

Social and Economic Effects of Brownfield Development

Business of Brownfields Conference – 17-18 April 2008

Ron Gaydos

VP Community & Economic Development, HHFI



The Question

MOTIVATION

- Can communities benefit more directly from brownfield development?
- Develop best practices and inform community and developer efforts
- Understand relationship between development strategies and community conditions

PARTNERSHIP

- Steinbrenner Institute/Brownfields Center
- Heritage Health Foundation

METHODOLOGY

- Capture historical data within sites' "sphere of influence"
- Discover causalities between development strategies and their outcomes and social and economic conditions in host communities

The Partners

Heritage Health Foundation, Inc.

- Hospital merger spin-off
- Mission: to enable people and organizations to improve social and economic conditions in their communities
- Active in affordable housing, early learning, family services, economic development, and transportation

Steinbrenner Institute/Brownfields Center

- Leading research and education center on brownfields
- Shared need to investigate the social and economic aspects of brownfield development



The Sites

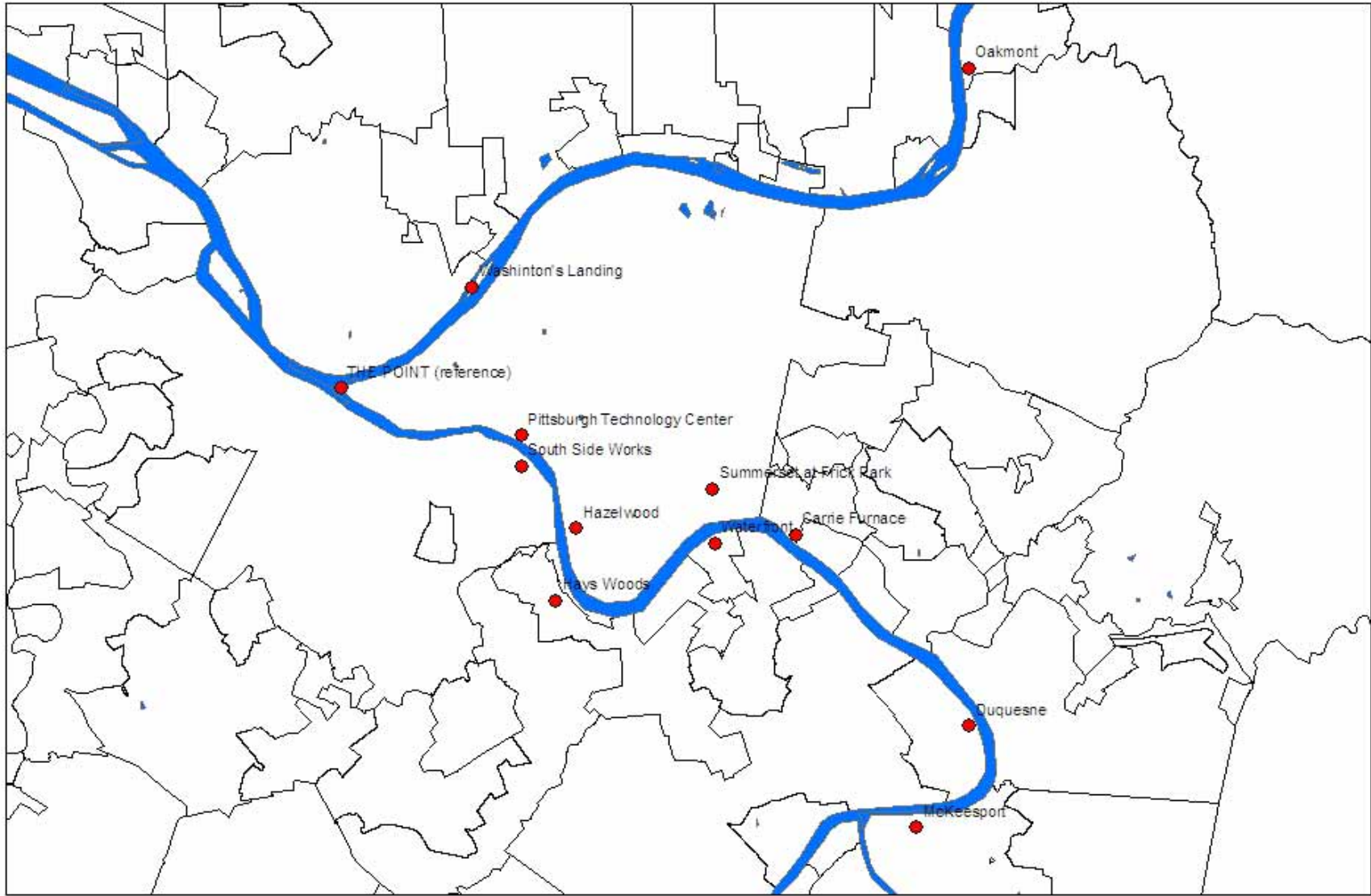
10 Allegheny County Brownfields

- 7 former steel industry sites
- 1 former mixed manufacturing site
- 1 former slag dump
- 1 former waste dump
- All but one surrounded by pre-1950 mixed use communities
- Various stages of completion
- Some had been completed in time for effects to be captured in 2000 Census

The Sites

- Washington's Landing
- LTV Pittsburgh Technology Center
- South Side Works
- Hays Woods
- LTV Hazelwood
- Nine Mile Run / Summerset
- Homestead Works
- Carrie Furnaces
- Duquesne Works
- McKeesport Tube Works

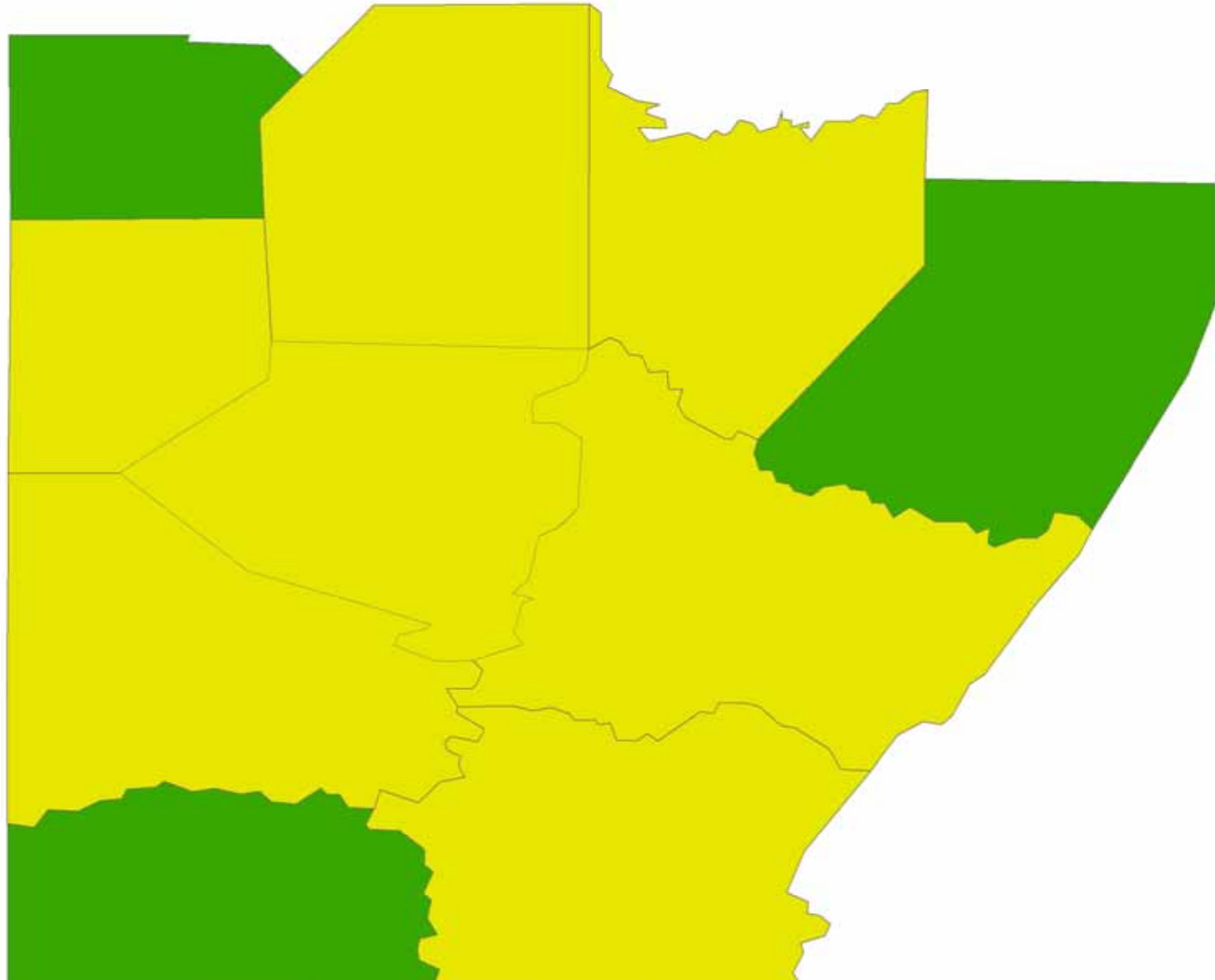
Allegheny County Brownfield Sites with municipalities outlined



For Comparison

- Metropolitan Statistical Area
 - Allegheny County
 - City of Pittsburgh
-
- (and we're certainly curious about other sites around the country...)

PITTSBURGH MSA



ALLEGHENY COUNTY



CITY OF PITTSBURGH



Methodology

Get Census Data From 1970 - 2000

- GeoLytics processed Decennial Long Form data
- All CTs conform to 2000 boundaries

Capture data within site “spheres of influence”

- Where traditional residential and commercial activity occurred (1/2-mile and 1-mile distance from site boundary)

Determine causal relationships if any

- Observe and compare indicator changes over time
- Align social and economic changes with development
- Use standard statistical tests when helpful

Methodology

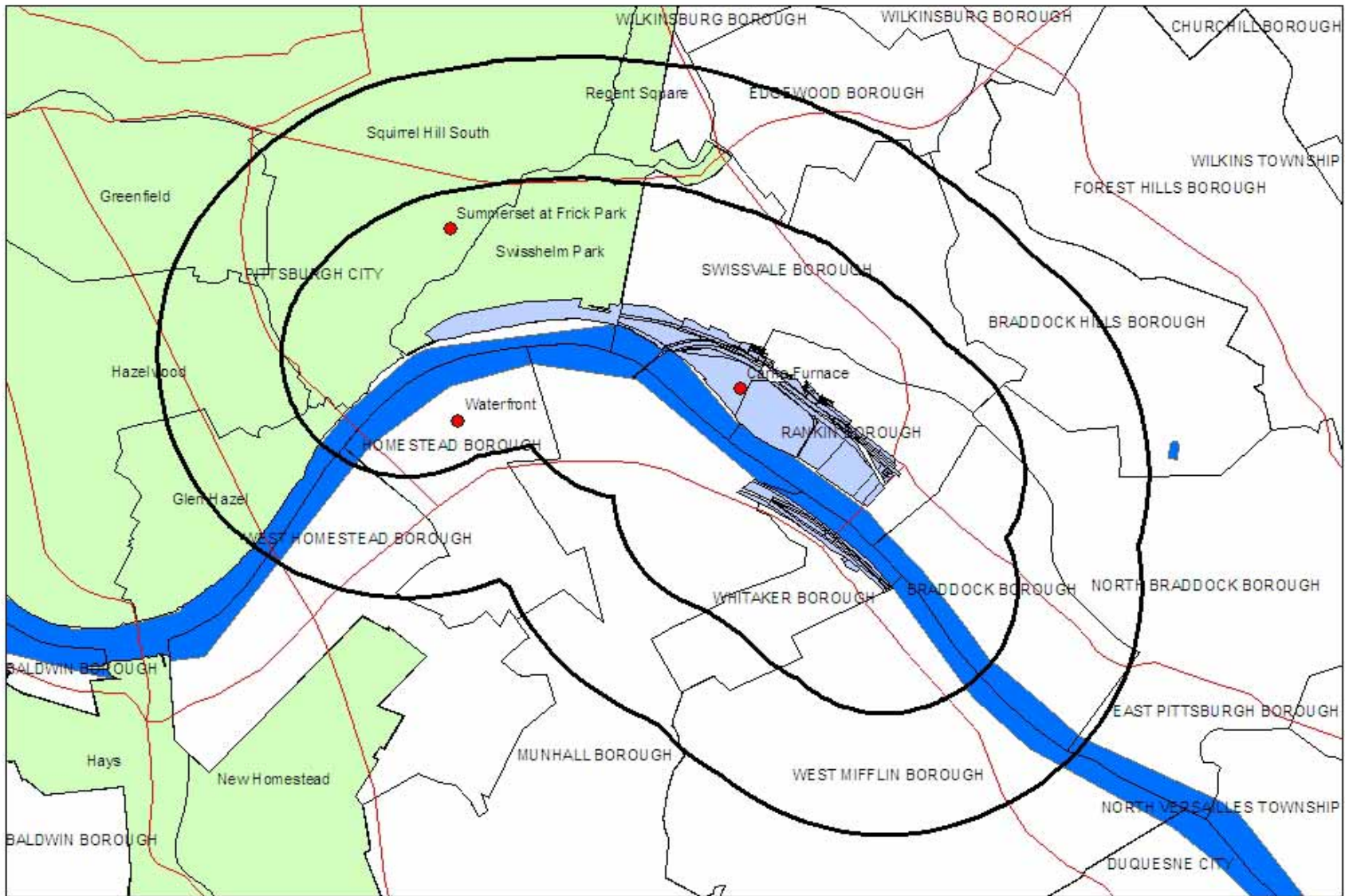
Indicators

- Population: Total, Age Groups, Race
- Housing: Units, Vacancy, Ownership, Values
- Income: HH Income, Poverty
- Transportation: Commuting, Auto Use
- Education: Attainment Level
- Workforce: Employment, Occupations

GIS analysis

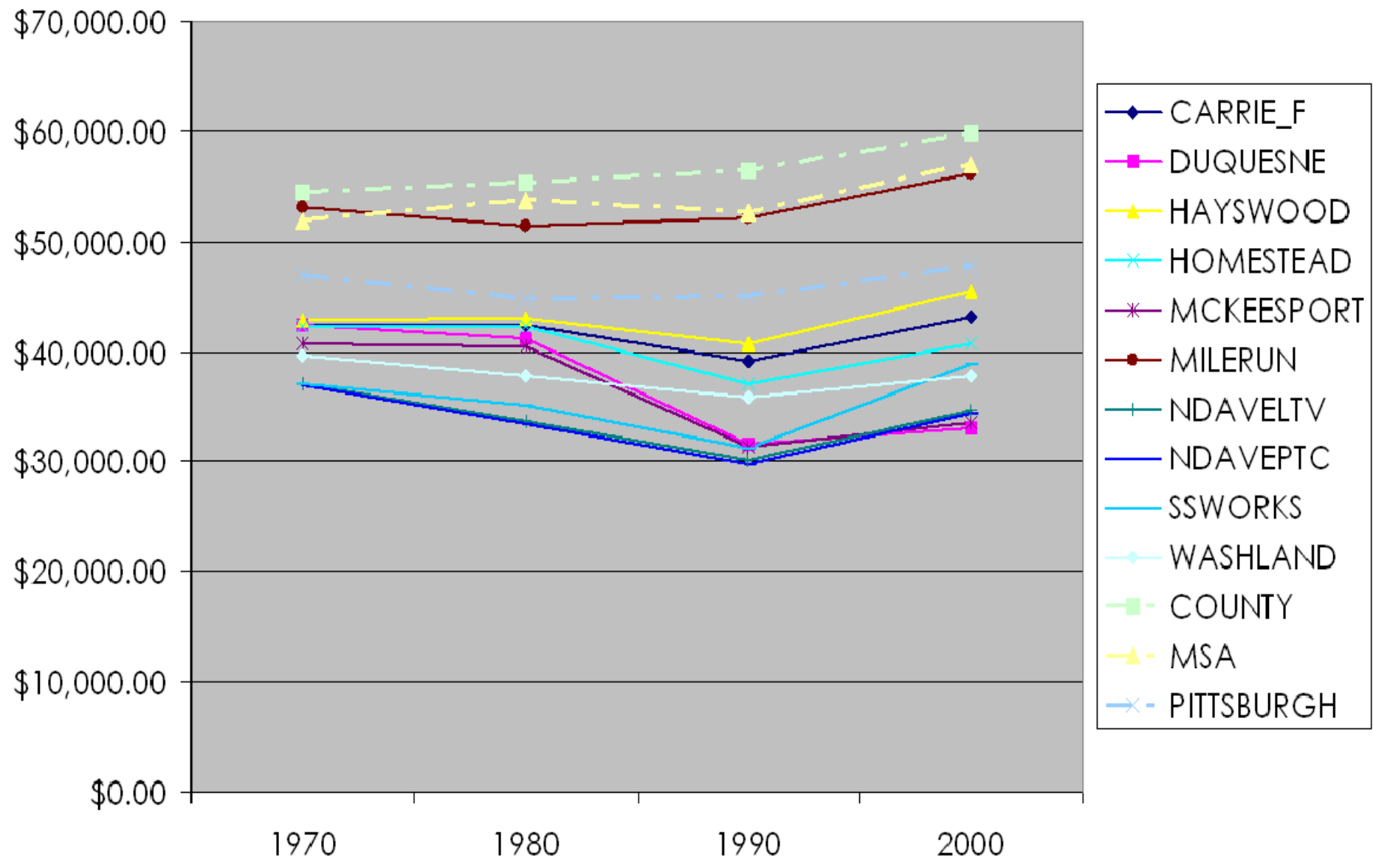
- Draw half-mile and one buffers
- Calculate fractional area
- Calculate proportional social and economic indicator data within those buffer areas (the site “sphere of influence”)

Carrie Furnace Brownfield Site Half Mile and One Mile Buffer

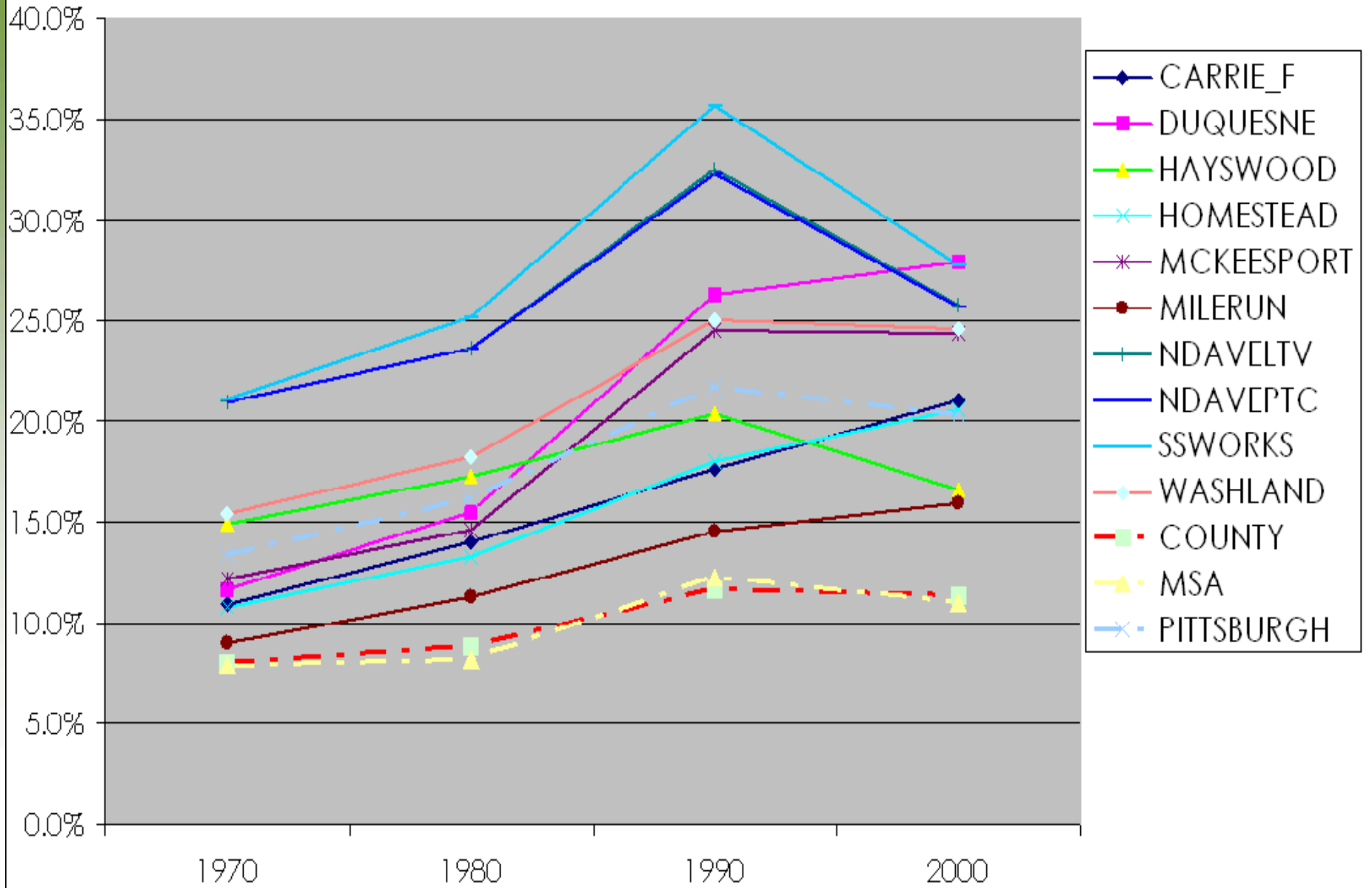


Neighborhoods in green, municipalities not colored, major roads in red.

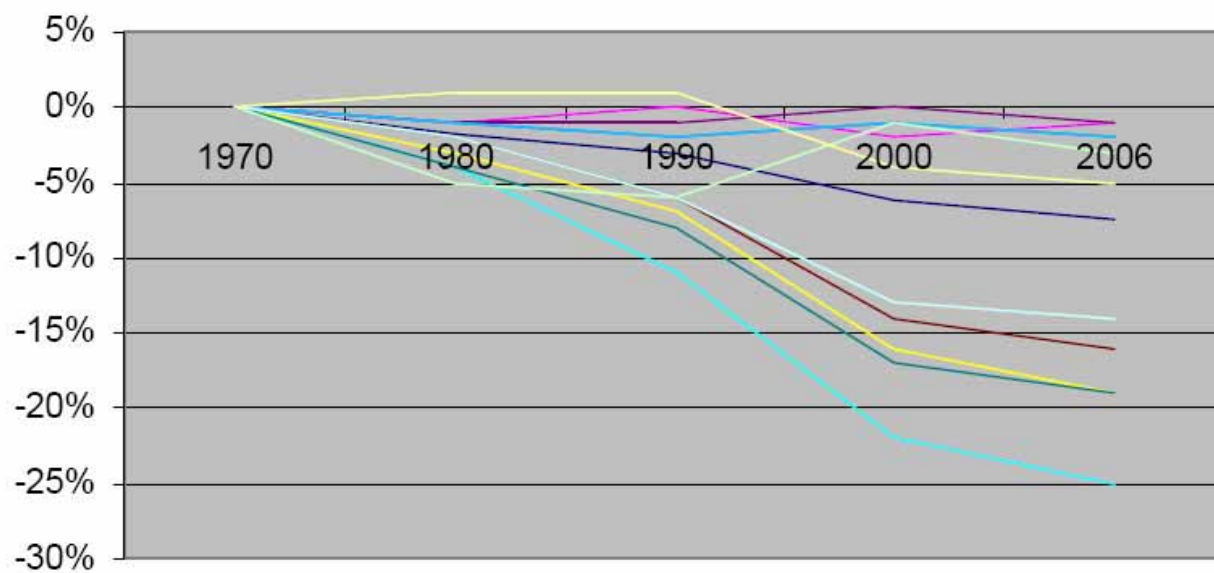
Income By Site 1970-2000



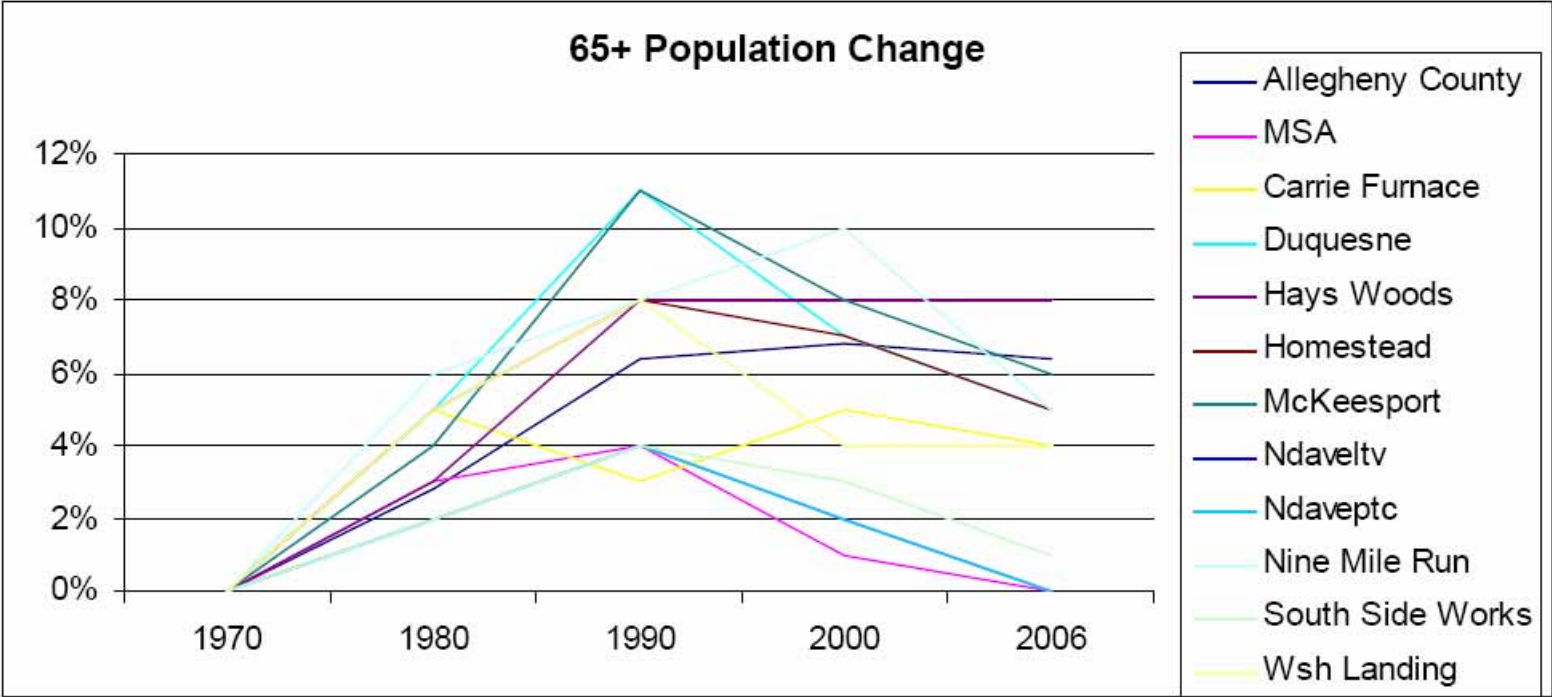
Poverty By Site 1970-2000



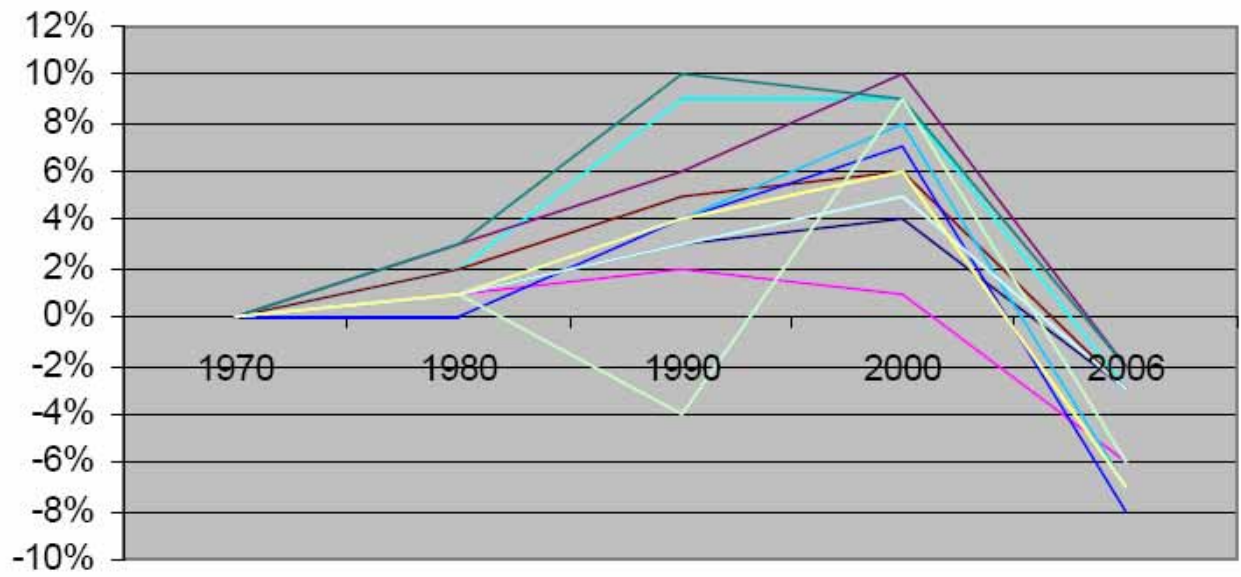
White Population Change



- Allegheny County
- MSA
- Carrie Furnace
- Duquesne
- Hays Woods
- Homestead
- McKeesport
- Ndaveltv
- Ndaveptc
- Nine Mile Run
- South Side Works
- Wsh Landing

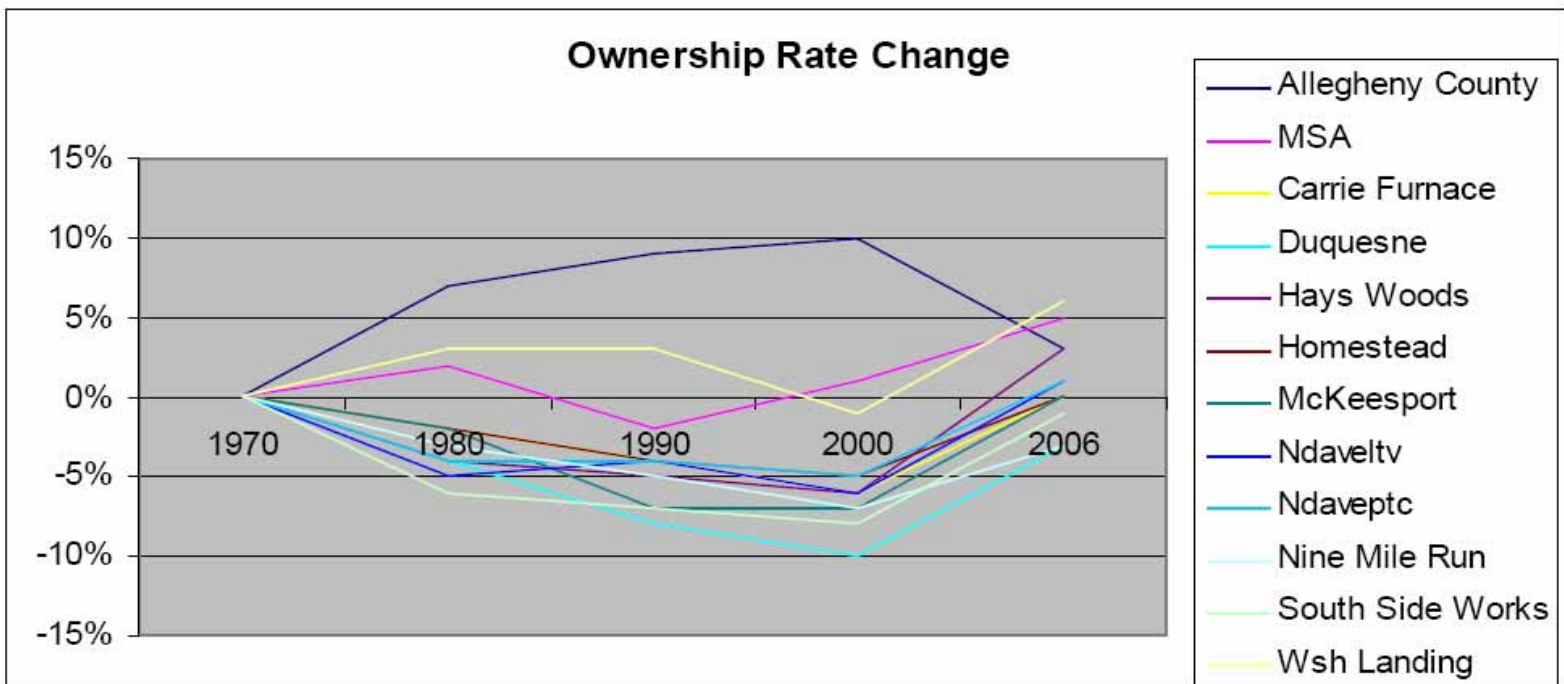


Vacancy Rate Change

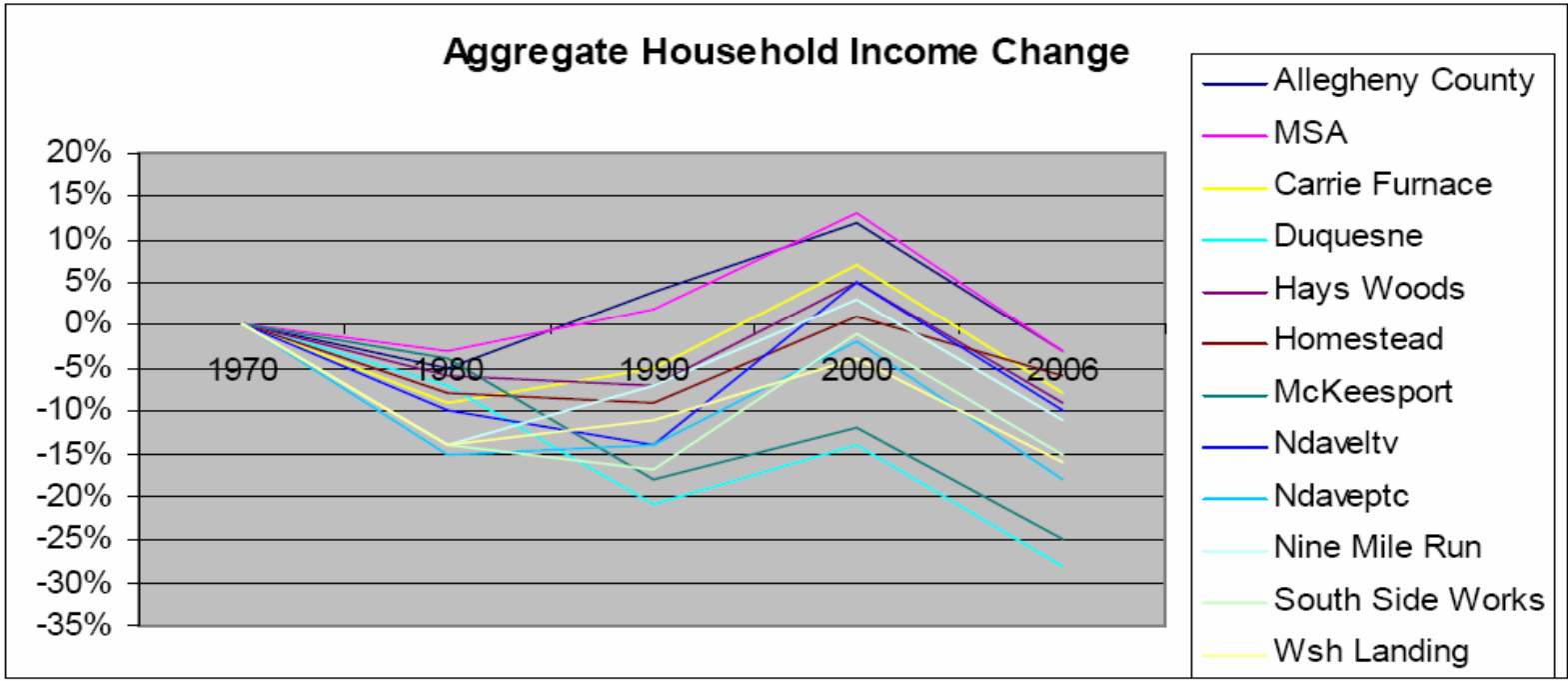


- Allegheny County
- MSA
- Carrie Furnace
- Duquesne
- Hays Woods
- Hays Woods
- McKeesport
- Ndaveltv
- Ndaveptc
- Nine Mile Run
- South Side Works
- Wsh Landing

Ownership Rate Change



Aggregate Household Income Change



Preliminary Finding

- Brownfield communities' conditions seem to run parallel with regional conditions, regardless of development

Potential Hypotheses

- There are not enough connections between host communities and brownfield developments (ie jobs, dramatic increase in tax base, growth in community-based businesses, etc.)
- Community conditions would have declined further without the developments
- More time is needed to changes to become more evident
- Other factors not considered yet may be involved

Next Steps

Analysis

- Compare brownfield communities' conditions with development milestones and individual strategies
- Devise statistical tests for causality

Future Strategic Action Informed by the Project

- Develop a Community Impact Analysis
- Develop strategies whereby community conditions reflect development investment

Project Contacts

Heritage Health Foundation, Inc.

- Ron Gaydos, VP Community & Economic Development
rgaydos@hhfi.org and (412) 351-0535

Western Pennsylvania Brownfields Center

- Dr. Deborah Lange, Executive Director
dlange@cmu.edu and (412) 268-7121

