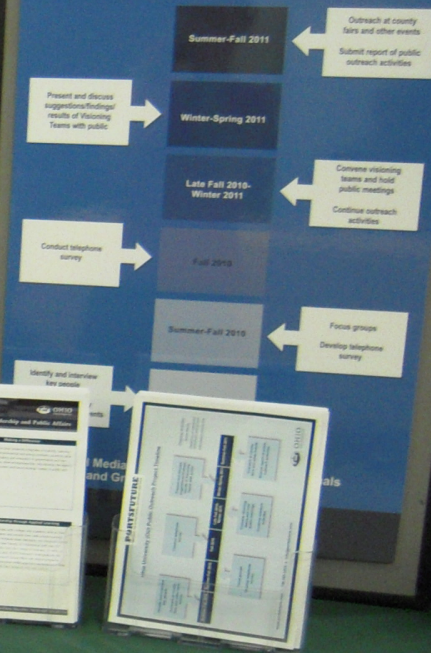


### Attend Events

Telephone Surveys -  
Teams - Advisory Panel

OHIO  
UNIVERSITY

## OUTREACH TIMELINE



**OHIO**  
UNIVERSITY

Voinovich School of  
Leadership and Public Affairs





**800-875-6806**

**YOUR COMMUNITY - YOUR VOICE**

**WWW.PORTSFUTURE.COM**

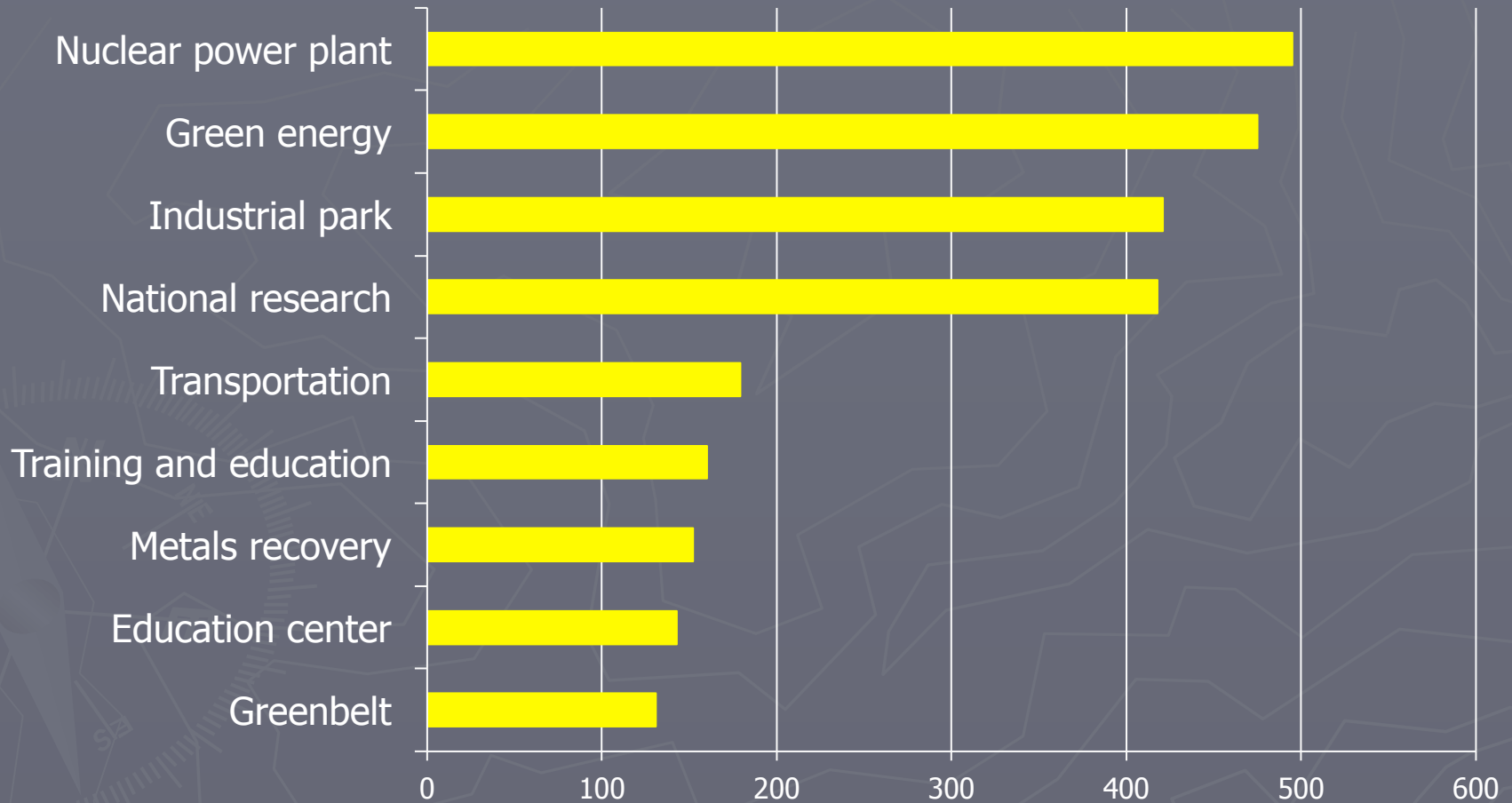
**VOTE TODAY!**

**HOLLINGSWORTH**  
**C.O.A.**



# Public Voting Results

(N=1,141)



# Local Pollution Havens

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

# Local Pollution Havens and EJ

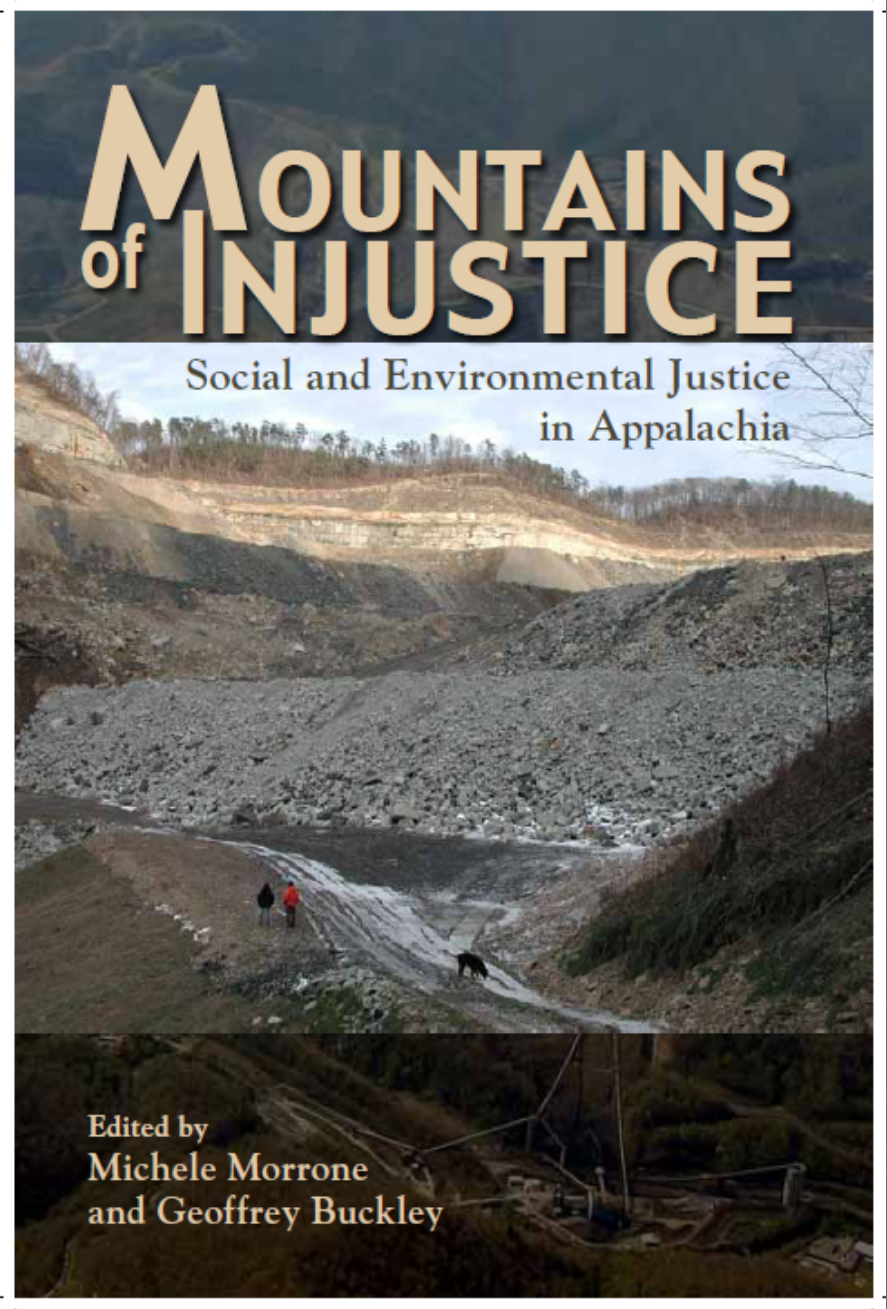
- ▶ Environmental injustice:
  - When one segment of the population bears a disproportionate burden due to environmental conditions



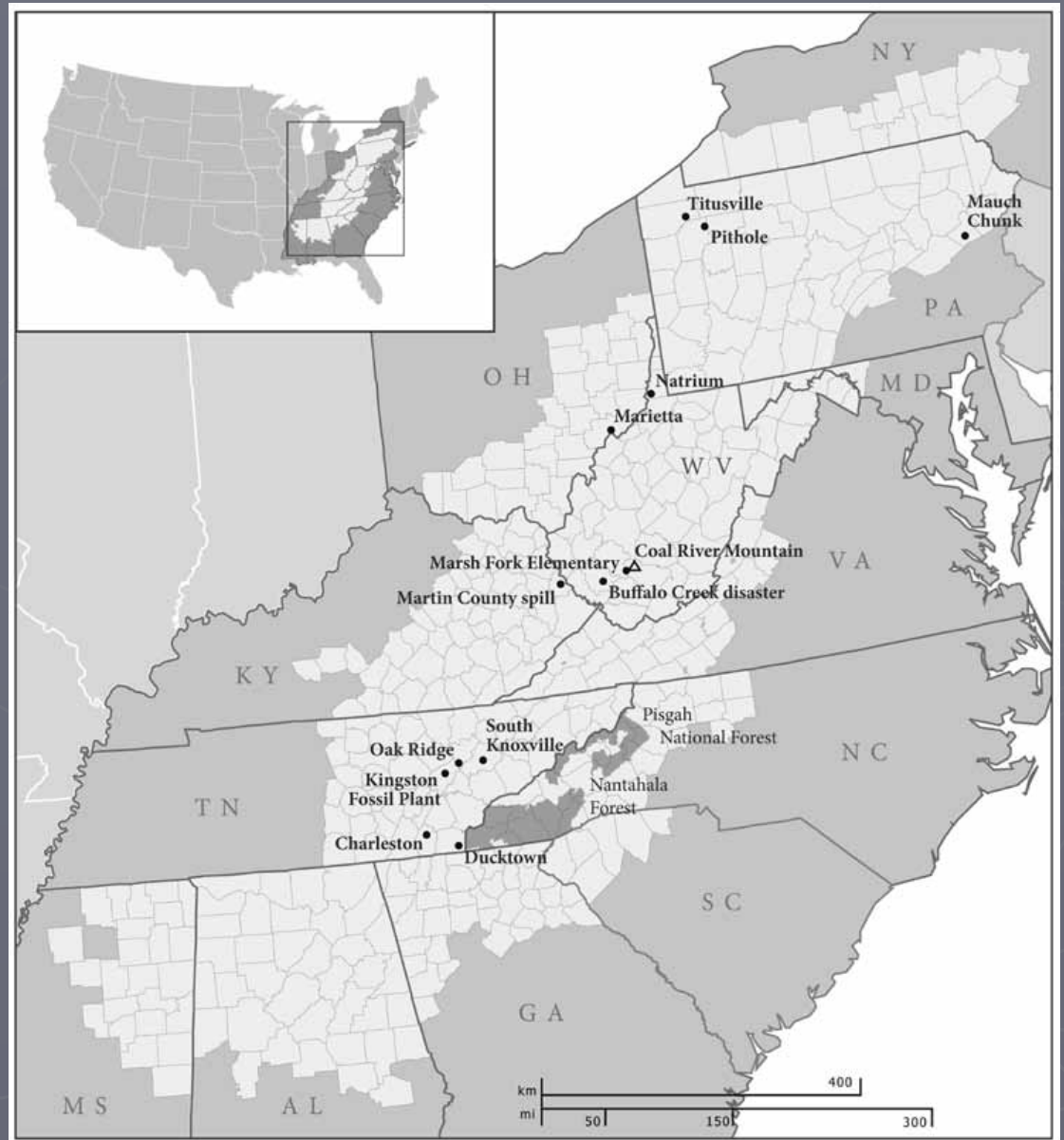


# Contents

1. Perspectives
2. Citizen Action
3. In Their Own Words



# Places Discussed in Mountains of Injustice



# In Their Own Words

- ▶ “Housewives from Hell”: Perspectives on Environmental Justice and Facility Siting (Michele Morrone and Wren Kruse)
- ▶ Stories About Mountaintop Removal In The Appalachian Coalfields (Geoff Buckley and Laura Allen)



# Save The Children

- ▶ "... one of the reasons that I started looking into this at all is that there were several children in my community that had strange illnesses or you know, my daughter had a bone tumor."

# Trust

- ▶ "...I think is people were really up in arms and furious that our own government could secretively do this to a community and not tell anybody."



# Jobs vs Environment

- ▶ “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.”

# Home-Schooled Activists

- ▶ “So there’s health issues, there’s outrage, there’s getting yourself empowered and organized, and then there’s education. Then you get yourself educated so you know what you’re talking about cause that’s one of the things they’ll get you on if you start raising hell about things and you don’t know what you’re talking about.”

# Environmental Justice

- ▶ “I think environmental justice is about how companies, whether they’re the government or private industry or whatever, think they can just come into anybody’s neighborhood and build anything they want and do anything they want under a veil of secrecy...”





Photo credit: Vivian Stockman