The Data-Driven Community

CHARLOTTE DATA DAY
Using Data for Community Development
University of North Carolina at Charlotte

March, 2013
The Reinvestment Fund builds wealth and opportunity for low-wealth communities and low and moderate income individuals through the promotion of socially and environmentally responsible development.

We achieve our mission through:

**Capital**
- Grants, loans and equity investments

**Knowledge**
- Information and policy analysis; PolicyMap & Policy Solutions

**Innovation**
- Products, markets and strategic partnerships
Profile of TRF

- Founded in 1985
- Over $1.2 billion in cumulative investments
- Primary Geography: Mid-Atlantic Region; offices in Philadelphia, and Baltimore, MD
- $661 million in capital under management
- CY 2012: $120.3 million in loans and investments (n=87)
- Since inception, more than:
  - 19,859 housing units created, renovated or preserved (63% renter occupied)
  - 10,361 child care slots created or preserved
  - 36,481 charter school slots created or preserved
  - 10.6 million square feet of commercial space created, renovated or preserved
  - 617 businesses
  - 4.7 Annual MWh energy created or conserved

(As of 2/28/2013)
TRF’s Lines of Business

- TRF Lending
  - Housing (owner and renter)
  - Commercial Real Estate
    - Charter Schools
    - Day Care Centers
    - Arts & Culture Spaces
  - Businesses
  - Food Retail
  - Energy Sustainability
  - NMTC
- TRF Development Partners
- TRF PolicyMap.com
- TRF Policy Solutions
Map of Philadelphia with The Reinvestment Fund (Internal) and Estimated typical (median) income of a household between 2006-2010.

Estimated typical (median) income of a household between 2006-2010.

Estimated median household income in the past 12 months, as reported between 2006-2010. A household includes all the people who occupy a housing unit as their usual place of residence. Medians were suppressed in cases where the sample of the average was less than 10 of the unit that is being described (e.g., households, people, householders, etc.). Such areas are represented as having "Insufficient Data" in the map. ACS employs values to indicate top and bottom ranges of income. A value of $250,001 indicates a value of $250,000 or greater, whereas a value of $2,499 indicates a value of $2,500 or less. These data are mapped to the 2010 Census boundaries. For places and county sub-divisions, data were suppressed when there was more than 5% change in area between the 2000 and 2010 vintages. For census tracts and block groups, TRF employed bridge tables to relate 2010 census tracts to 2000 census tracts. Geographies where data have been suppressed are represented as having "Insufficient Data."

Legend

Year
2010
Variable
$

- Insufficient Data
- $2,500 or less
- $2,501 - $37,500
- $37,501 - $45,000
- $45,001 - $55,000
- $55,001 - $75,000
- $75,001 or more

Shaded by: Census Tract
Source: Census

Sites
- The Reinvestment Fund (Internal)
  TRF Programs
  - Commercial Real Estate
  - Community Facilities
  - Energy
  - Housing
  - Private Equity
  - Small Business
  - Supermarkets

PolicyMap is a service of The Reinvestment Fund
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Legend

Year
2010
Variable
$

- Insufficient Data
- $32,500 or less
- $32,501 - $37,500
- $37,501 - $45,000
- $45,001 - $50,000
- $50,001 - $75,000
- $75,001 or more

Shaded by: Census Tract
Source: Census

Sites

- The Reinvestment Fund (Internal)
  Project Type
  Grocery Store
Government officials and nonprofit leaders who administer programs and distribute resources must frequently rely on incomplete and untimely data on the communities for which they are responsible.
Today’s challenges are to:

- Begin to think about issues and concepts in terms of data, variables and space;
- Learn about a variety of tools that help you make that translation and access the data;
- Recognize that there is no perfect solution – but there is an informed solution.

“The perfect is the enemy of the good.”
\[ \hat{\rho} = \frac{\sum_{i=1}^{N} x_i y_i - \frac{\sum_{i=1}^{N} x_i \sum_{i=1}^{N} y_i}{N}}{\sqrt{\left(\sum_{i=1}^{N} x_i^2 - \left(\frac{\sum_{i=1}^{N} x_i}{N}\right)^2\right) \left(\sum_{i=1}^{N} y_i^2 - \left(\frac{\sum_{i=1}^{N} y_i}{N}\right)^2\right)}} \]
TRF’s Market Value Analysis
Market Value Analysis (MVA)

The Market Value Analysis (MVA) is a tool designed to assist the private market and government officials to identify and comprehend the various elements of local real estate markets. It is based fundamentally on local administrative data sources.

By using an MVA, public sector officials and private market actors can more precisely craft intervention strategies in weak markets and support sustainable growth in stronger market segments.
Who is using the MVA?

TRF has done this work under contract to cities, states, foundations and other intermediaries in places including:

- City of Philadelphia, PA
- City of Wilmington, DE
- City of Newark, NJ (and an additional 8 regions across the state)
- District of Columbia
- City of Baltimore, MD
- City of San Antonio, TX
- City of Pittsburgh, PA
- City of Detroit
- Reading, PA and surrounding townships
- City of New Orleans, LA
- Burlington County (NJ) “Riverline Towns” (in process)
- City of Houston, TX (in process)
- City of Milwaukee, WI (in process)
- City of St Louis (in process)
TRF’s MVA Process

Our Normative Assumptions when Analyzing Markets:

- Public subsidy is scarce and it alone cannot create a market;
- Public subsidy must be used to leverage, or clear a path, for private investment;
- In distressed markets, invest into strength (e.g., major institution of place, transportation hub, environmental amenities) – “Build from Strength”;
- All parts of a city are customers of the services and resources that it has to offer;
  - Government action is tailored to the market conditions;
- Decisions to invest and/or deploy governmental programs must be based on objectively gathered data and sound quantitative and qualitative analysis.
Preparing the MVA

1. Take all of the data layers and geocode to Census block groups.
2. Inspect and validate those data layers.
3. Using a statistical cluster analysis, identify areas that share a common pattern of characteristics.
4. Map the result.
5. Visually inspect areas for conformity with the statistical/spatial representation.
6. Re-solve and re-inspect until we achieve an accurate representation.
Composite Vacancy Factor

Vacancy Factor for 2008 MVA
Vac Lot Area: 5yr+ Tax Delinq: Demolition06/07;PWD susp+shutoff06/07

- 0.00 - 1.00
- 1.01 - 4.00
- 4.01 - 9.00
- 9.01 - 15.00
- 15.01 - 27.81
- 50 Props or less Acc to BRT
## Market Cluster Characteristics

### Market Value Analysis 2007/2008

<table>
<thead>
<tr>
<th>Regional Choice/ High Value</th>
<th>Dark Purple</th>
<th>Medium Purple</th>
<th>Light Purple</th>
<th>Steady</th>
<th>Light Blue</th>
<th>Transitional</th>
<th>Light Yellow</th>
<th>Dark Yellow</th>
<th>Distressed</th>
<th>City Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Median</td>
<td>$960,450</td>
<td>$550,000</td>
<td>$351,250</td>
<td>$220,000</td>
<td>$171,000</td>
<td>$124,000</td>
<td>$80,000</td>
<td>$49,925</td>
<td>$28,875</td>
<td>$105,900</td>
</tr>
<tr>
<td>Mean</td>
<td>$928,670</td>
<td>$576,436</td>
<td>$360,387</td>
<td>$224,727</td>
<td>$179,421</td>
<td>$125,974</td>
<td>$82,226</td>
<td>$50,325</td>
<td>$27,153</td>
<td>$137,701</td>
</tr>
<tr>
<td>Coefficient of Variance of Sales price 0607</td>
<td>0.47</td>
<td>0.54</td>
<td>0.38</td>
<td>0.28</td>
<td>0.28</td>
<td>0.29</td>
<td>0.41</td>
<td>0.45</td>
<td>0.55</td>
<td>0.42</td>
</tr>
<tr>
<td>Vacancy factor</td>
<td>0.4</td>
<td>0.3</td>
<td>0.6</td>
<td>1.1</td>
<td>1.2</td>
<td>1.9</td>
<td>3.2</td>
<td>4.3</td>
<td>9.5</td>
<td>2.9</td>
</tr>
<tr>
<td>Foreclosures as a percent of sales 0607</td>
<td>12.5</td>
<td>4.4</td>
<td>7.7</td>
<td>14.6</td>
<td>29.1</td>
<td>27.4</td>
<td>39.2</td>
<td>4.3</td>
<td>27.1</td>
<td>27.5</td>
</tr>
<tr>
<td>Percent Owner Occupied 2007; Claritas</td>
<td>90.3</td>
<td>29.9</td>
<td>49.8</td>
<td>64.0</td>
<td>62.5</td>
<td>76.9</td>
<td>68.5</td>
<td>6.1</td>
<td>63.6</td>
<td>62.3</td>
</tr>
<tr>
<td>Percent Commercial or Stores with Dwellings; (BRT cat 3,4)</td>
<td>4.4</td>
<td>6.1</td>
<td>4.3</td>
<td>3.2</td>
<td>2.9</td>
<td>2.8</td>
<td>3.4</td>
<td>0.0</td>
<td>4.0</td>
<td>3.7</td>
</tr>
<tr>
<td>Percent of Residential Properties Tax Abated or Built 2000-2008; BRT</td>
<td>3.4</td>
<td>4.5</td>
<td>3.7</td>
<td>0.7</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.9</td>
<td>0.0</td>
</tr>
<tr>
<td>Percent of Rental Units that are PHA owned</td>
<td>0.0</td>
<td>0.0</td>
<td>0.7</td>
<td>8.4</td>
<td>0.0</td>
<td>0.8</td>
<td>1.0</td>
<td>0.8</td>
<td>3.2</td>
<td>0.0</td>
</tr>
<tr>
<td>Housing Units per Acre</td>
<td>0.8</td>
<td>18.9</td>
<td>13.5</td>
<td>10.5</td>
<td>9.5</td>
<td>12.6</td>
<td>12.6</td>
<td>12.7</td>
<td>13.1</td>
<td>11.2</td>
</tr>
</tbody>
</table>

### Notes
- Median and Mean values are provided for each cluster.
- Coefficient of Variance of Sales price reflects the variability of sales prices within each cluster.
- Foreclosures as a percent of sales indicate the rate of foreclosures within each cluster.
- Percent Owner Occupied reflects the proportion of properties owned by their occupiers.
- Percent Commercial or Stores with Dwellings indicates the percentage of commercial properties with residential units.
- Percent of Residential Properties Tax Abated or Built signifies the proportion of tax-abated or built properties.
- Percent of Rental Units that are PHA owned shows the percentage of rental units owned by PHA.
- Housing Units per Acre gives the number of housing units per acre.
Using PolicyMap.com, what else do we know about the various housing market types in the City of Philadelphia?

- Equitable/adequate access to ample food retail?
- Access to good public schools?
- Concentration of public housing developments?
- Access to bricks-and-mortar bank branches?
The Reinvestment Fund
Policy Solutions

For questions please contact:
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