



THE DETROIT NEIGHBORHOOD OPPORTUNITY INDEX

Mapping Trends and Existing Conditions in Detroit and the
Surrounding Region to Assist Development & Equity Efforts

Presentation to the Neighborhood Funders Group
Detroit, MI – July 10th 2014

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The Kirwan Institute for the Study of Race & Ethnicity

Opportunity Mapping to Support Community Development & Equity

There is a Map for That...



- Internal Capacity Building
 - Targeting resources
 - Designing policy and programs
 - Building capacity & collective knowledge
 - Tracking change
- External Capacity Building
 - Raising awareness (building external capacity)
 - To raise attention and awareness
 - To identify solutions
 - To call for systems change from various stakeholders

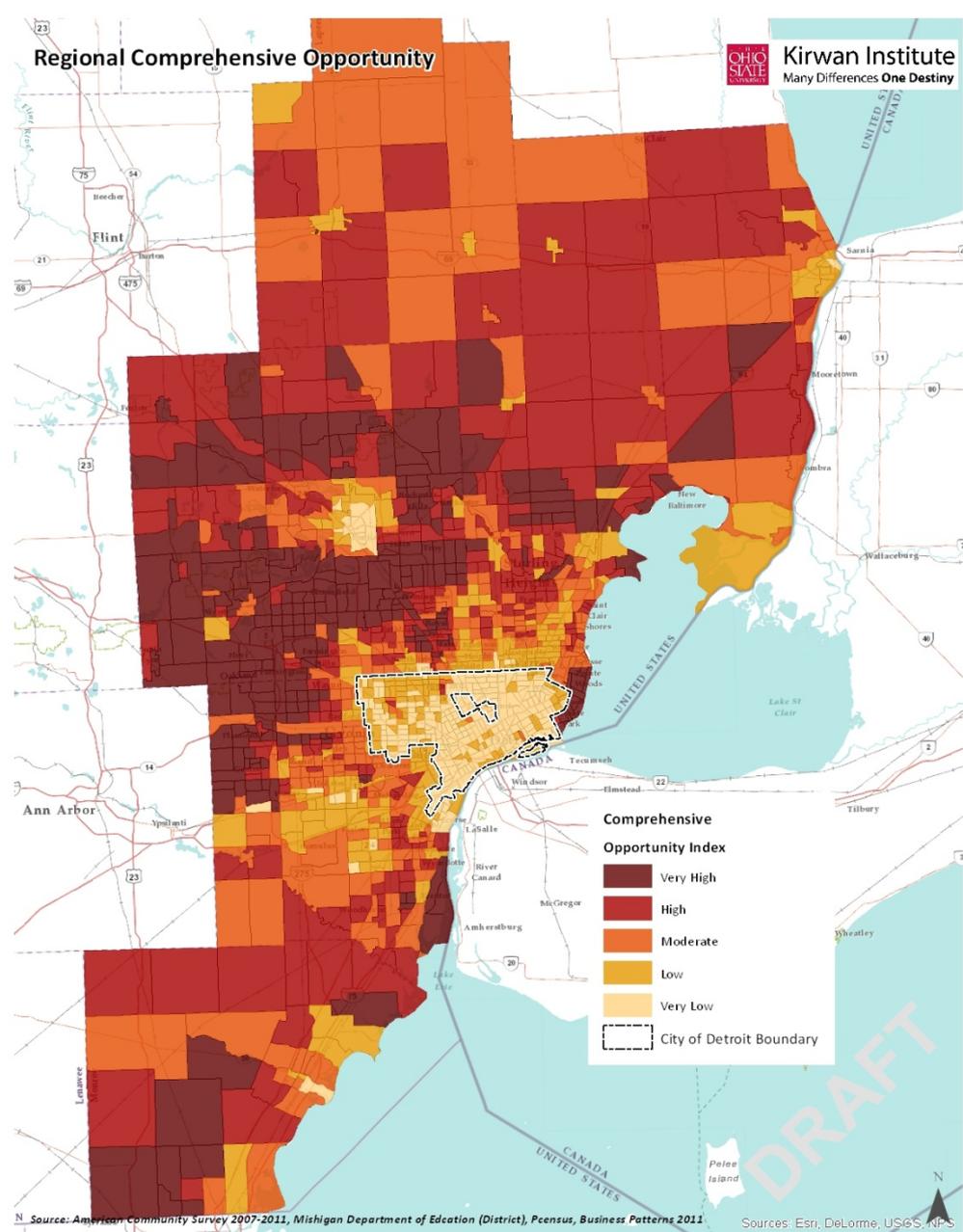
Regional Opportunity Index

This process resulted in a set of opportunity indicators representing three key elements of neighborhood opportunity: Education, Economy & Employment, and Neighborhood.

| Education | Economy & Employment | Neighborhood |
|--|---|---|
| <ul style="list-style-type: none">▪ Childhood Poverty (EDU1)▪ High School Dropout Rate(EDU2)▪ Persons 16-19 No High School Diploma, Unemployed (EDU3)▪ High school Completion(EDU4)▪ Reading Score (EDU5)▪ Math Score(EDU6)▪ Student Poverty(EDU7) | <ul style="list-style-type: none">▪ Public Assistance Rate(EE1)▪ Median Household Income(EE2)▪ Unemployment Rate (EE3)▪ Job Change (EE4) | <ul style="list-style-type: none">▪ Vacant Property (N1)▪ Property Values (N2)▪ Homeownership rates (N3)▪ Poverty Rates (N4)▪ Percentage Population change (N5) |

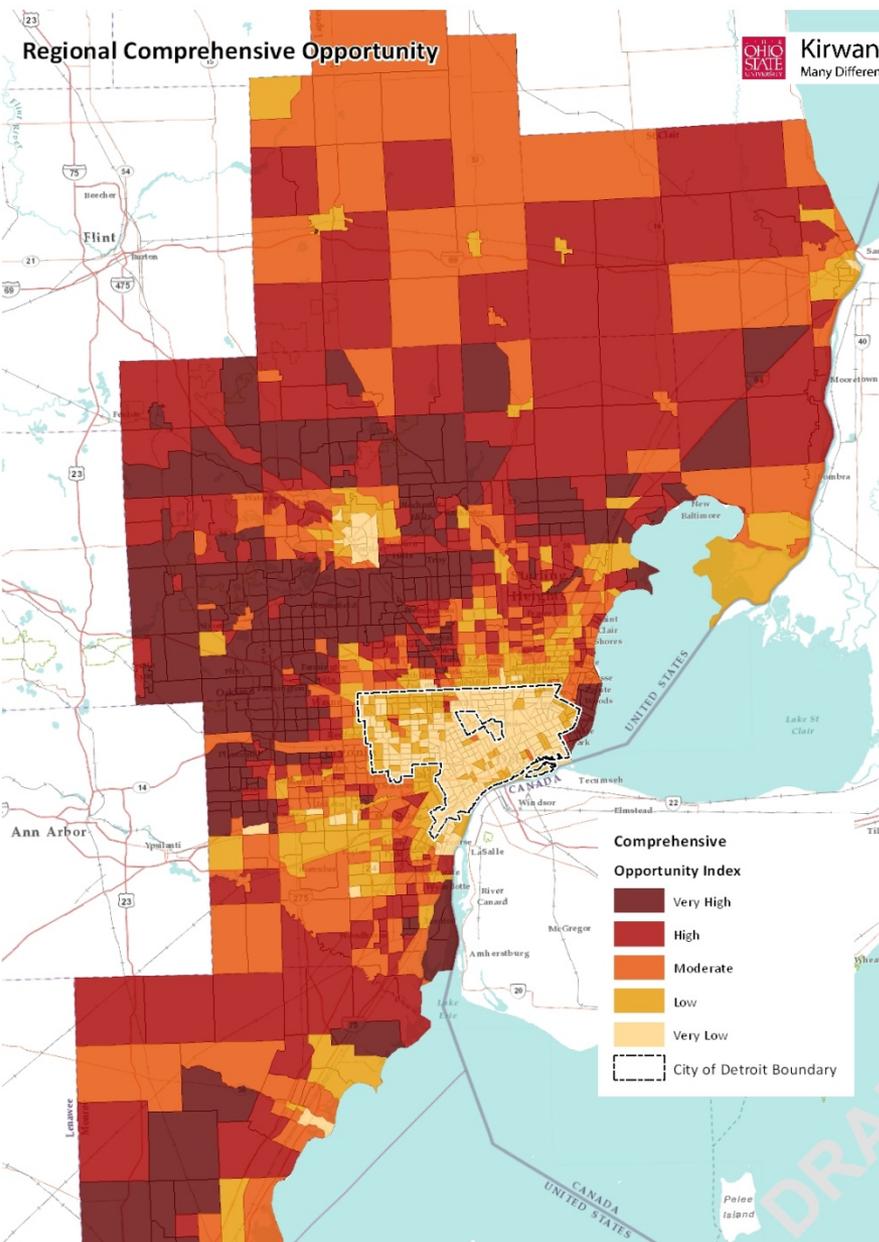
This map shows opportunity relative to the census tracts within the 5 counties of the Detroit Metropolitan Region. Data representing: **Education, Economy & Employment**, and **Neighborhood** were compiled into an index to represent access to opportunity.

The dark color represents highest opportunity while the lightest color represents lowest opportunity.



Regional Comprehensive Opportunity

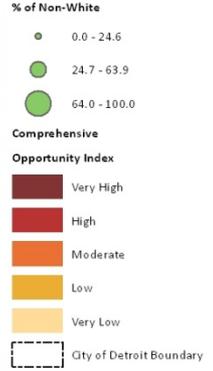
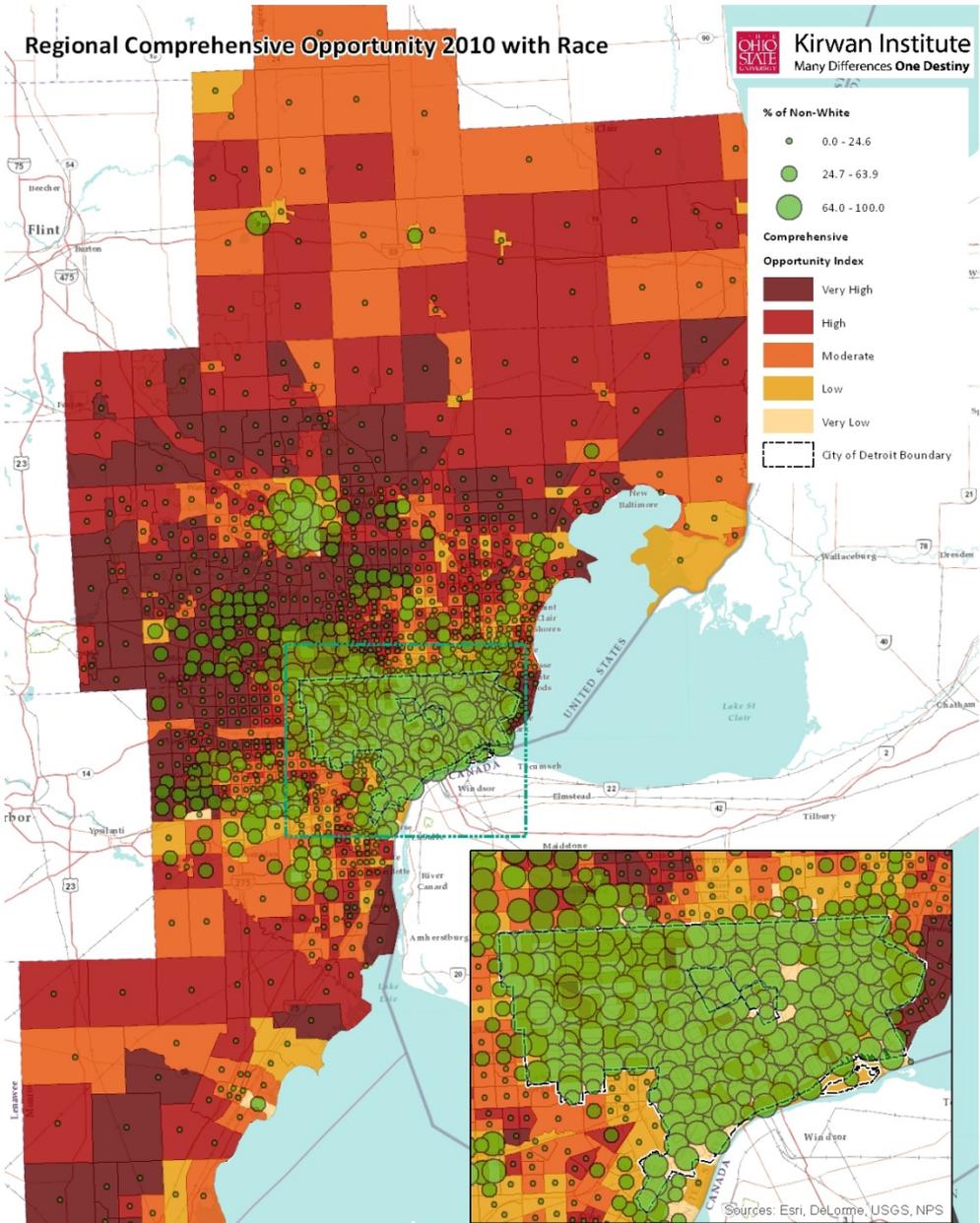
Kirwan
Many Differences



Source: American Community Survey 2007-2011, Michigan Department of Education (District), Pensus, Business Patterns 2011. Sources: Esri, DeLorme

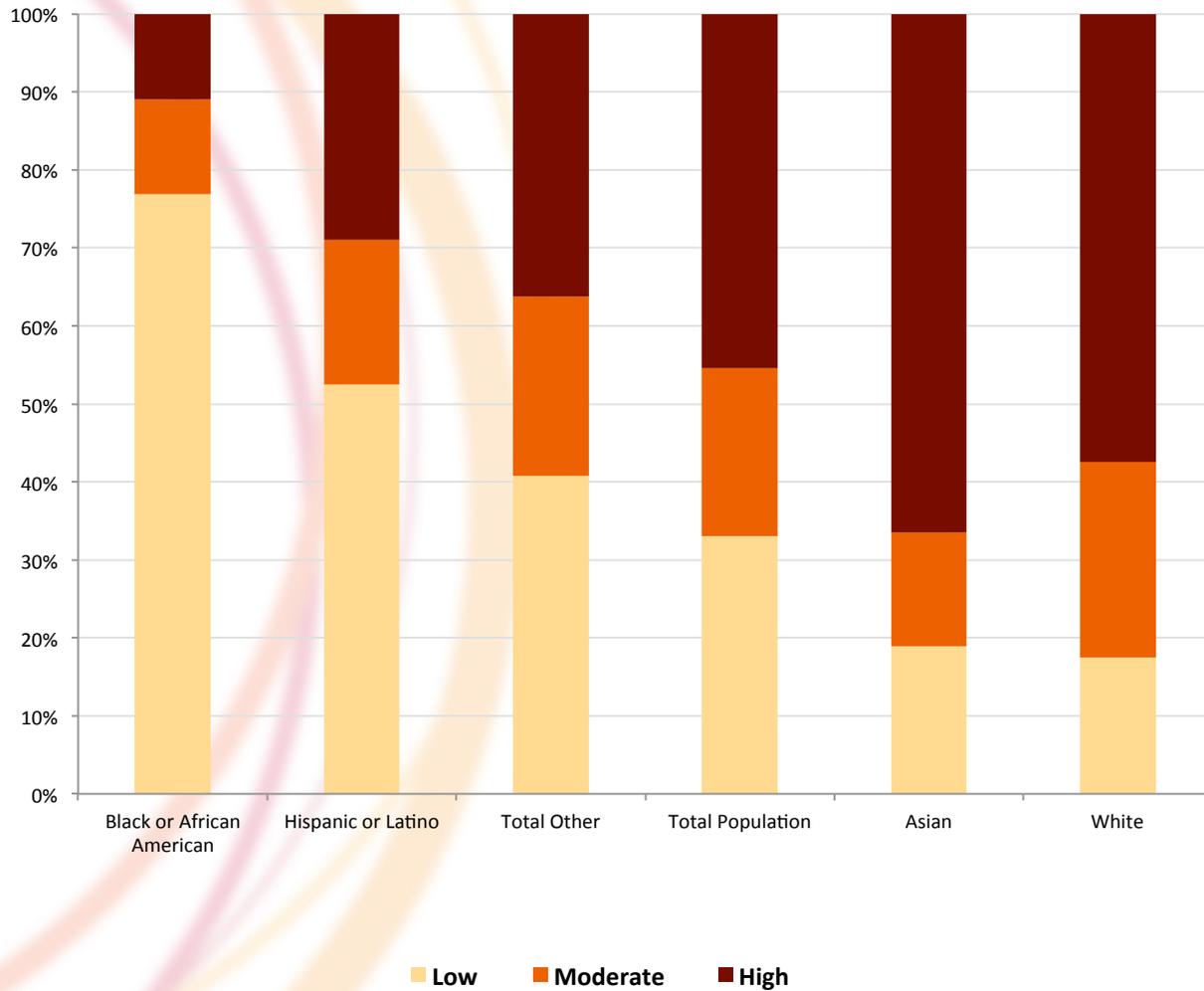
Regional Comprehensive Opportunity 2010 with Race

Kirwan Institute
Many Differences One Destiny

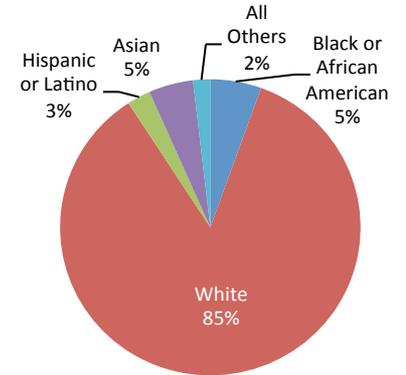


Source: American Community Survey 2007-2011, Michigan Department of Education (District), Pensus, Business Patterns 2011. Sources: Esri, DeLorme, USGS, NPS

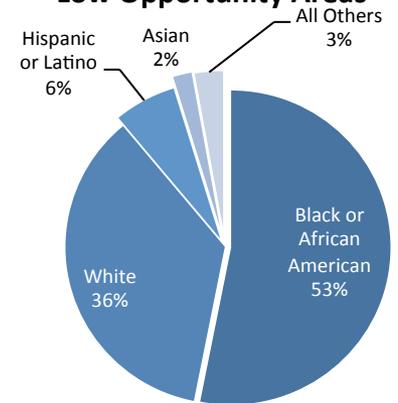
Race by Opportunity Index



High Opportunity Areas



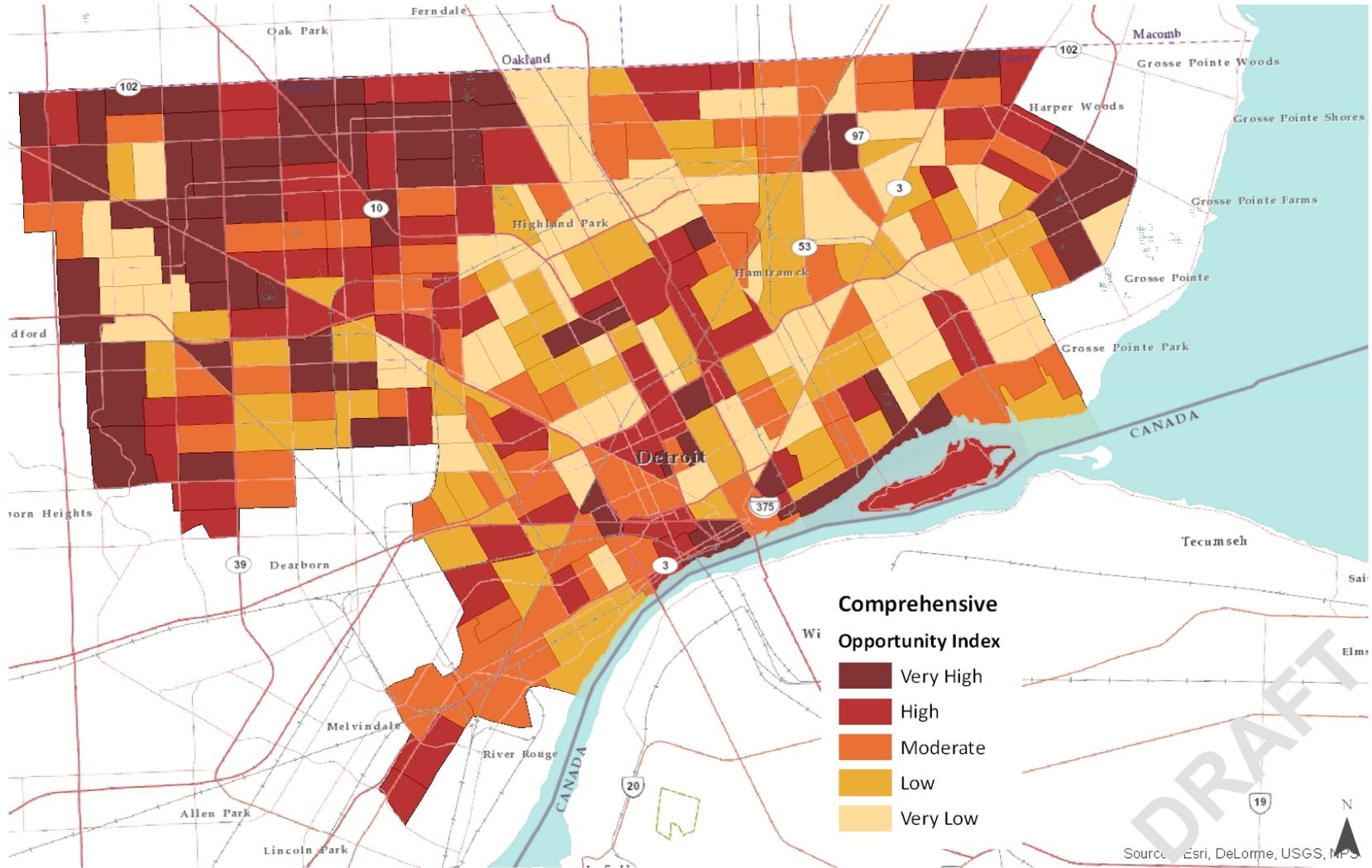
Low Opportunity Areas



Comprehensive Opportunity in the City of Detroit

This map illustrates the geography of Comprehensive Opportunity in city of Detroit, Michigan. Based on Education, Economy & Employment and Neighborhood, the map summarizes neighborhood performance relative to city averages for each set of indicators.

Source(s): Business Patterns 2011, MI Department of Education 2011(District), American Community Survey 2007-2011



Detroit: Assets and Opportunities

In response from advisory committee feedback, this map:

- Highlights the opportunity landscape in Detroit
 - Detroit is not monolithic
- Contains indicators that correspond with crucial programs
 - Where are investments working?
 - Where does new investment need to occur?



Detroit Opportunity Index

This process resulted in a set of opportunity indicators representing three key elements of neighborhood opportunity: Workforce Development & Job creation, Early Child Development, and City systems & Opportunity

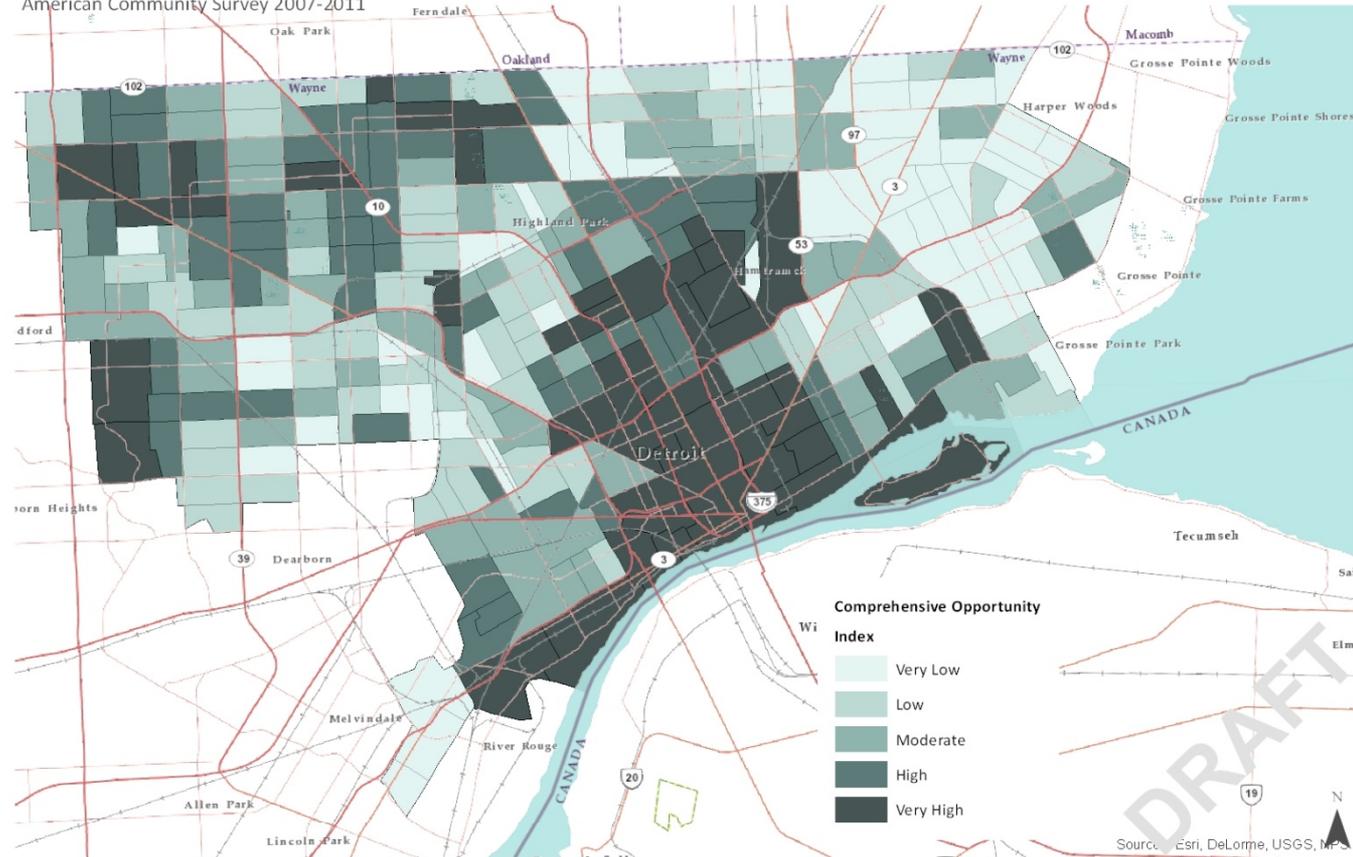
| Workforce Development & Job Creation | Early Child Development | City systems & Opportunity |
|---|--|--|
| <ul style="list-style-type: none">▪ Employment Status▪ Adult Education Attainment▪ Industry by Occupation: Number of jobs in fastest growing sectors of the region [90 percentile of job growth over past 5 years]▪ Employment Sector▪ Small Business Ownership | <ul style="list-style-type: none">▪ Reading Score▪ Math Score▪ Infant Mortality▪ Proximity to Community Centers▪ Proximity to Parks▪ Juvenile Crime Rate▪ Free-reduced Lunch | <ul style="list-style-type: none">▪ Public Transit Proximity▪ Means of Transportation to work▪ Automobile Access▪ Mean Commute Time |

This map shows assets and opportunity relative to the census tracts within City of Detroit. Data representing Workforce Development & Job creation, Early Child Development, and City systems & Opportunity was compiled into an index to represent access to asset and opportunity. The dark color represents the highest opportunity while the light color represents the lowest opportunity.

Asset and Opportunity - City of Detroit

This map illustrates the geography of Comprehensive Opportunity in city of Detroit, Michigan. Based on Workforce Development & Job Creation, Early Child Development, and City systems & Opportunity, the map summarizes neighborhood performance relative to city averages for each set of indicators.

Source(s): Business Patterns 2011, ESRI Business Analyst 2011, MI Department of Education 2011, NCES 2011, DEGC Nghbrhd Drill Down, American Community Survey 2007-2011

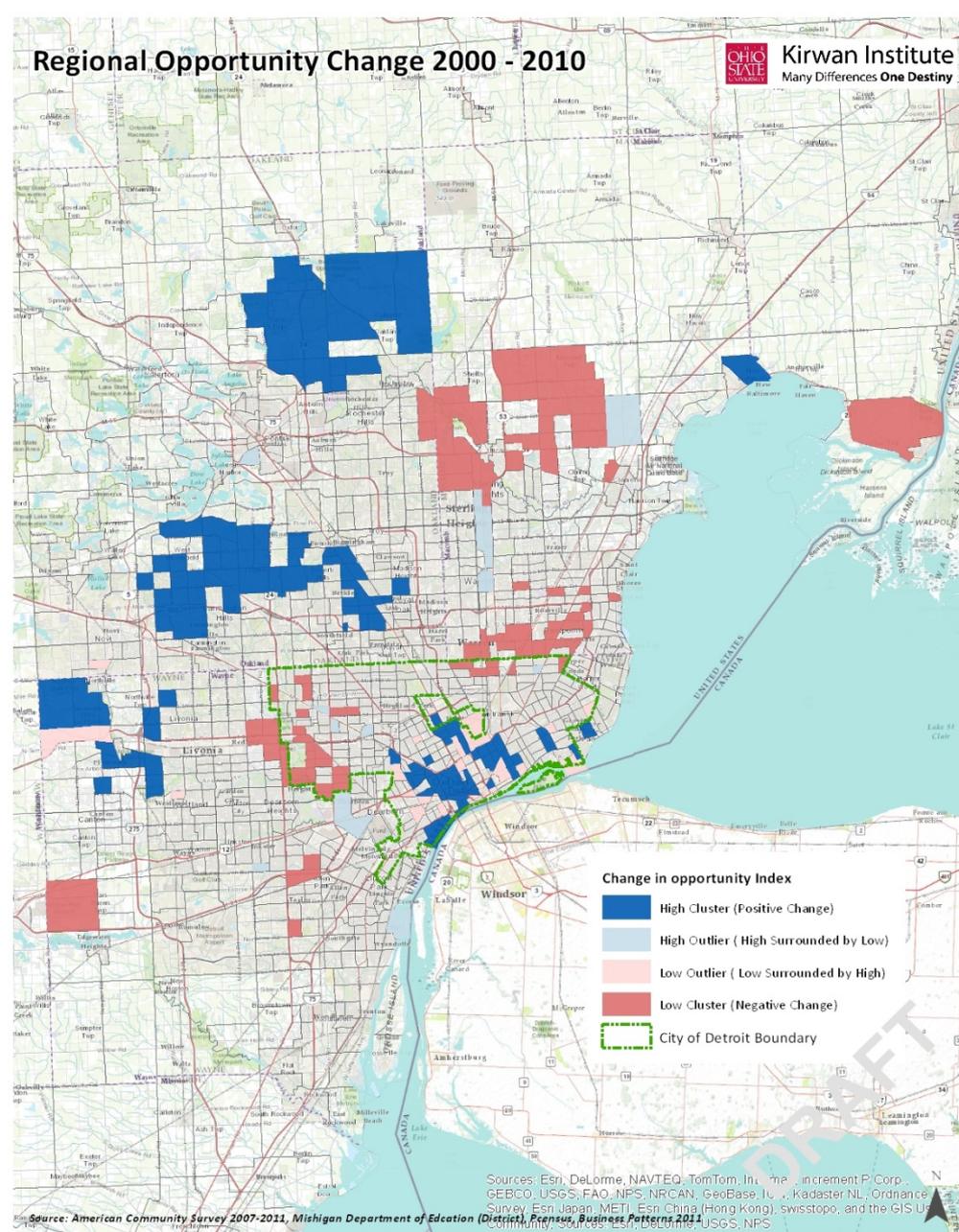


Regional Trends Index

This process resulted in a set of opportunity indicators representing how three key elements of neighborhood opportunity have been changed: Education, Economy & Employment, and Neighborhood.

| Education | Economy & Employment | Neighborhood |
|---|---|--|
| <ul style="list-style-type: none">▪ Childhood Poverty▪ High School Dropout Rate▪ Persons 16-19 No High School Diploma, Unemployed▪ High school Completion▪ Reading Score▪ Math Score▪ Student Poverty | <ul style="list-style-type: none">▪ Public Assistance Rate▪ Median Household Income▪ Unemployment Rate▪ Job Change | <ul style="list-style-type: none">▪ Vacant Property▪ Property Values▪ Homeownership rates▪ Poverty Rates▪ Percentage Population change |

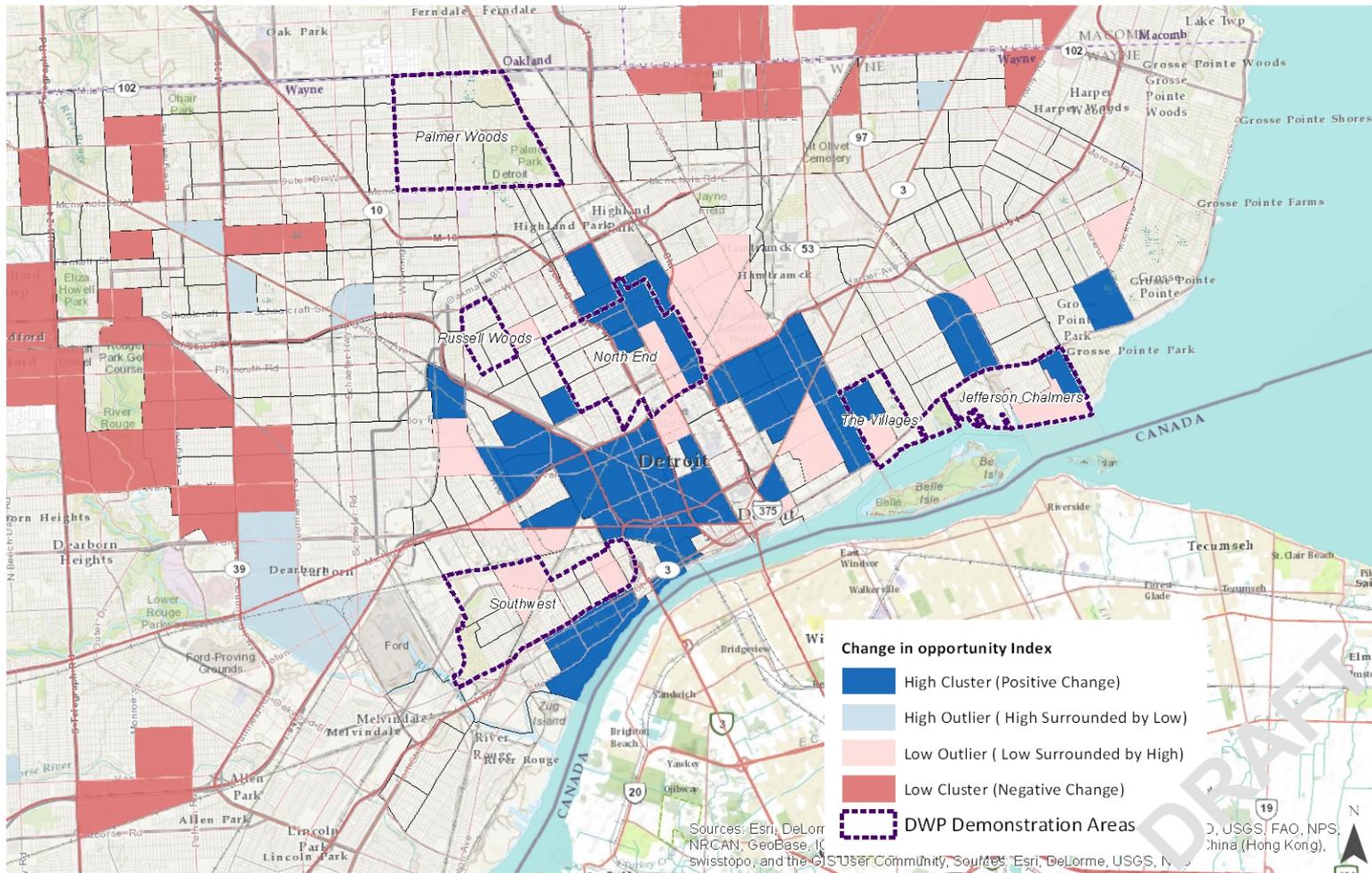
This map shows opportunity change relative to the census tracts within the 5 counties of the Detroit Metropolitan Region. Data representing Education, Economy & Employment, and Neighborhood was compiled into an index to represent access to opportunity from 2000 to 2010. Blue represents the positive change while red represents the negative change.



Comprehensive Change Opportunity in the City of Detroit with DWP Demonstration Areas

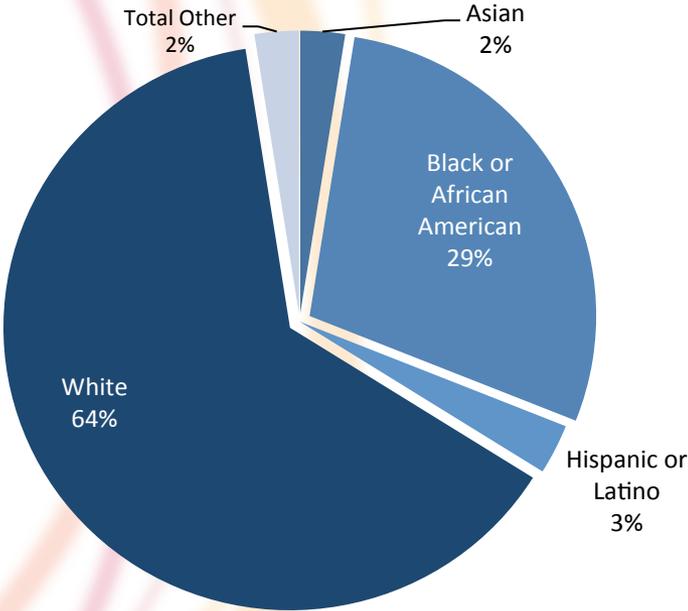
This map illustrates the geography of Comprehensive Opportunity in city of Detroit, Michigan. Based on Education, Economy & Employment and Neighborhood, the map summarizes neighborhood performance relative to city averages for each set of indicators.

Source(s): Business Patterns 2011, MI Department of Education 2011(District), American Community Survey 2007-2011

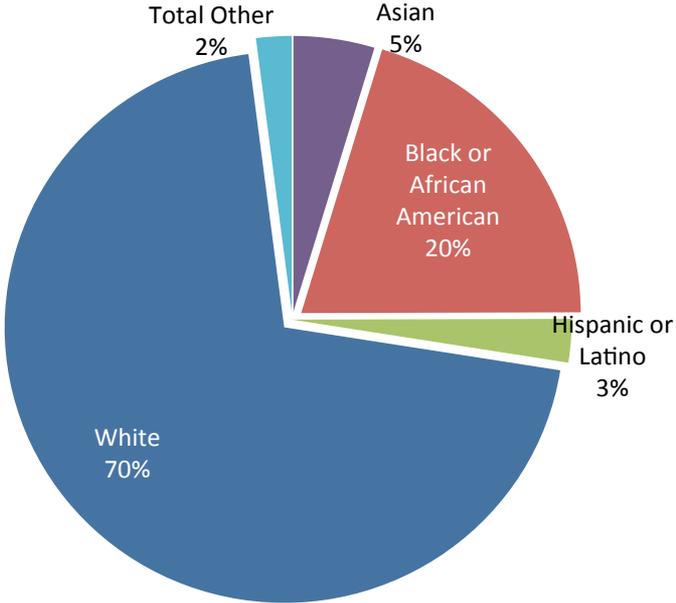


Who's living in improving and declining areas?

Low Cluster (Negative Change)

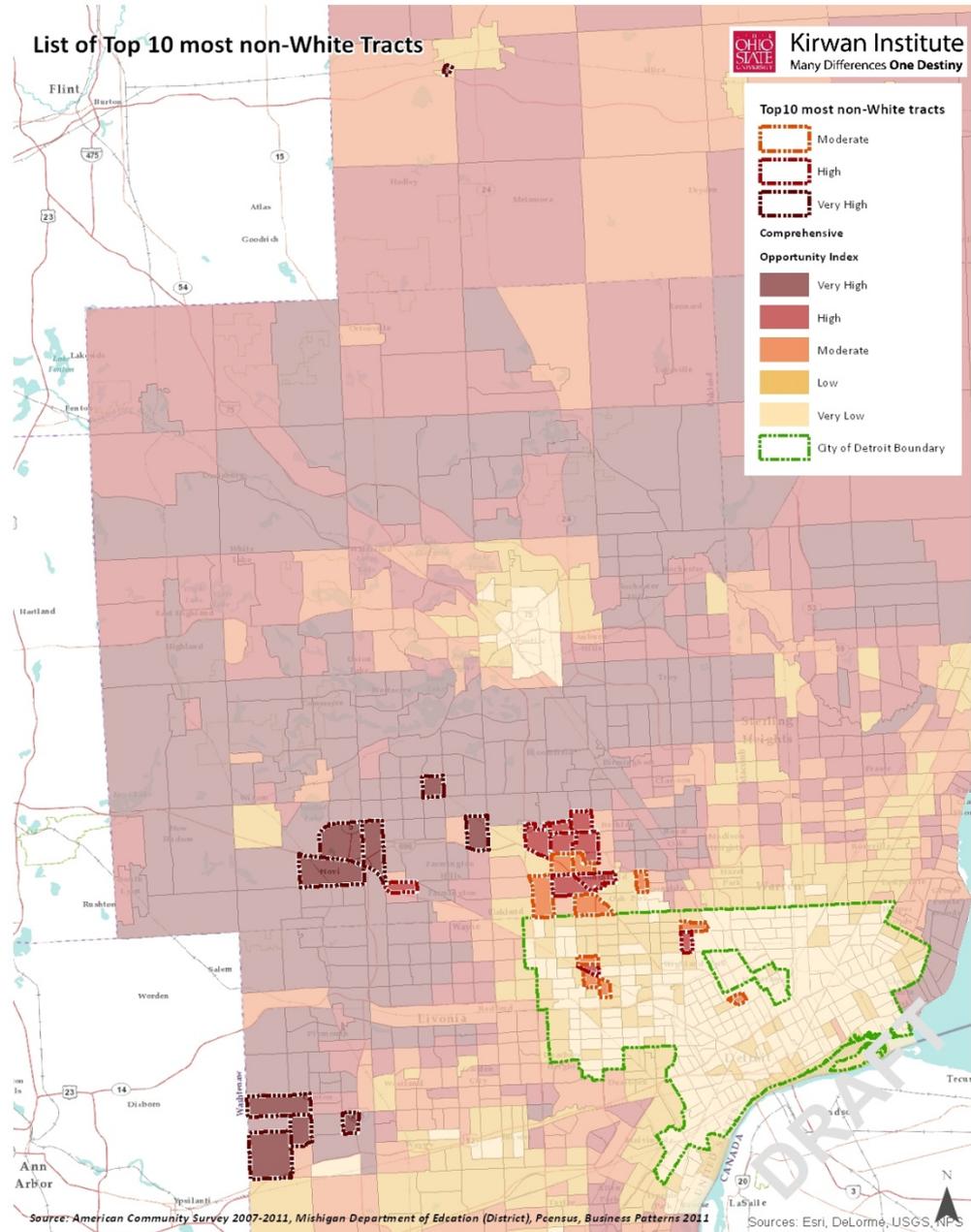


High Cluster (Positive Change)



List of Top 10 Most non-White Tracts

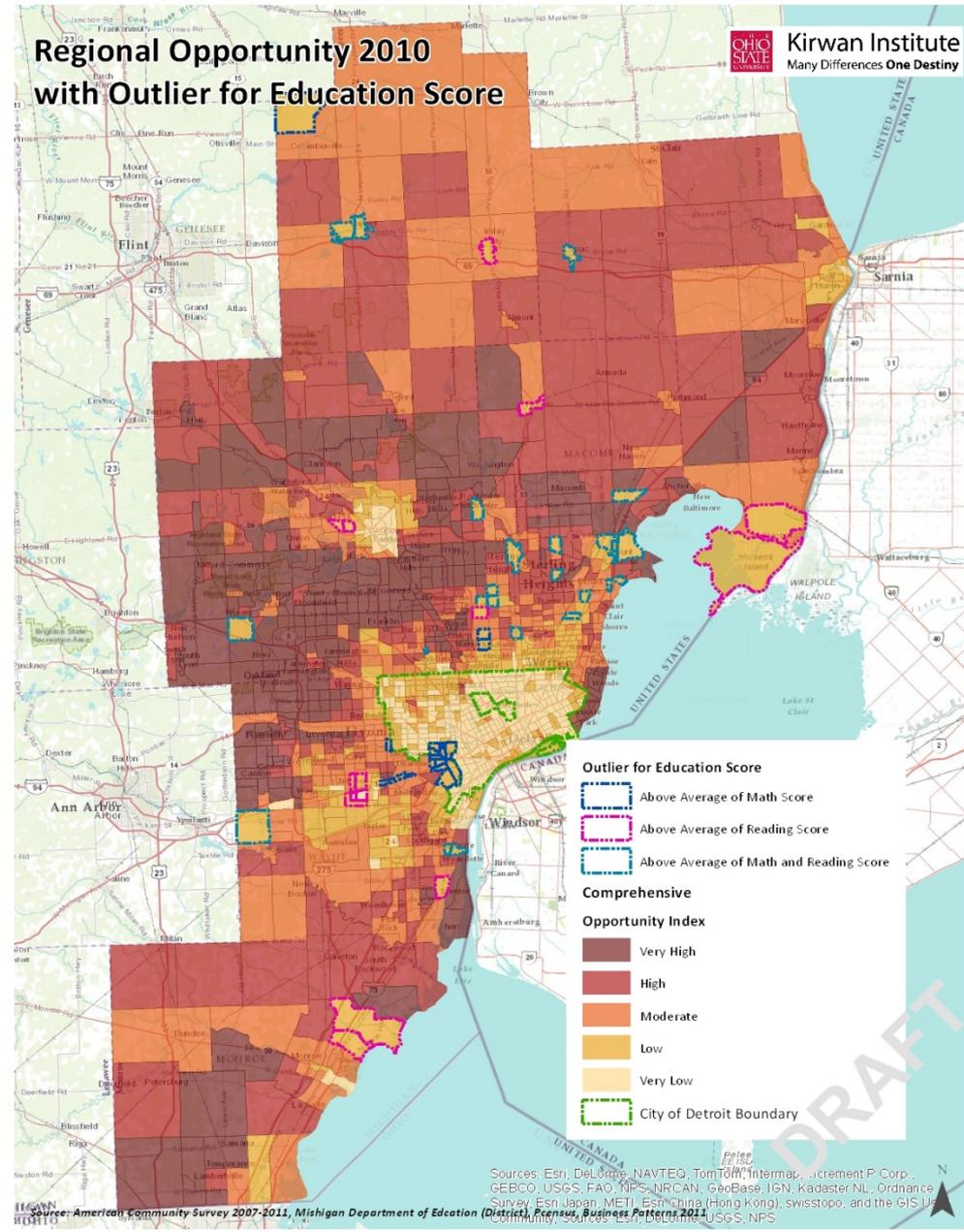
| Census Tract | Opportunity Index | % of Non-White | % of African American |
|--------------|-------------------|----------------|-----------------------|
| 26087336500 | Very High | 68.2 | 64.6 |
| 26163564700 | Very High | 45.7 | 19.8 |
| 26125166700 | Very High | 44.9 | 29.6 |
| 26163564402 | Very High | 41.5 | 8.8 |
| 26125168700 | Very High | 38.4 | 16.8 |
| 26125136000 | Very High | 37.3 | 13.9 |
| 26163564502 | Very High | 36.6 | 9.8 |
| 26125136600 | Very High | 36.5 | 6.4 |
| 26125157800 | Very High | 36.1 | 21.2 |
| 26163564504 | Very High | 35.1 | 11.4 |
| 26163538400 | High | 91.9 | 87.7 |
| 26163543000 | High | 90.6 | 88.7 |
| 26125162000 | High | 86.4 | 82.8 |
| 26125161200 | High | 78.5 | 73.3 |
| 26125161900 | High | 74.6 | 68.9 |
| 26125160800 | High | 73.9 | 69.4 |
| 26125160700 | High | 73.8 | 69.4 |
| 26125160000 | High | 66.3 | 60.9 |
| 26125160600 | High | 58.8 | 50.9 |
| 26125165200 | High | 57.3 | 17.7 |
| 26163542500 | Moderate | 96.7 | 93.5 |
| 26163542900 | Moderate | 93.8 | 90.5 |
| 26163543100 | Moderate | 92.6 | 89.1 |
| 26125162300 | Moderate | 91.8 | 88.1 |
| 26163532300 | Moderate | 88.4 | 83.4 |
| 26163538200 | Moderate | 88.0 | 83.4 |
| 26125161800 | Moderate | 85.5 | 81.4 |
| 26125171300 | Moderate | 81.8 | 77.4 |
| 26125161500 | Moderate | 81.8 | 77.3 |
| 26125161600 | Moderate | 81.0 | 73.0 |



Regional Opportunity 2010 with Outlier for Education Score

Methodology for the school/education data

- Each tract was assigned a value based on the School District whose centroids are within the tract's boundaries.





Investing in People



Investing in Places



Supporting Linkages

People, Places and Linkages: A Broader View of Community Development

Asset & Wealth Building

K 12 School Reform

Magnet Schools

Civic & Youth Engagement

Mentoring & Leadership Training

Job Training & Labor Force Development

Reentry Programs for Ex Offenders

Early Childhood Care & Education Services

Family Supportive Services

Vacant Land Redevelopment, Land Banking
& Blight Removal

Community Land Trusts & Housing
Stabilization

Community Development & Infrastructure
Investments

Coordinated Service Delivery for Service
Providers & Organizations

Foreclosure Prevention

Small Business Development & Business
Incubation

Community Health Investments & Fresh
Food Initiatives

Improving Infrastructure and Open Space

Community Crime Prevention & Supporting
Safescapes

Assuring Housing Mobility Through
Regional Housing Strategies

Supporting Fair Housing Enforcement

Supporting Inclusionary Housing
Development

Developing Transit Infrastructure

Pedestrian & Bicycle Infrastructure
Investments

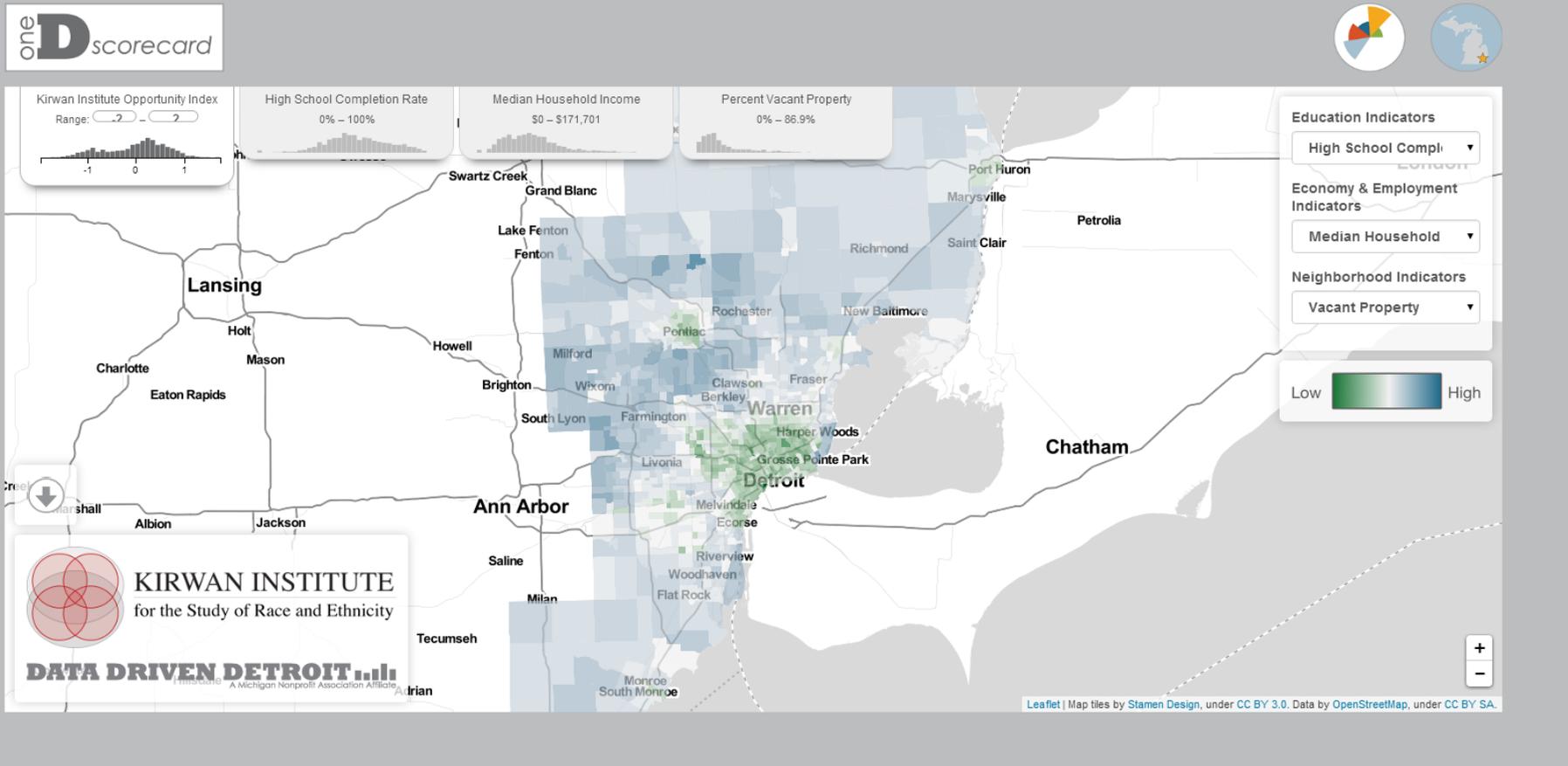
Supporting Strong Professional & Business
Networks

Transit Oriented Development

Bus Rapid Transit Systems

Developing Regional Greenways & Non
Motorized Paths

<http://onedscorecard.datadrivendetroit.org/one-d-map.html>



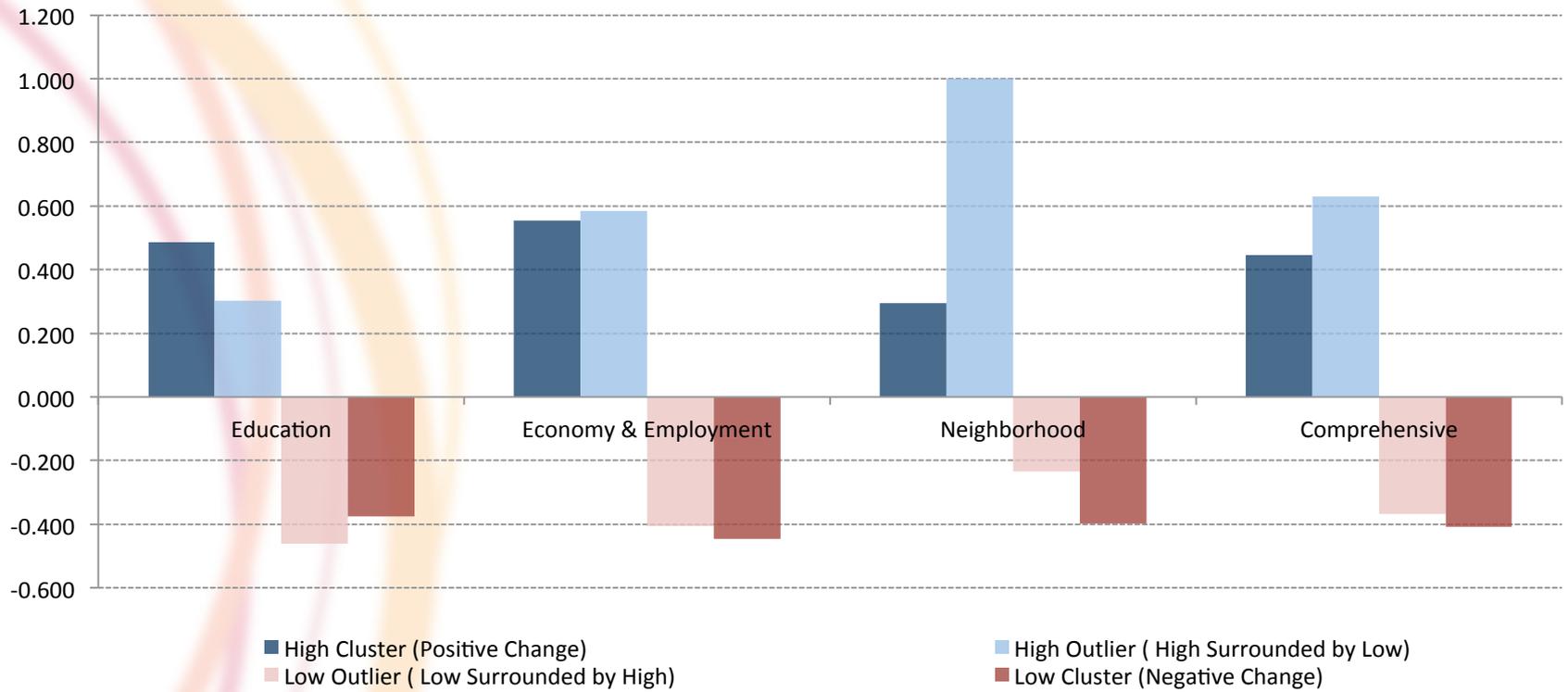
Addendum

Supplemental Slides & Information

Change Analysis: Methodology

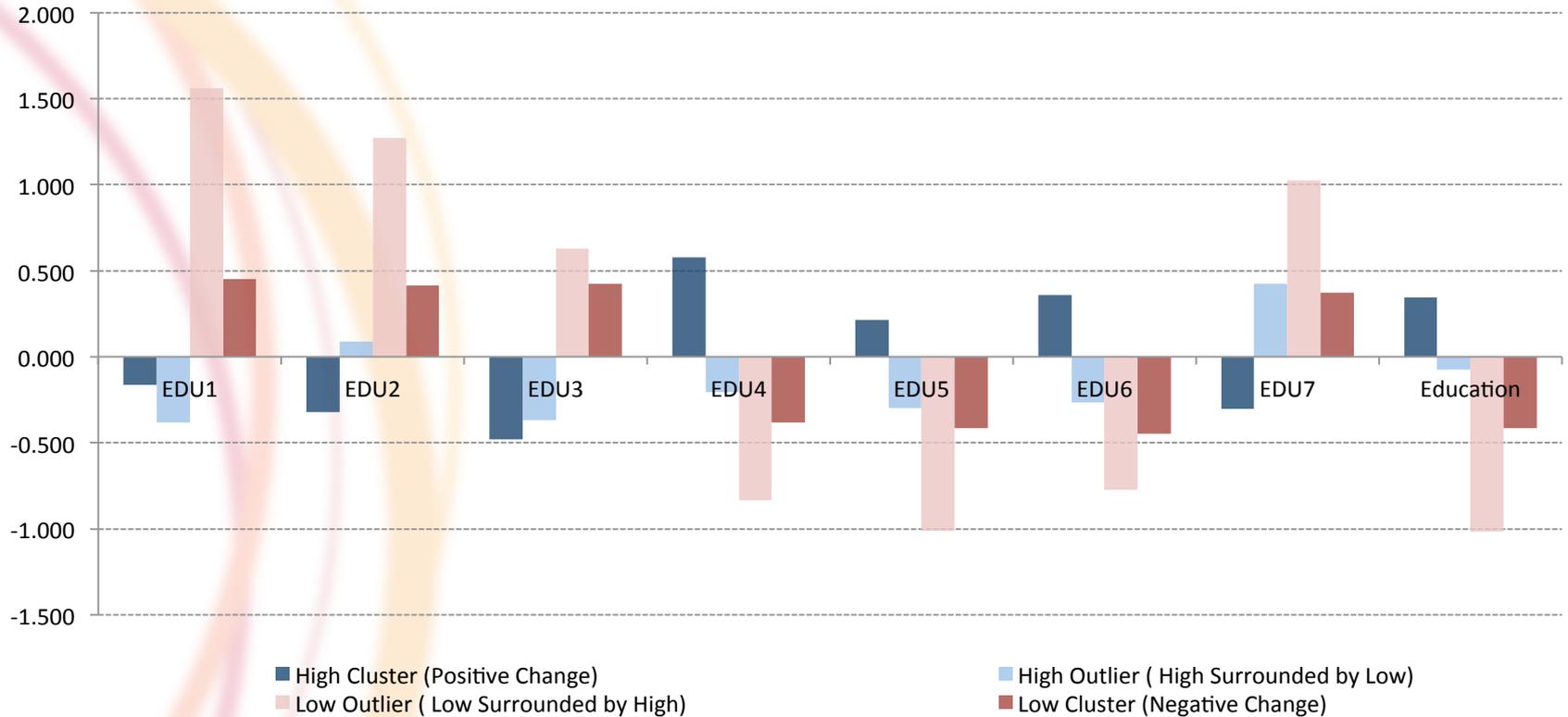
- For each census tract, calculate the difference between the previous comprehensive opportunity index score (z-score) and the current score (z-score). If the tract's opportunity index score has increased, the difference is positive (called a "high value"); if the opp index score has decreased, the difference is negative (called a "low value")
- In ArcGIS, apply a statistical tool called Moran's Cluster/Outlier analysis to identify:
 - clusters of high-value tracts (i.e., groups of tracts where the opportunity index has increased), shaded blue on the map
 - clusters of low-value tracts (i.e., groups of tracts where the opportunity index has decreased), shaded red on the map
 - outlier tracts -- either a high-value tract surrounded by low-value tracts (light blue), or a low-value tract surrounded by high-value tracts (pink)
- The statistical tool also includes a test of statistical significance at the 95% confidence level, meaning that we can reasonably conclude that the clustering is real
- High clusters reflect positive change in the some or most of the indicators included in the opportunity index; low clusters reflect negative change. The cluster analysis provides a starting point for digging down into these areas further, to determine what is driving the change in opportunity index.
- Outliers could be signaling significant differences between the outlier tract and its surroundings. For example, a "Low" outlier surrounded by "Highs" could be an early warning sign of impending decline, while a "High" outlier surrounded by "Lows" could be an early indication of improvement. Or not. These areas need to be investigated further to see what's actually going on.

What's changing in improving and declining areas?



| | Education | Economy & Employment | Neighborhood | Comprehensive |
|--|-----------|----------------------|--------------|---------------|
| High Cluster (Positive Change) | 0.487 | 0.555 | 0.294 | 0.445 |
| High Outlier (High Surrounded by Low) | 0.302 | 0.585 | 1.001 | 0.630 |
| Low Outlier (Low Surrounded by High) | -0.461 | -0.406 | -0.235 | -0.368 |
| Low Cluster (Negative Change) | -0.376 | -0.447 | -0.399 | -0.407 |

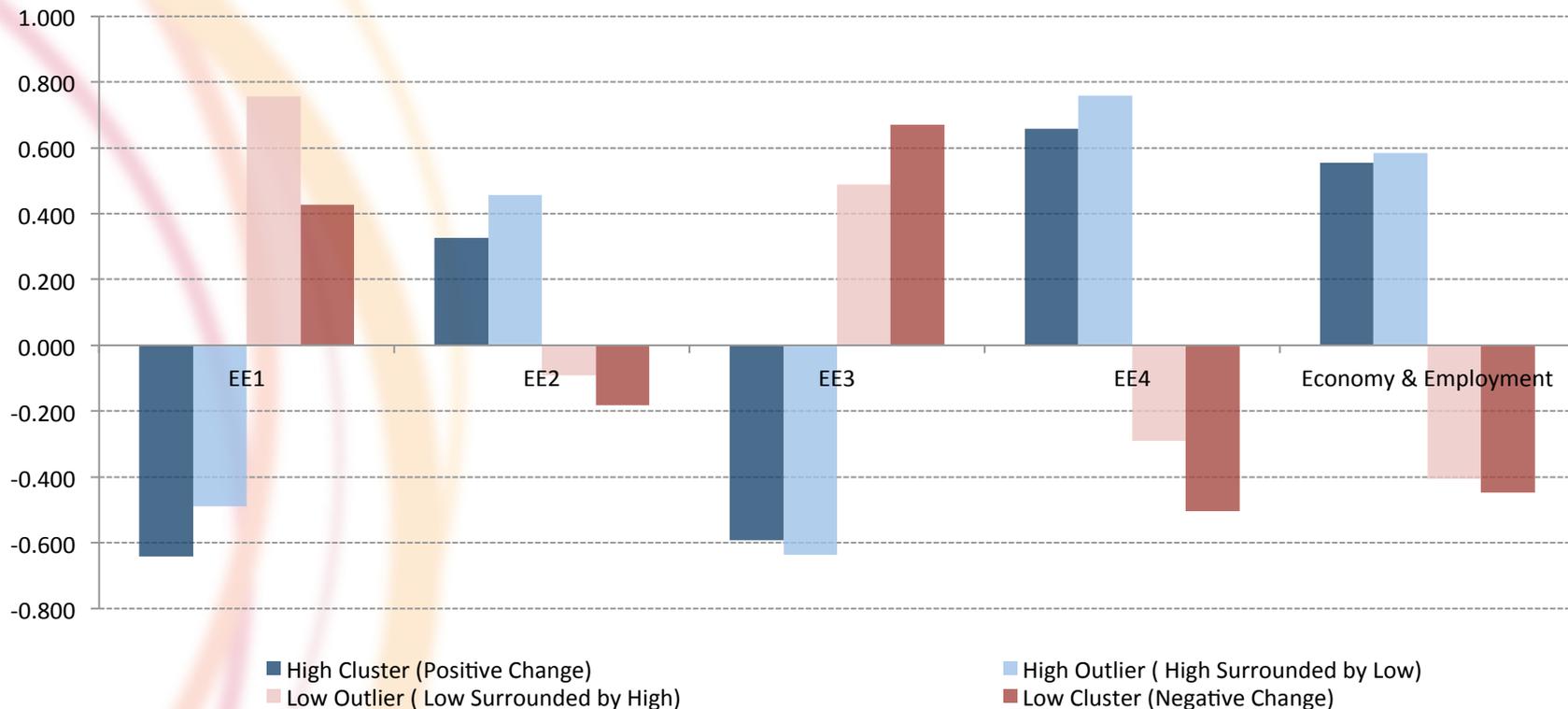
What's changing in improving and declining areas? Education



- | Education |
|--|
| <ul style="list-style-type: none"> Childhood Poverty (EDU1) High School Dropout Rate(EDU2) Persons 16-19 No High School Diploma, Unemployed (EDU3) High school Completion(EDU4) Reading Score (EDU5) Math Score(EDU6) Student Poverty(EDU7) |

| | EDU1 | EDU2 | EDU3 | EDU4 | EDU5 | EDU6 | EDU7 | Education |
|--|--------|--------|--------|--------|--------|--------|--------|-----------|
| High Cluster (Positive Change) | -0.164 | -0.324 | -0.478 | 0.578 | 0.215 | 0.359 | -0.303 | 0.346 |
| High Outlier (High Surrounded by Low) | -0.380 | 0.091 | -0.369 | -0.204 | -0.300 | -0.266 | 0.425 | -0.077 |
| Low Outlier (Low Surrounded by High) | 1.561 | 1.273 | 0.629 | -0.834 | -1.010 | -0.775 | 1.024 | -1.015 |
| Low Cluster (Negative Change) | 0.451 | 0.416 | 0.425 | -0.384 | -0.417 | -0.448 | 0.372 | -0.416 |

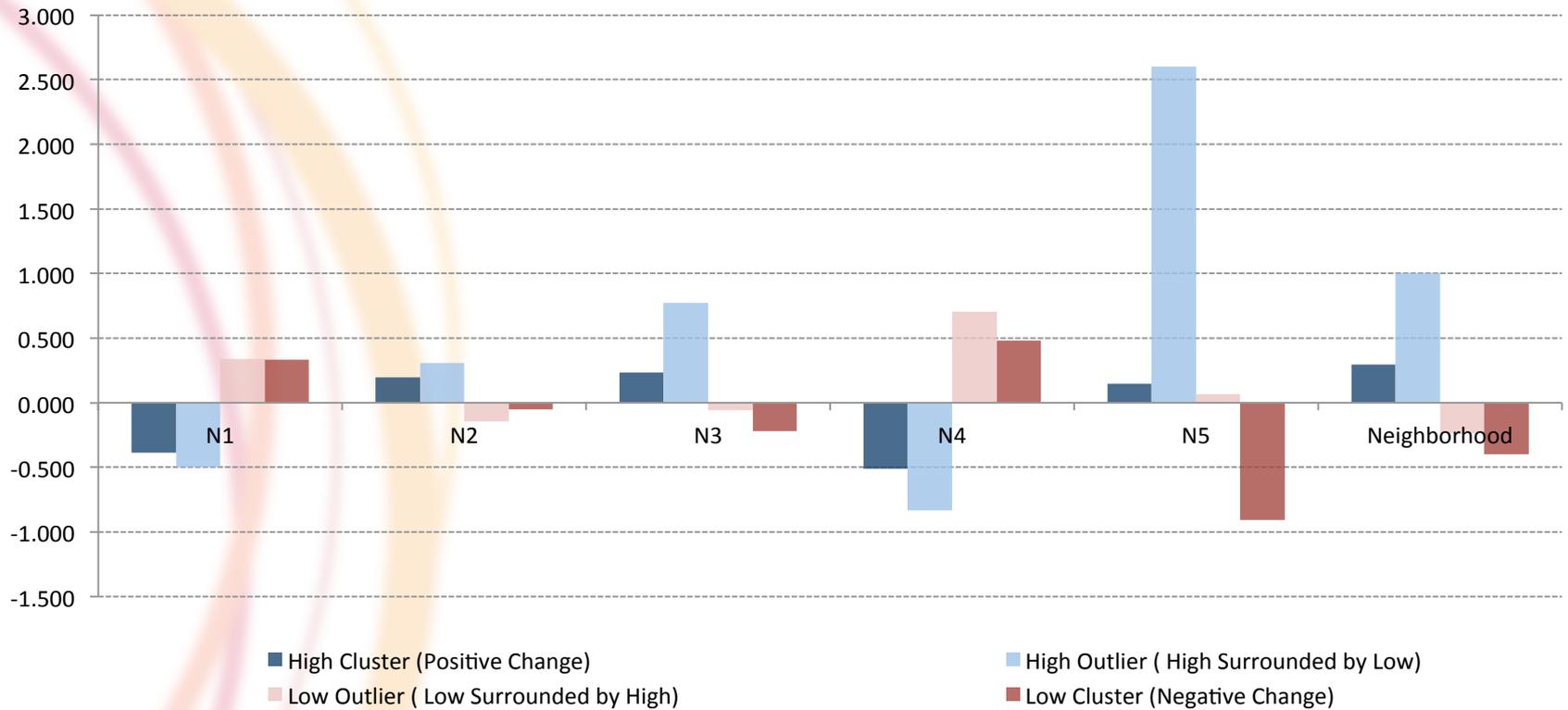
What's changing in improving and declining areas? Economy & Employment



- Economy & Employment**
- Public Assistance Rate(EE1)
 - Median Household Income(EE2)
 - Unemployment Rate (EE3)
 - Job Change (EE4)

| | EE1 | EE2 | EE3 | EE4 | Economy & Employment |
|--|--------|--------|--------|--------|----------------------|
| High Cluster (Positive Change) | -0.643 | 0.327 | -0.593 | 0.657 | 0.555 |
| High Outlier (High Surrounded by Low) | -0.488 | 0.458 | -0.636 | 0.759 | 0.585 |
| Low Outlier (Low Surrounded by High) | 0.756 | -0.092 | 0.488 | -0.289 | -0.406 |
| Low Cluster (Negative Change) | 0.428 | -0.183 | 0.671 | -0.505 | -0.447 |

What's changing in improving and declining areas? Neighborhood



- Neighborhood**
- Vacant Property (N1)
 - Property Values (N2)
 - Homeownership rates (N3)
 - Poverty Rates (N4)
 - Percentage Population change (N5)

| | N1 | N2 | N3 | N4 | N5 | Neighborhood |
|--|--------|--------|--------|--------|--------|--------------|
| High Cluster (Positive Change) | -0.384 | 0.197 | 0.232 | -0.510 | 0.147 | 0.294 |
| High Outlier (High Surrounded by Low) | -0.497 | 0.306 | 0.771 | -0.832 | 2.601 | 1.001 |
| Low Outlier (Low Surrounded by High) | 0.338 | -0.142 | -0.057 | 0.703 | 0.066 | -0.235 |
| Low Cluster (Negative Change) | 0.333 | -0.053 | -0.217 | 0.484 | -0.908 | -0.399 |