

One Industry's Risk is Another Community's Loss: The Impact of Clustered Mortgage Foreclosures on Neighborhood Property Values in Philadelphia

Presentation before the Federal Reserve Bank of Philadelphia's
Reinventing Older Communities: People, Places, Markets
April, 2006

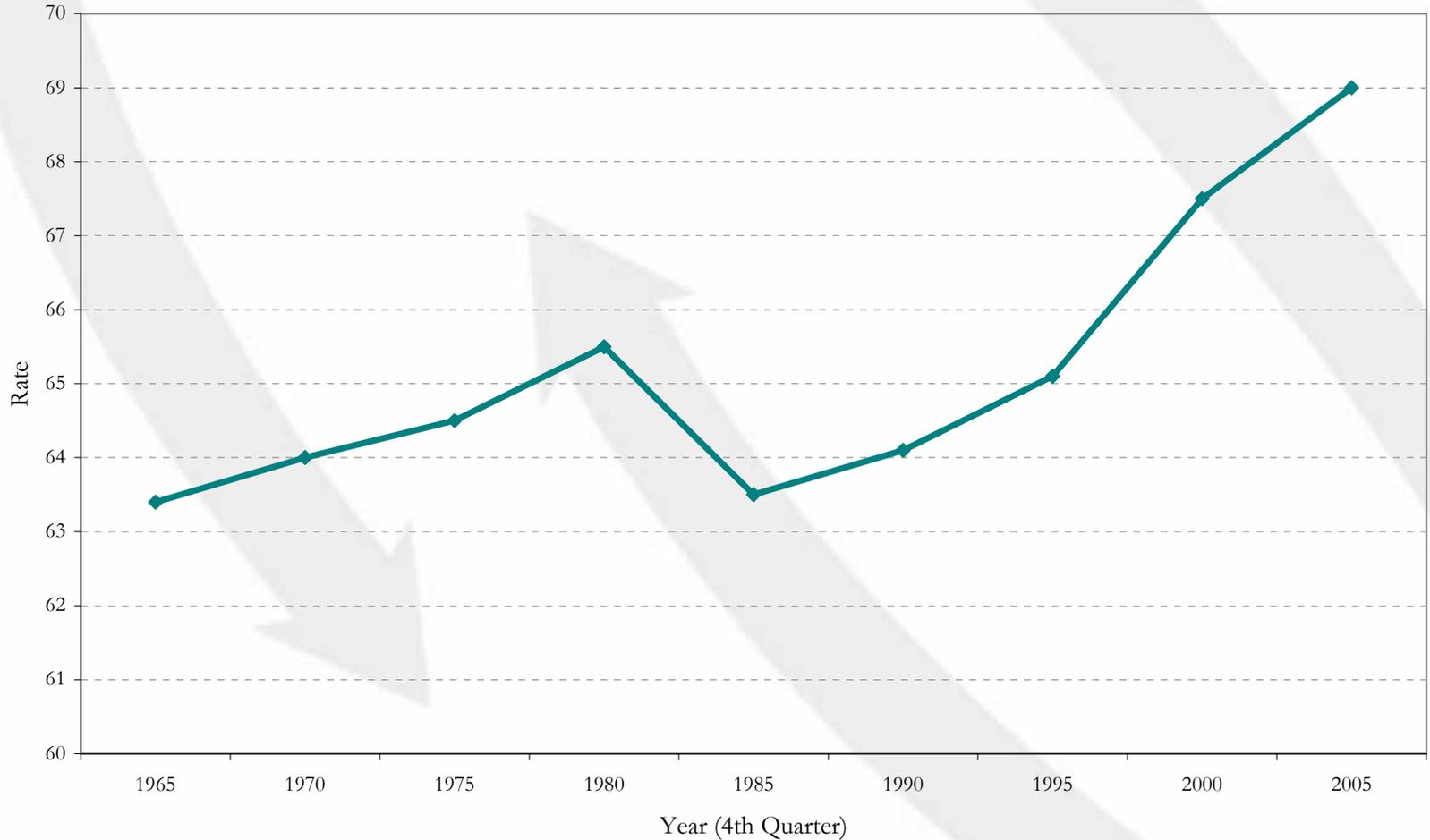


The Reinvestment Fund
Human Interest Compounded Daily



Between 1965 and 2005, 36 million new households become owners

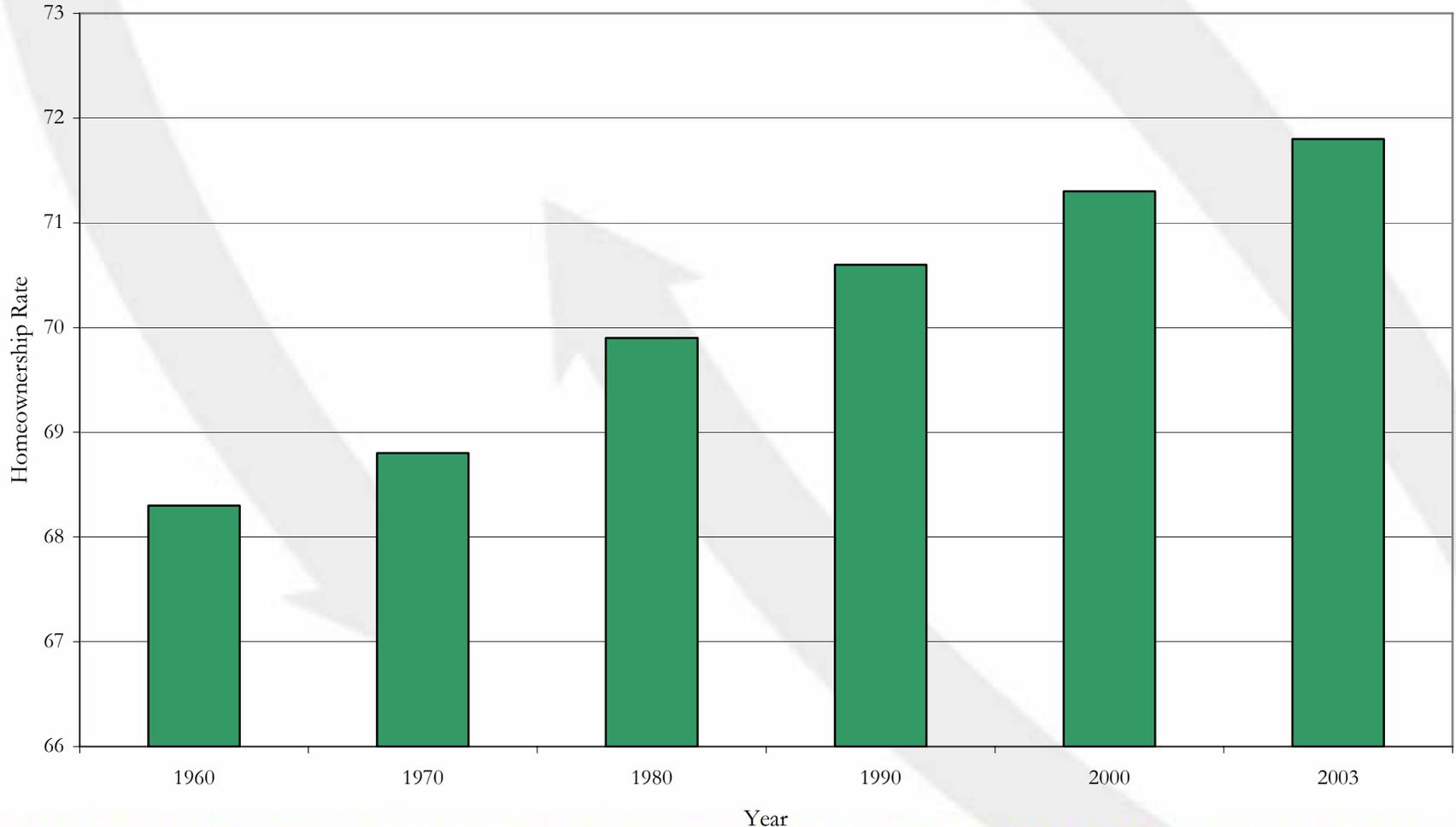
Homeownership Rate; 1965-2005





Pennsylvania's homeownership rate exceeds the national average and has risen steadily since 1960

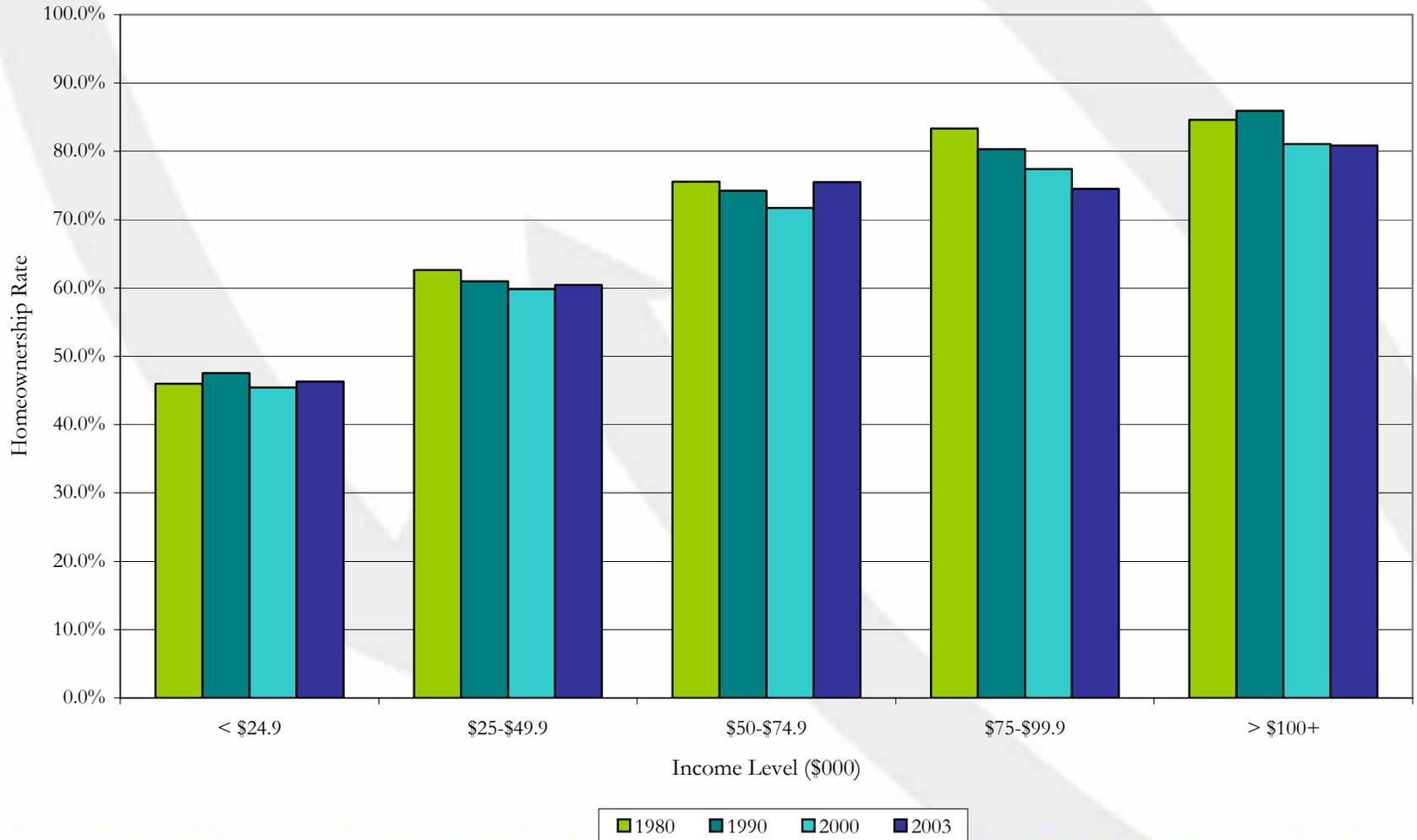
Homeownership Rate; Pennsylvania,
1960-2003





Homeownership in Philadelphia is particularly high among higher income households, but has generally declined since 1980

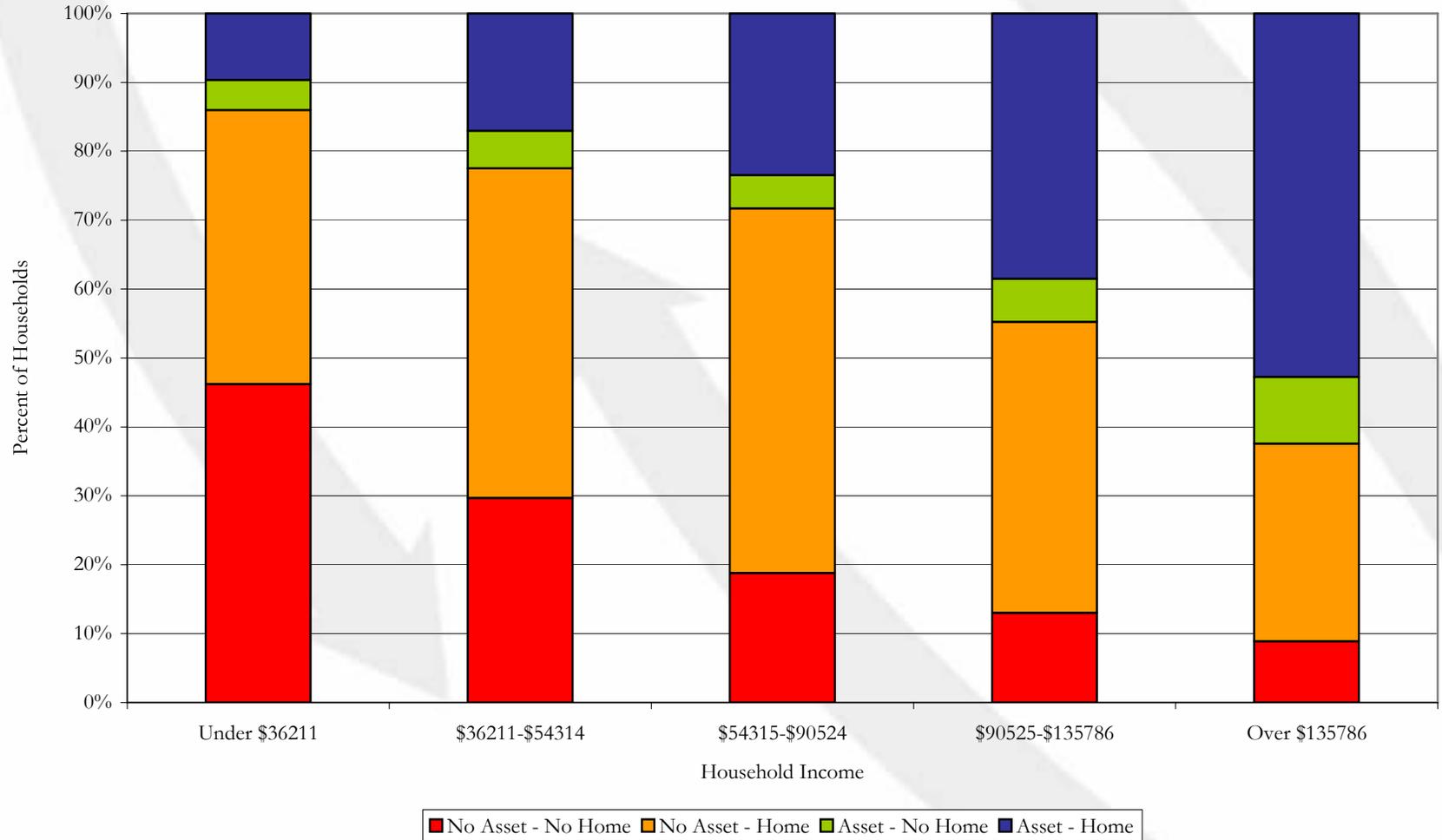
Homeownership Rates by Income and Year;
Philadelphia, 1980-2003





For most households, except those with the highest incomes, their home is their only asset

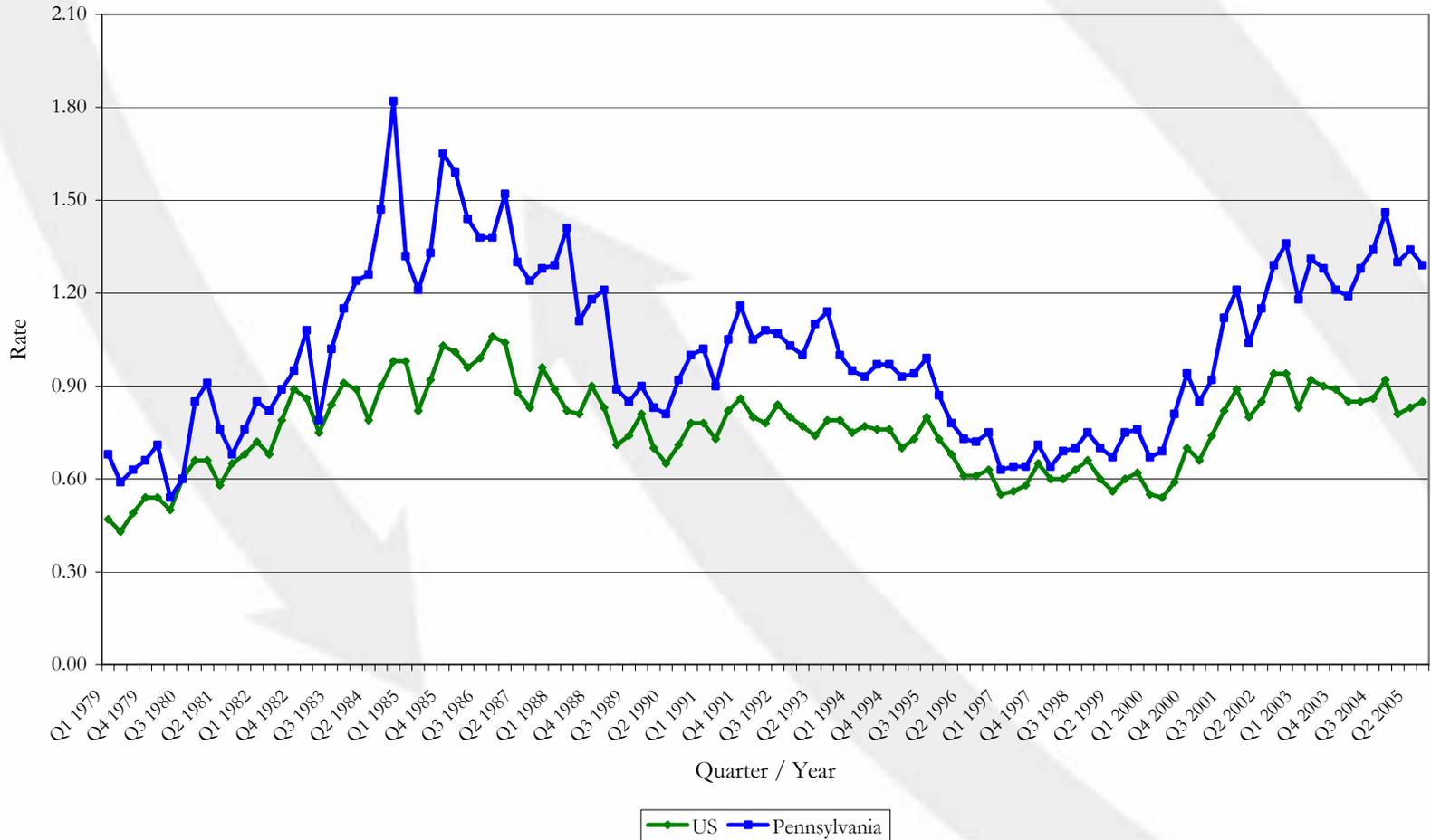
Estimated Presence of Wealth for Households in Philadelphia
by Household Income Level; 1999





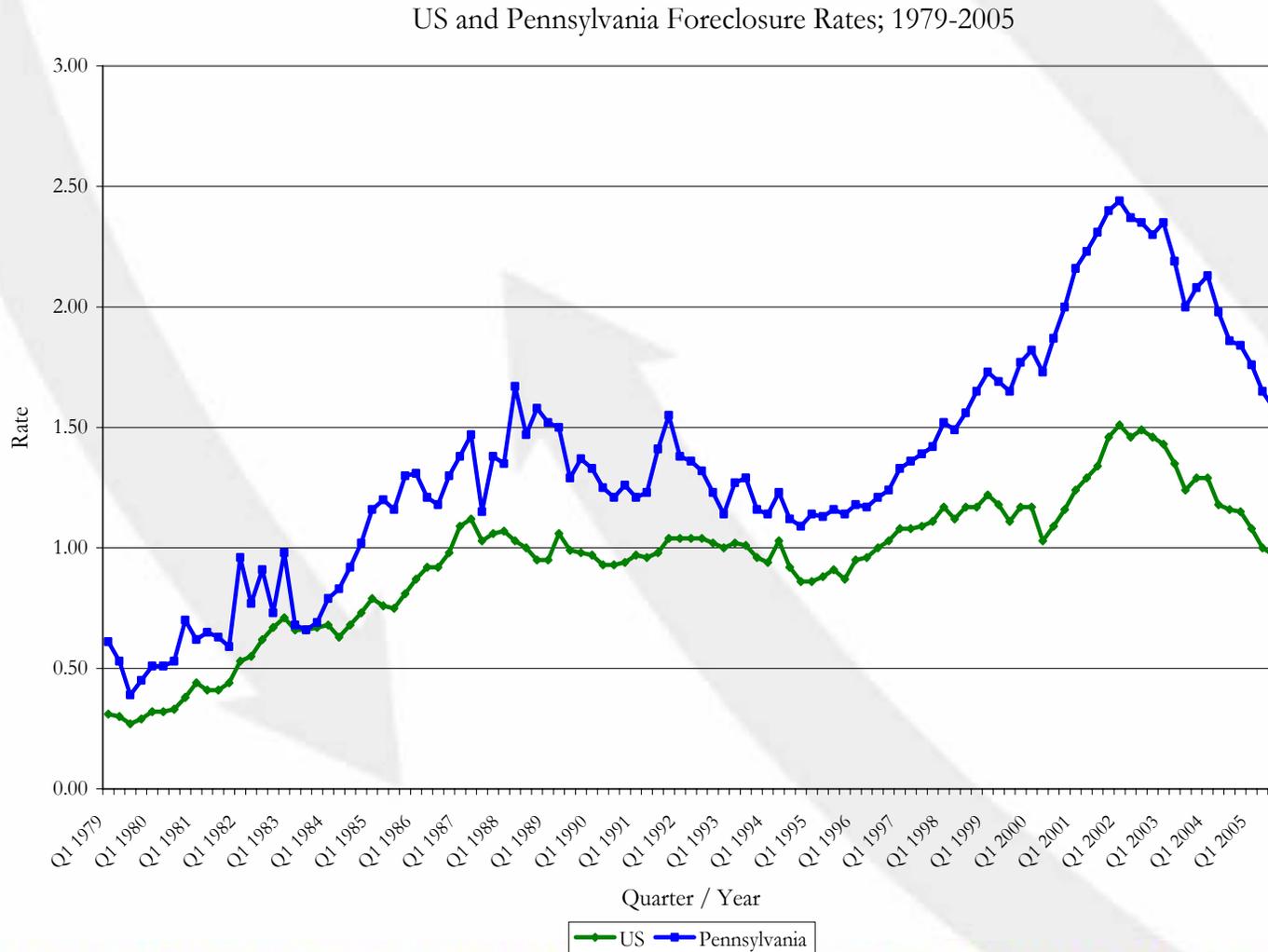
Pennsylvania mortgage delinquencies exceed the national average and have been on the rise since 2000

US and Pennsylvania 90-Day Delinquency Rates; 1979-2005





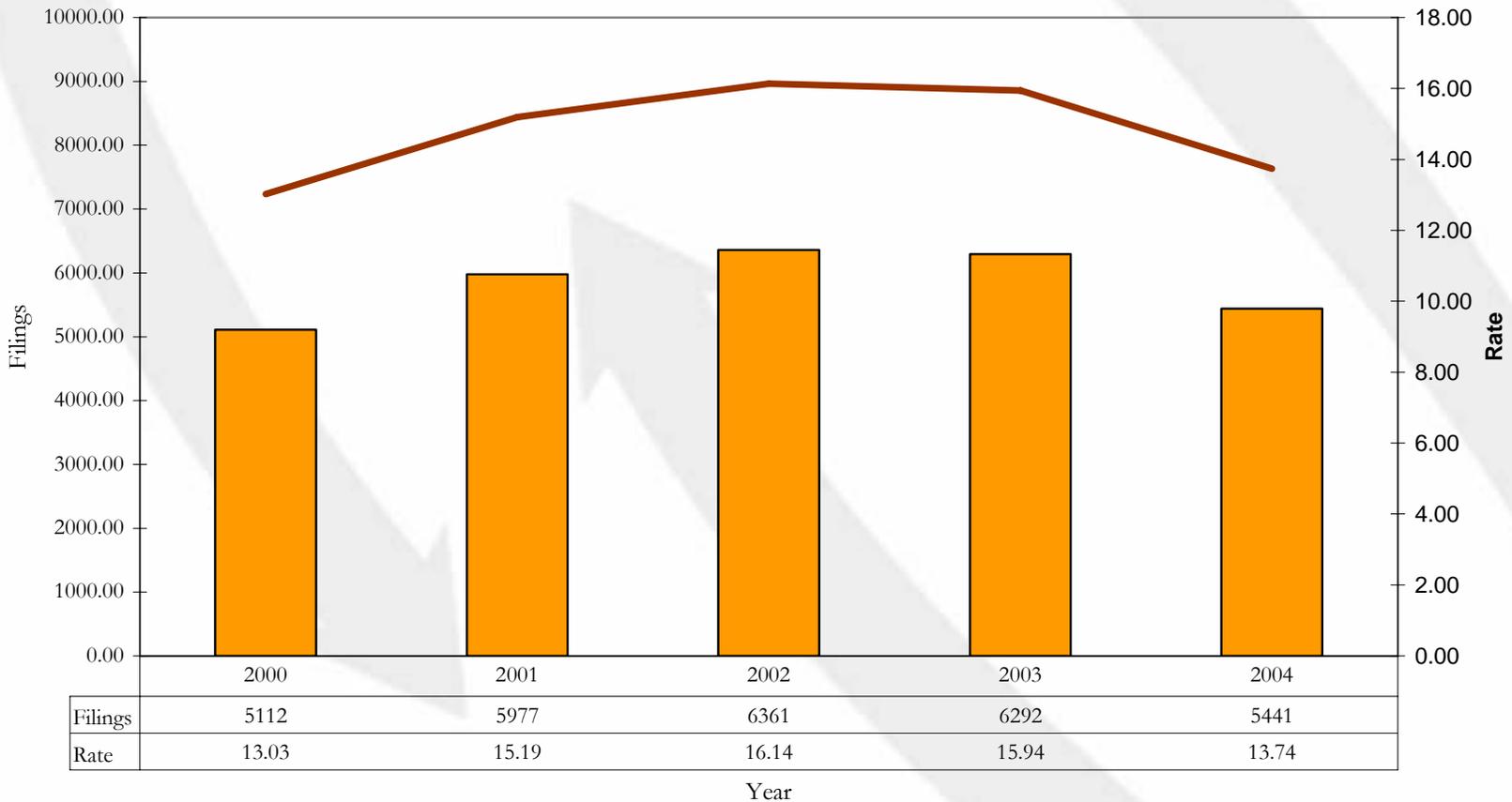
The Pennsylvania foreclosure rate exceeds the national average;
both have declined since 2002





Between 2000 and 2004, both the number of foreclosure filings and the rate of filings peaked in 2002 and then declined

Foreclosure Filings and Rate Per 1,000 Estimated Owner Occupied Housing Units; 2000-2004



Filings Rate

- Monetary - Direct
 - Net loss on downpayment and principal paid
 - Penalties and fees charged by mortgage servicers during the period of delinquency
 - Legal fees
- Monetary – Indirect
 - Future cost of borrowing as a result of damaged credit
 - Moving expenses
- Nonmonetary
 - Emotional distress
 - Physical distress
 - Psychological distress
 - Adverse family impacts

**Minnesota Family Fund (1998)
estimates the cost per household to be
approximately \$7,200 per foreclosure**

Foreclosures do cost lenders and investors, but...

- Foreclosure \neq loss to the investor.
 - Pricing (interest and fees/points) of loan compensates for risk
 - Foreclosures are not always consummated
 - In the case of subprime loans, although priced as subprime, a substantial portion of borrowers are prime borrowers
 - Part of the debt is typically paid by the time of foreclosure
- White (2004) cites evidence that subprime losses tend to be in the range of 1% per year of outstanding loan pool balances

- Example:

EQCC Asset Backed Certificate Series 2001-2

Original Pool Amount \$10,368,314,000

As of Jan, 2006, pool amount is \$1,393,672,000 (i.e., 13.4% remaining)

11.5% Foreclosure

13.4% Bankruptcy

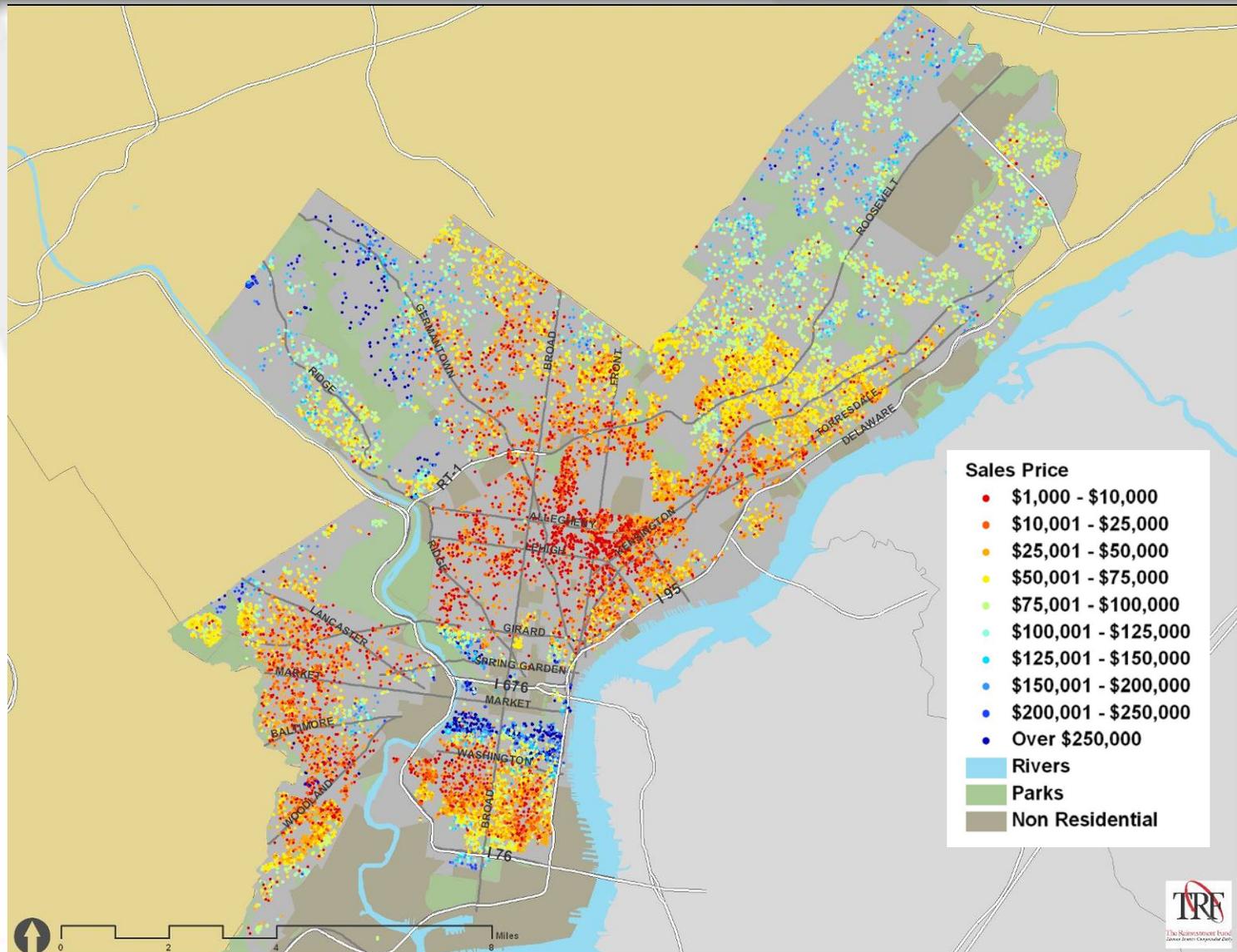
2.9% REO

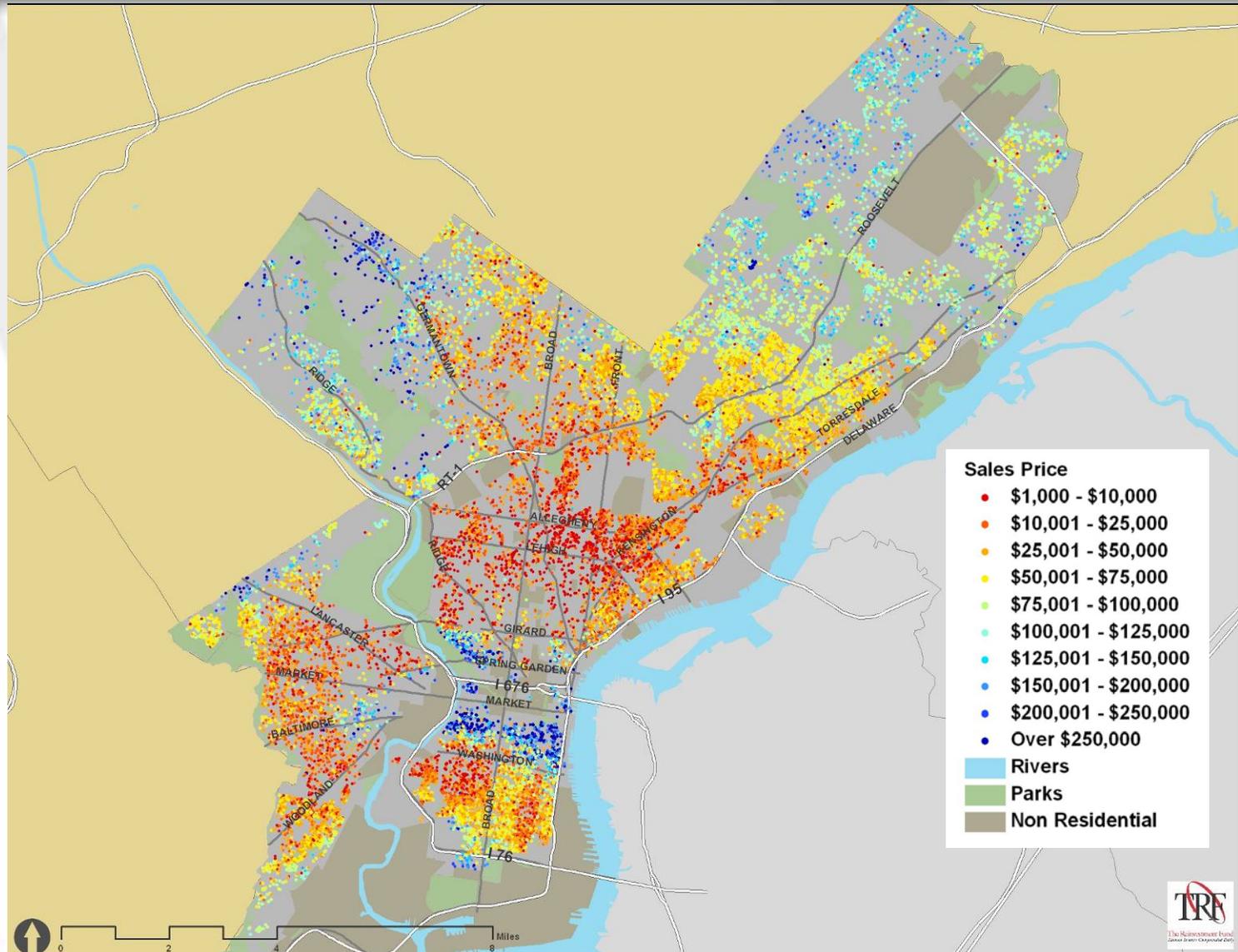
(5.1% Cumulative net loss => approximately 1% / year)

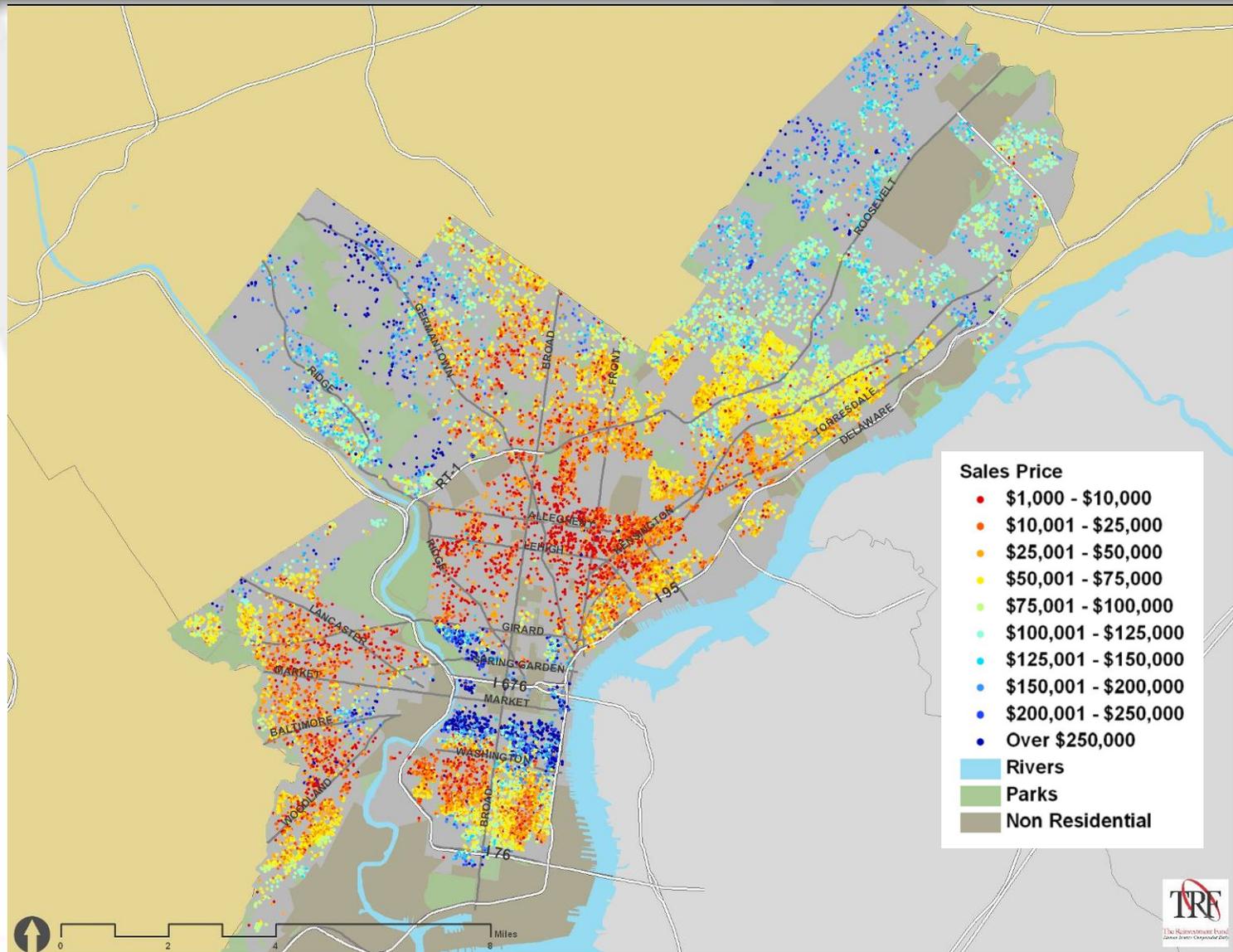
- Costs associated with:
 - Increased policing
 - Increased fire protection
 - Increased demand for social services
 - Demolition
 - Inspection
 - Legal Actions
 - Tax Revenues
- Managing the foreclosure process
- Reputation
- Apgar (IL) estimates municipal costs to be \$34,000; Family Housing Fund (MN) estimates municipal cost to be \$27,000

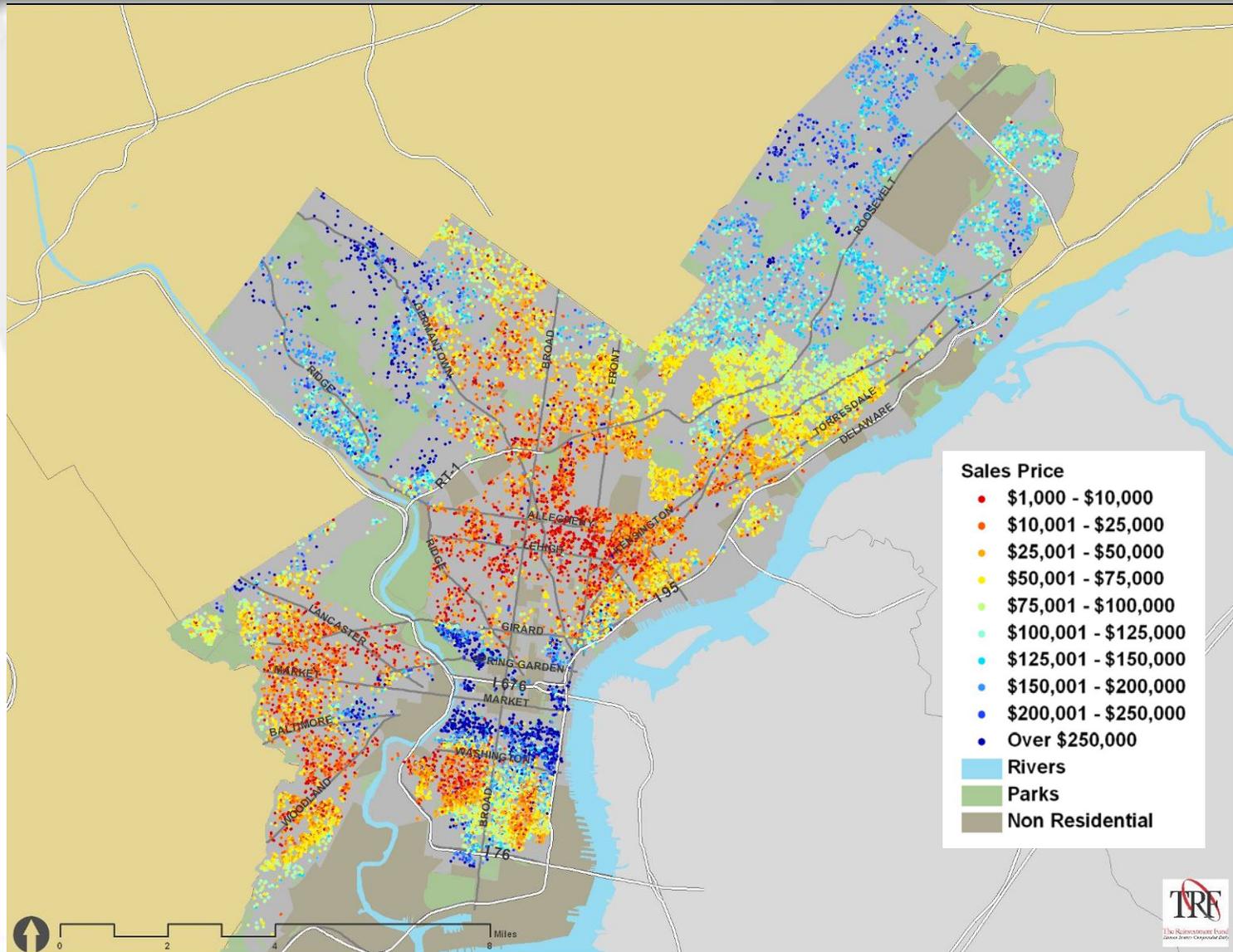
(Apgar, 2005; Family Housing Fund, 1998)

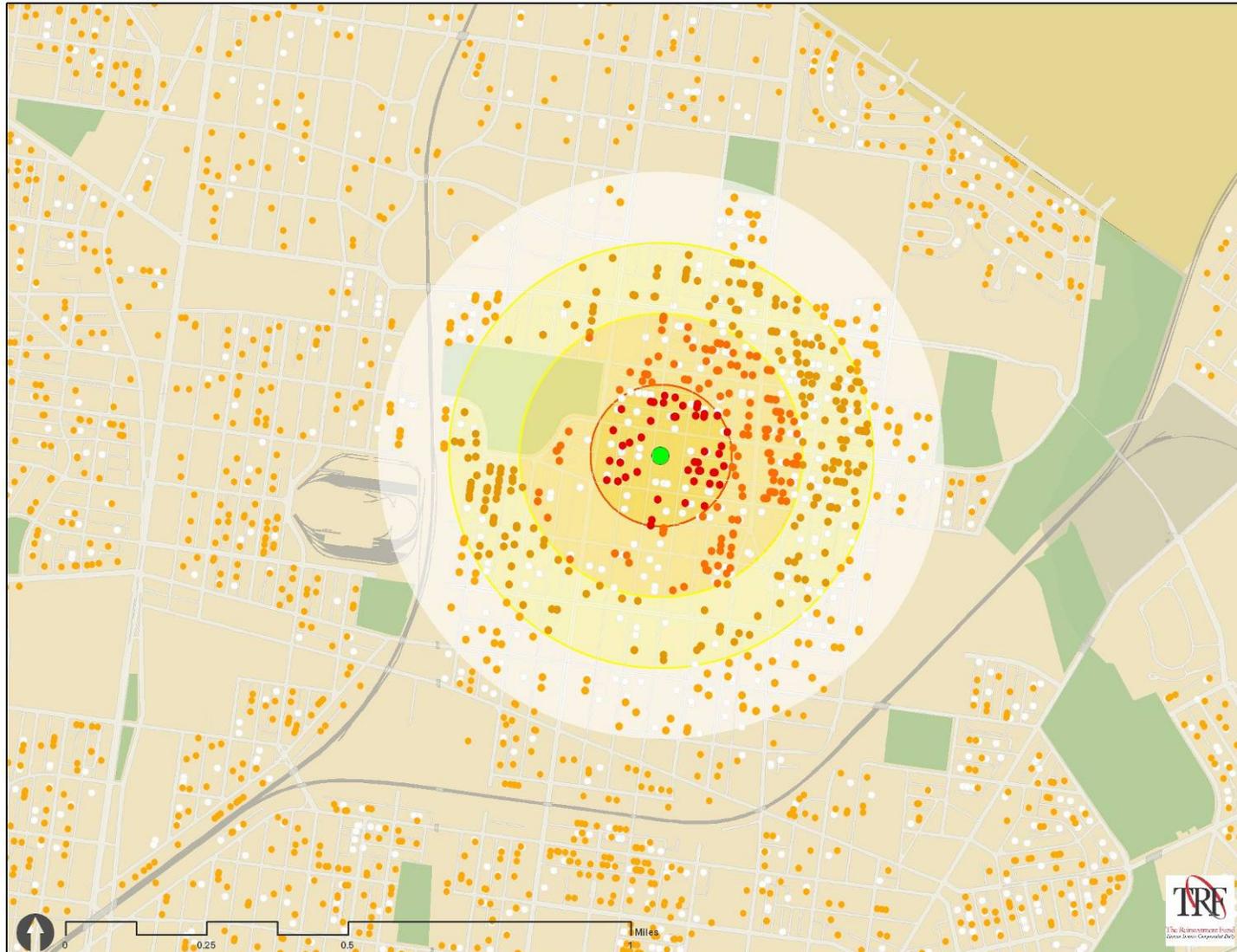
- Foreclosures can facilitate racial transition (Baxter and Lauria, 2000; Lauria and Baxter, 1999)
- Foreclosure are associated with violent crime (Immergluck, 2005)
- Foreclosure can adversely impact property value (Immergluck and Smith, 2005; Cagan, 2005; Pennington-Cross, 2004)
 - Estimates of cost include: Chicago (Apgar) \$17,000 to neighboring properties; Chicago (Immergluck & Smith) » 1%.



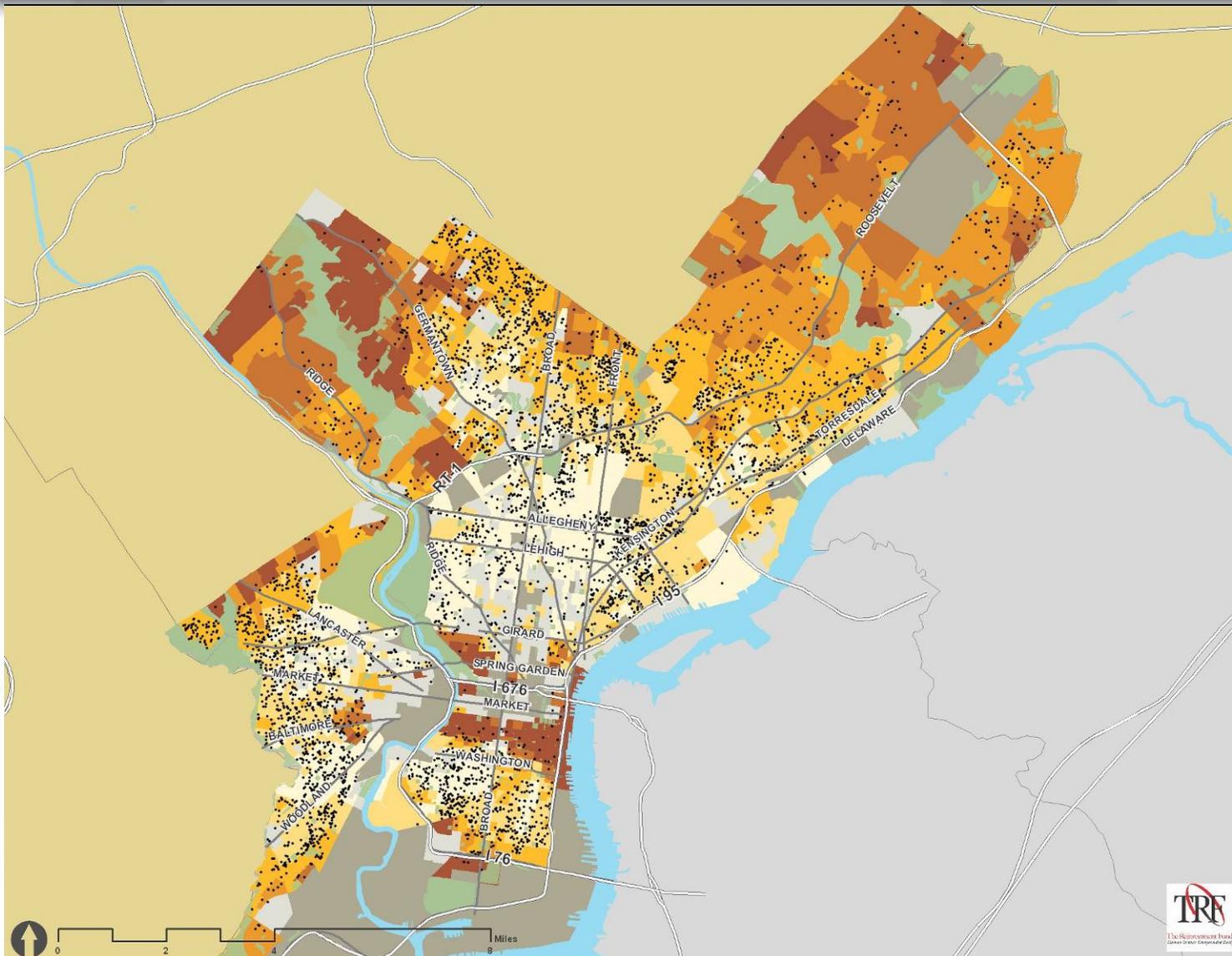


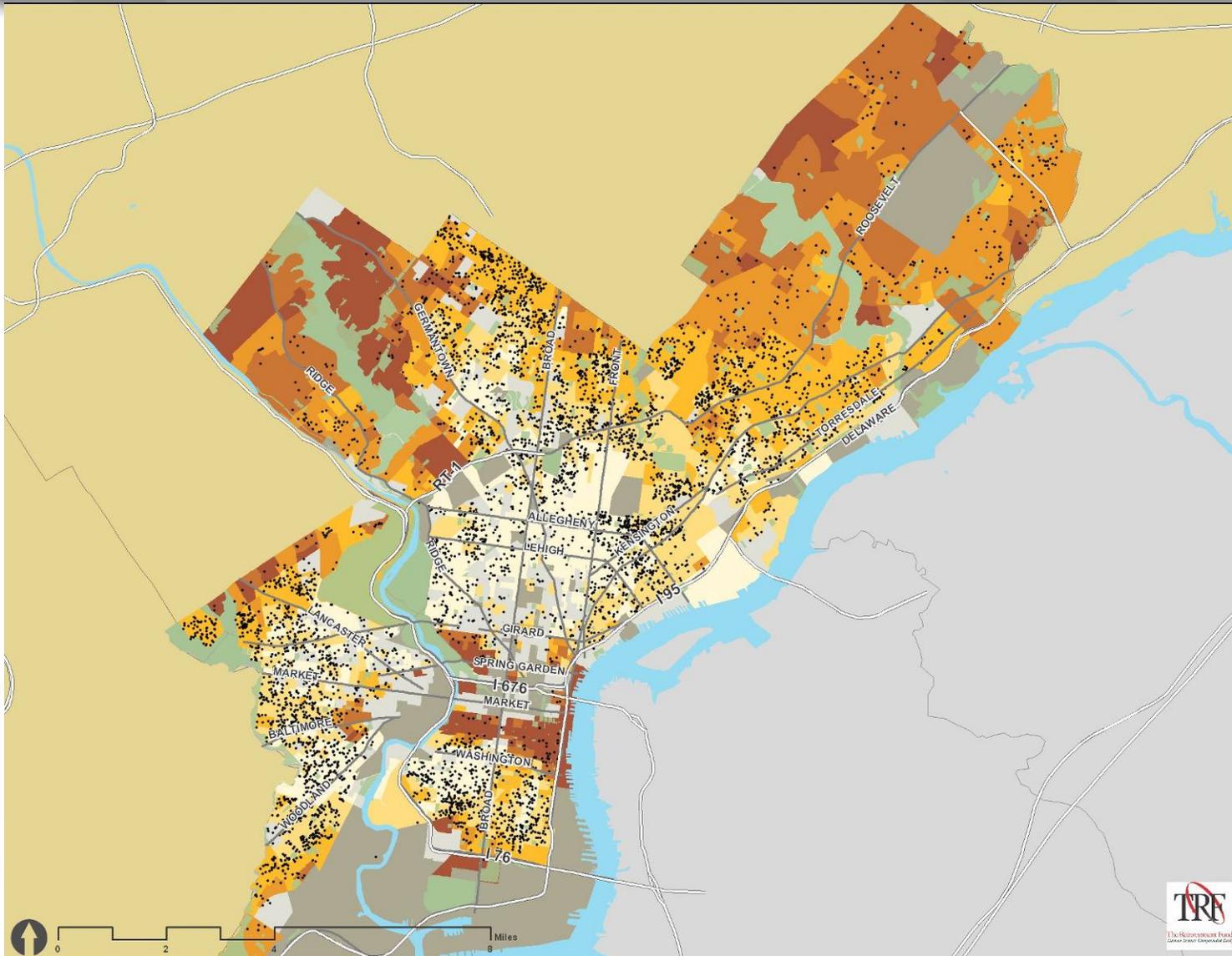


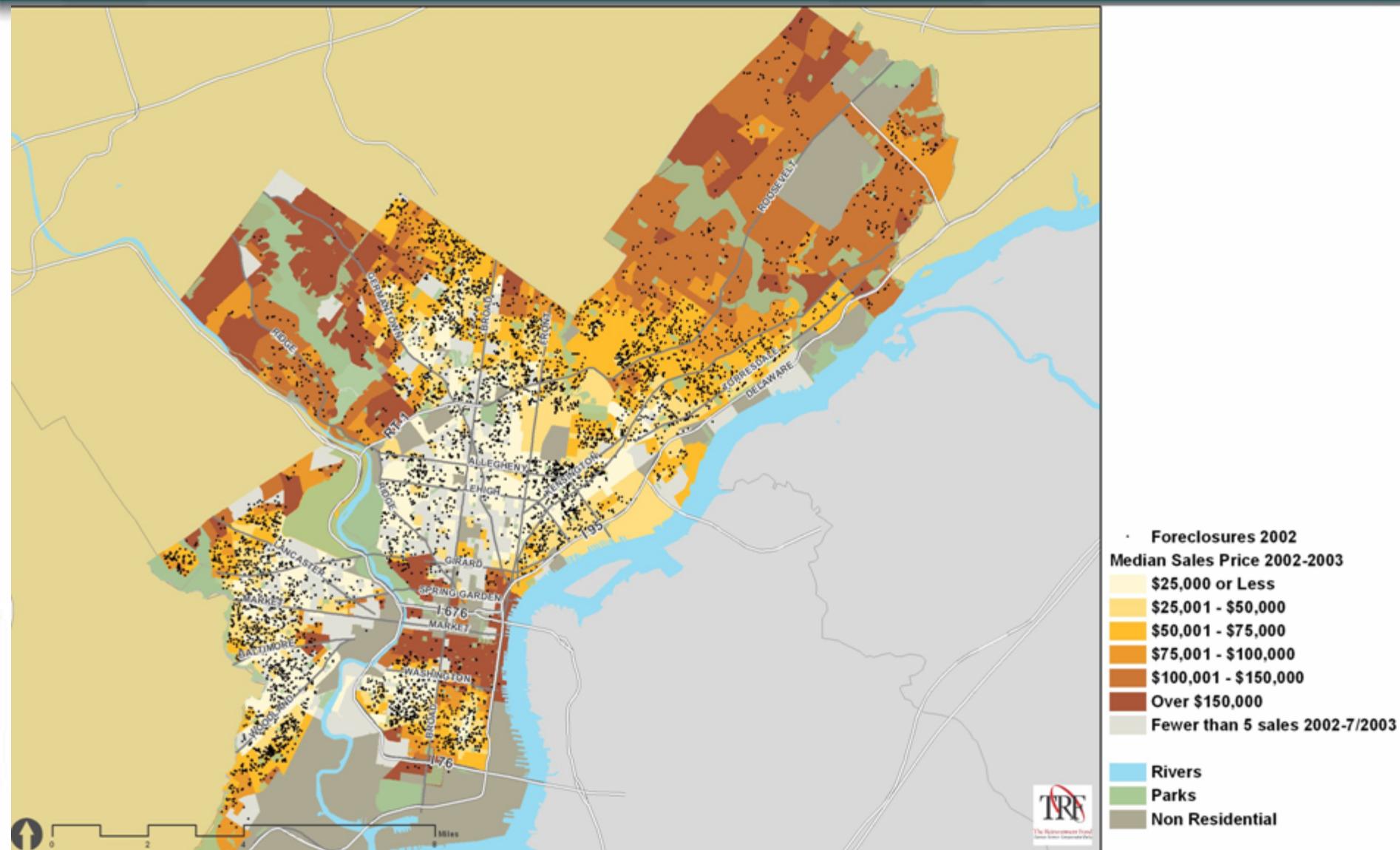


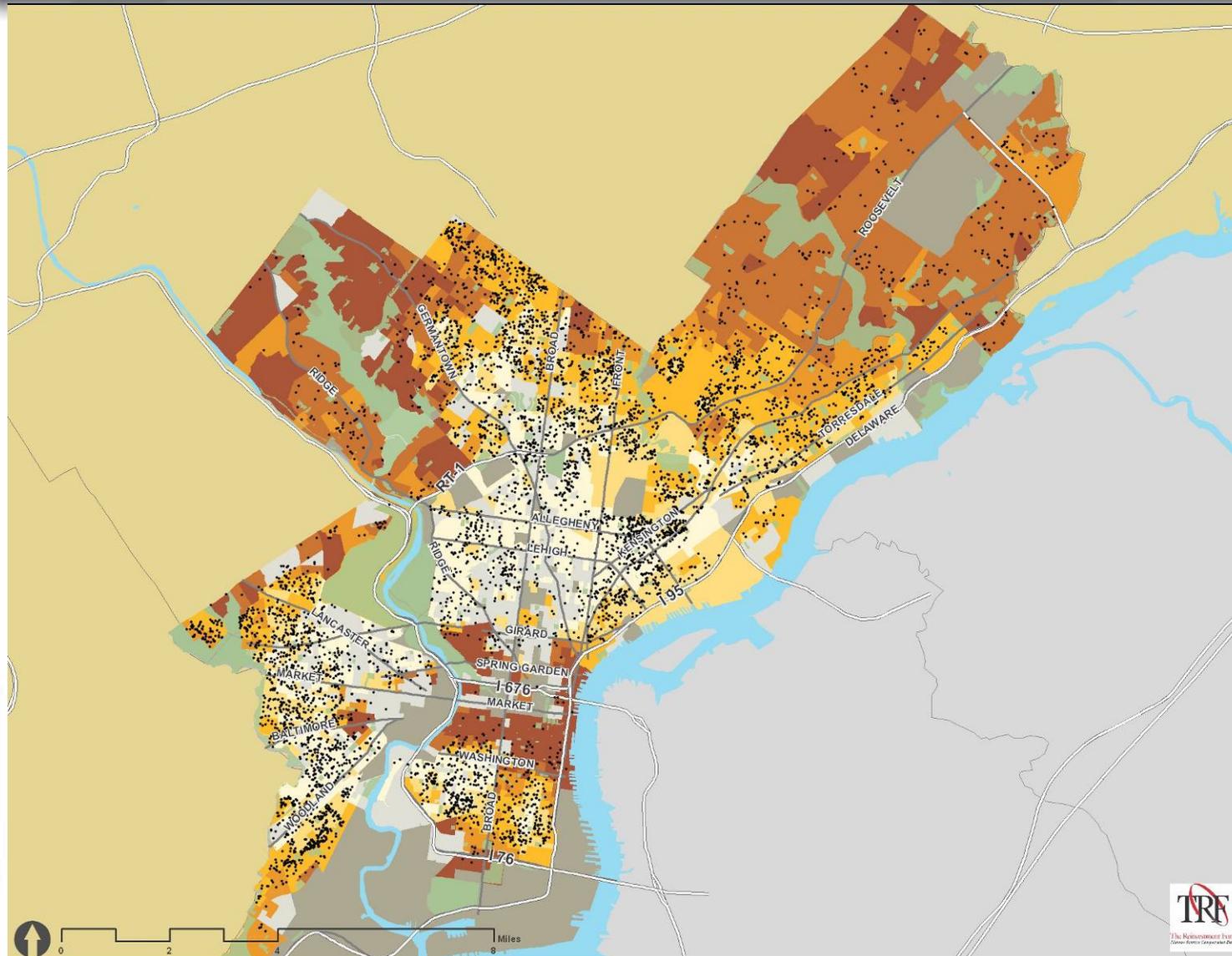


- Sample Sale from 2003
 - All Residential Sales in 2003
 - All Foreclosures Filed 2000-2004
- Foreclosures from 2000-2004 by Distance to Sale Point**
- 1/8th Mile or Less
 - 1/8th to 1/4 Mile
 - 1/4 to 3/8 Mile
 - 3/8 to 1/2 Mile
- Distance to Sale Point**
- 1/8th Mile or Less
 - 1/8th to 1/4 Mile
 - 1/4 to 3/8 Mile
 - 3/8 to 1/2 Mile
- Non Residential
 - Parks
 - Rivers





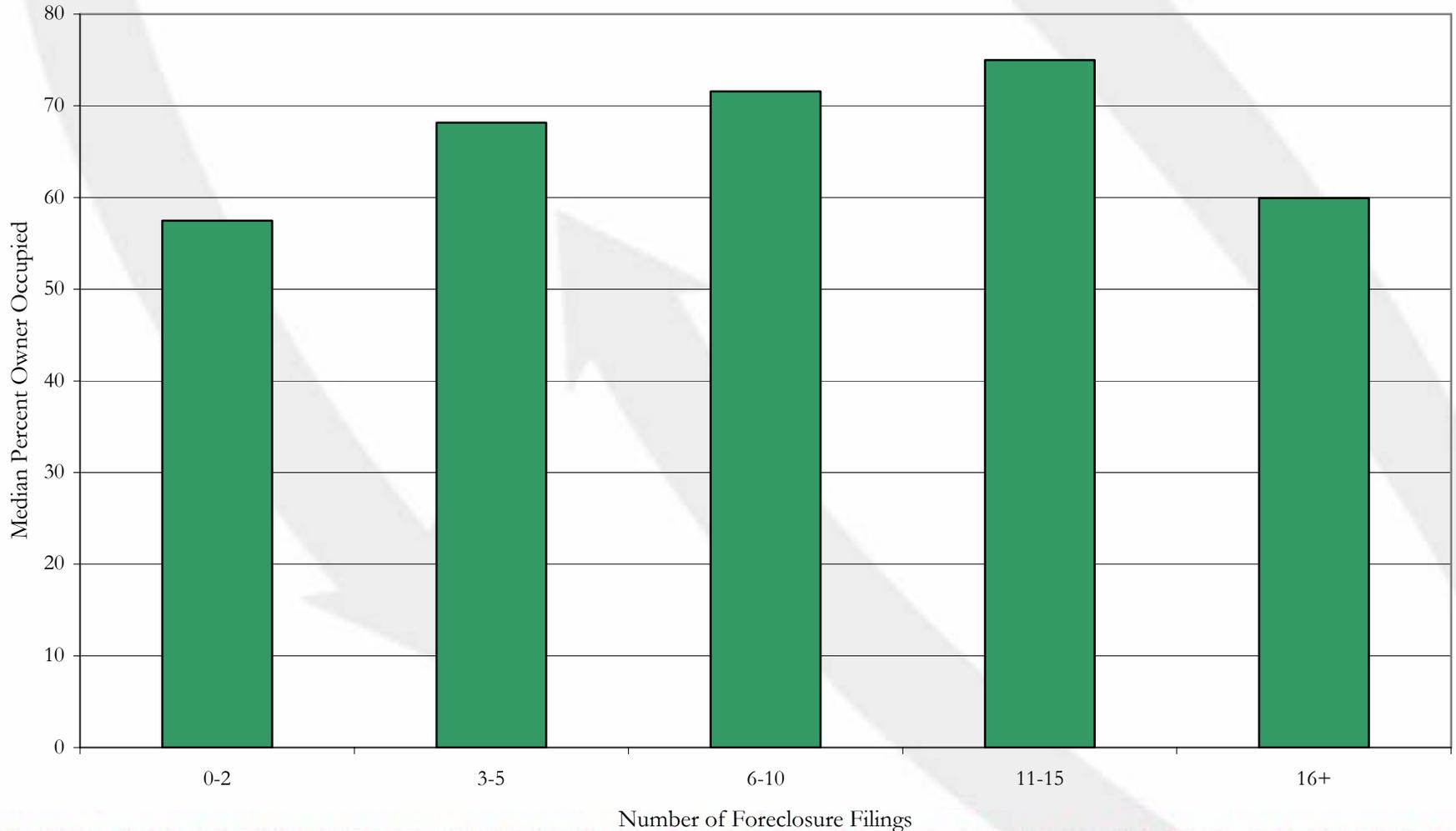






Owner Occupancy and Foreclosure Density; 2000

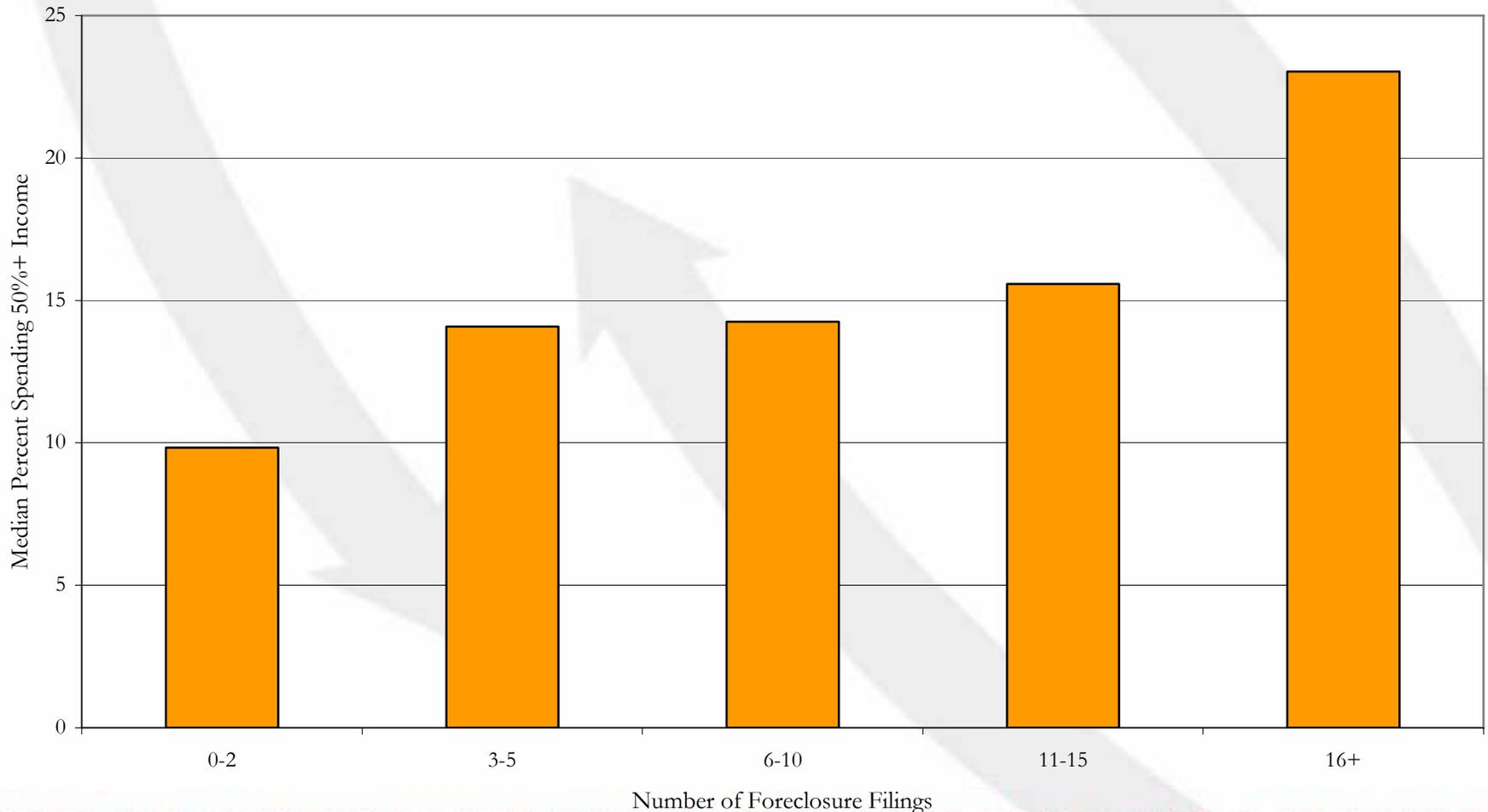
Median Percent Owner Occupied of Census Block Groups
by Frequency of Foreclosure Filings; 2000





Financial Distress and Foreclosure Density; 2000

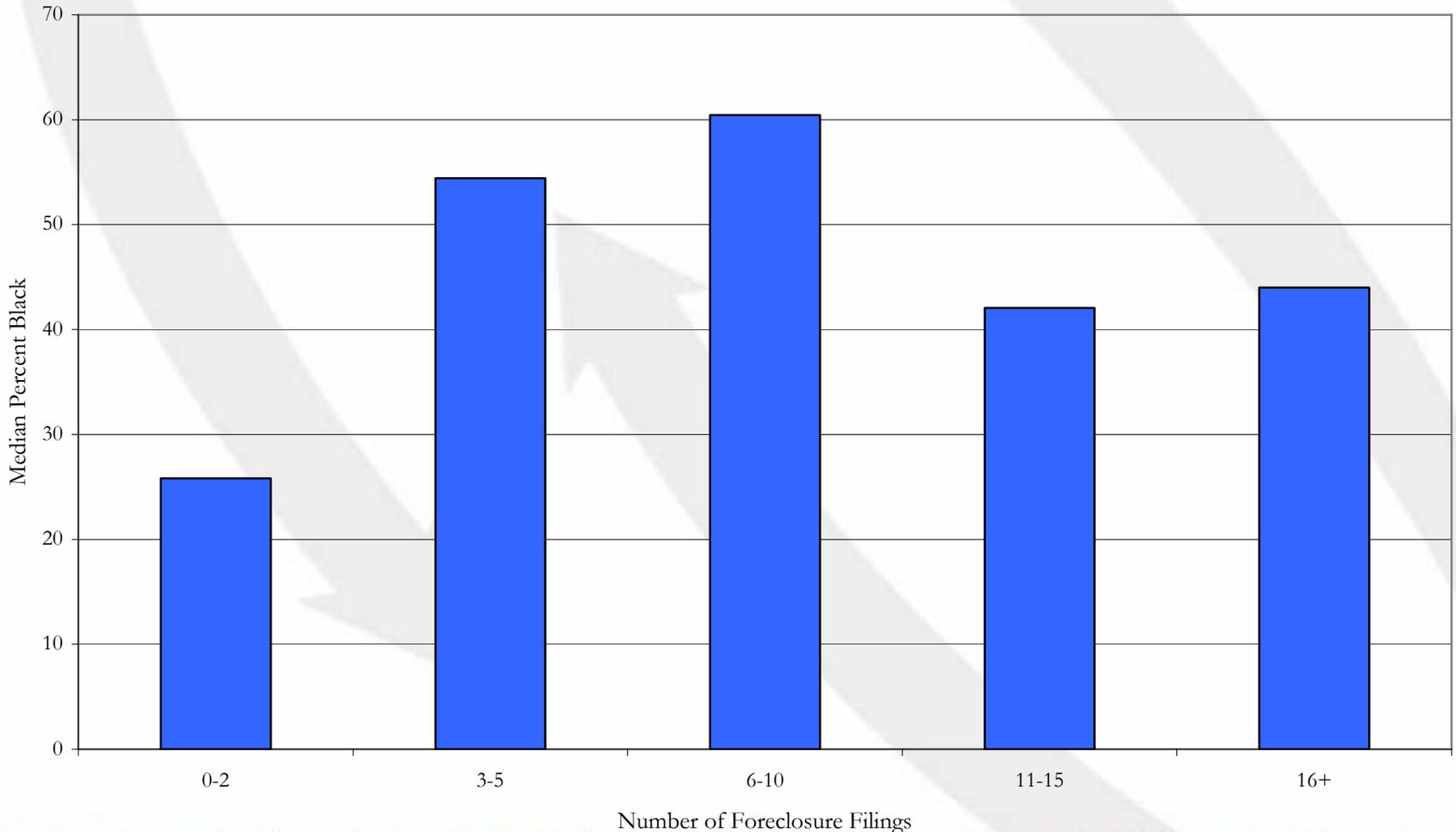
Median Percent of Over Occupied Households (with a mortgage) Spending More Than 50% of Income on Housing of Census Block Groups by Frequency of Foreclosure Filings; 2000





Percent Black and Foreclosure Density; 2000

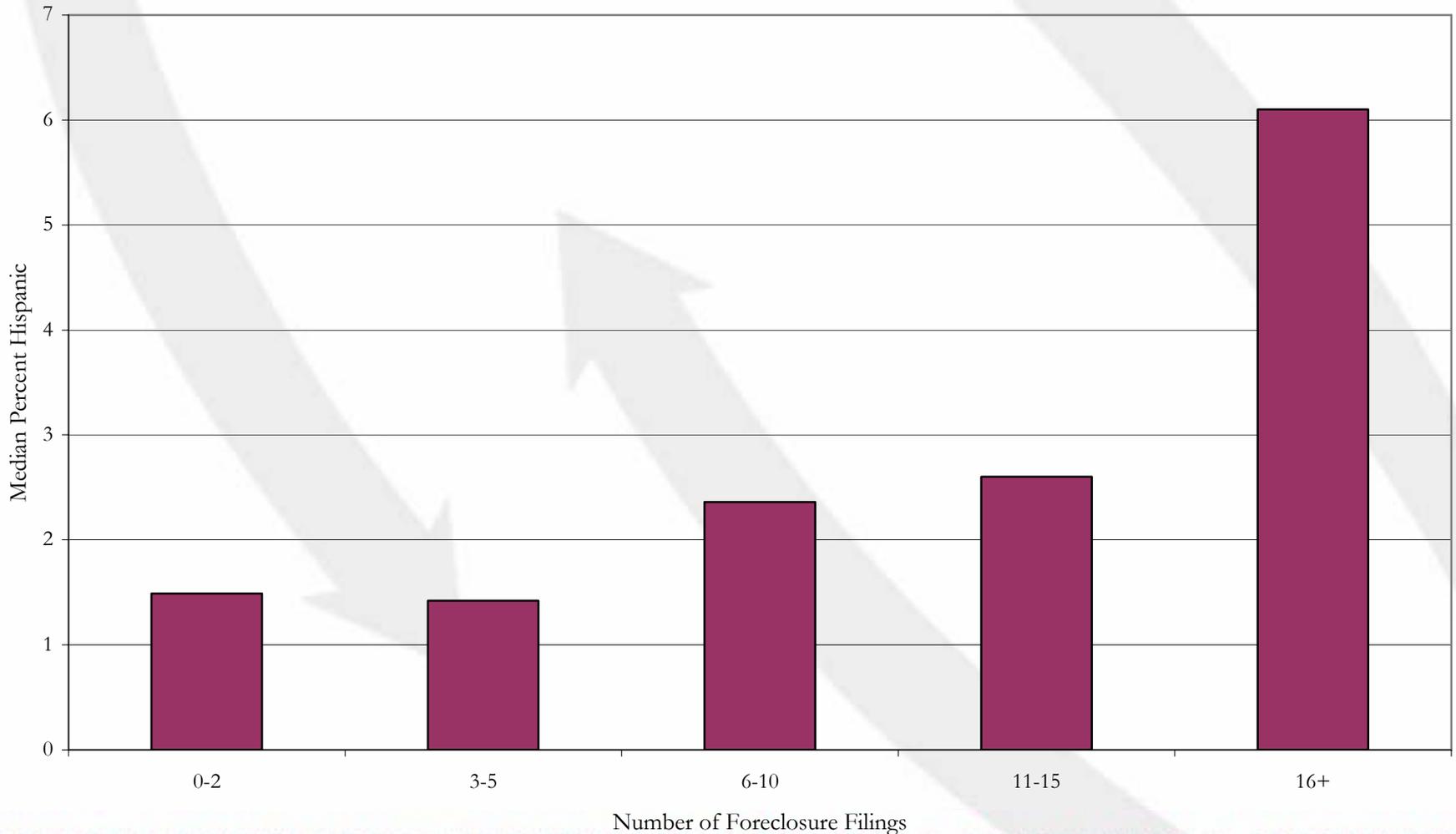
Median Percent Black of Census Block Groups
by Frequency of Foreclosure Filings; 2000





Percent Hispanic and Foreclosure Density; 2000

Median Percent Hispanic of Census Block Groups by
Frequency of Foreclosure Filings; 2000





Number of Mortgage Foreclosures Within 1/8th of a Mile and 1 Year of Sales; 2001-2003



- Number of foreclosures around the sale is transformed into a natural logarithm
- Fixed-effects multiple regression model using characteristics of the sale property as well as census tract location to predict sale price
- Tested various distances (e.g., $1/8^{\text{th}}$, $1/4$, $3/8^{\text{th}}$ and $1/2$ mile) and time periods (quarterly dating back three years) for foreclosure filings
- Estimated sale price



In general, each foreclosure within 1/8th of a mile and 1 year prior to a sale reduces the sale price by 1%

DISTANCE, YEAR	2001	2002	2003	2001-2	2002-3	2001-3
1/8 mile, yr1	-0.00752 * 0.001469	-0.01179 * 0.001374	-0.0079 * 0.00129	-0.01067 * 0.000982	-0.0093 * 0.000922	-0.009847* 0.0007682
Adjusted R2	0.6075	0.6201	0.6273	0.6114	0.6242	0.6186
Observations	24,796	25,196	27,622	49,992	52,818	77,614

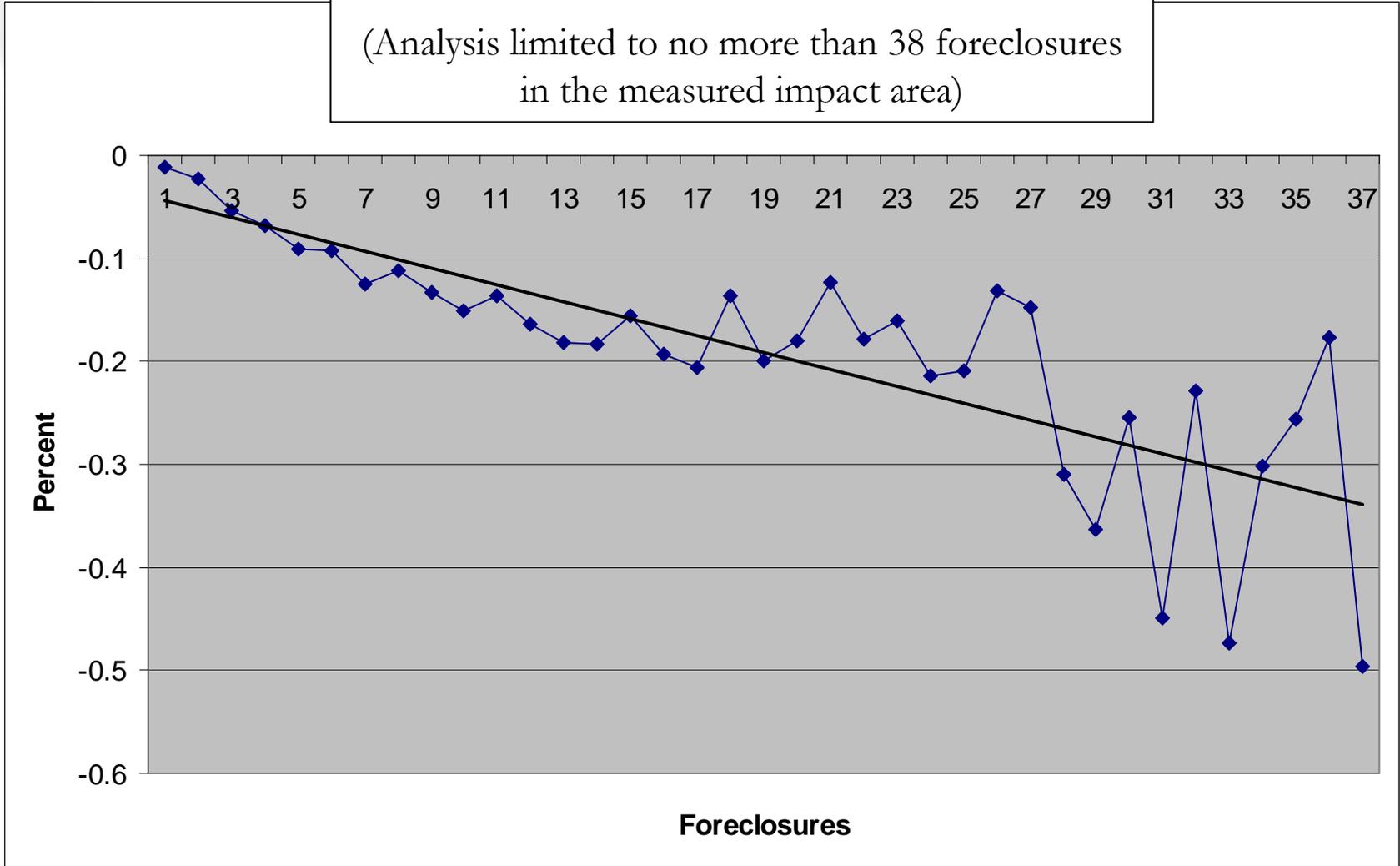
* = statistically significant

Adjusted R2 is a measure of how strong the explanatory model of price is and it ranges from 0 to 1, where 1 reflects the strongest statistical explanation. The “adjustment” statistically corrects for inter-correlation among variables used to predict price.



Linear: Increasing numbers of foreclosure filings have an independent, and significant negative impact on price

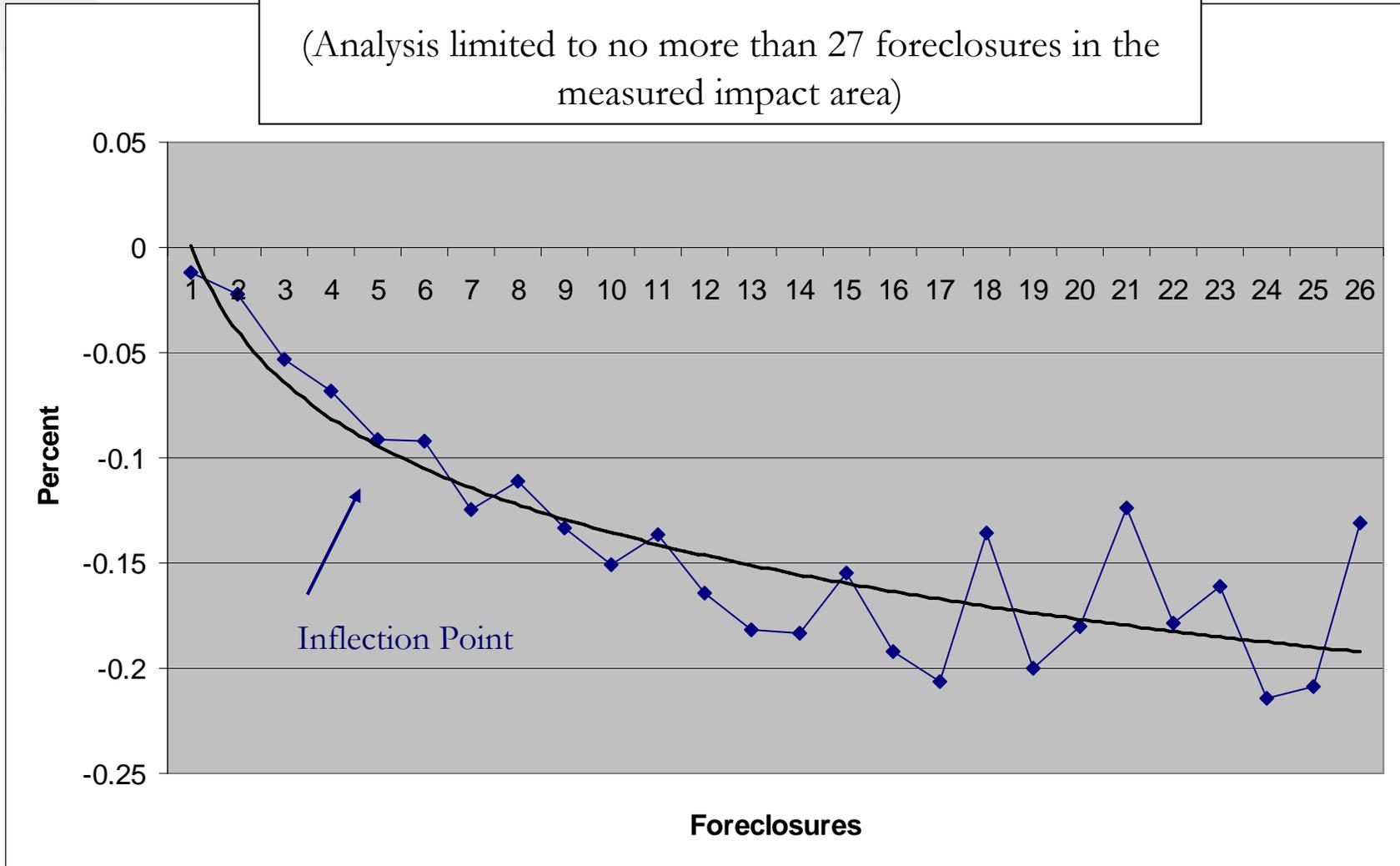
Cumulative Impact of Foreclosures on Price
(Analysis limited to no more than 38 foreclosures in the measured impact area)





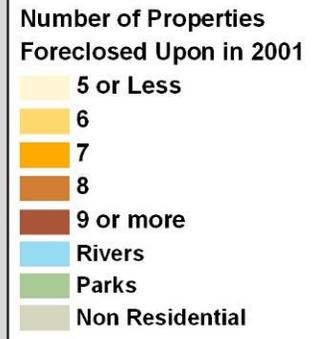
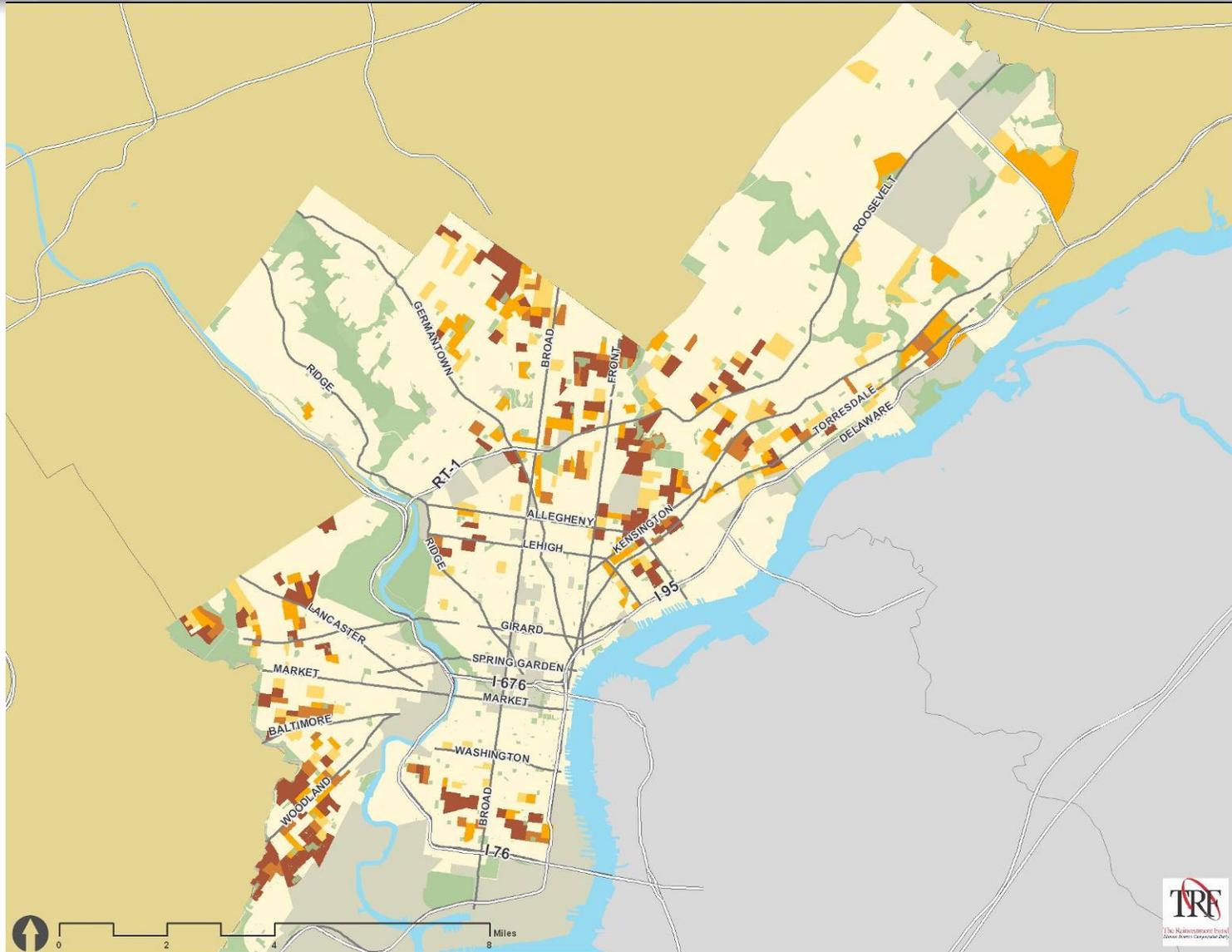
Quadratic: Increasing numbers of foreclosure filings have an independent, and significant negative impact on price

Cumulative (Quadratic) Impact of Foreclosures on Price
(Analysis limited to no more than 27 foreclosures in the measured impact area)



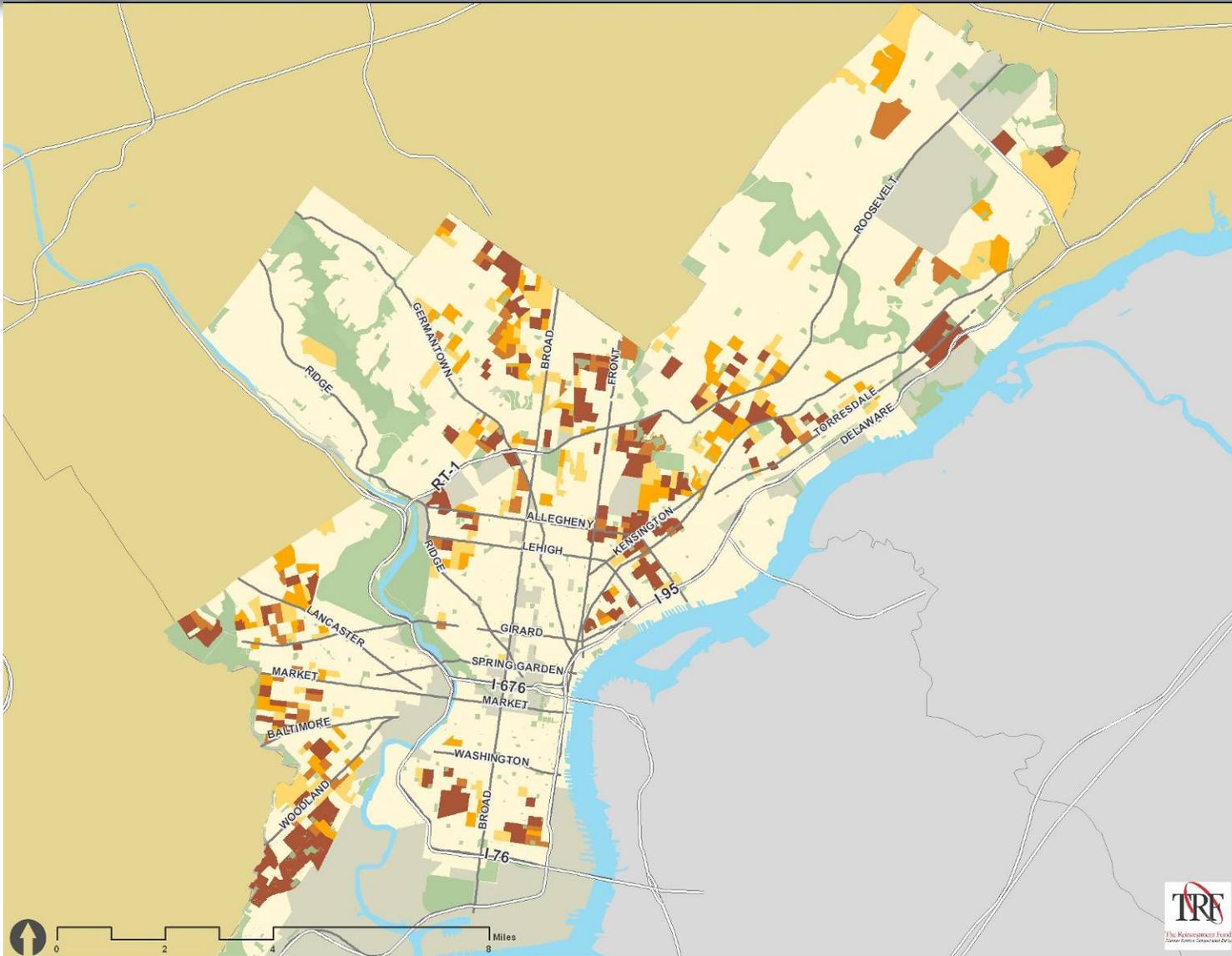


Areas where prices are highly impacted by foreclosures in 2001





Areas where prices are highly impacted by foreclosures in 2002



Number of Properties Foreclosed Upon in 2002

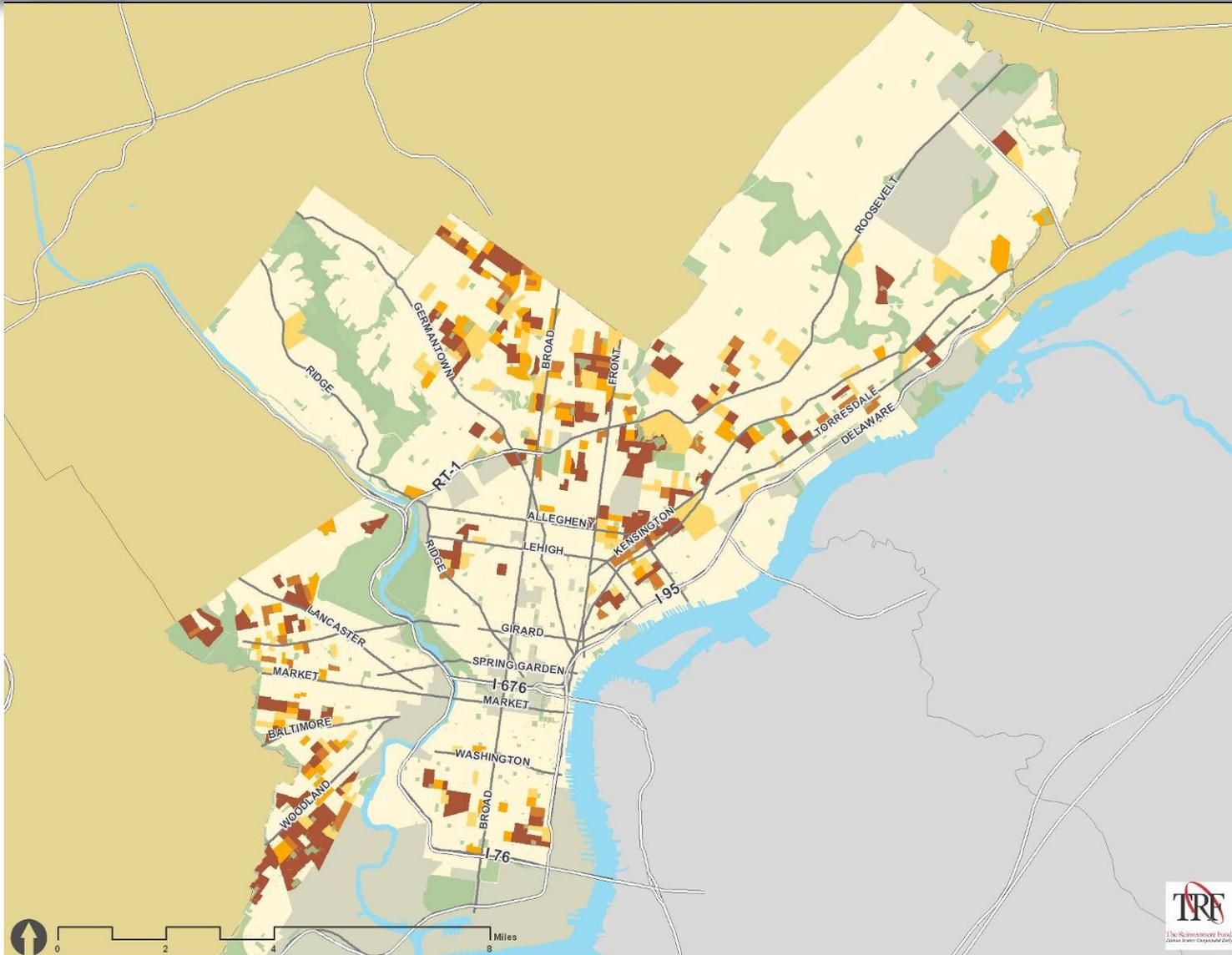
- 5 or Less
- 6
- 7
- 8
- 9 or More

- Rivers
- Parks
- Non Residential





Areas where prices are highly impacted by foreclosures in 2003



Number of Properties Foreclosed Upon in 2003

- 5 or Less
- 6
- 7
- 8
- 9 or more

- Rivers
- Parks
- Non Residential



The Reinvestment Fund
2004-2005 Annual Report

- Lenders and investors should require enhanced servicing practices that reach borrowers early in default and thus have the greatest likelihood of halting the transition from delinquency to default and foreclosure
- Consider a suitability standard for the provision of loan products to borrowers;
 - Reconsider when new hybrid loan products designed to make homeownership *seem* more affordable to low- and moderate-income families present greater community risk than can be justified by the potential return to the individual
- Create procedures so that all foreclosures within a county/state are centrally recorded and publicly available;
 - Include data on the parties to the foreclosure, including the address of the collateral property and identification of the mortgage (e.g., mortgage book/page, originating lender, date of origination, mortgage type and terms)

- In Pennsylvania, where there is an existing legislative framework and a nationally recognized emergency mortgage assistance program (Homeowners Emergency Mortgage Assistance Program - HEMAP), require lenders to provide the Commonwealth all Act 91 notices issued [Recommended by PA Department of Banking in 2005]
 - Map the location of homes subject to those notices
 - Affirmatively deploy approved counselors into particularly hard-hit communities
 - Investigate lenders with disproportionate numbers of foreclosure filings, unusually brief period between origination and Act 91 notice, and/or spatial clustering of foreclosure actions
- Strengthen state and federal enforcement efforts designed to limit asset-based lending
- Enhanced financial education opportunities in the middle and high school years