

Community Stabilization Index

Helping communities track local housing market conditions

Publication: December 2014

Data version: Based on data from July 2014

Federal Reserve Bank of Cleveland

ClevelandFed.org/CommunityDevelopment
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1455 East Sixth Street
Cleveland, Ohio 44114

About

The Community Stabilization Index (CSI) is a composite index that provides a relative measure of local housing market conditions, with a particular focus on recovery potential. The index is specific to conditions at the zip code level and is comparable across all zip codes within a metropolitan statistical area (MSA). Periodic recalculations of the CSI allow community leaders, for example, to track relative changes in housing market conditions through time at the zip code level.

The CSI synthesizes several variables into a single comparable measure of recovery potential. However beneficial, this simplification should not deemphasize the importance of tracking underlying and other available housing variables or preclude understanding the limitations of this tool. The methodology and data sources for this tool are explained at the bottom of the page; click on the large map or scroll down to the individual MSA images to explore the index and its components.

Data Sources

The index draws data from Lender Processing Services, Inc. Applied Analytics (LPS), the Federal Reserve Bank of New York's Consumer Credit Panel, and the Home Mortgage Disclosure Act (HMDA) database. The LPS dataset comprises the servicing portfolios of the largest residential mortgage servicers in the US, covering about two-thirds of installment-type loans nationwide. The Consumer Credit Panel is a nationally representative 5 percent random sample of all individuals with a social security number and a credit report as provided by Equifax. The database contains approximately 40 million individuals each quarter and includes household-level credit and debt, including credit cards, auto loans, student loans, mortgages (separately for first and second liens), and other loans. The HMDA dataset contains data on home mortgage loans as reported by depository institutions and certain for-profit, nondepository institutions.

Components

Records in LPS include active and inactive loans. The status of active loans can be current, delinquent, or in foreclosure. Inactive loans are those loans on properties that have moved into

REO (real estate owned) status, been transferred to another servicer, or have terminated.

Only first-lien loans on residential properties are included in our analysis.

The index comprises the following six components calculated for each zip code:

1. **Loans in 90-day delinquency:** This component represents the percent of active loans that are at least 90 days delinquent in July of the reported year.
2. **Loans in foreclosure:** This component represents the percent of active loans that are in foreclosure status in July of the reported year.
3. **REO:** This component represents the ratio of real estate owned properties to the number of active loans in July of the reported year. Inactive loans related to properties in REO status add to the shadow inventory of the zip code.
4. **Originations-to-shadow-inventory ratio:** This component represents the ratio of originations in the most recent year available from the HMDA database to the number of REOs, foreclosures, and loans greater than 90 days delinquent in a given month as calculated in components one through three.
5. **Change in median value of purchase and refinance originations:** For this component, we calculate the median estimated value of mortgage-financed homes in the zip code for two time periods: 2005, the year prices peaked; and the most current full year available. In the case of a purchase, the value refers to the sale price. If the first-lien loan is originated because of a refinance, the value refers to the appraisal amount. The index tracks the percent change of these two median values.
6. **Non-mortgage credit delinquency:** This component represents the percent of active accounts at least 60 days delinquent or in severe derogatory status in June of the reported year. "Non-mortgage" refers to auto loans, credit cards, consumer finance, retail cards, and student loans.

For each zip code, all components are normalized to a scale of zero to one based on each zip code's relative level of distress with respect to other zip codes in the MSA. Thus, for each of the components, the most distressed zip code in the respective MSA—say, the one with the highest foreclosure rate—is assigned a value of one, and the least distressed is assigned a value of zero. The composite index, a simple average of its components, is also normalized to a zero-to-one scale. A higher score on the index indicates a more distressed housing market.

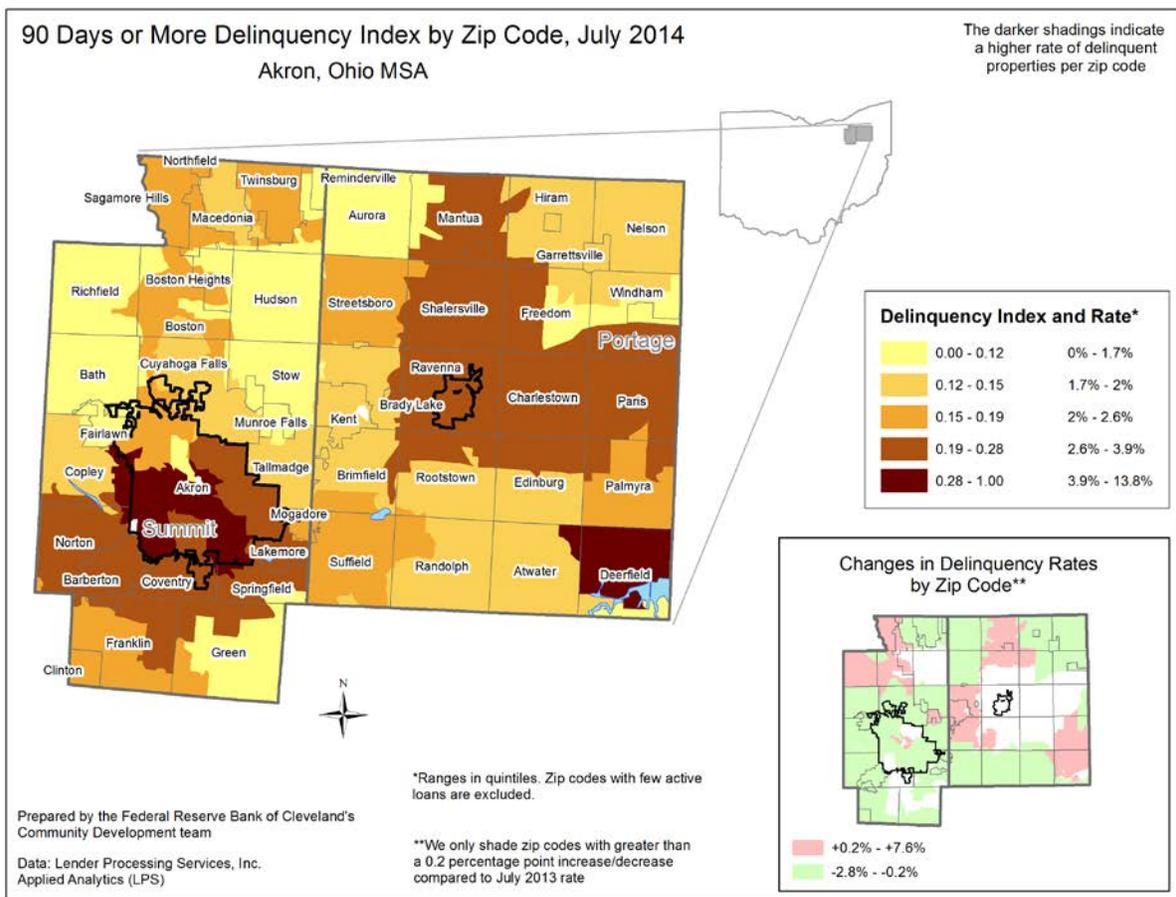
Community Stabilization Index for Akron, Ohio, MSA

Analysis updated December 2014, using July 2014 data

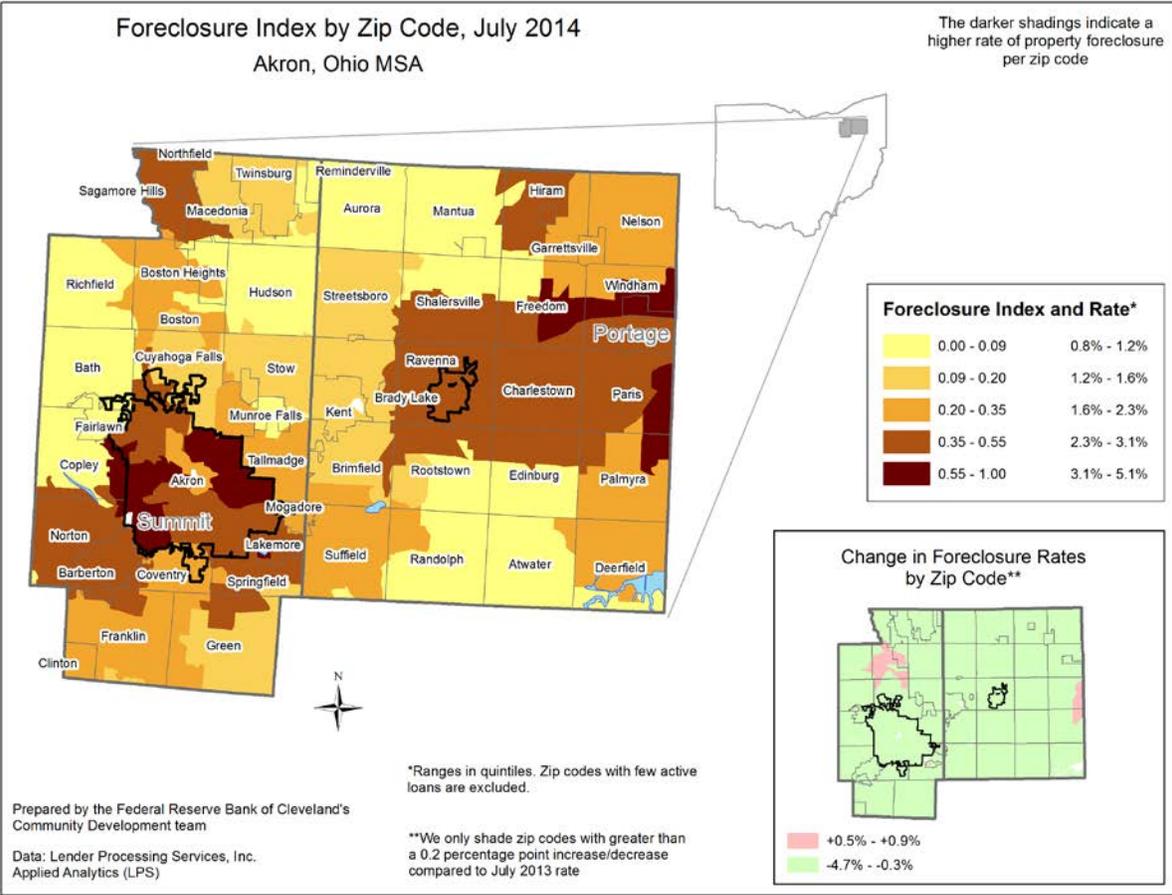
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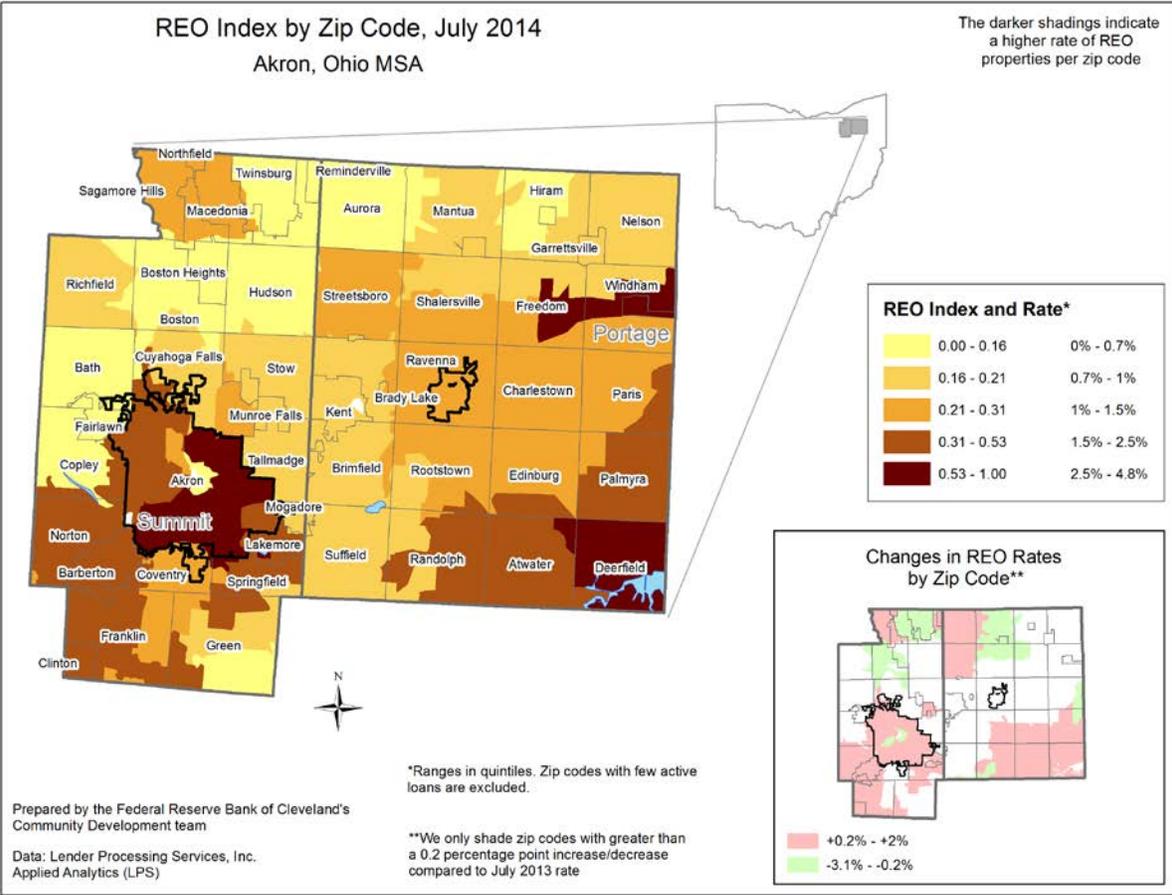
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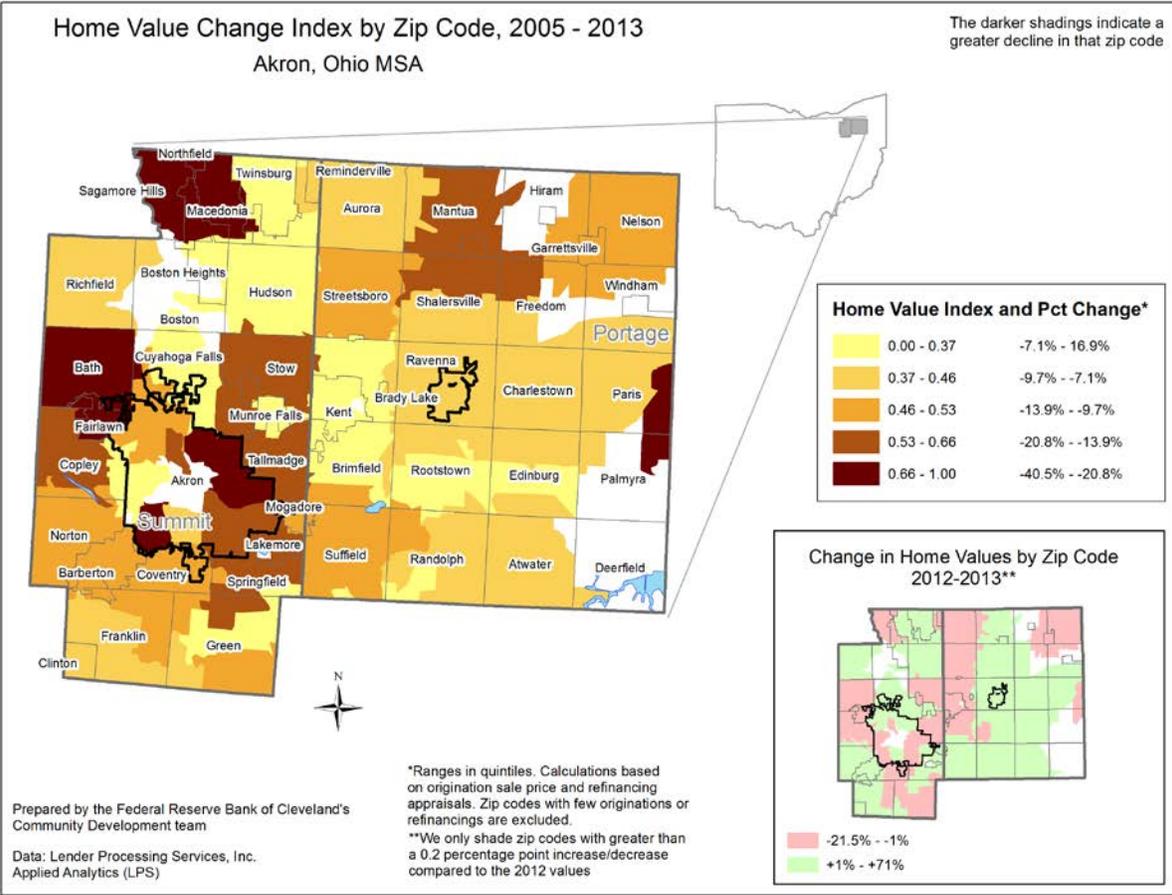
1. **90 Days or More Delinquency Index:** The two-county Akron MSA's delinquency rate has not moved much over the past year, only dropping from 3.1 percent in July 2013 to 2.8 percent in July 2014. The highest rates, up to 13.8 percent, are concentrated in the City of Akron, but rates there are actually on the decline. Perhaps of more concern are pockets of high to moderately high delinquency rates in Portage County, which have increased over the past year.



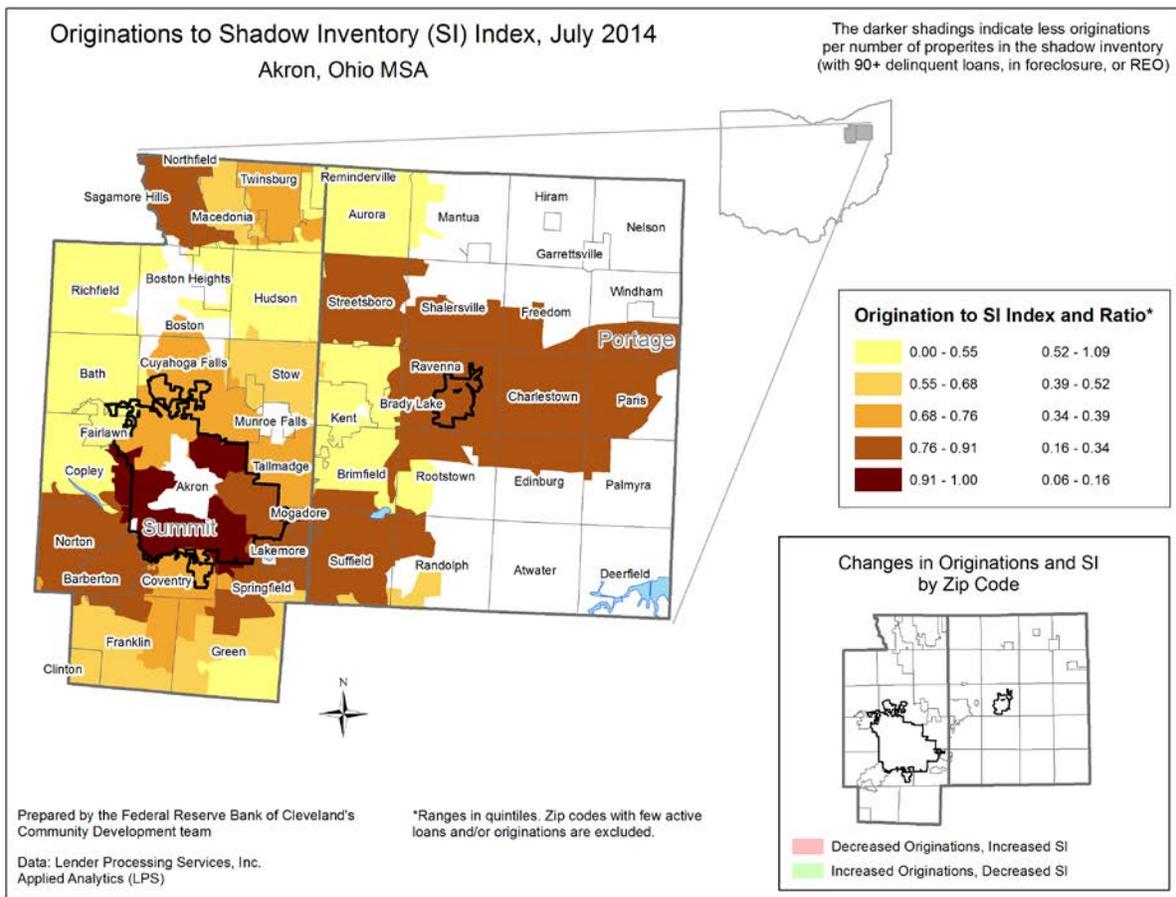
2. **Foreclosure Index:** Though 90-days-or-more-delinquency rates have increased over the past year in some zip codes throughout the region, foreclosure rates are down since 2013—by nearly 1.5 percent on average. This is a good sign. On the other hand, nearly all zip codes in the City of Akron still suffer from foreclosure rates higher than the Ohio state average.



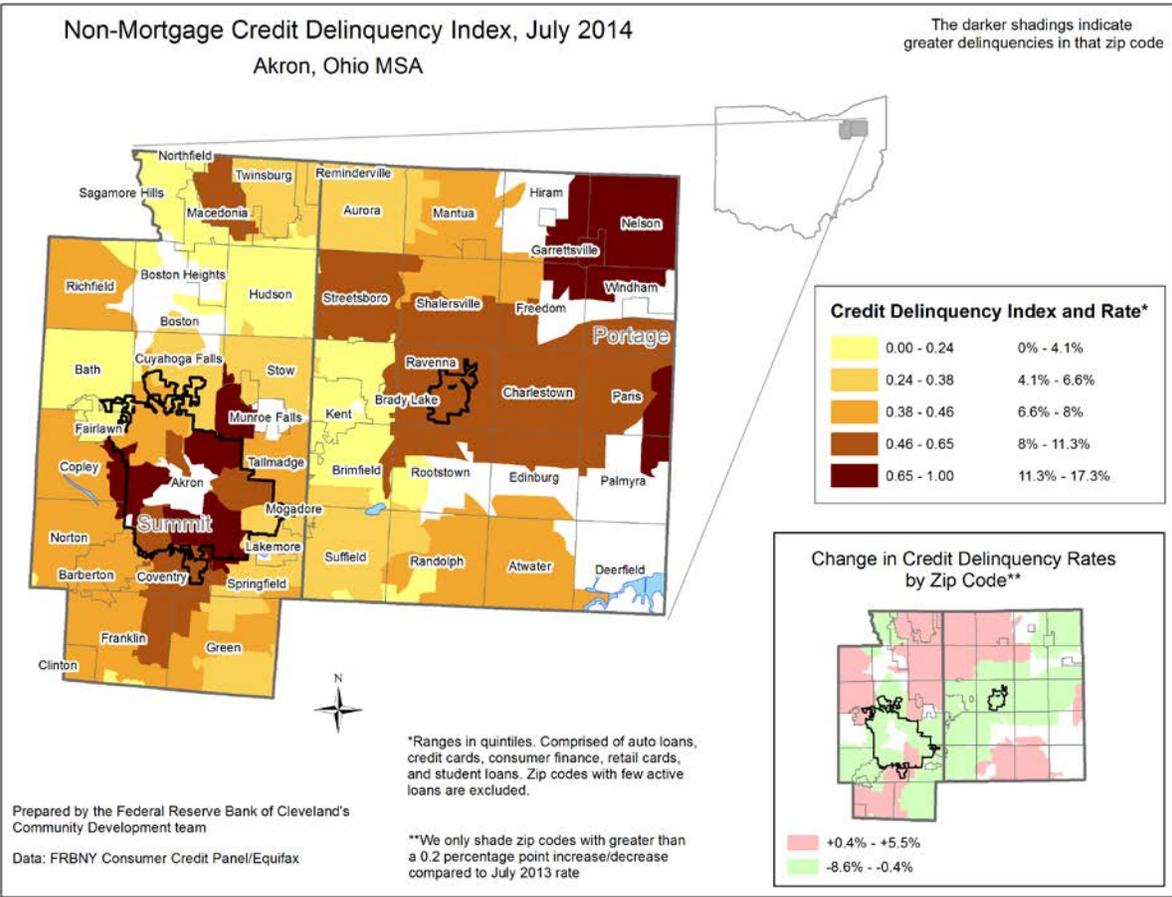
3. **REO Index:** REO rates have budged upward since 2013, about 0.6 percentage points on average. Rates in some zip codes have increased as much as 2 percentage points, most notably in areas just southwest of the City of Akron. On the bright side, as the stock of foreclosed homes has shrunk in recent years, the rate at which REO properties are currently increasing is less than it was from January 2012 to January 2013.



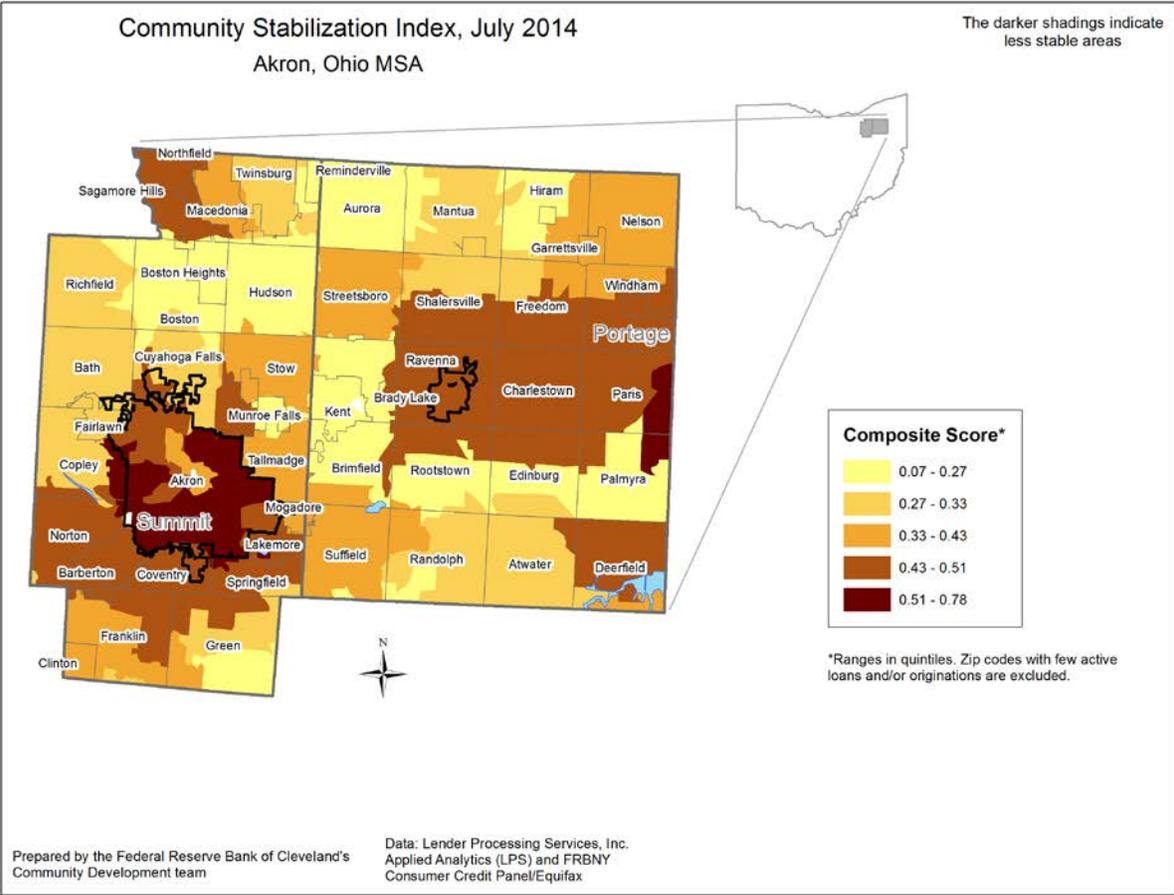
4. **Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), home value changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, home values in the Akron MSA were hit hard by the housing crisis, with only the Cleveland and Toledo MSAs suffering worse losses. Since 2005, the region has shed over 13 percent of its median home value. But things appear to be turning a corner; from 2012 to 2013 the median home value has increased, even in some of the less stable zip codes in Summit County.



5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. Most zip codes across the two-county MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. Despite home values in the region that are recovering modestly, this less-encouraging SI indicator is likely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory (defined here as seriously delinquent loans, foreclosures, and REOs) has decreased across the region, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map. The zip codes with the fewest originations per distressed unit are located exclusively in the City of Akron.



6. **Credit Delinquency Index:** Non-mortgage credit delinquency could exacerbate underlying problems in the housing market in zip codes in the City of Akron and central Portage County, where rates are above the Ohio state average. Both areas, however, have experience declines since July 2013.



7. **Community Stabilization Index:** Despite reduced originations, there is cause for a positive housing market outlook assuming the shadow inventory continues to decrease and median home values maintain the recent upward trajectory. The City of Akron, though, faces the most challenges moving forward within this region.

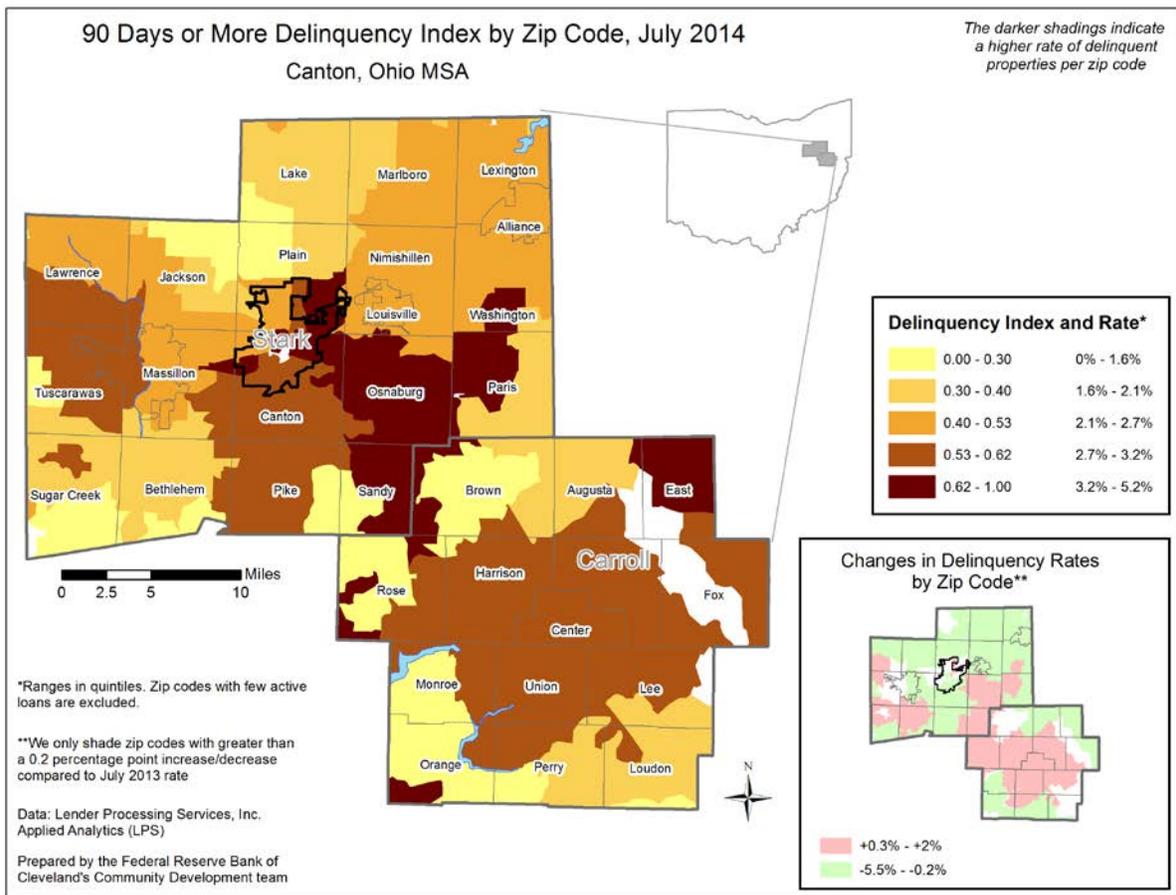
Community Stabilization Index for Canton, Ohio, MSA

Analysis updated December 2014, using July 2014 data

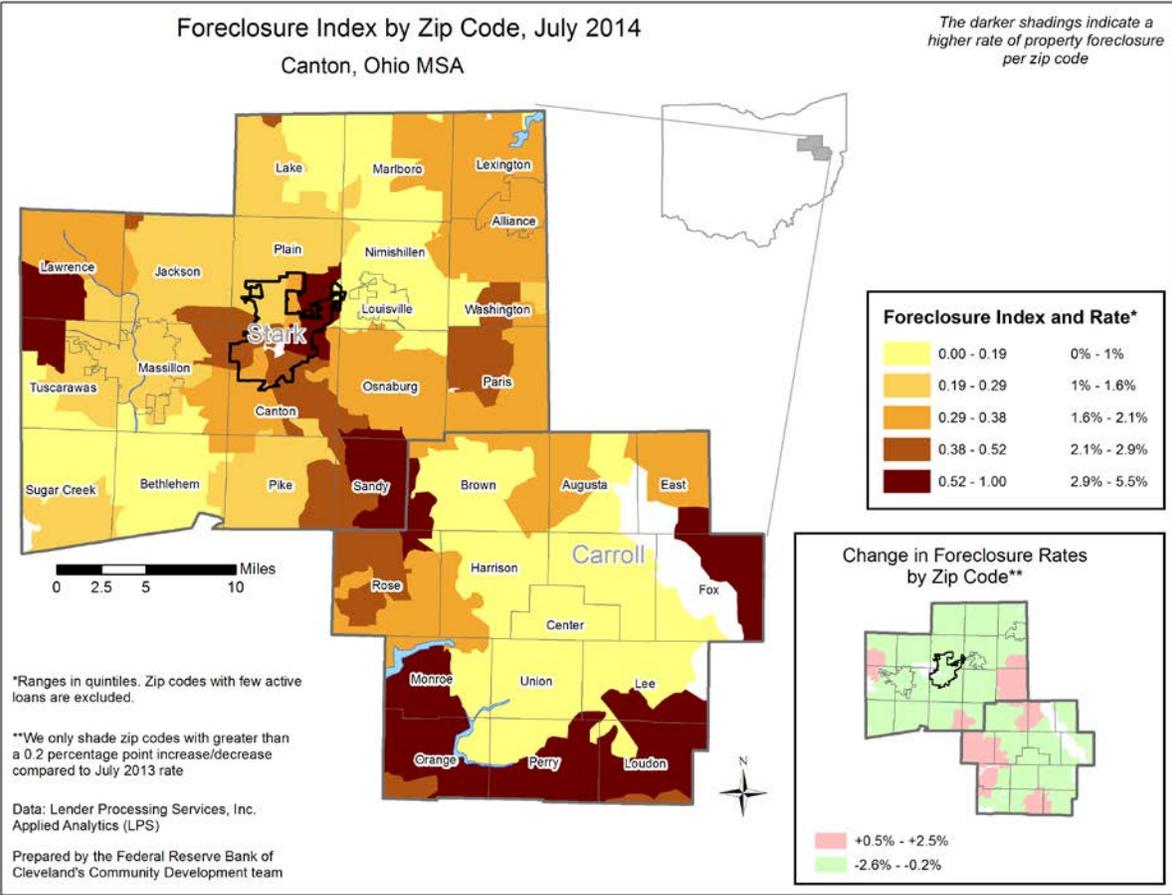
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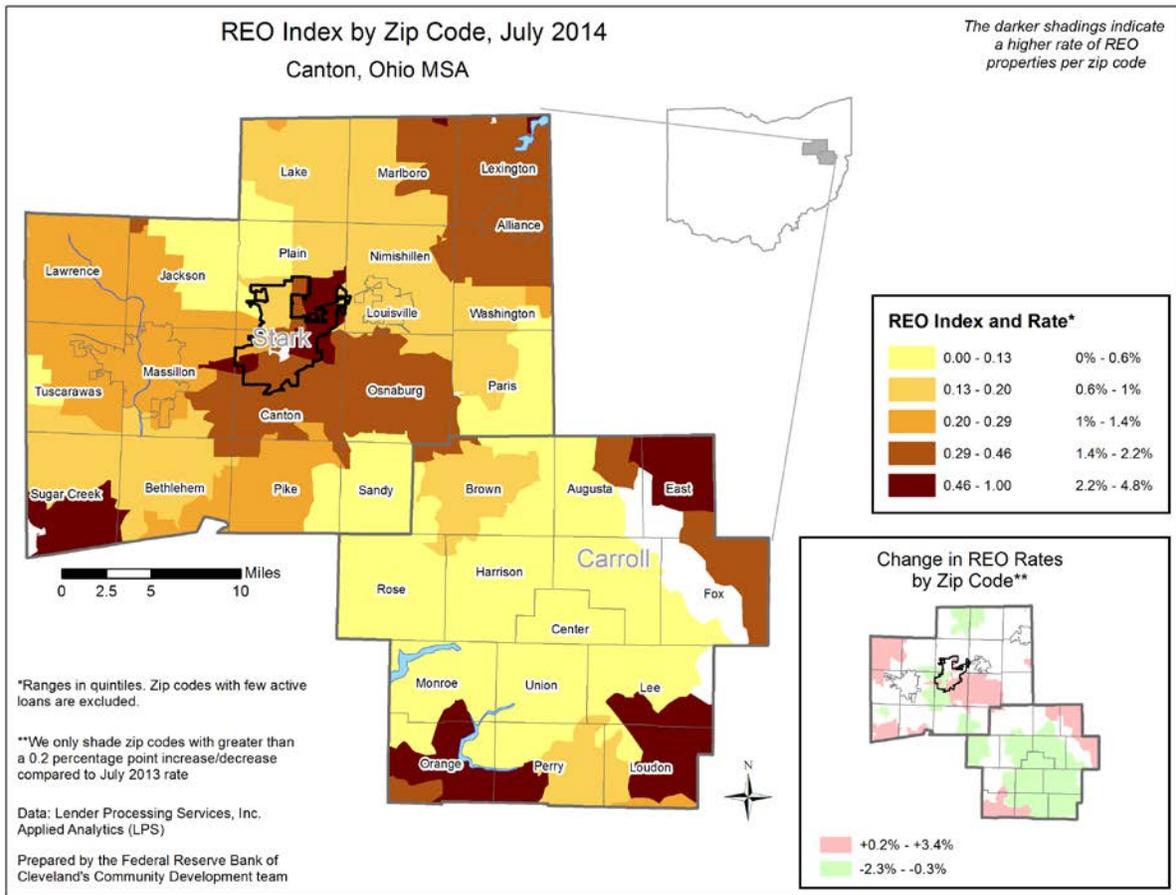
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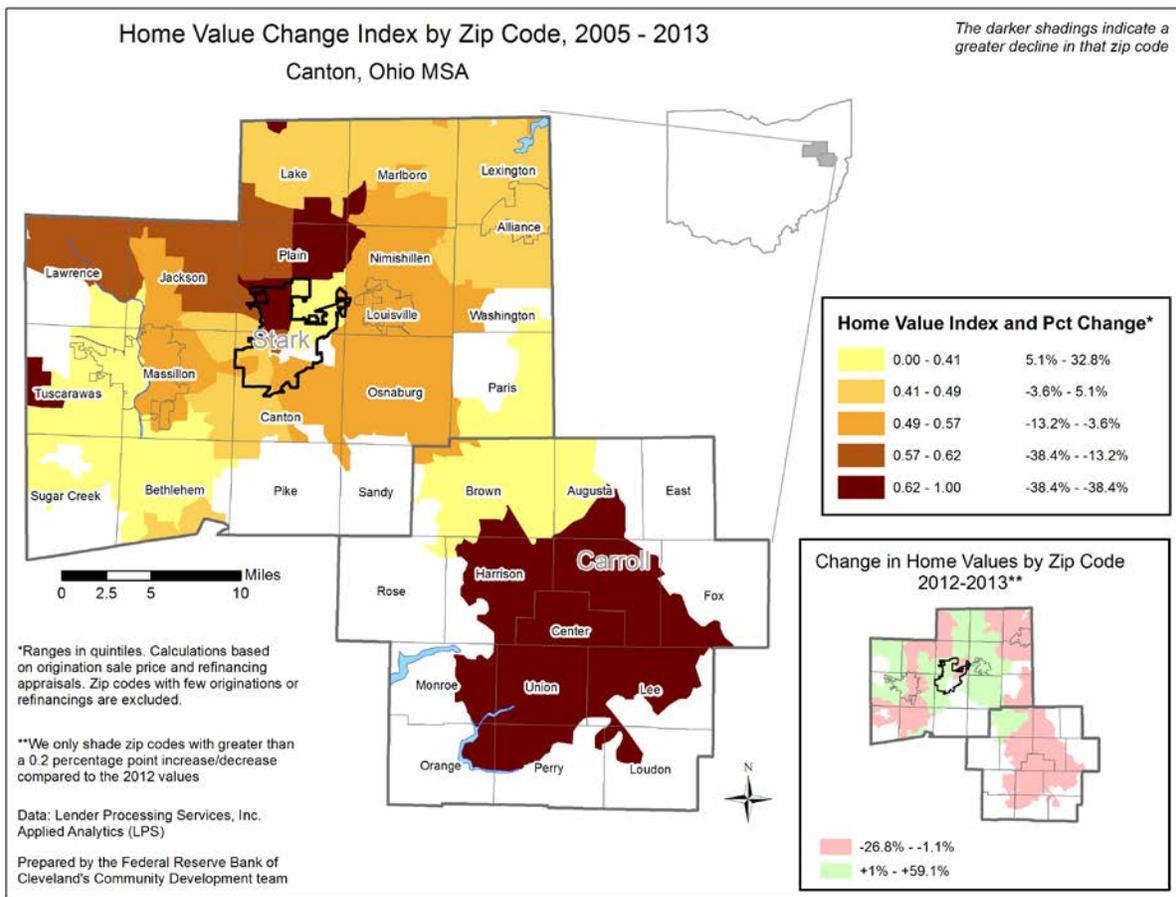
1. **90 Days or More Delinquency Index:** Delinquency rates are down nearly 1 percent since 2013 in the Canton MSA overall. Most of this progress occurred in Stark County, though the least stable zip codes—southeast of the City of Canton—experienced an increase in rates. The region as a whole is faring better than the Ohio state average.



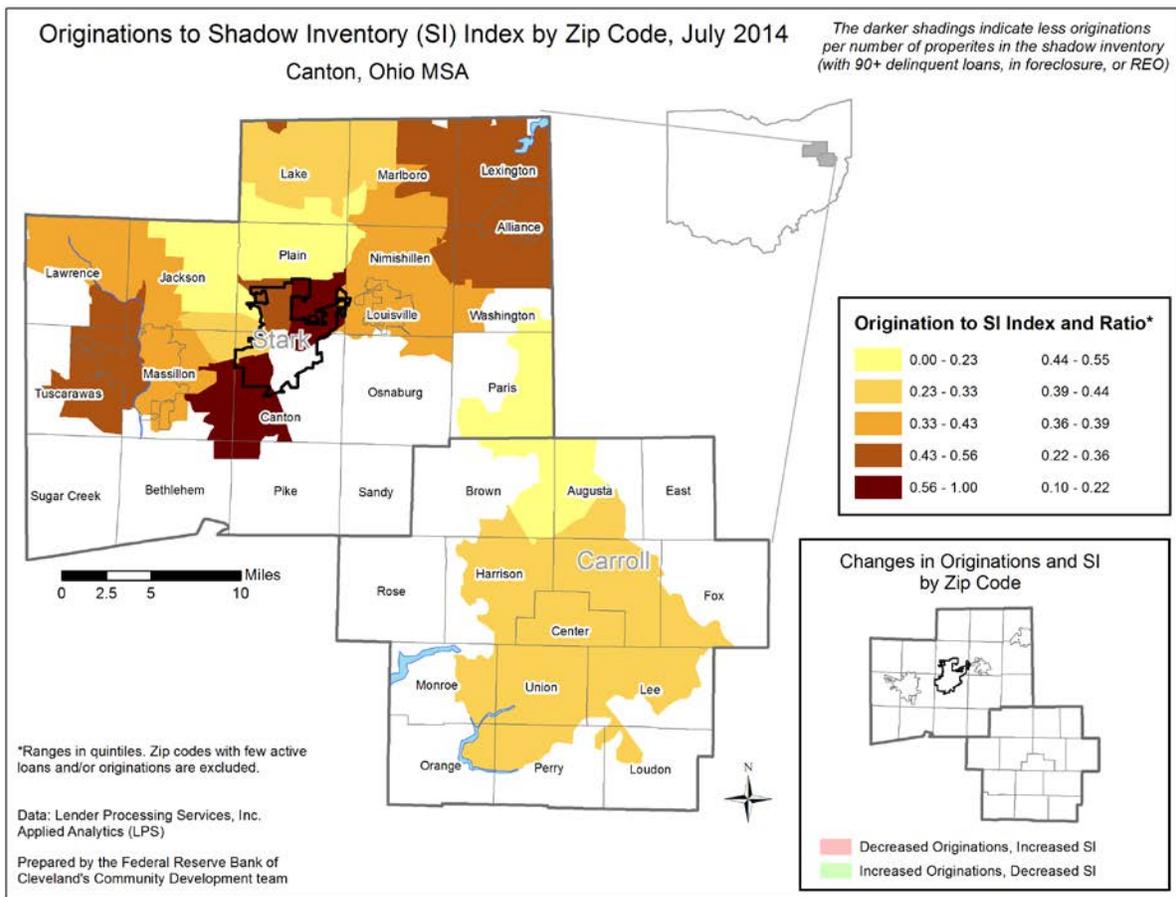
2. **Foreclosure Index:** On average, foreclosure rates have declined by 0.7 percentage points in the two-county Canton MSA since 2013. Rates are lowest in Carroll County, an indication that the high rate of seriously delinquent mortgages there may have managed to avoid foreclosure up to this point. Another good sign: All zip codes in the City of Canton have experienced a drop in foreclosure rates over the past year.



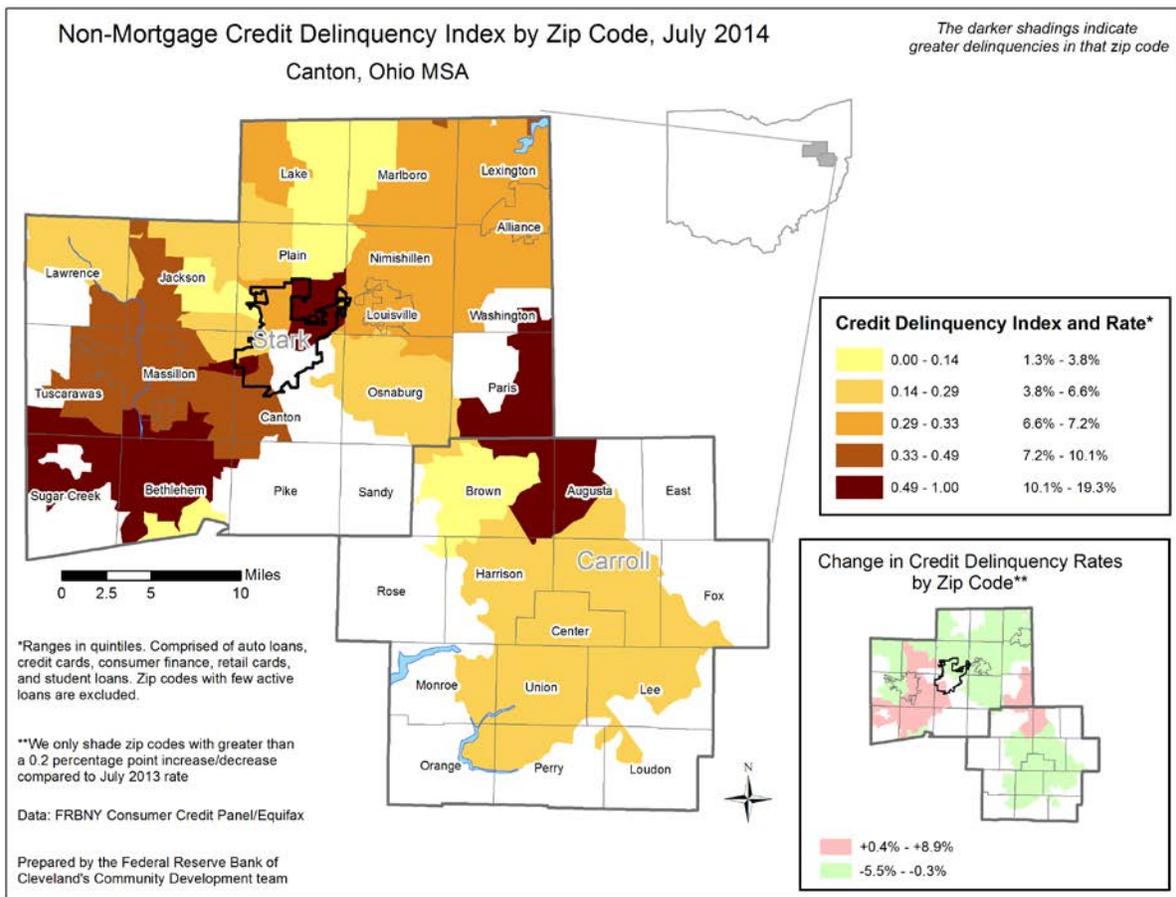
- REO Index:** Perhaps partially a result of declining foreclosure rates, REO rates are up slightly over the past year in the Canton MSA. This increase is concentrated primarily in the southwest corner of Stark County, including some zip codes in the City of Canton. Conditions in Carroll County remain favorable.



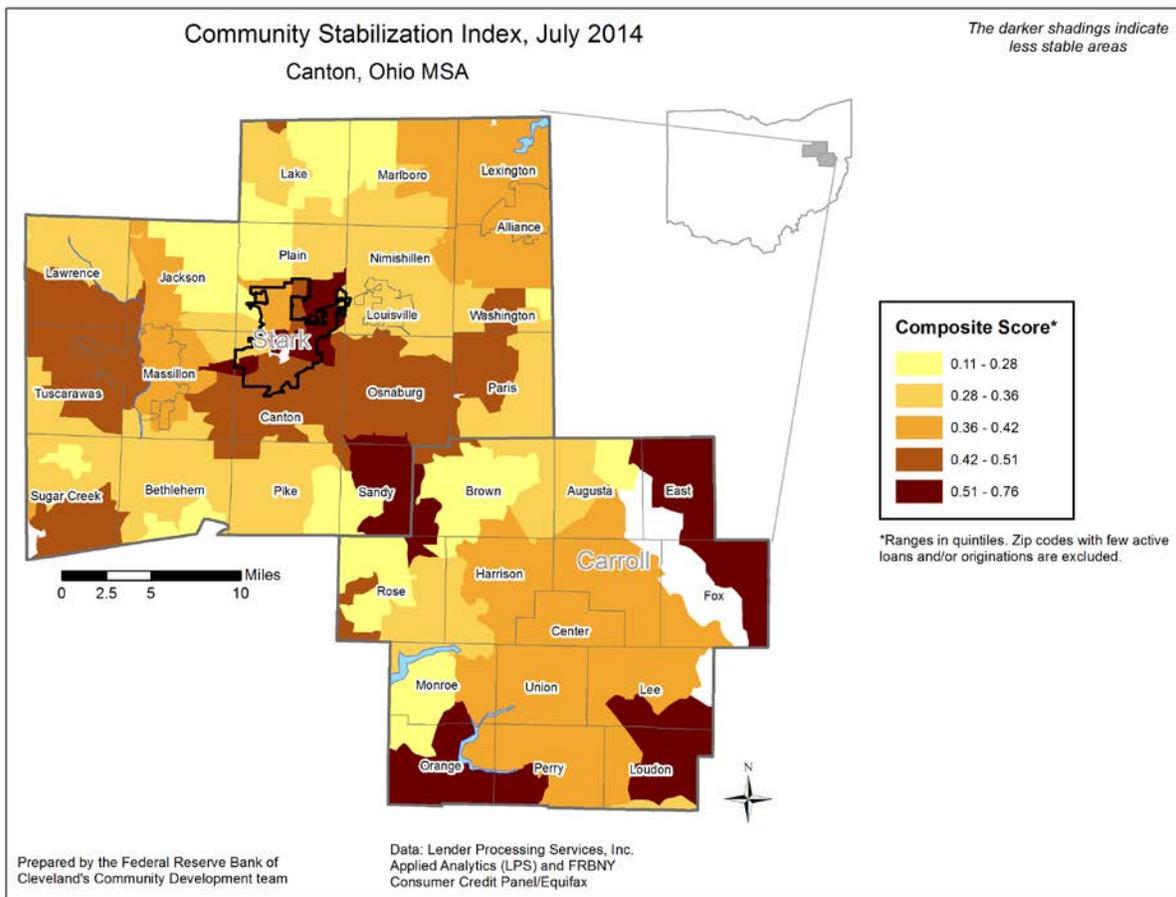
- Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, home values were up overall from 2012 to 2013, and the City of Canton was at the center of this increase. In fact, the region as a whole witnessed an impressive 9.9 percent increase in the median home value. This is a very good sign for the housing market outlook. However, most areas of Carroll County continued to experience a decline in home values—except for zip codes in Brown Township.



5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. Most zip codes across the two-county MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is likely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory (defined here as seriously delinquent loans, foreclosures, and REOs) has decreased across the region, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map. The zip codes with the fewest originations per distressed unit are located in and around the City of Canton.



6. **Credit Delinquency Index:** Non-mortgage credit delinquency is highest in zip codes that otherwise are generally stable (i.e. where shadow inventories are relatively low and home values are increasing). While such high rates could exacerbate underlying problems in shaky housing markets, they should not cause great concern under current conditions unless they persist for long periods.



- Community Stabilization Index:** Despite reduced originations, there is cause for a positive housing market outlook for the Canton MSA, assuming the shadow inventory continues to decrease and median home values maintain their recent upward trajectory. Zip codes in the City of Canton have among the worst composite scores, but there is still reason for optimism with home values in parts of the city ahead of the pack.

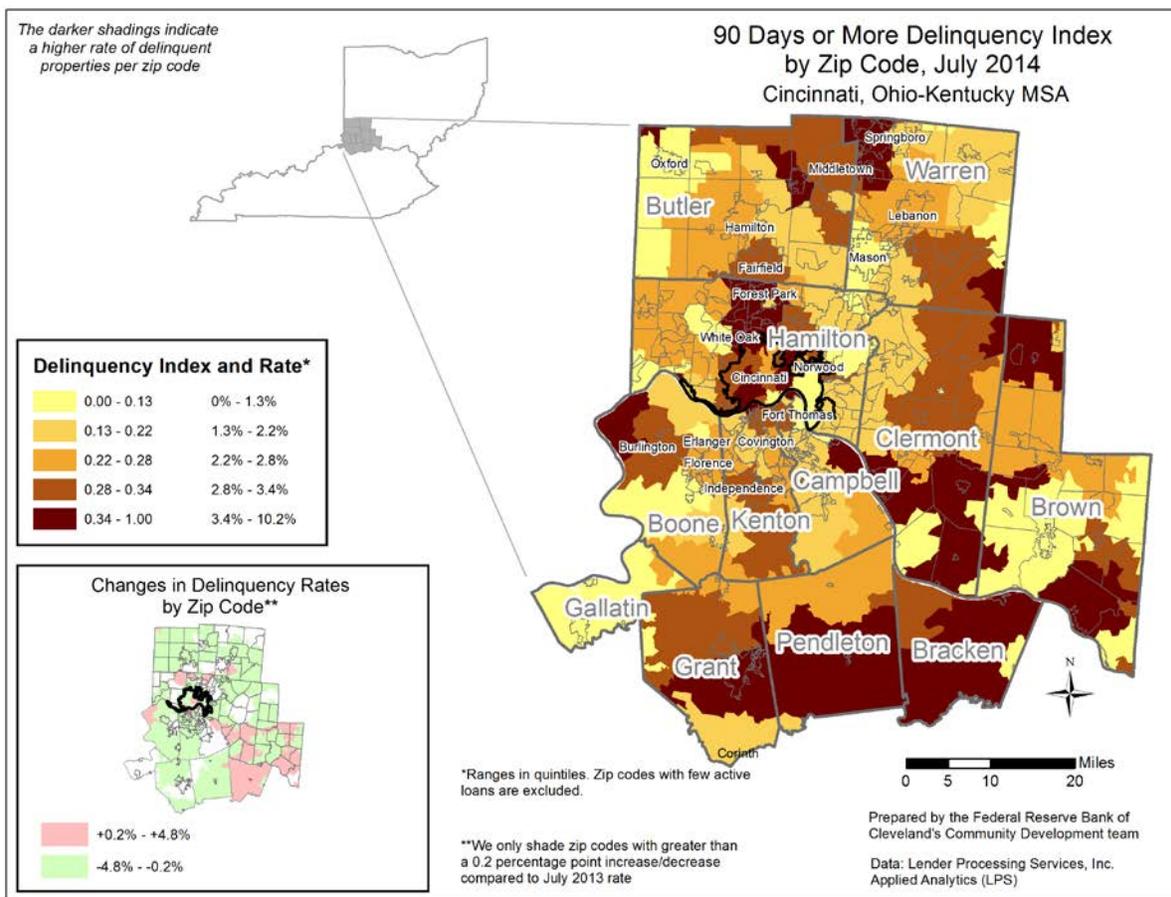
Community Stabilization Index for Cincinnati-Northern Kentucky MSA

Analysis updated December 2014, using July 2014 data

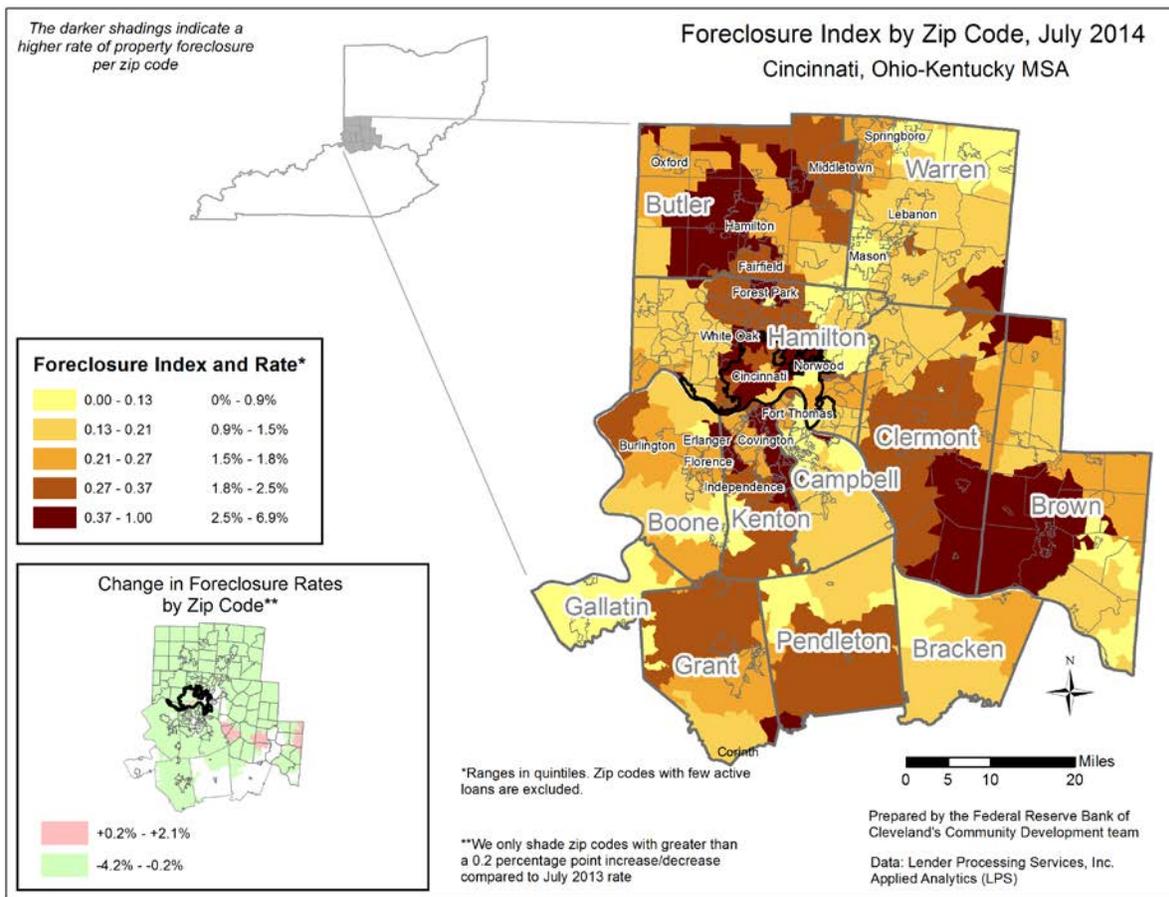
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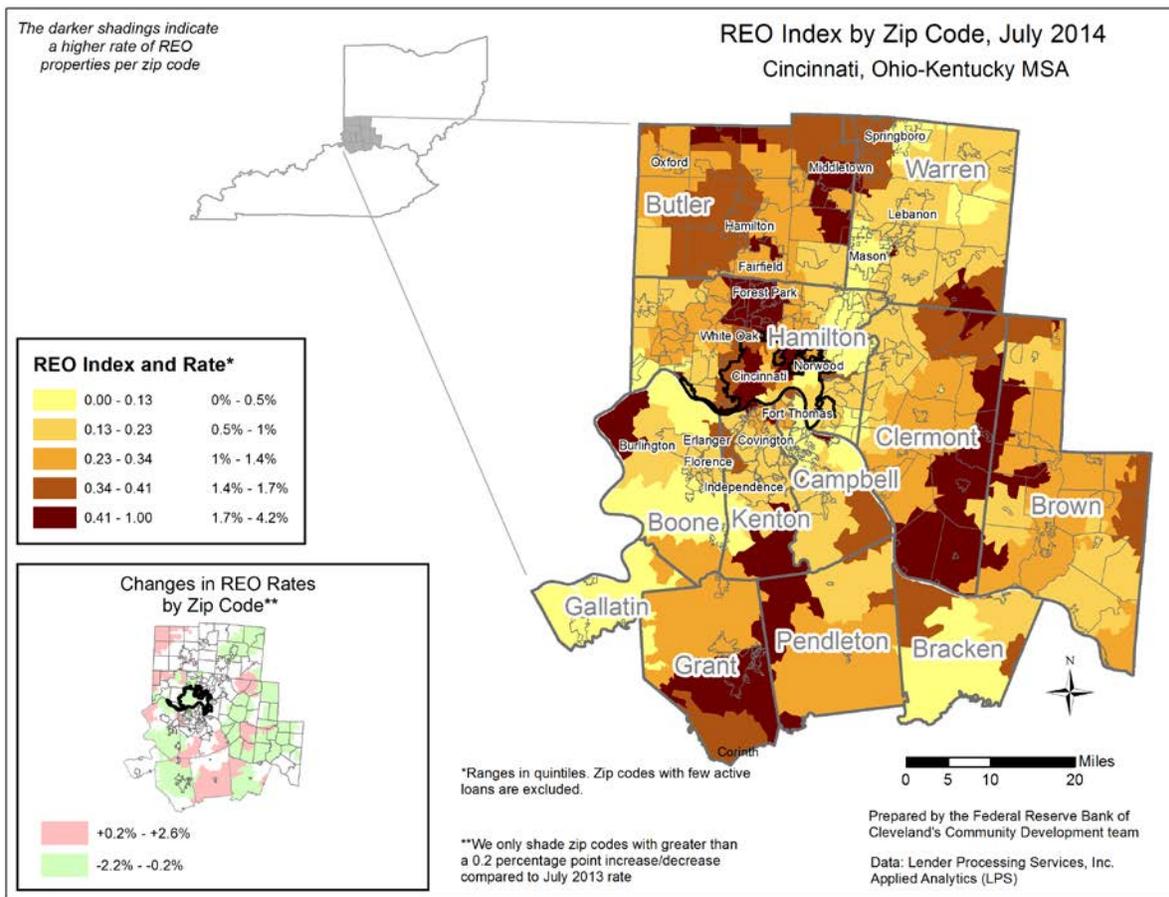
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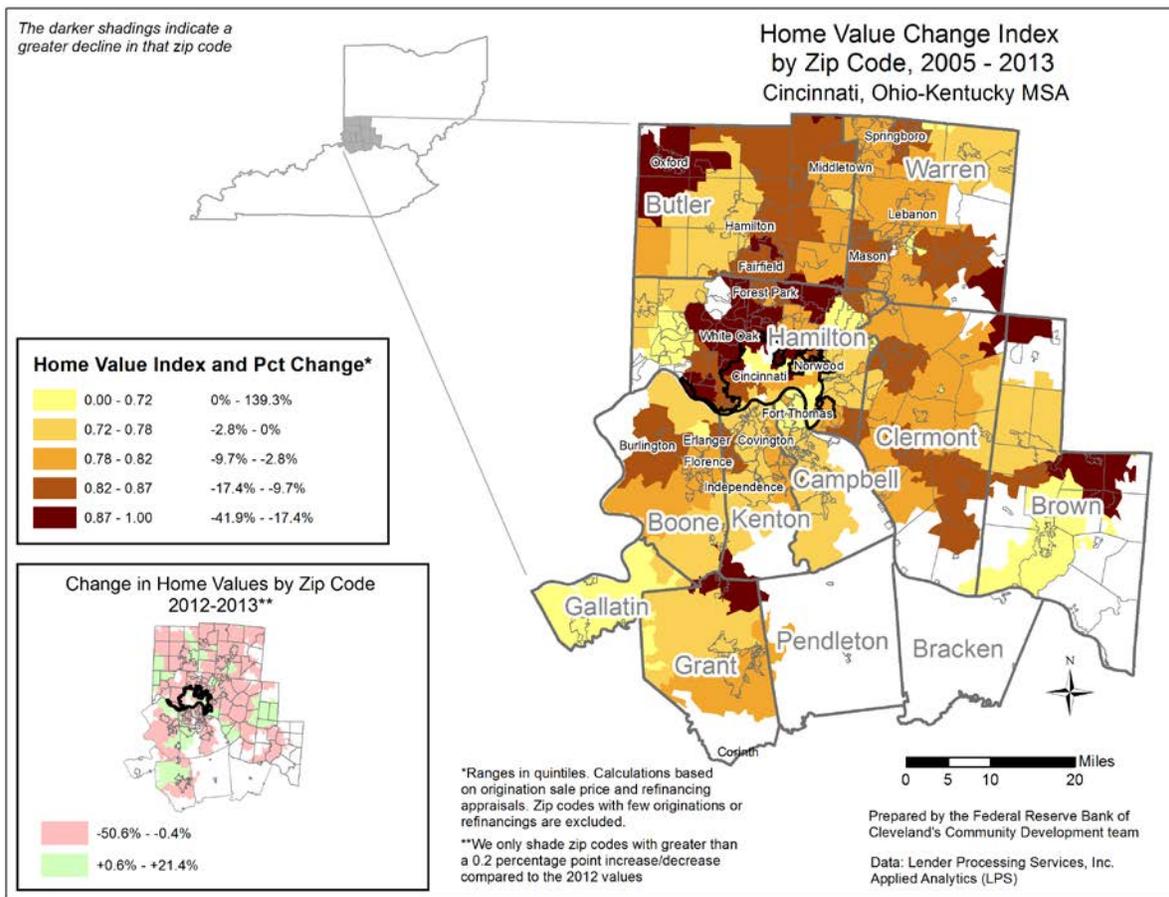
1. **90 Days or More Delinquency Index:** The Cincinnati MSA's delinquency rate has dropped slightly from 3.1 percent in July 2013 to 2.8 percent in July 2014. The current rate is on par with the Ohio state average. The highest delinquency rates can be found just north of the City of Cincinnati, as well as in Grant, Pendleton, and Bracken Counties in Kentucky. While Grant and Pendleton Counties have seen progress over the past year, delinquency rates in Bracken County continue to increase.



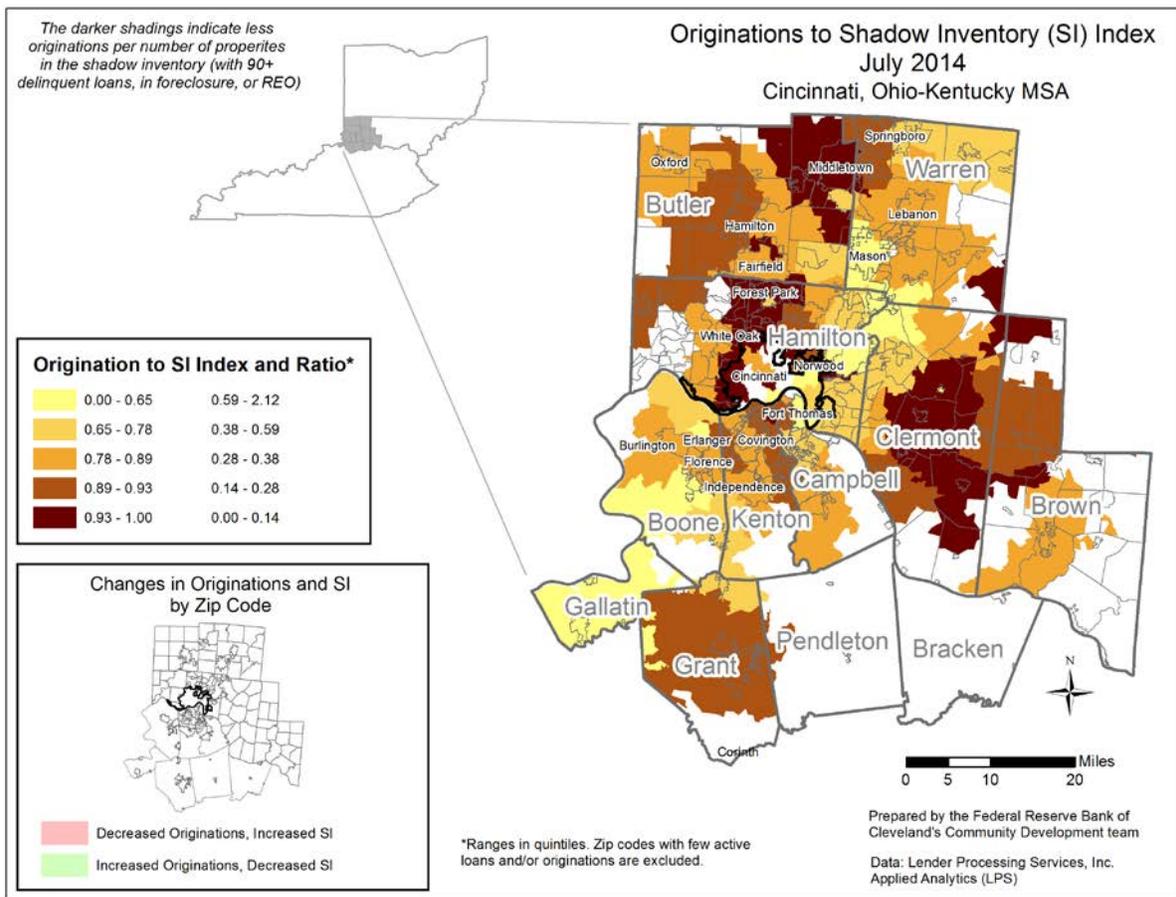
- Foreclosure Index:** The 12-county region's foreclosure rates have fallen, on average, by nearly 1 percentage point from July 2013 to July 2014. The regional average is currently 1.9 percent. Nearly all zip codes have experienced declining rates over the past year, but, surprisingly, the areas most affected by high delinquency rates are not the same as those affected by high foreclosure rates. For example, zip codes in Brown and Butler Counties with low delinquency rates currently have among the highest rates of foreclosure.



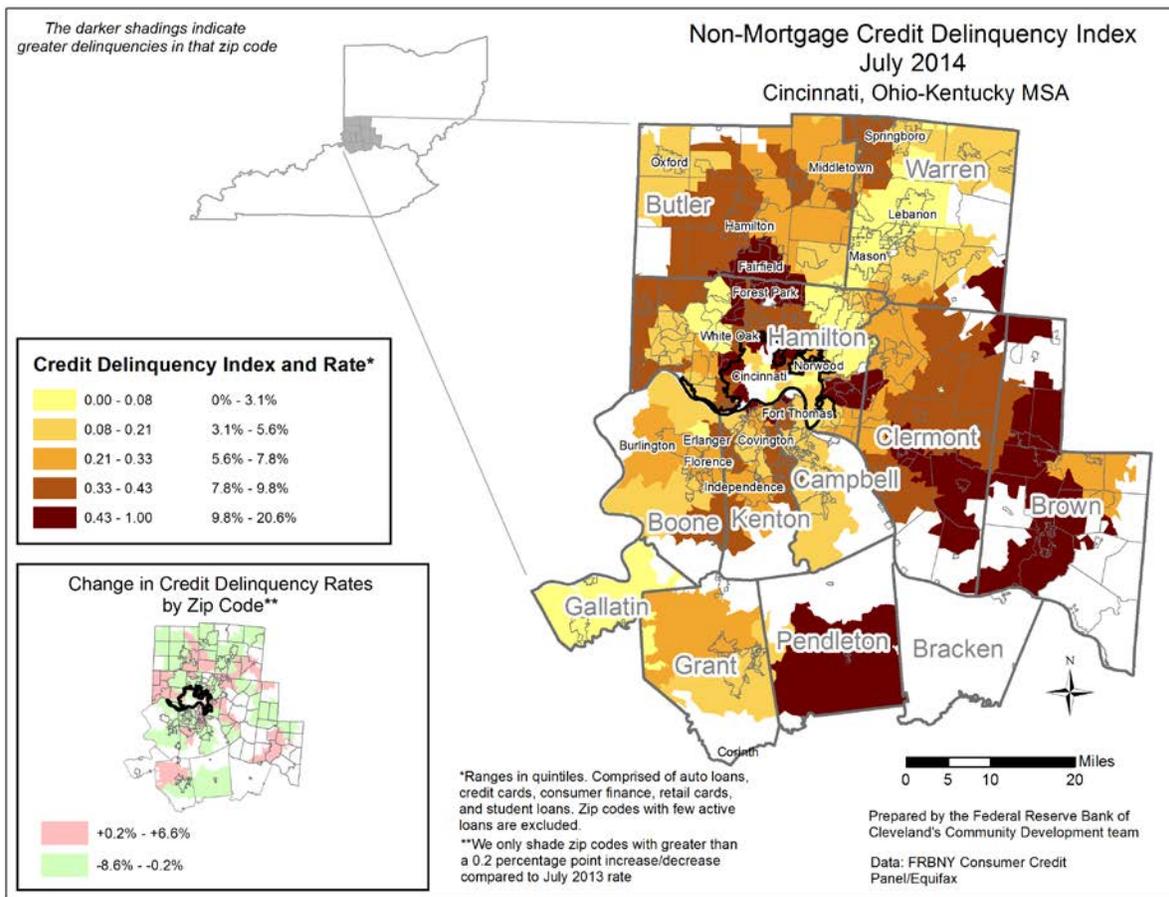
- REO Index:** REO rates, on average, have moved very little over the past year, holding steady at around 1.3 percent. The highest rates are currently found along the eastern border of Clermont County and in zip codes in and adjacent to the City of Cincinnati. An encouraging sign, though, is that all zip codes in the City of Cincinnati experienced declining rates from July 2013 to July 2014. However, rates did increase in some zip codes—for example, in Pendleton County and in and around Oxford, Ohio.



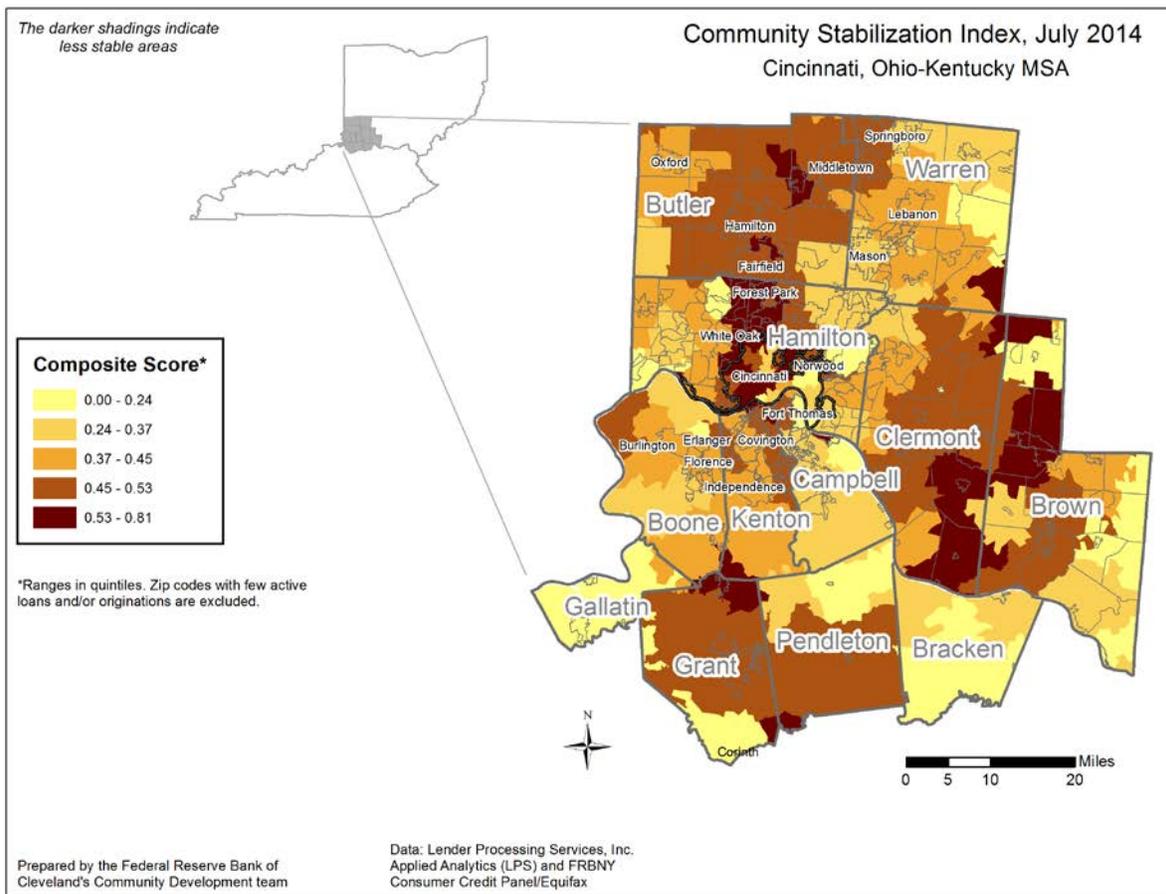
- Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median home value in the Cincinnati MSA declined by 6.4 percent from 2005 to 2013 (since the beginning of the housing crisis) and dropped an additional 3.9 percent from 2012 to 2013. The City of Cincinnati has fared relatively well over the entire period, with the rest of Hamilton County and surrounding counties experiencing a greater loss in home values on average.



- Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. Most zip codes across the 12-county Cincinnati MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is likely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory (defined here as seriously delinquent loans, foreclosures, and REOs) has decreased across the region, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map. Northern Hamilton County and Clermont County had the fewest originations per distressed unit.



6. **Credit Delinquency Index:** The most troubled areas in terms of non-mortgage credit delinquency include zip codes primarily in Brown, Pendleton, and Clermont Counties. This is yet another sign of distress in certain zip codes in these counties, which have also been affected by higher rates of mortgage delinquency, foreclosures, and REOs compared to the rest of the region. Notably for Pendleton County, though, zip codes there have seen declining rates of credit delinquency since July 2013.



- Community Stabilization Index:** Despite one of the strongest home value indices, most zip codes in the City of Cincinnati have a worse composite score than those in Hamilton and other counties due to high rates of delinquency, foreclosure and REO properties. Of the MSA's larger population centers, Boone, Kenton, Campbell and Warren Counties appear to be faring better than the rest of the region. Home values in these counties have been relatively stable; the four counties also have low REO rates.

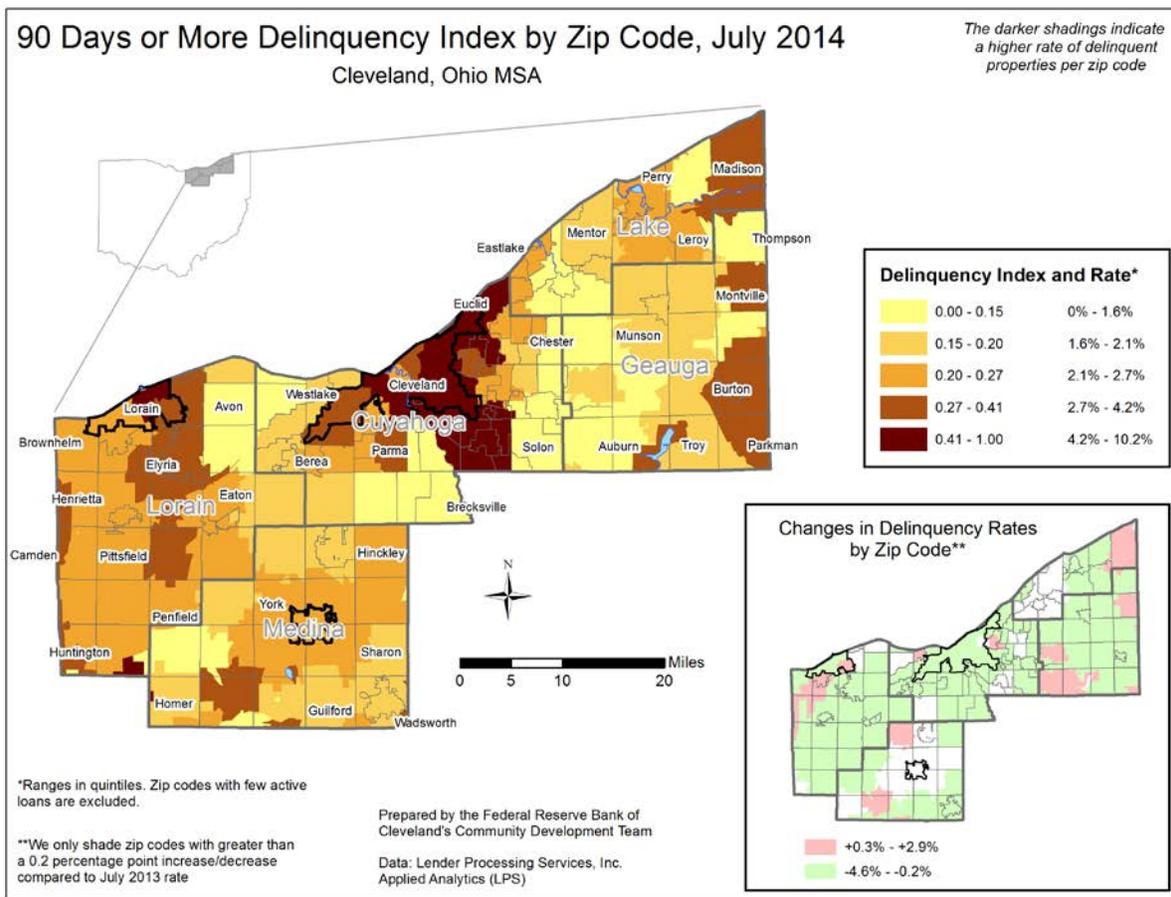
Community Stabilization Index for Cleveland, Ohio, MSA

Analysis updated December 2014, using July 2014 data

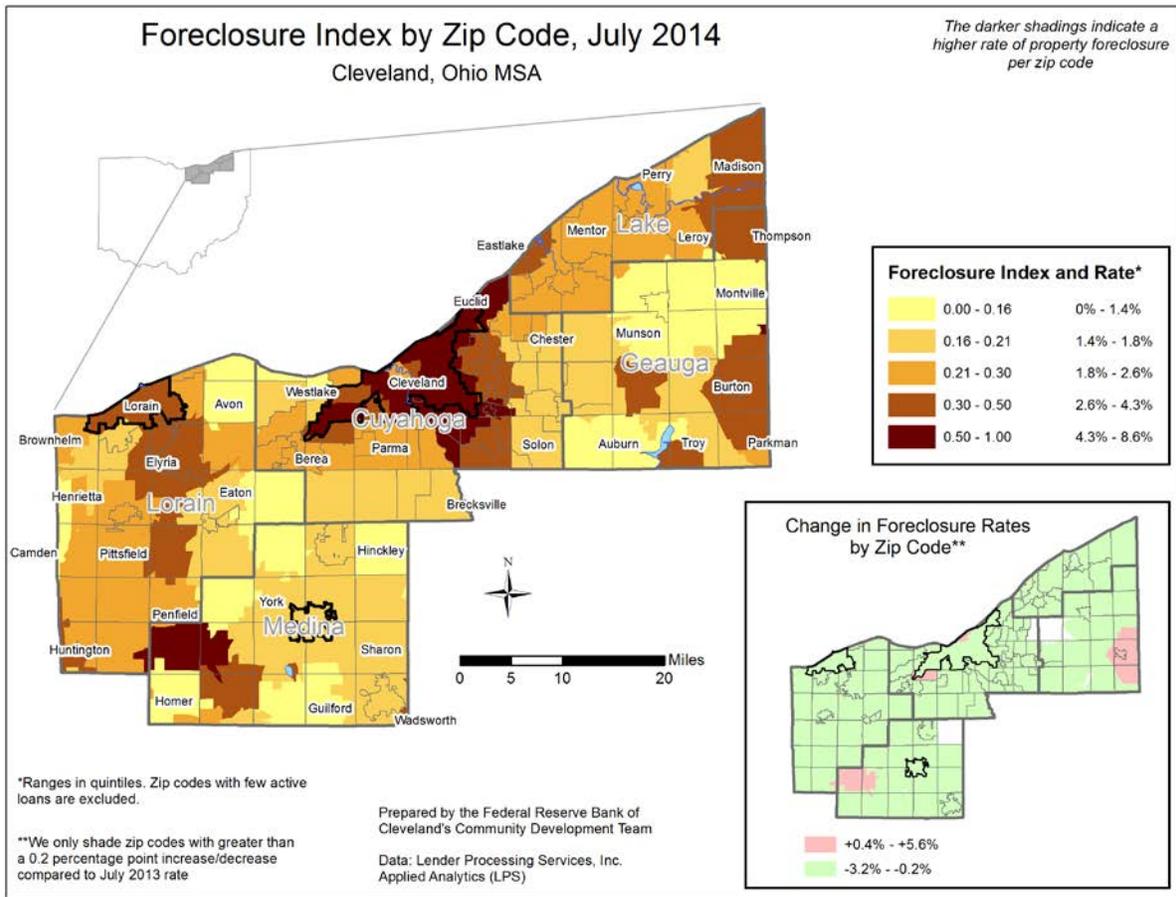
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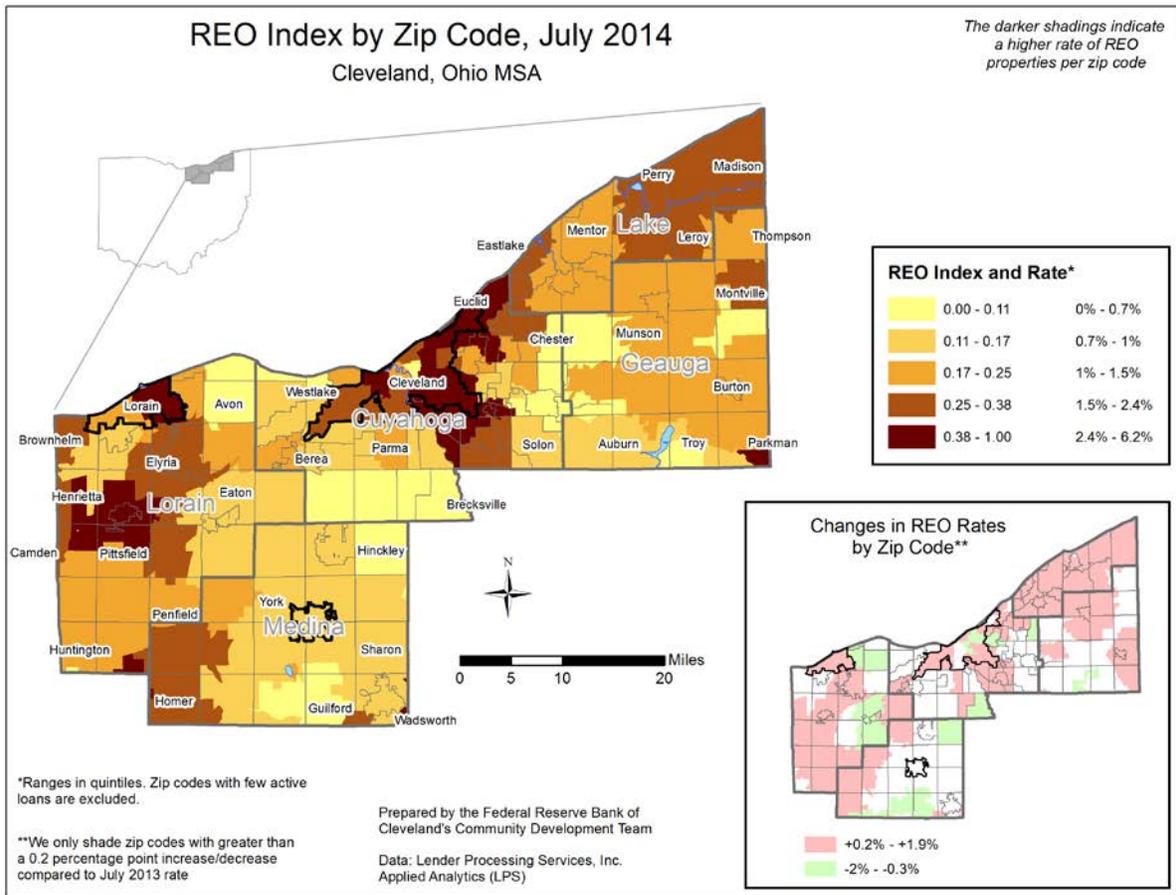
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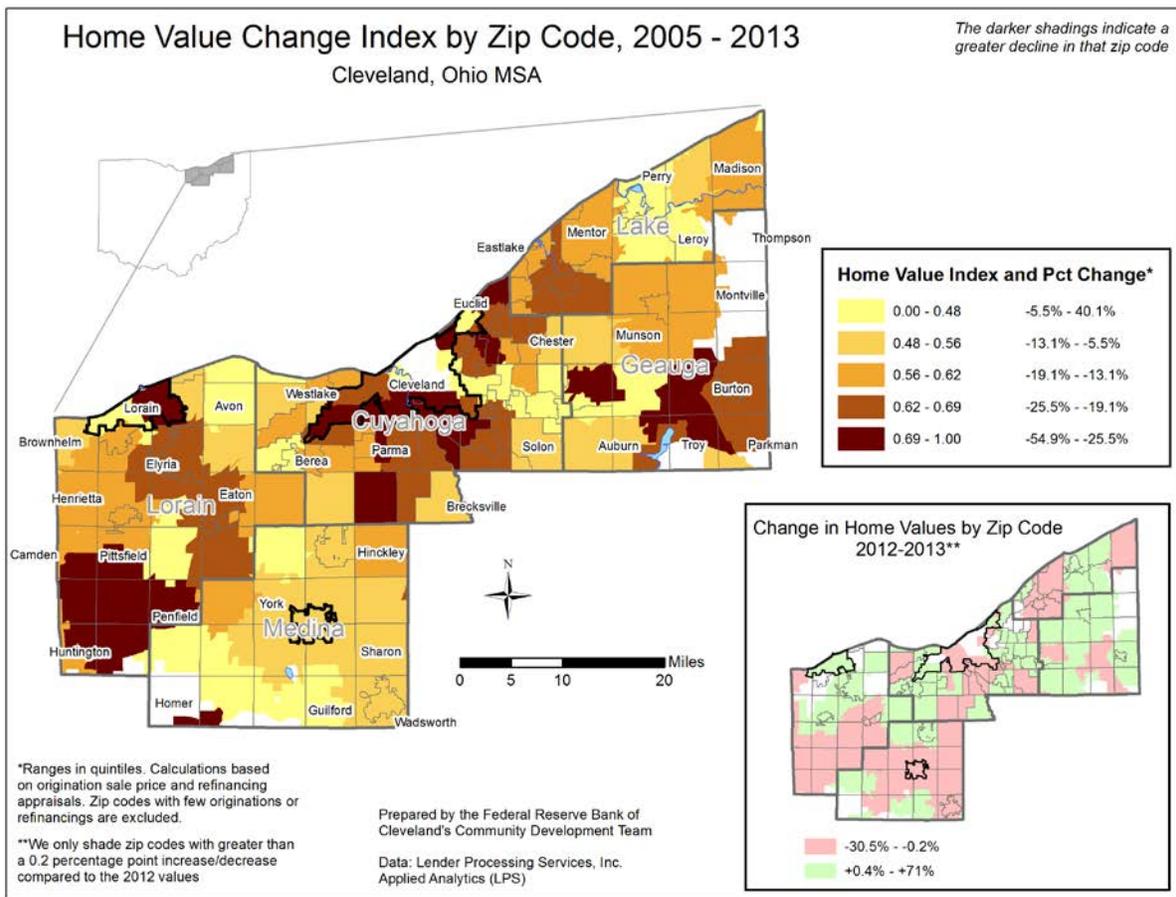
1. **90 Days or More Delinquency Index:** The Cleveland MSA's delinquency rate has continued to decline from 3.6 percent in July 2013 to 3.0 percent in July 2014. This is slightly above the state average. The highest rates remain the most prevalent in Cuyahoga County – particularly in the City of Cleveland. There is good news for Cuyahoga County, though: Nearly all of its zip codes have seen a decline in delinquency rates over the past year. Still, Geauga and Lake Counties appear to be faring better than the rest of the region.



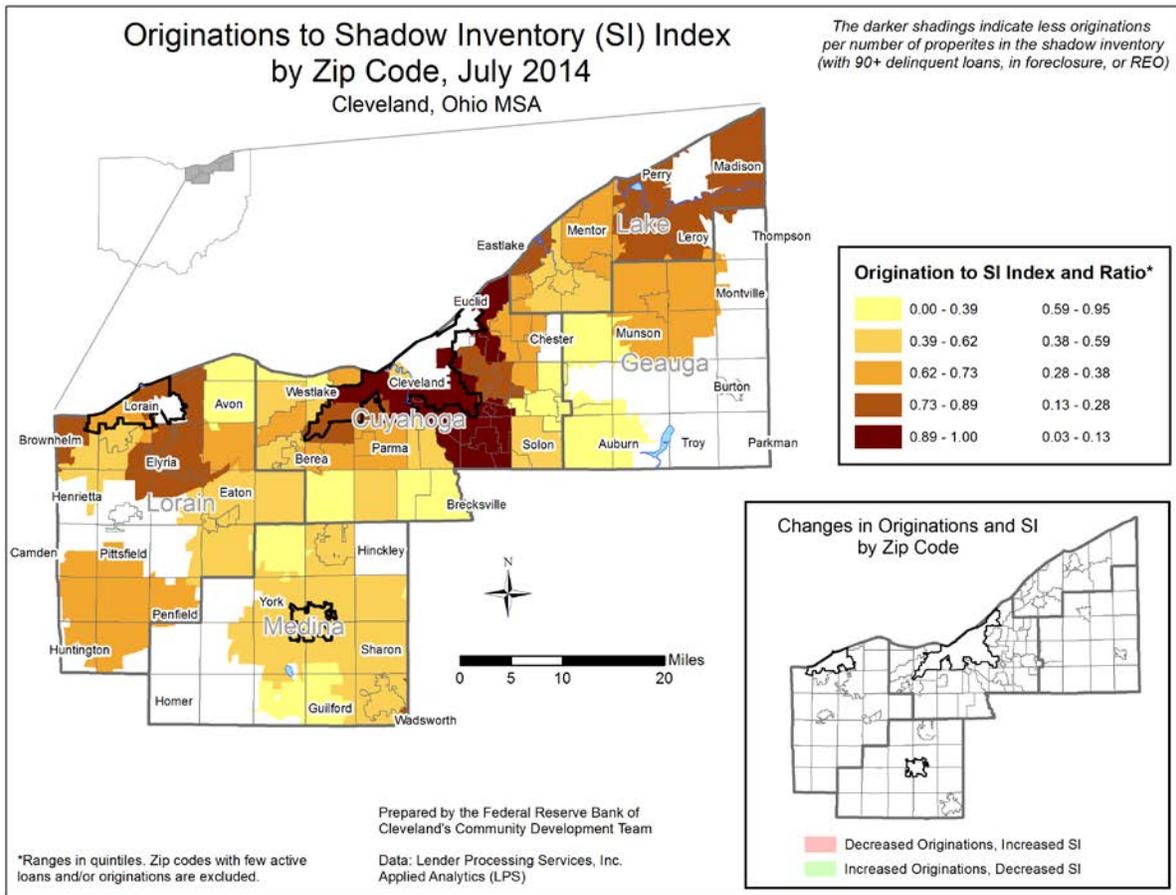
2. **Foreclosure Index:** The region's foreclosure rates have also continued a downward trend since July 2013, declining by an average of 1.2 percentage points to the current regional average of 2.8 percent. However, this is still above the state average of 2.2 percent. As with 90 days or more delinquency, the City of Cleveland has experienced the highest foreclosure rates—as high as 8.6 percent. The Cities of Lorain, Elyria, and Madison also face higher-than-average foreclosure rates.



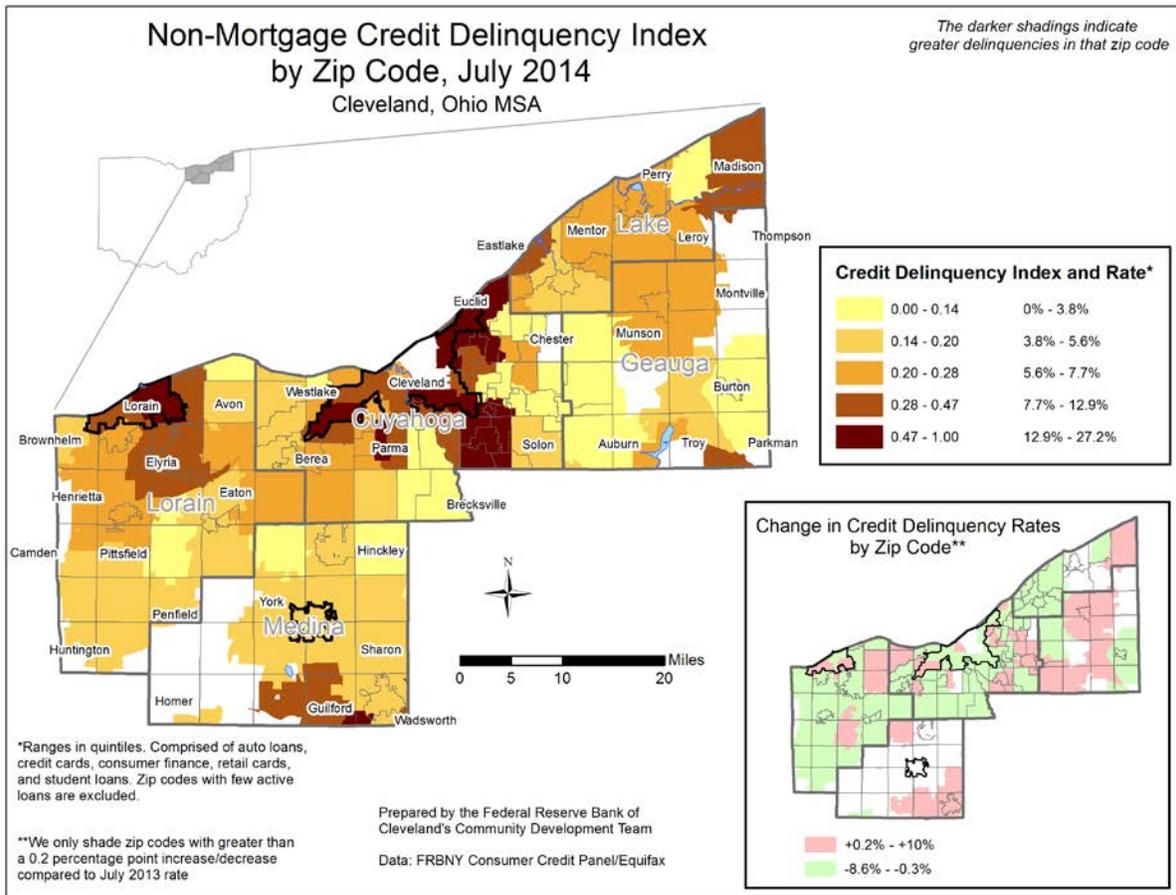
- REO Index:** REO rates have changed less than seriously delinquent and foreclosure rates during the past year. Though we see increases across the Cleveland MSA, the average REO rate rose by only 0.2 percentage points on average. The largest increases occurred in Lake County, but the City of Cleveland is still experiencing the highest rates—a stark contrast with the rest of Cuyahoga County, which is actually faring better than most of the region.



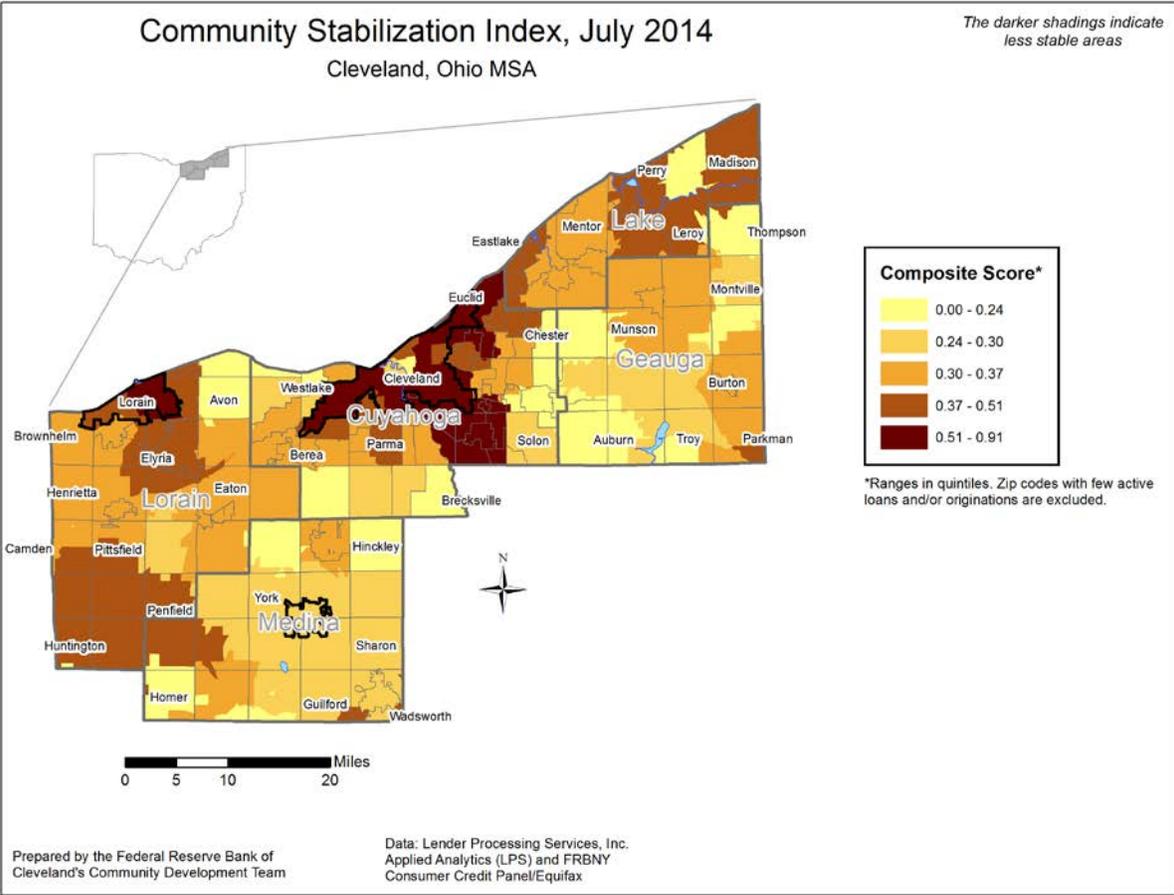
- Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median value of homes from 2005 to 2013 in the Cleveland MSA has declined by 16.5 percent—nearly double the average decline in median home values at the state level. The entirety of this decline actually occurred before 2012, with no movement in the median value for the MSA overall in the most recent year that data is available. However, the experience of individual zip codes within the MSA varies widely.



5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. All zip codes across the five-county MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is largely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory has decreased across the region, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map, which is intended to capture only large movements in the ratio. The City of Cleveland and Garfield Heights in south suburban Cuyahoga County appear the worst off, with the fewest originations per distressed units.



- Credit Delinquency Index:** The most troubled areas in terms of non-mortgage credit delinquency include zip codes within the City of Cleveland and the City of Lorain, where these delinquency rates can be as high as 27.2 percent. Notably in Cleveland's most distressed zip codes, though, rates have been falling over the past year. The regional average of 8.4 percent is about a half percentage point above the state average.



7. **Community Stabilization Index:** With stabilizing home values over the past year and falling rates of foreclosure and 90-days-or-more delinquency, the housing market in greater Cleveland is beginning to show signs of recovery. However, until home values actually increase, expectations should remain conservative—especially as long as the volume of originations follows national trends, which show they are at their lowest levels since 2000.

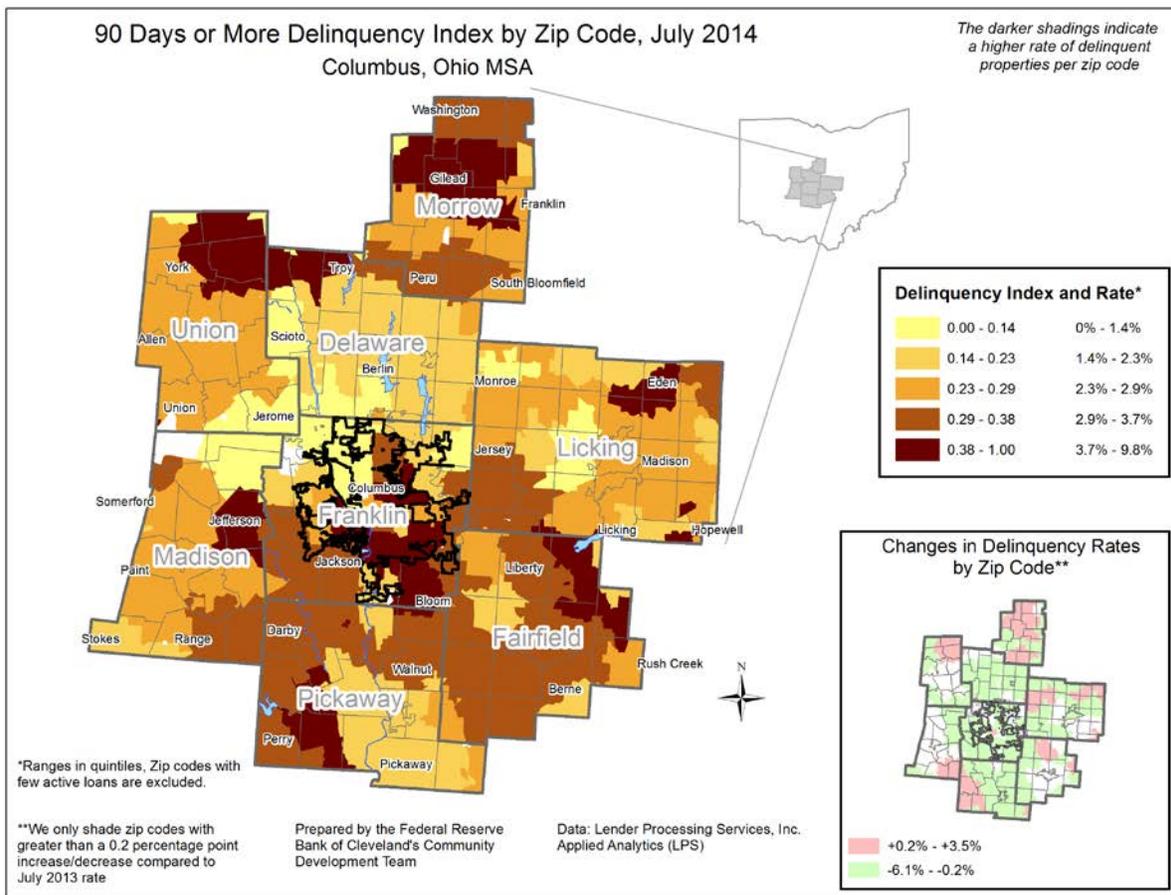
Community Stabilization Index for Columbus, Ohio, MSA

Analysis updated December 2014, using July 2014 data

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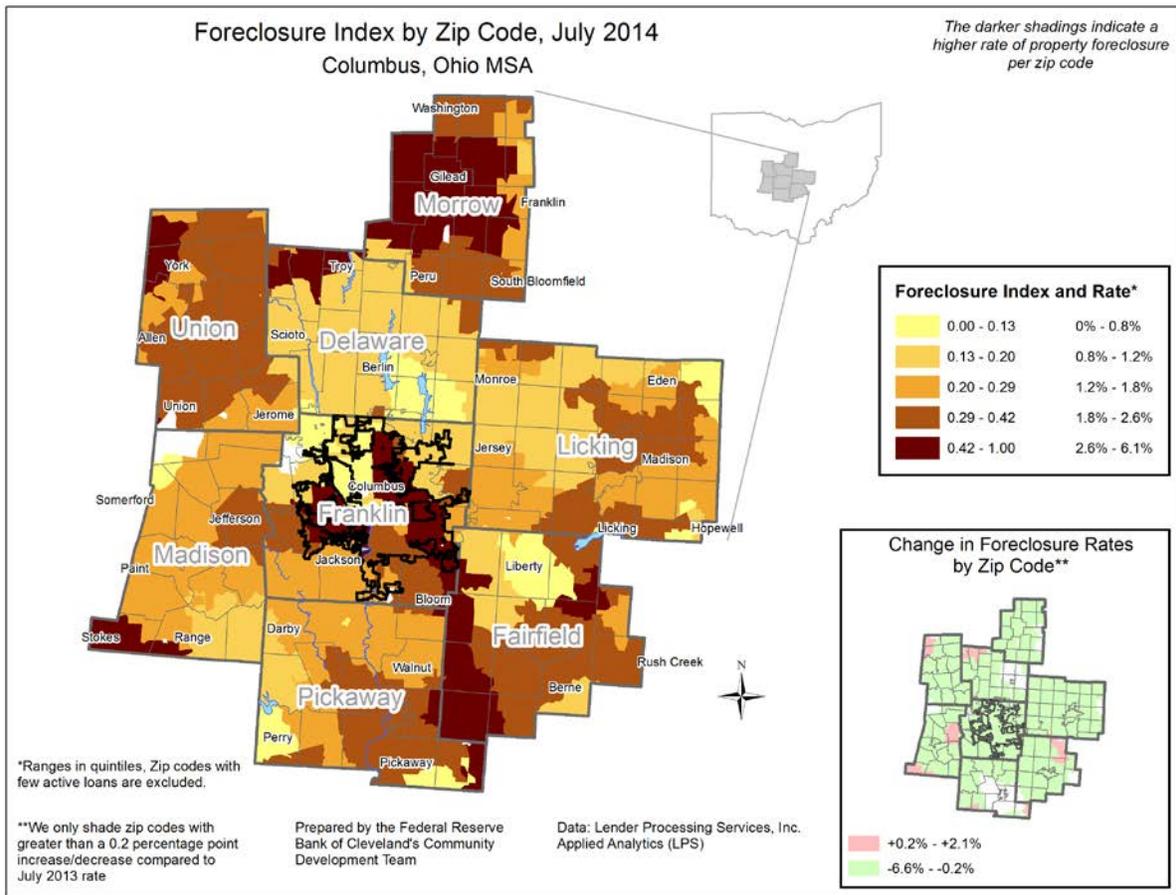
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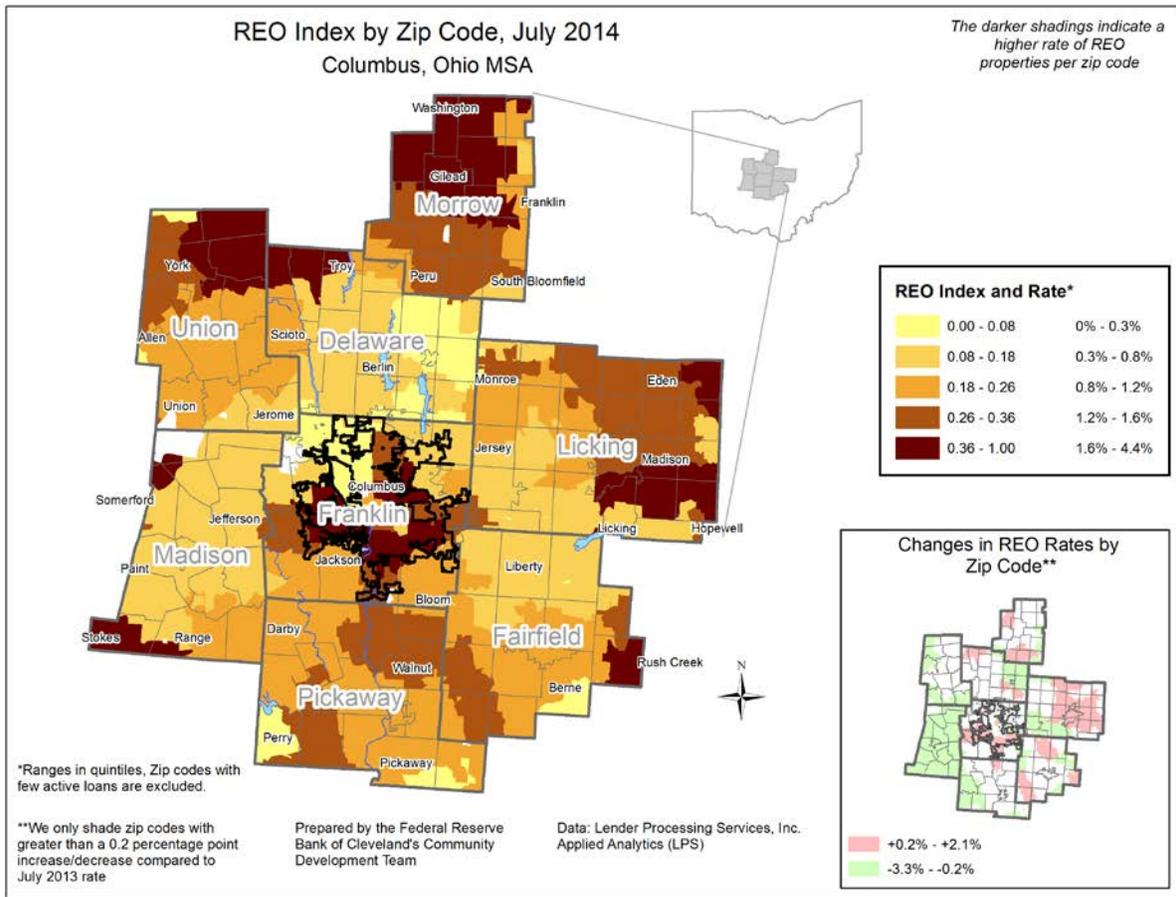


1. **90 Days or More Delinquency Index:** The eight-county Columbus MSA's delinquency rate has continued to decline, if only slightly, from 3.0 percent in July 2013 to 2.8 percent in July 2014. This delinquency rate is nearly identical to the state average. The highest rates remain the most prevalent in Franklin County—particularly in the City of Columbus—although pockets of high delinquency exist in all eight counties comprising the MSA. While most zip codes—except in

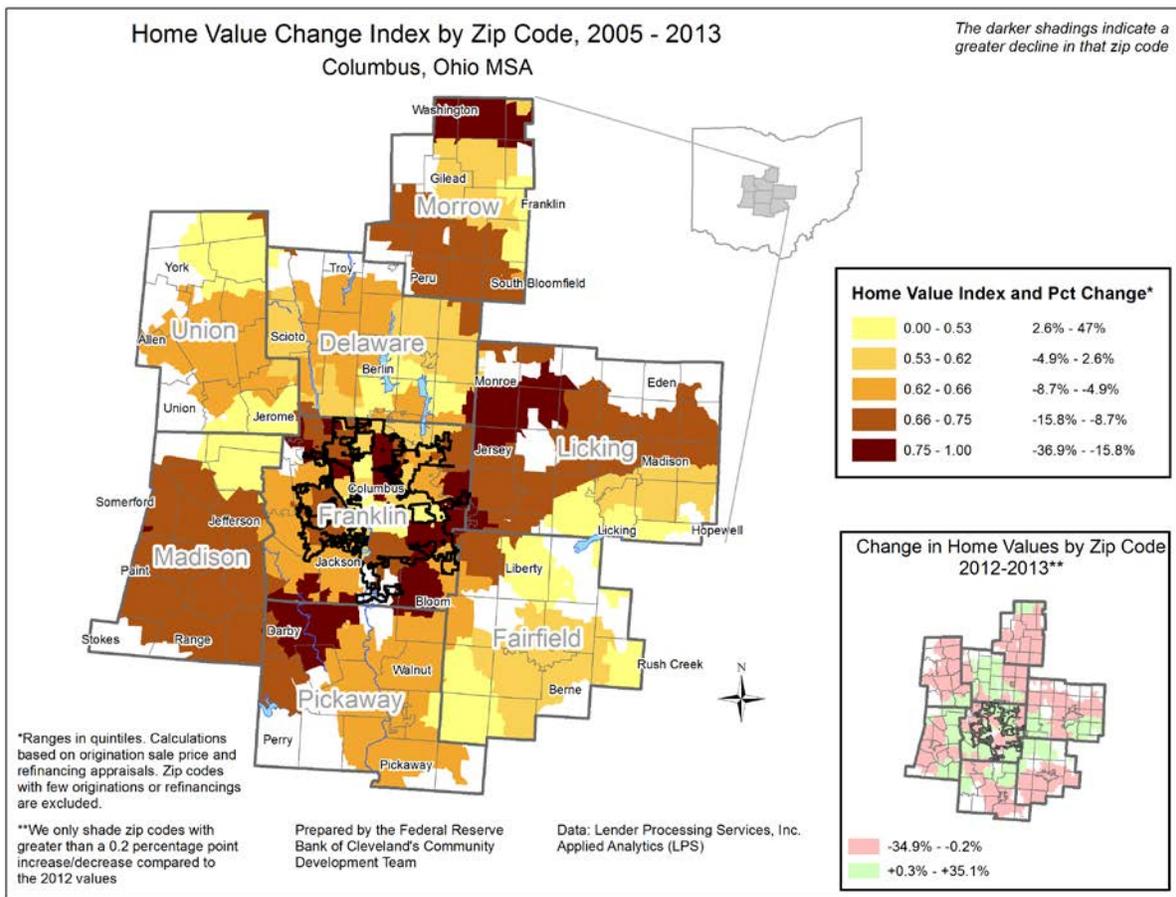
Morrow County—are now experiencing declining rates, Union, Delaware, and Licking Counties appear to be faring better than the rest of the region.



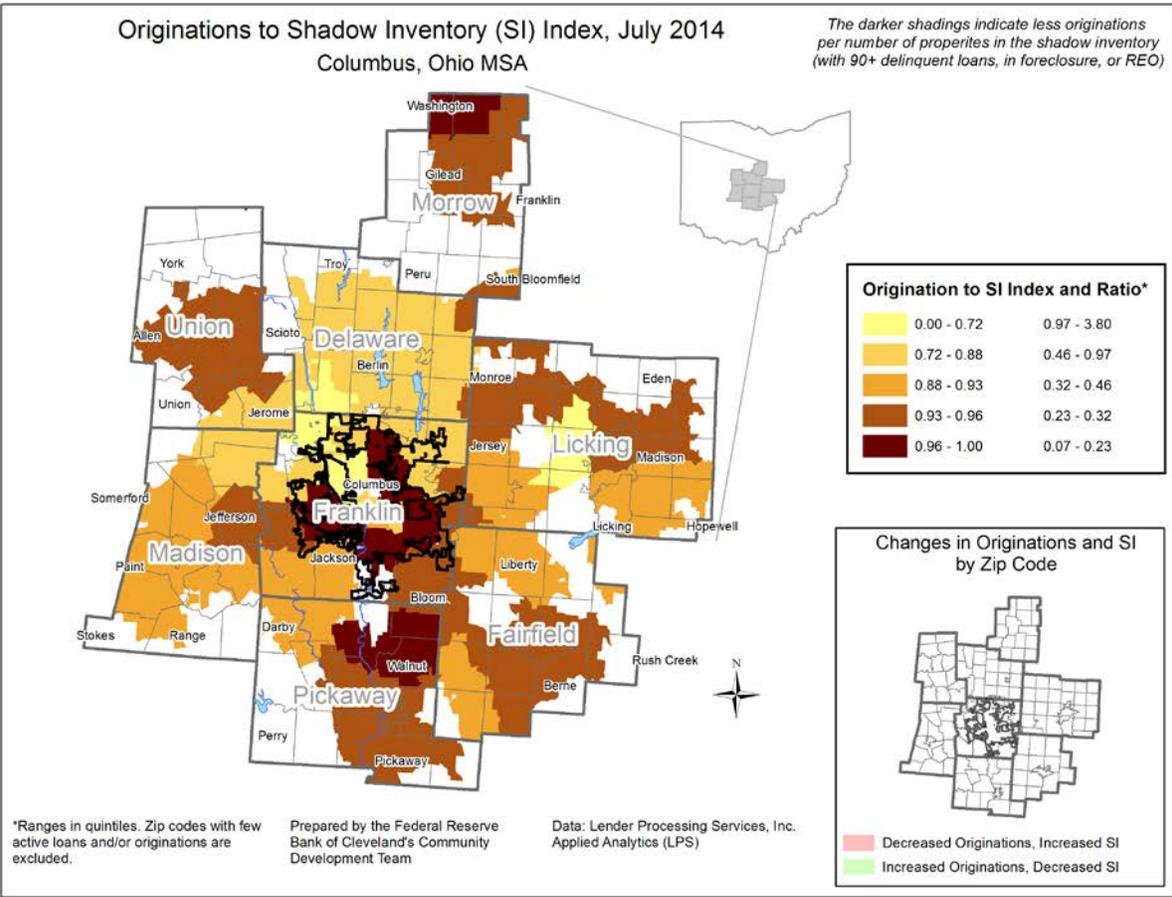
- Foreclosure Index:** The region's foreclosure rates have also continued a downward trend since July 2013, declining by an average of 1 percentage point to the current regional average of 2.0 percent. This is slightly below the state average of 2.2 percent. Almost two-thirds of the region's zip codes, in fact, have foreclosure rates lower than the statewide rate. The highest foreclosure rates are seen mostly in East Columbus and in much of Morrow County. While nearly all areas have experienced declining foreclosure rates, Delaware and Licking Counties appear to be faring better than the rest of the region.



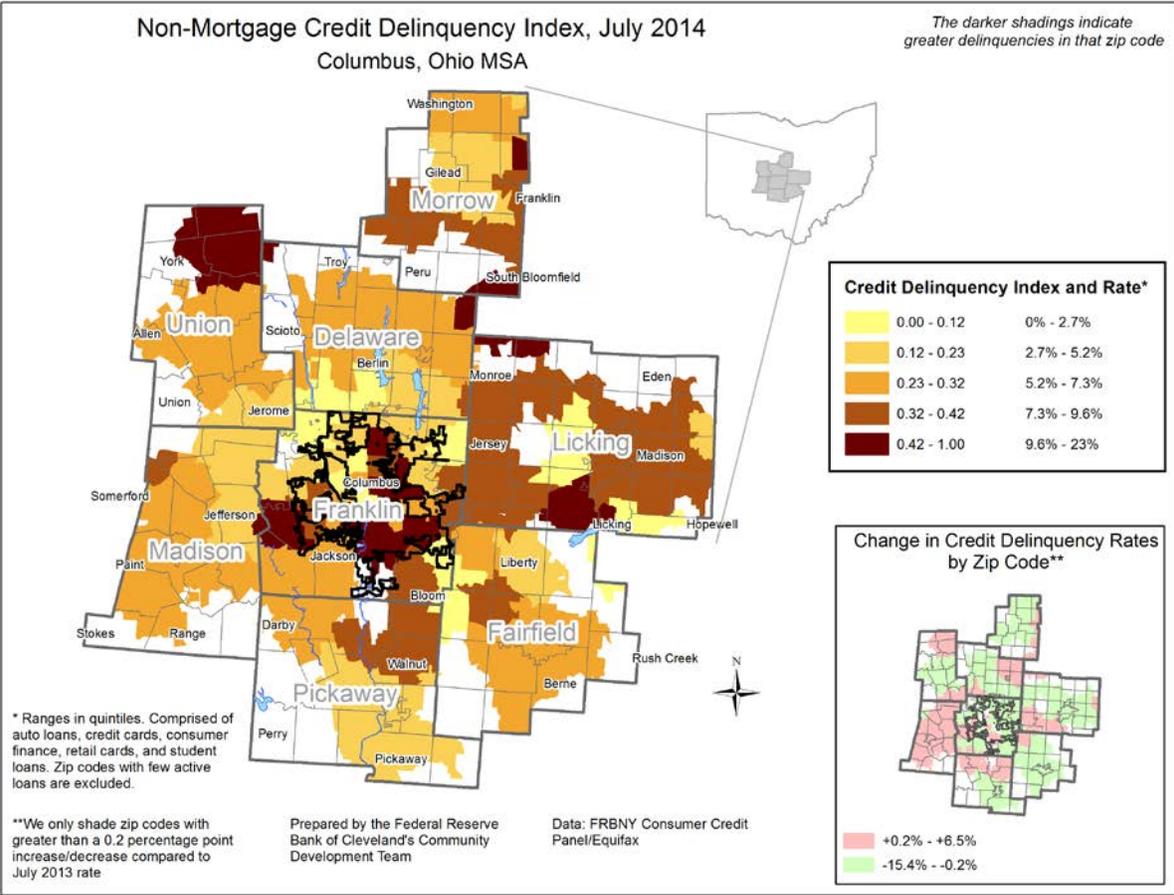
- REO Index:** REO rates have remained stable overall during the past year, falling less than a quarter of a percentage point since 2013. With an average REO rate of 1.2 percent, the region is on par with the rest of Ohio. As in other measures of destabilization, the City of Columbus is saddled with the highest rate of REO properties; this could remain the case for the foreseeable future as properties continue to move through the foreclosure process. Similarly, as Licking County's delinquency and foreclosure rates have dropped, its zip codes have seen a rise in REO properties since July 2013.



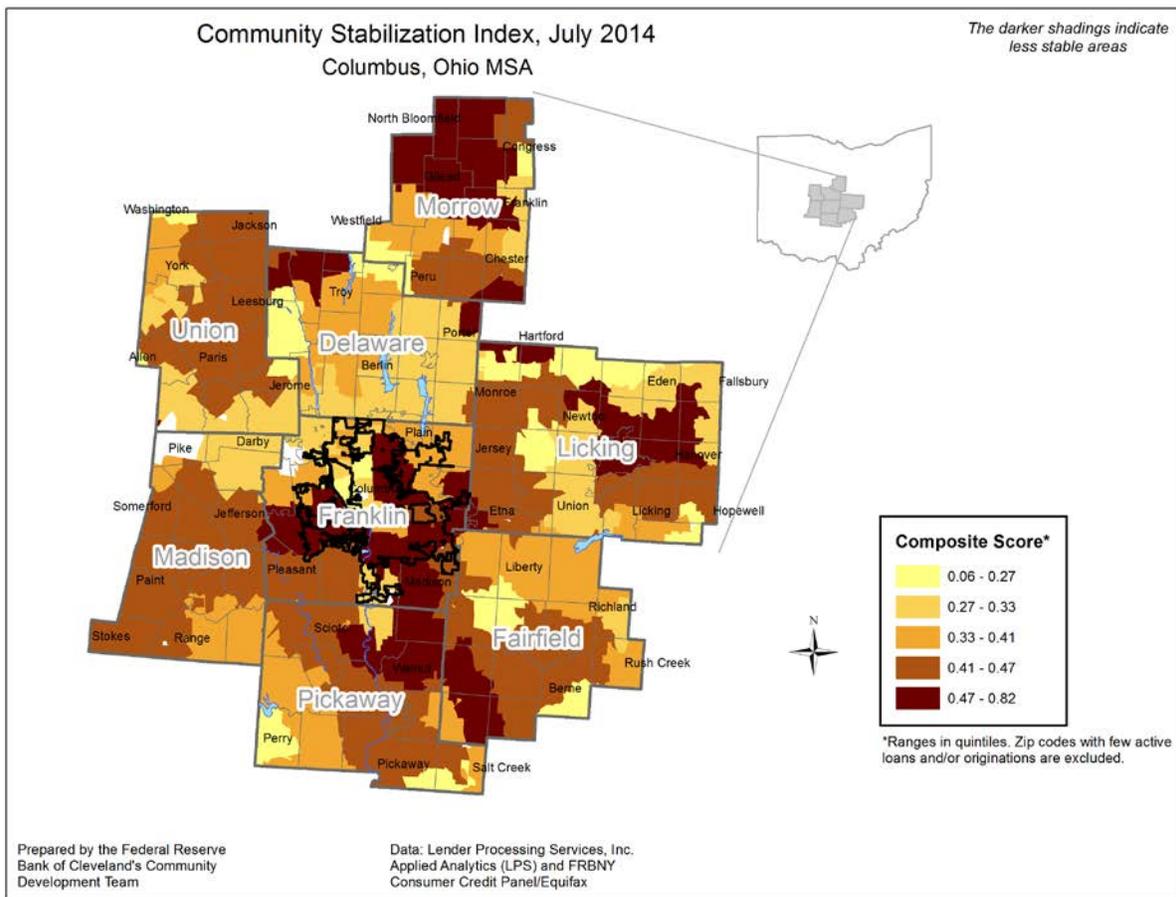
4. **Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median home value from 2005 to 2013 in the eight-county Columbus MSA declined by 7 percent. While pockets throughout the region are seeing some increases in home values in the most recent year of data – e.g., in Delaware County – most zip codes continue to experience falling values.



5. **Originations-to-Shadow-Inventory Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. This ratio is highest (a good thing) in the northwest quadrant of Franklin County, and in parts of Delaware and Licking Counties. The ratio on average has declined since 2013—a not-so-good thing—with originations decreasing more than the shadow inventory in most places, but nowhere are originations and SI moving in opposite directions, as indicated by the blank inset map, which is intended to capture only large movements in the ratio. Such a decline in originations is consistent with trends across the US from 2013 to 2014; refinancing activity, for instance, is down 60 percent over the past year.



6. **Credit Delinquency Index:** The most troubled areas in terms of non-mortgage credit delinquency include zip codes within the City of Columbus and parts of Licking, Union, and Morrow Counties, where these delinquency rates can be as high as 23 percent. Notably in Columbus, though, rates have been falling over the past year. The regional average is slightly below the state average of 7.9 percent.



- Community Stabilization Index:** Encouraging signs in greater Columbus include falling rates of 90-days-or-more delinquency, foreclosure, and REO properties. However, with still falling home values and very low levels of originations, the housing market has struggled to build much momentum. Conditions remain relatively stable, but significant growth does not appear to be around the corner.

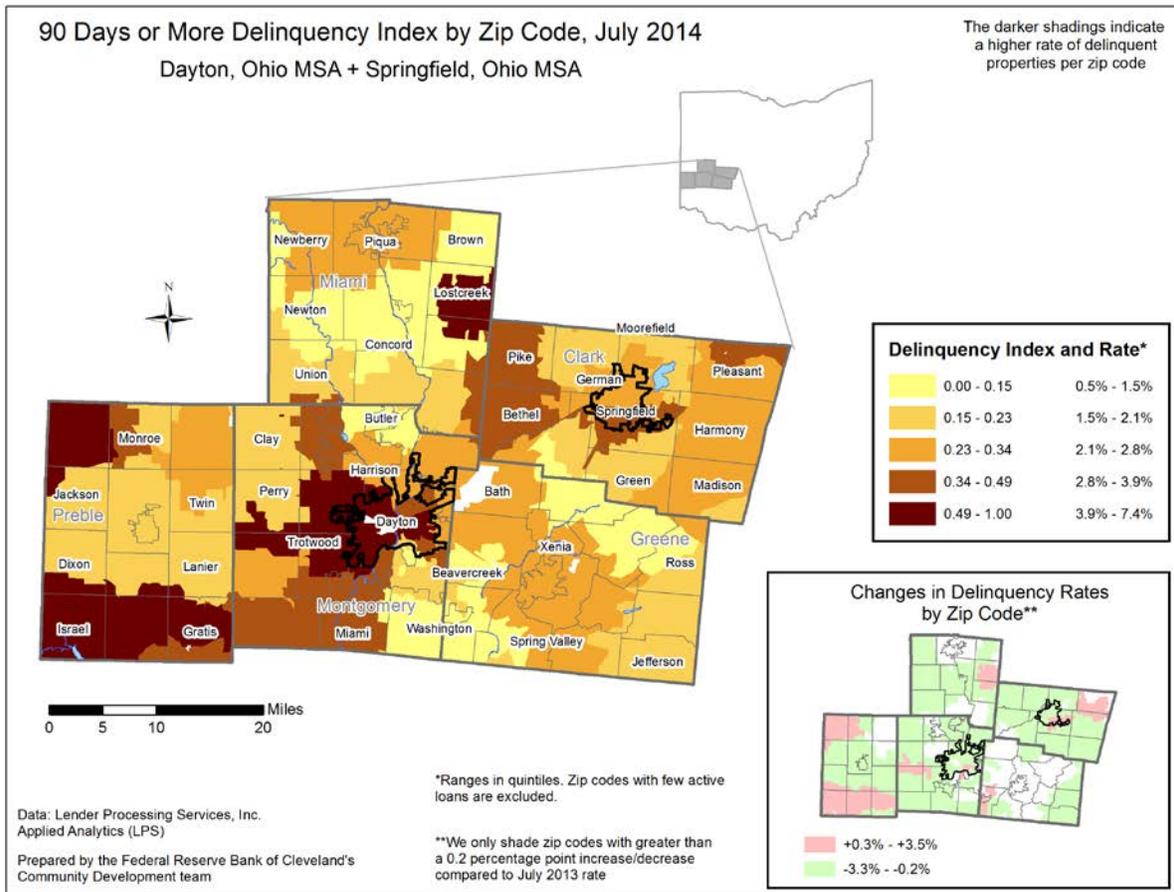
Community Stabilization Index for Dayton + Springfield, Ohio, MSAs

Analysis updated December 2014, using July 2014 data

The Community Stabilization Index (CSI) is a composite index that aims to provide community leaders with a relative measure of local housing market conditions, with a particular focus on recovery potential. The index is specific to conditions at the zip code level, and is comparable across all zip codes within a county or larger geographic area. Another helpful feature of the CSI is that periodic recalculations allow leaders to track relative changes in housing market conditions through time at the zip code level.

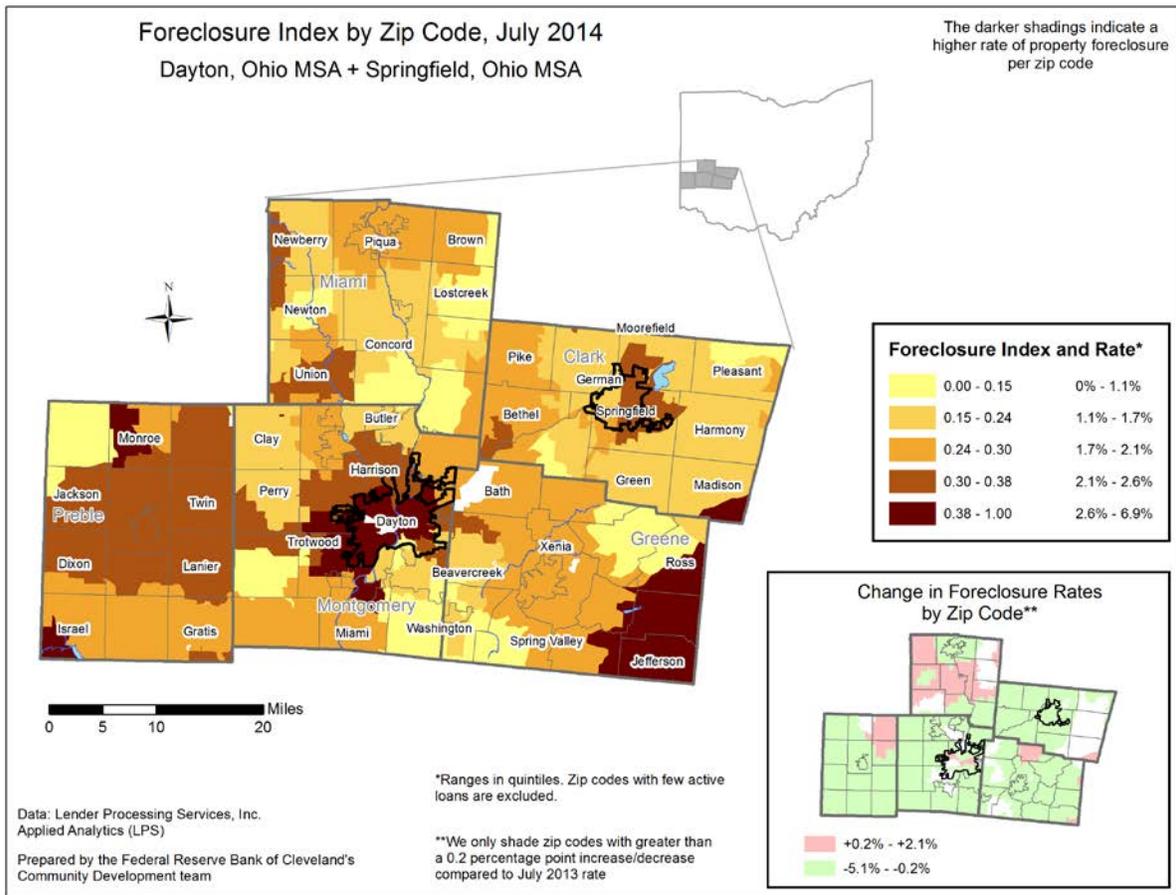
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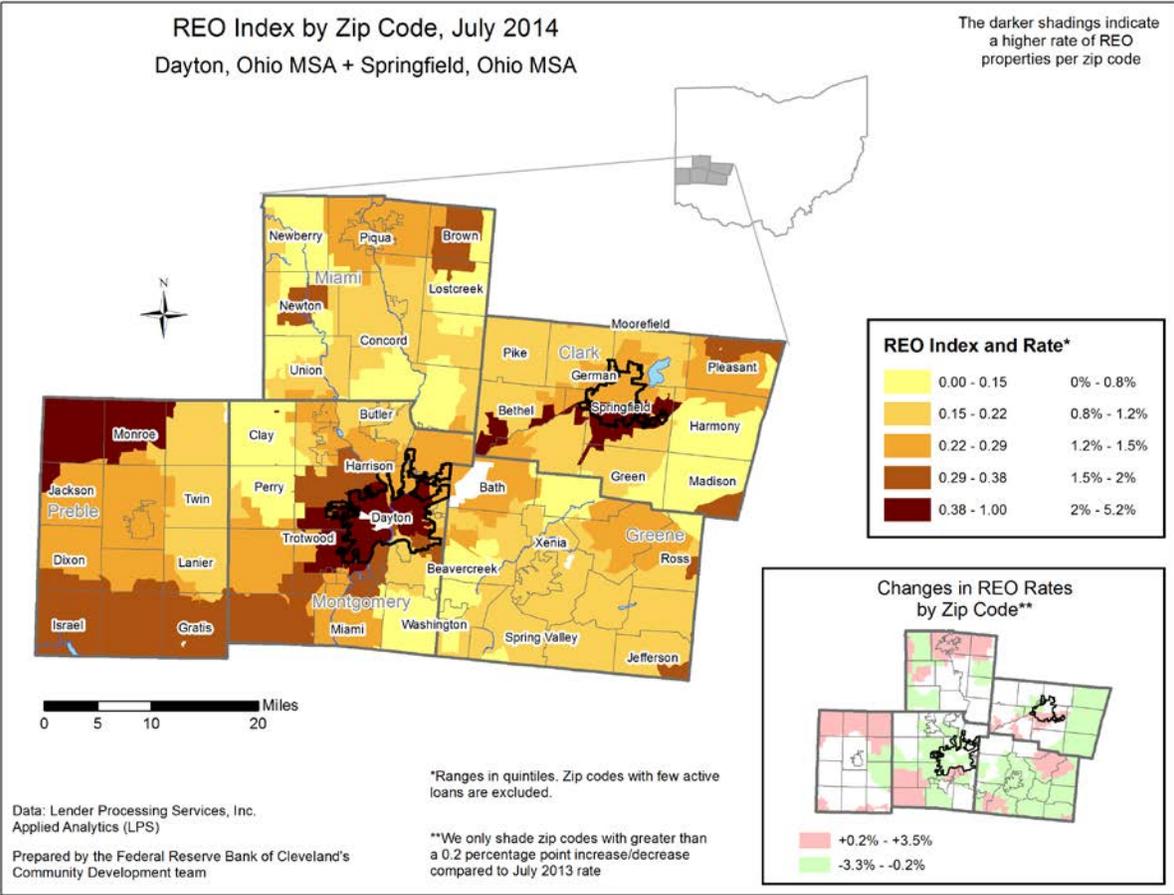


1. **90 Days or More Delinquency Index:** The Dayton and Springfield MSAs together have experienced an average decline in delinquency rates from 3.2 percent in July 2013 to 2.8 percent in July 2014. This more-recent delinquency rate is nearly identical to the state average. The highest rates remain the most prevalent in Montgomery County—in and around the City of

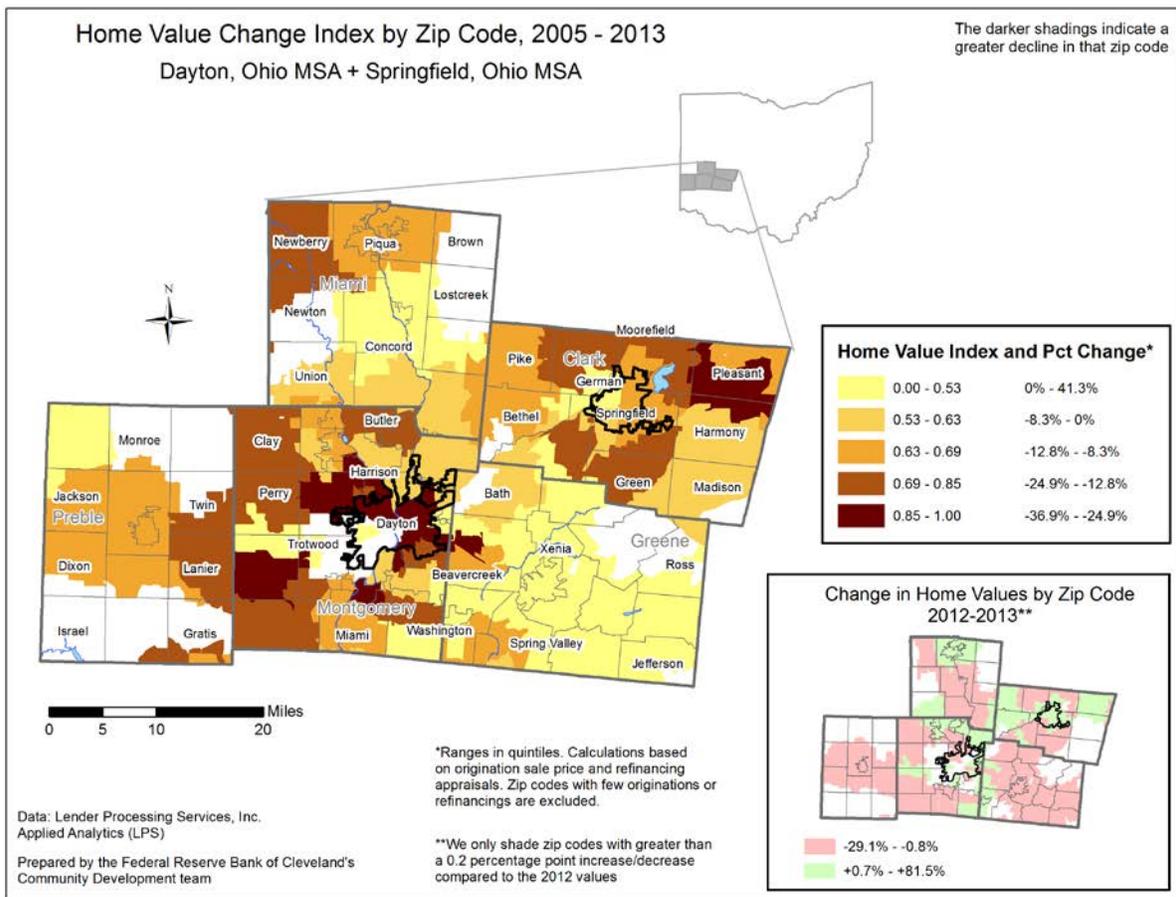
Dayton, in particular—whereas Greene and Miami Counties appear to be faring better than the rest of the region.



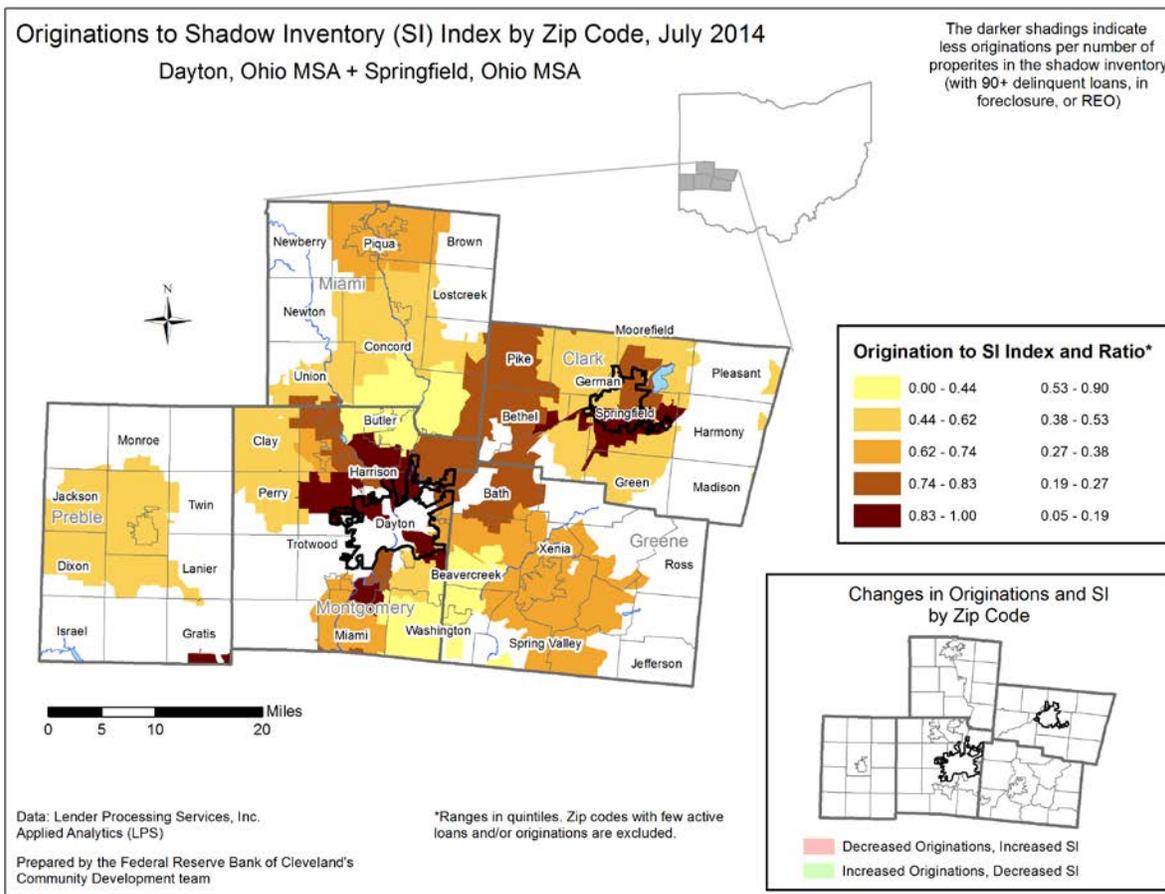
- Foreclosure Index:** On average, the region's foreclosure rates have also continued a downward trend since July 2013, declining from 2.8 percent to the current rate of two percent—slightly better than the state average. As with 90 days or more delinquency, the City of Dayton has experienced the highest foreclosure rates, with some zip codes registering rates around 5 percent. While Miami County at the north end of the MSA still has one of the lowest foreclosure index scores compared to the two MSAs overall, it is the only county in the region with increasing rates in most of its zip codes (inset map).



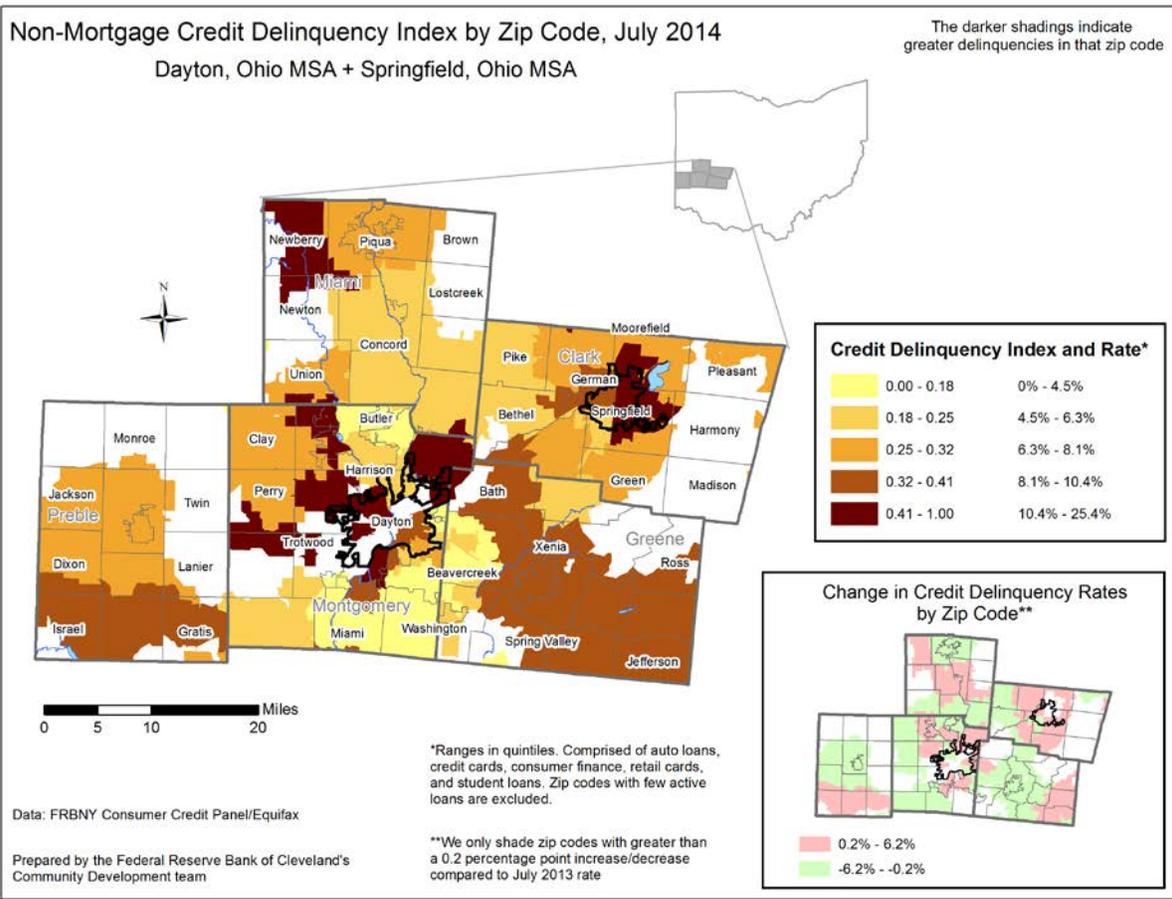
3. **REO Index:** Overall, REO rates have remained about the same during the past year, with the average across the region dipping 0.5 percentage points. At the zip code level, we see movement as much as plus or minus 3.5 percentage points. An encouraging sign: Although the City of Dayton is still faring worse than surrounding areas, every zip code in the city experienced falling REO rates from July 2013 to July 2014.



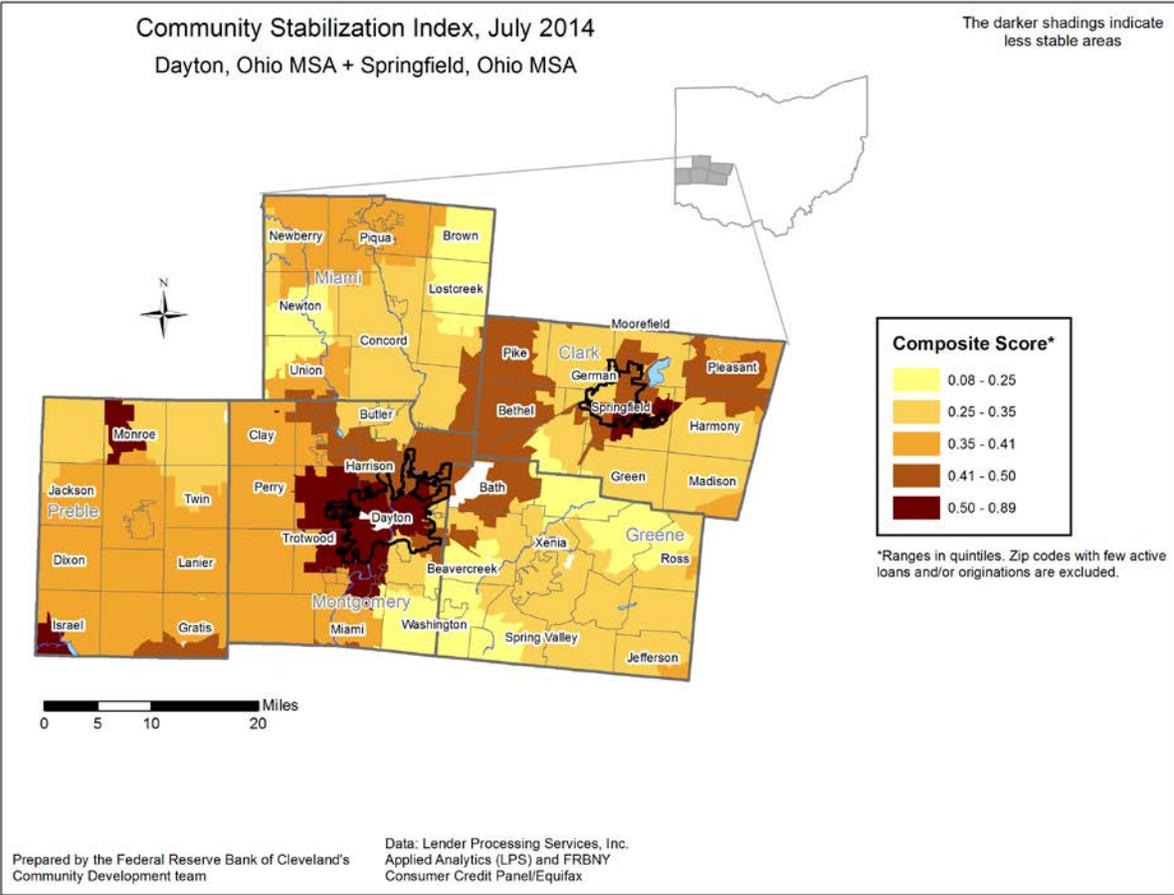
- Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median value of homes from 2005 to 2013 in the region has declined by 10.8 percent—just above the state average of 9.6 percent decline in home values. Unfortunately, most zip codes in the Dayton and Springfield MSAs were still experiencing falling home values from 2012 to 2013.



5. **Originations-to-Shadow-Inventory Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. All zip codes across the region have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is largely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory has decreased in both MSAs, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map, which is intended to identify zip codes doing very well or very poorly. The areas in and around the cities of Dayton and Springfield had the fewest originations per distressed units.



6. **Credit Delinquency Index:** Non-mortgage credit delinquency rates in the region (8.0 percent) are comparable to the Ohio state average (7.9 percent). The most troubled zip codes, with rates as high as 25.4 percent, tend to be concentrated in urban areas, which could potentially exacerbate underlying distress in those housing markets.



7. **Community Stabilization Index:** Rates of 90-days-or-more delinquency, foreclosure, and REO properties have fallen over the past year in the two-MSA region. A shrinking shadow inventory, however small, is a good thing, but considering historically low levels of originations and still-falling median home values, expectations for the housing market should remain conservative.

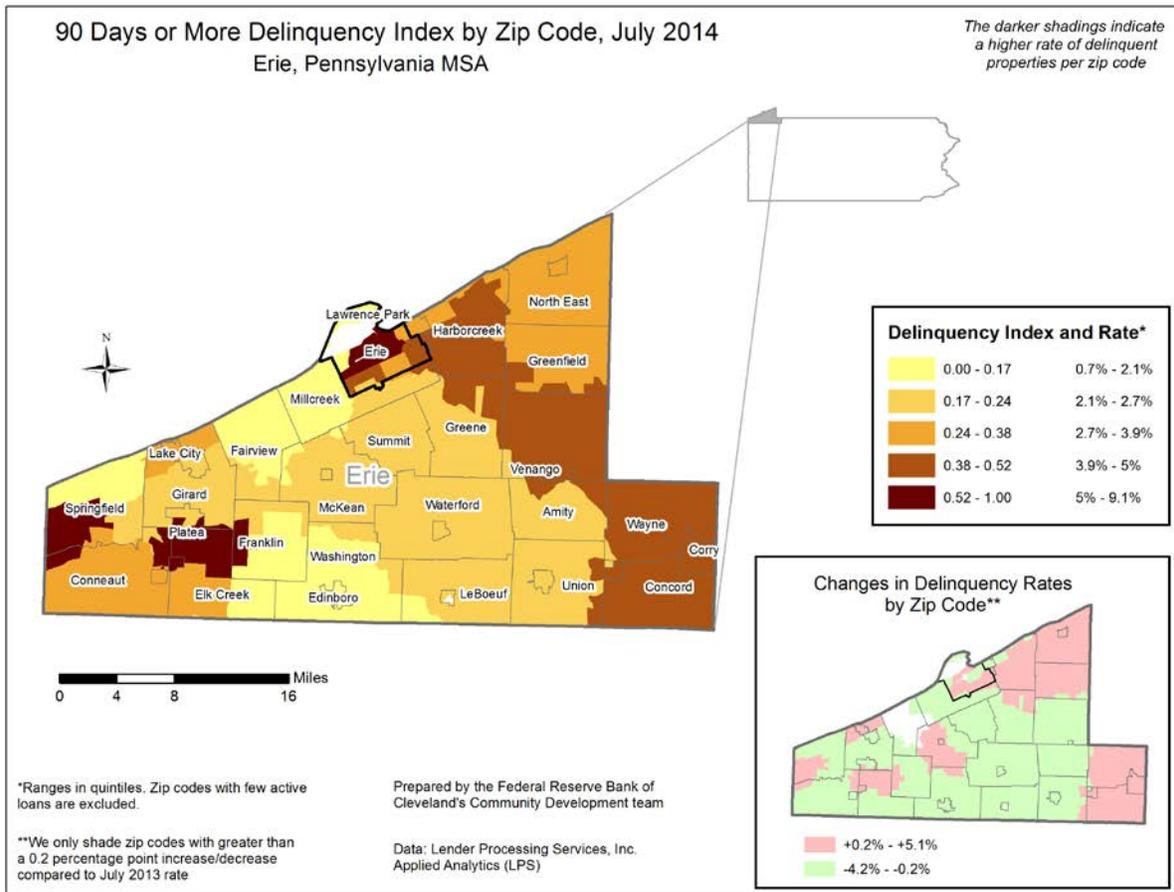
Community Stabilization Index for Erie, Pennsylvania, MSA

Analysis updated December 2014, using July 2014 data

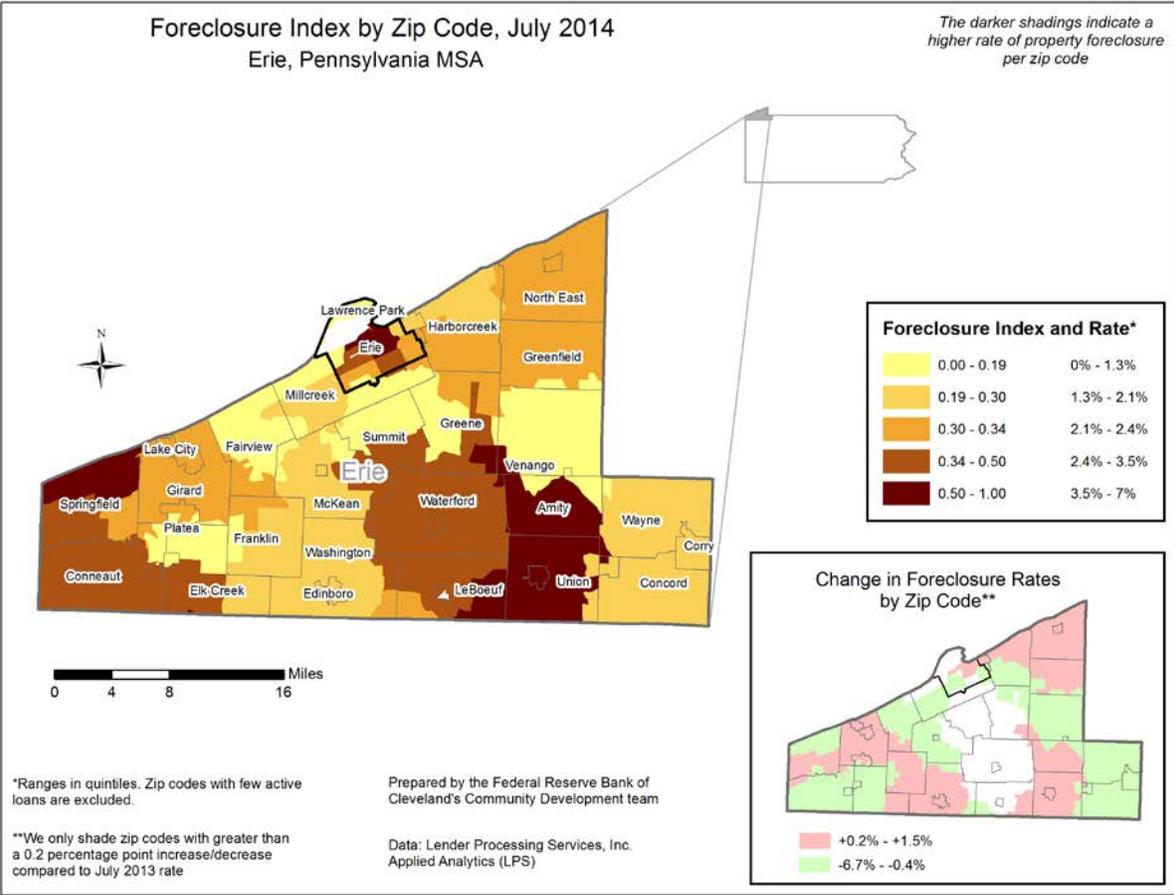
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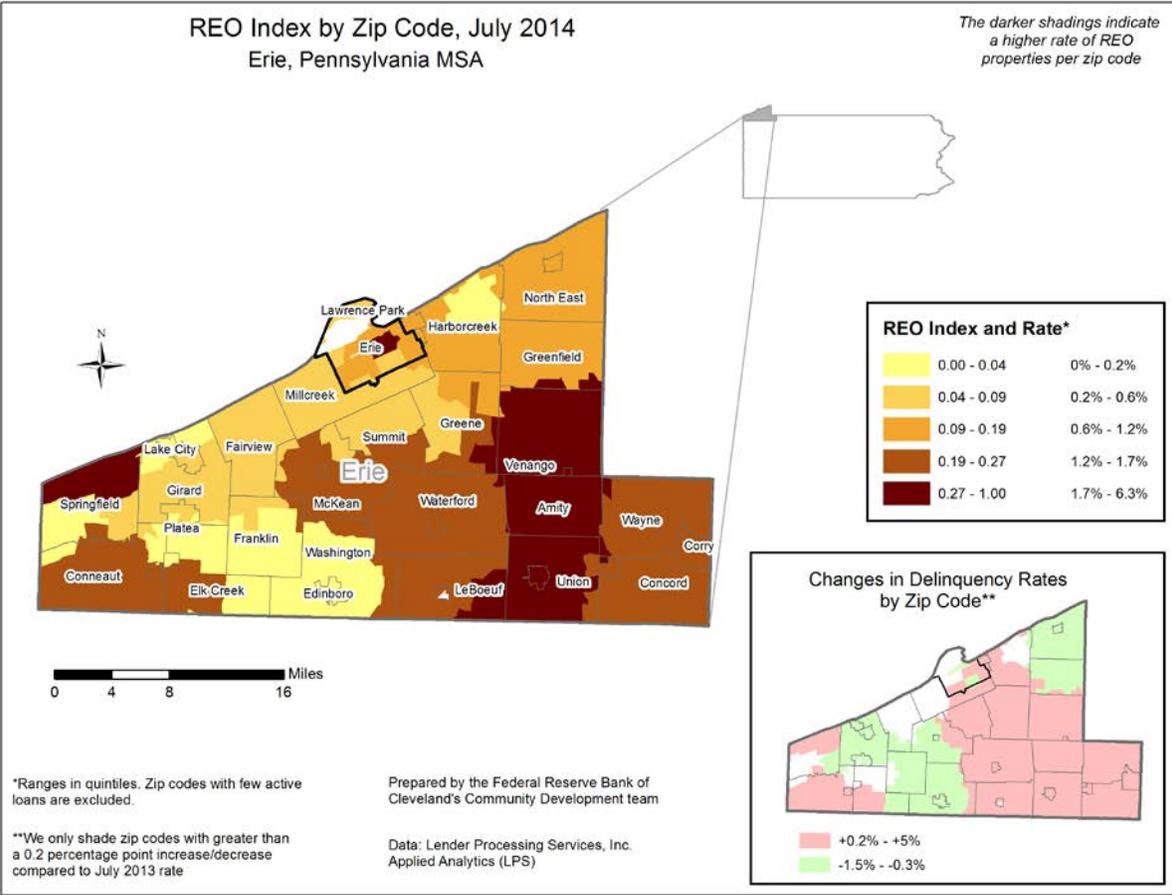
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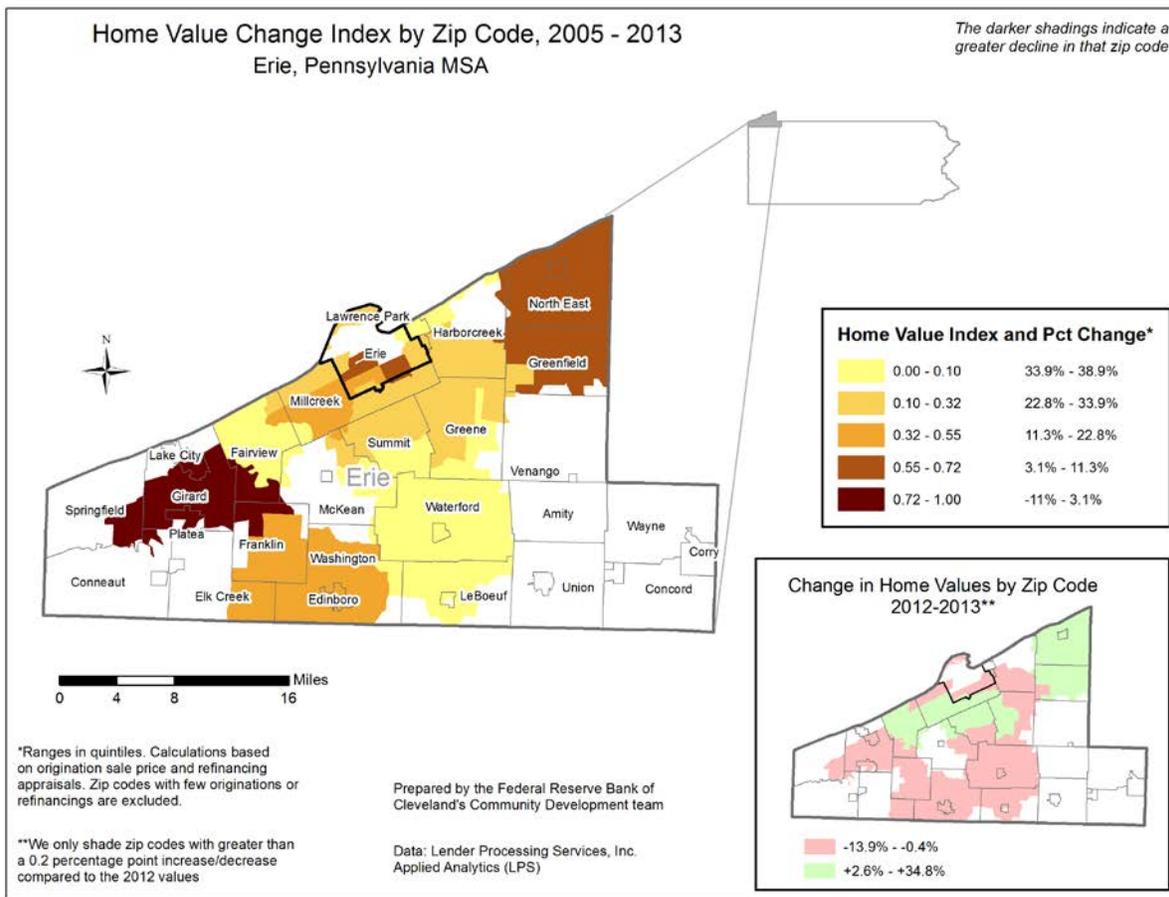
1. **90 Days or More Delinquency Index:** On average, delinquency rates in the one-county Erie MSA have declined minimally, by 0.09 percentage points to the current level of 3.6 percent. However, several zip codes in the northeastern corner of the county, as well as in the City of Erie, experienced increasing rates from July 2013 to July 2014 and tend to be faring worse than the rest of the region.



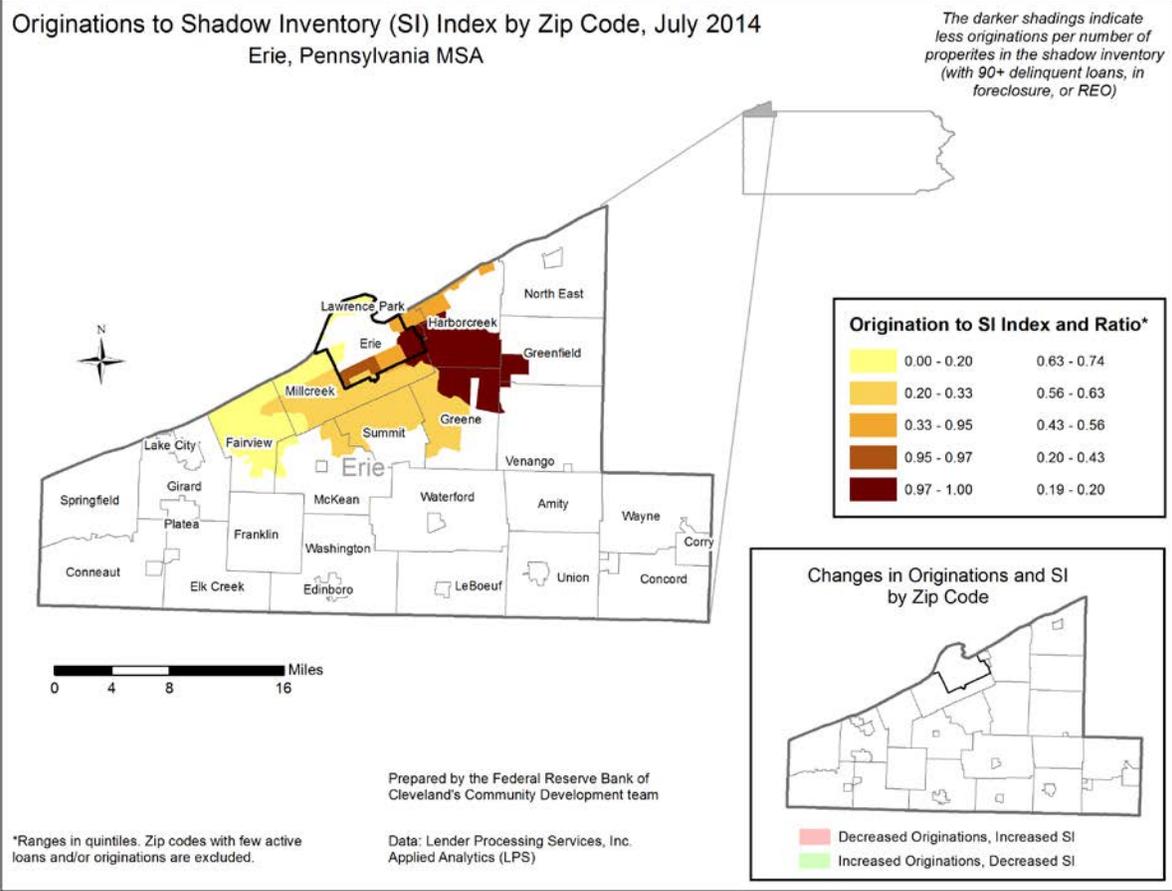
2. **Foreclosure Index:** The region's foreclosure rates declined, on average, by 0.6 percentage points from July 2013 to July 2014. The least stable zip codes rates tend to be in the City of Erie, as well as near Union City and Springfield Township. Most of these zip codes also experienced increasing rates from July 2013 to July 2014.



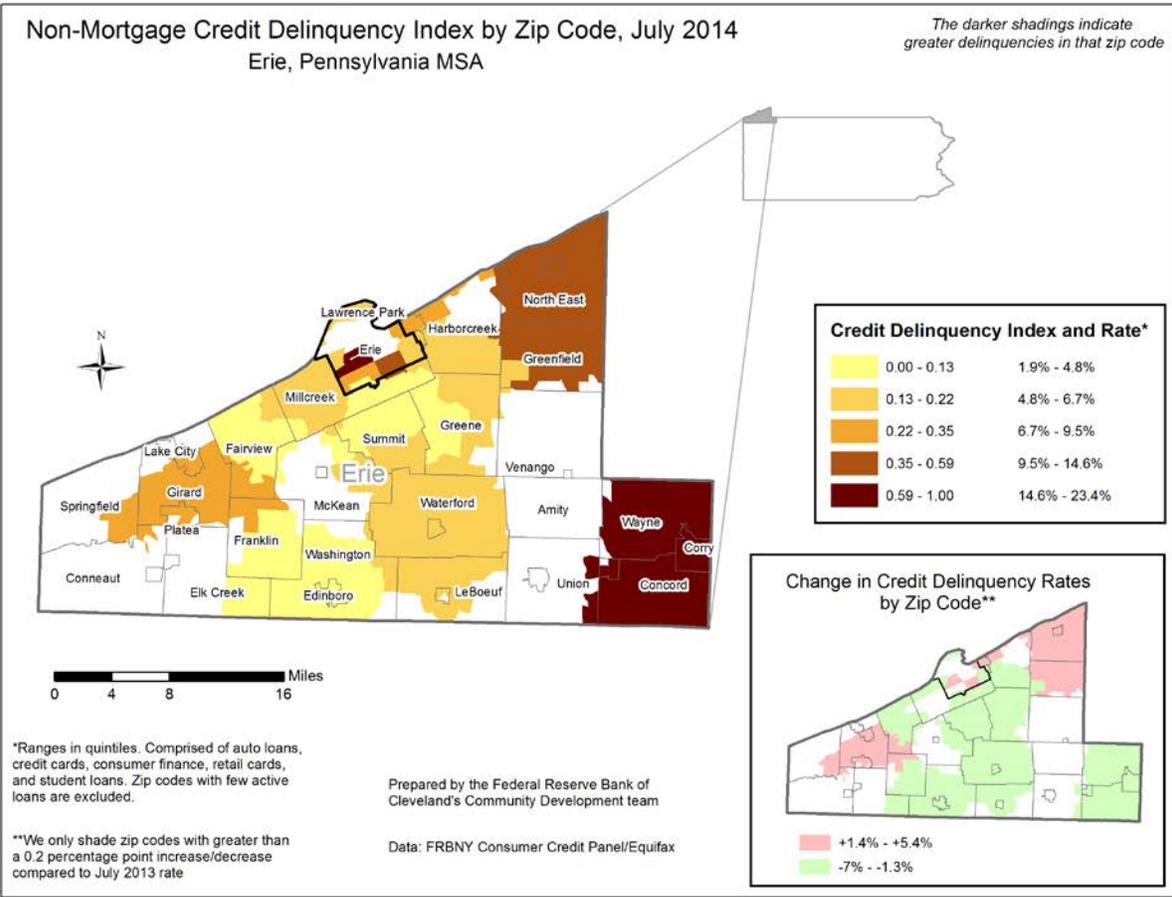
3. **REO Index:** REO rates increased on average across the MSA from 0.8 percent in July 2013 to 1.3 percent in July 2014. While rates below one percent are desired, current levels—comparable to other regions in the 4th district—should not cause serious concern unless an upward trend continues. As in the case of foreclosure, sparsely populated areas near Union City, have among the highest REO rates in the county. Most zip codes in the City of Erie seem to be keeping pace with the average.



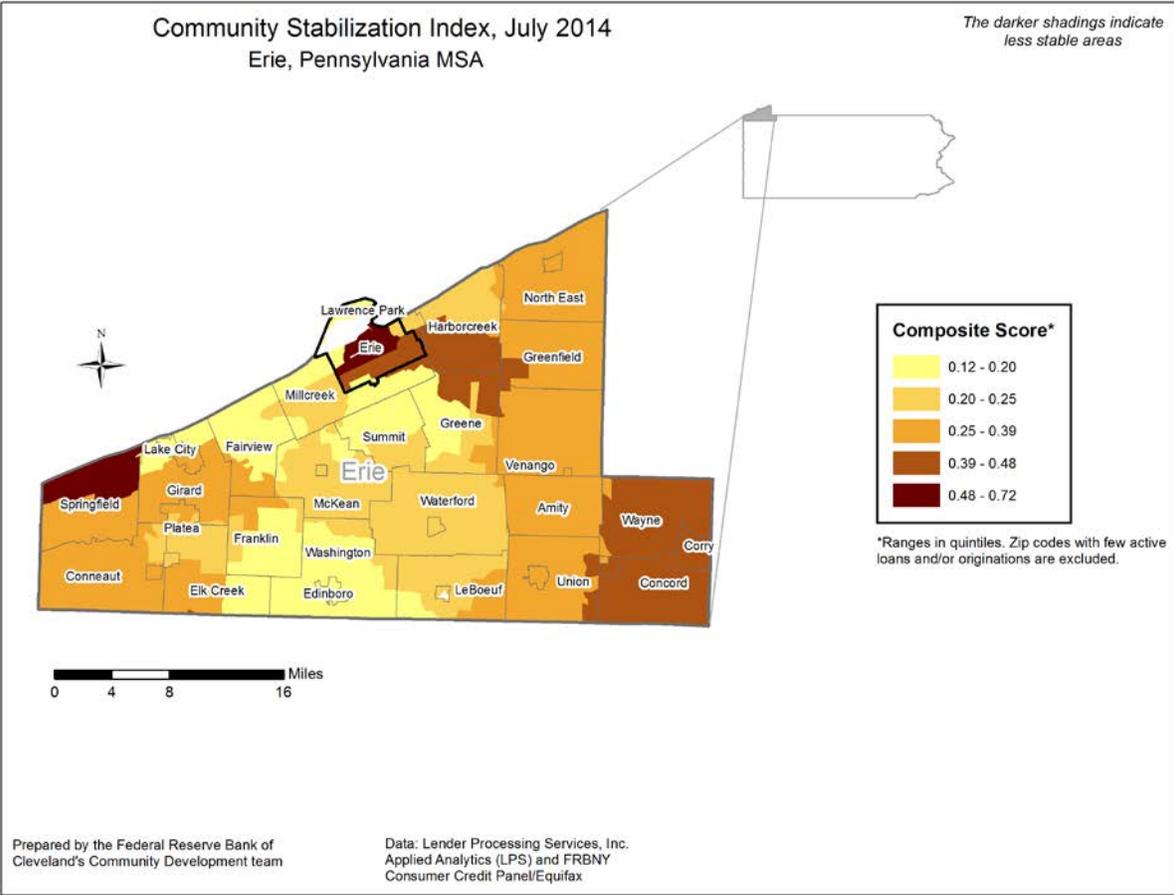
4. **Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median value of homes from 2005 to 2013 in the region has increased by 18.3 percent. Growth slowed from 2012 to 2013, with the average median value dropping—but only by 0.7 percentage points. Over the entire period, the Borough of Waterford and LeBoeuf Township experienced the strongest growth while the housing market in the City of Erie grew slightly less than the average.



5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. Of the zip codes with enough data coverage, all have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is probably due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory has decreased on average in Erie County, originations have decreased even more; but nowhere are originations and SI moving in opposite directions, as indicated by the blank inset map, which is intended to identify zip codes doing very well or very poorly. The zip codes just east of the City of Erie had the fewest originations per distressed units.



6. **Credit Delinquency Index:** Non-mortgage credit delinquency rates are highest in the southeast corner of the county. These zip codes also tend to have rates of 90-days-or-more delinquency and REO properties above the county average. The City of Erie also has a relatively high credit delinquency index and experienced increasing rates from July 2013 to July 2014 in some zip codes.



7. **Community Stabilization Index:** Erie County is one of only two MSAs in the 4th district with increasing median home values from 2005 to 2013 (the other is Pittsburgh). That is something to be proud of. However, rates of 90-days-or-more delinquency, foreclosure, and REO properties are currently higher than the norm in western Pennsylvania, Ohio, and eastern Kentucky. The zip codes with the worst composite scores in the county are in the City of Erie and in Springfield Township.

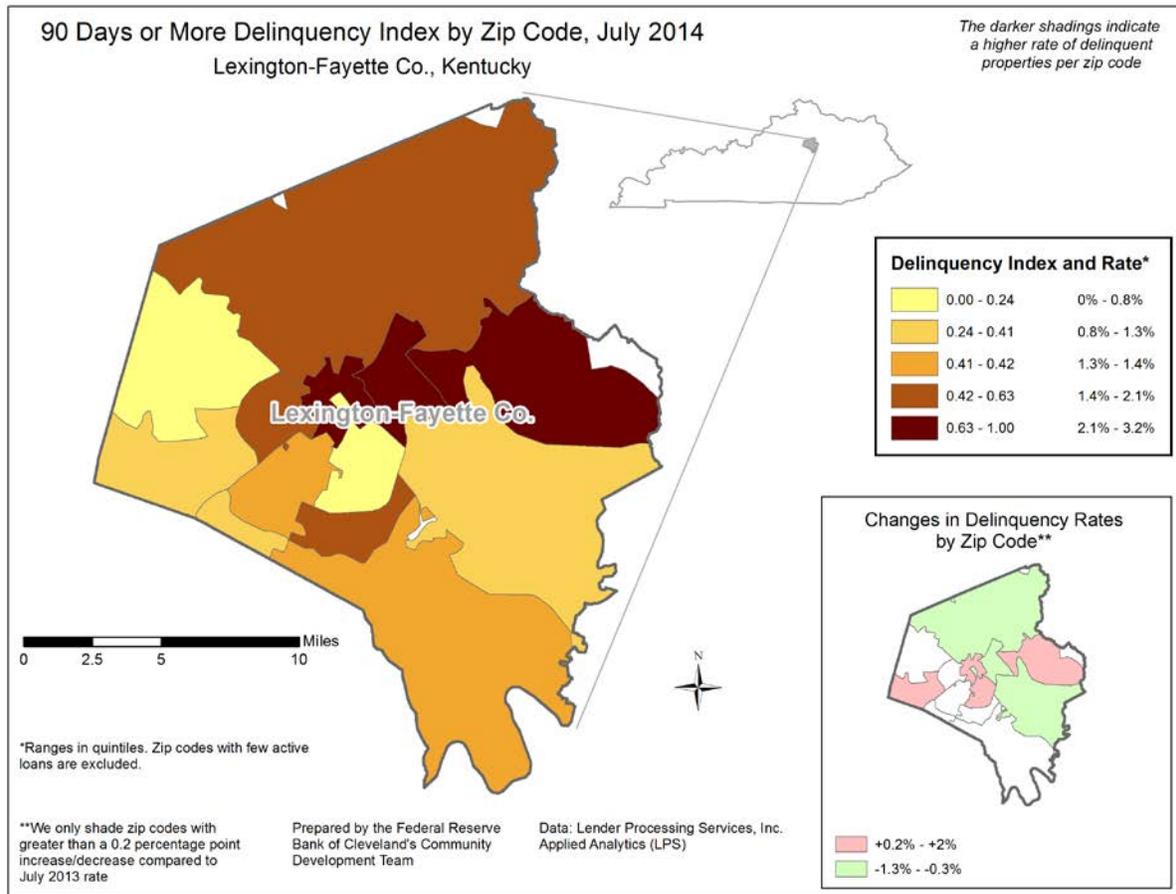
Community Stabilization Index for Lexington-Fayette County, Kentucky

Analysis updated December 2014, using July 2014 data

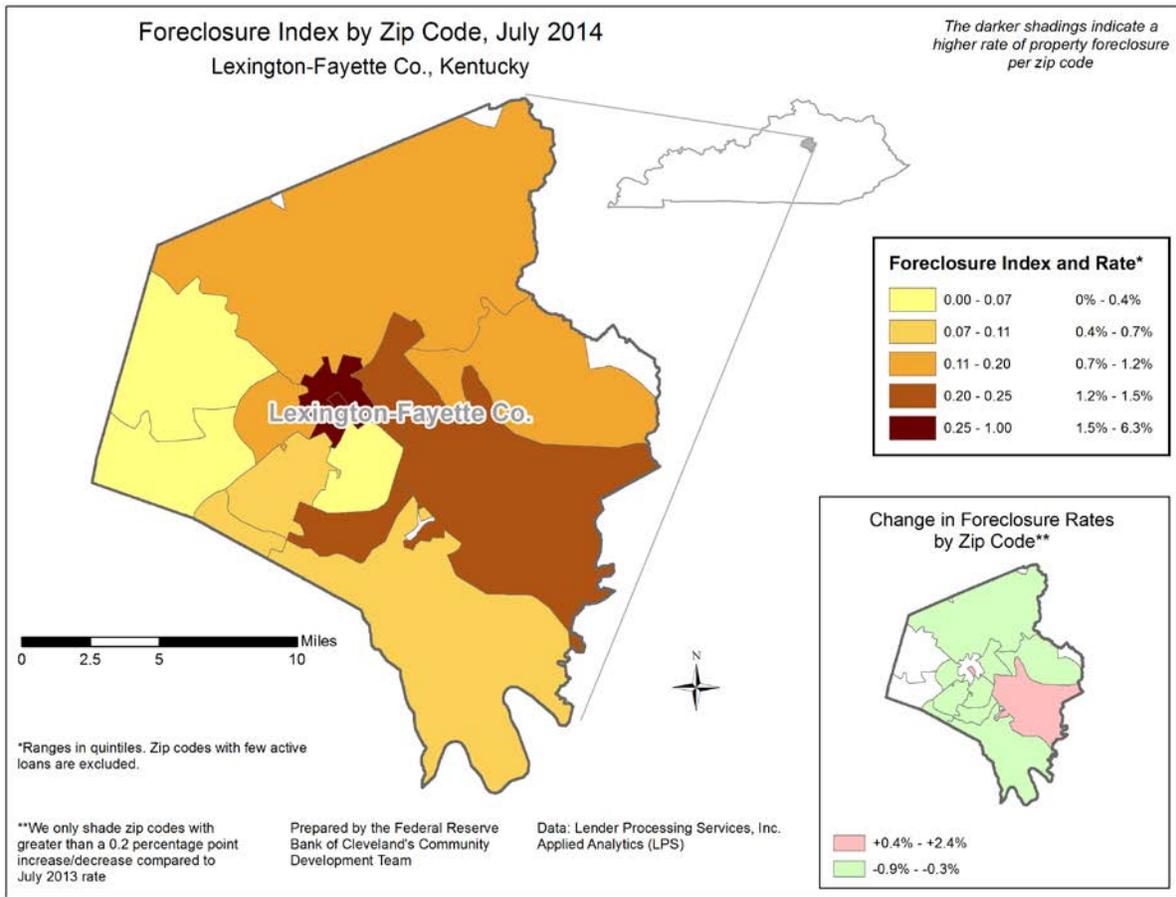
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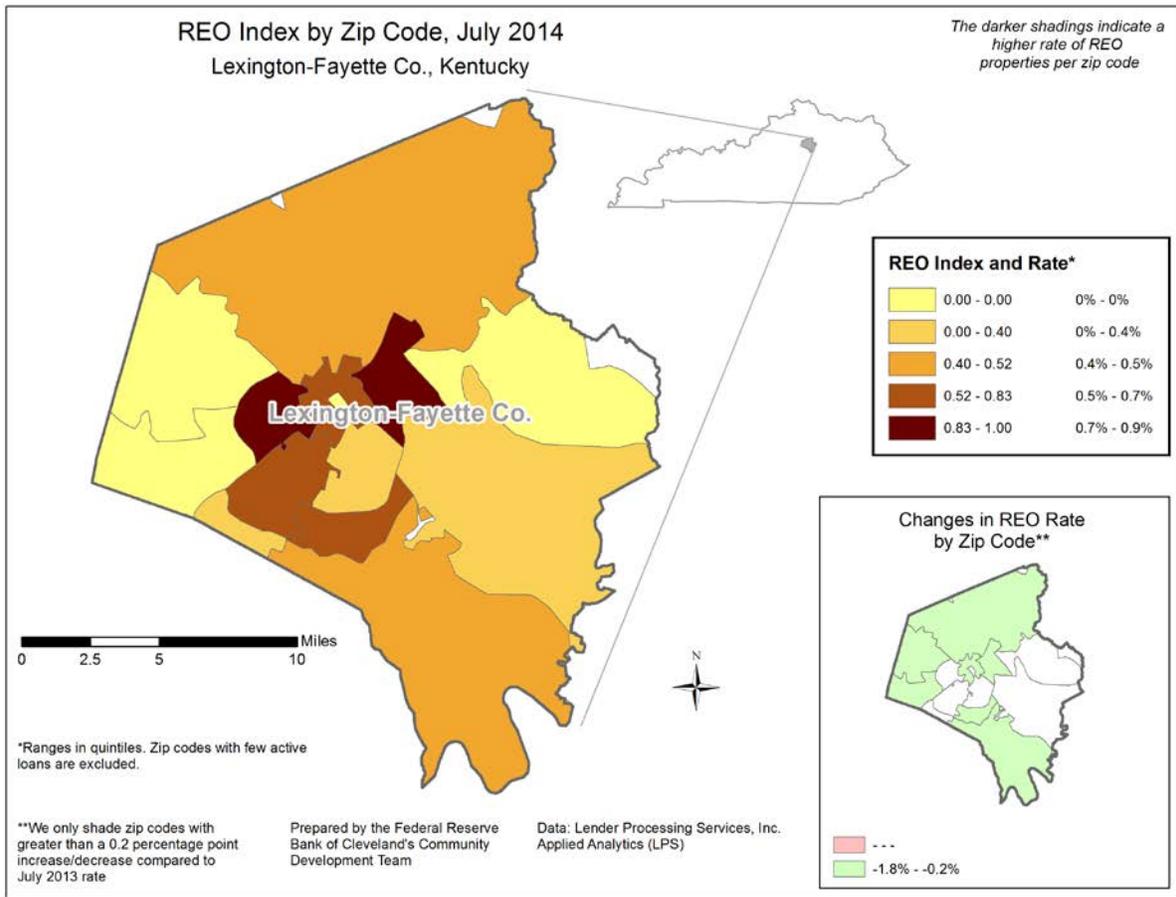
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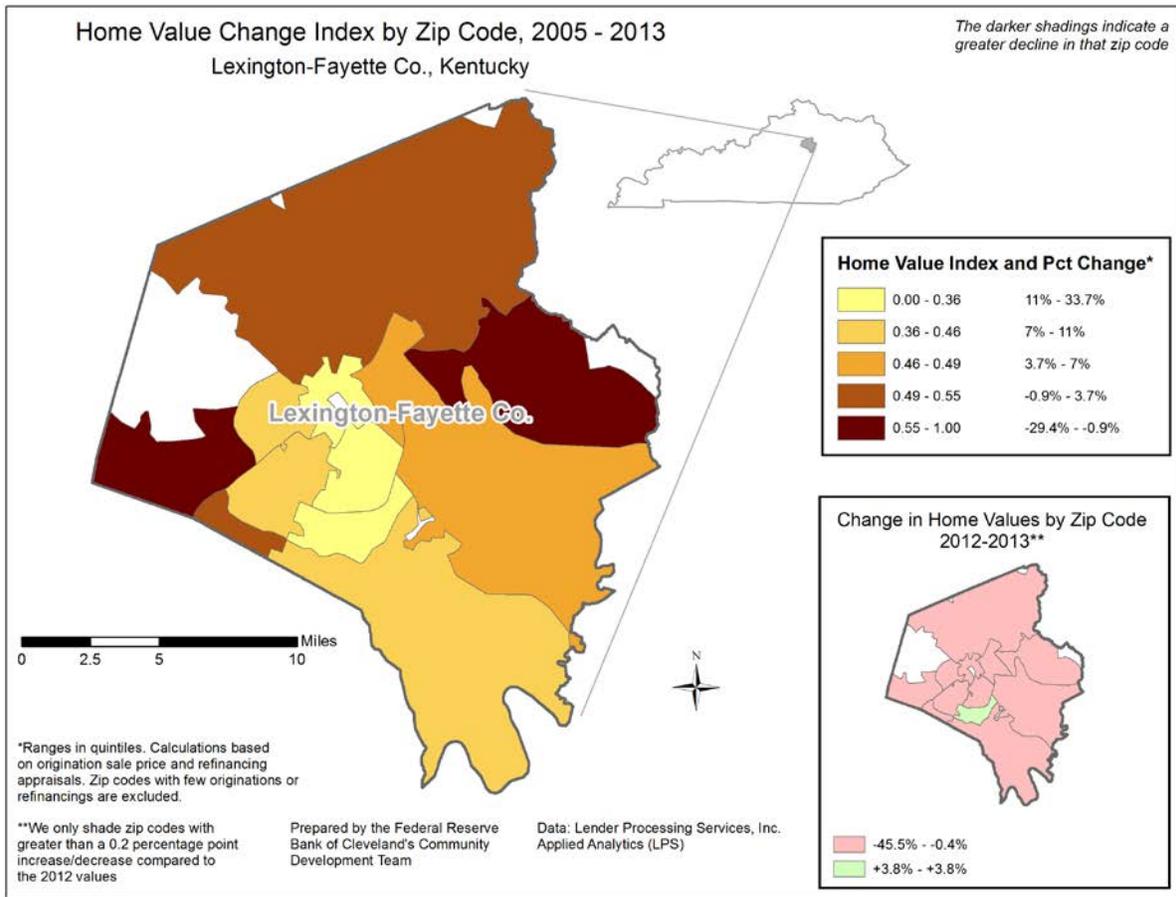
1. **90 Days or More Delinquency Index:** Lexington's average delinquency rate has remained steady since 2013 at 1.5 percent, though some areas have seen increases over the past year (inset map, in pink shading). The Lexington-Fayette County region continues to see delinquencies occurring at about half the average rate in eastern Kentucky.



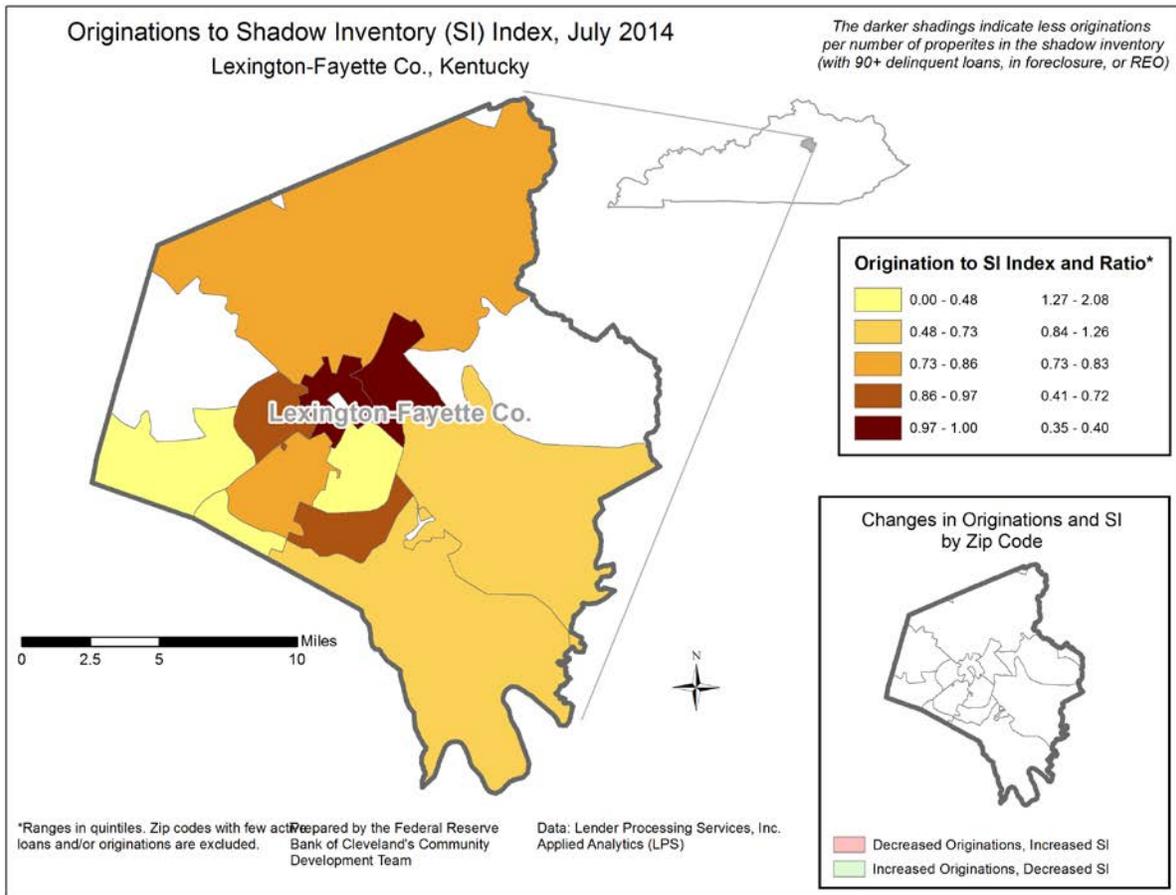
2. **Foreclosure Index:** Like the city's delinquency rate, Lexington's average foreclosure rate of 1.3 percent has stayed about the same since 2013. However, conditions in the hardest-hit zip codes have worsened slightly, with foreclosure rates in central and eastern Lexington increasing in the past year.



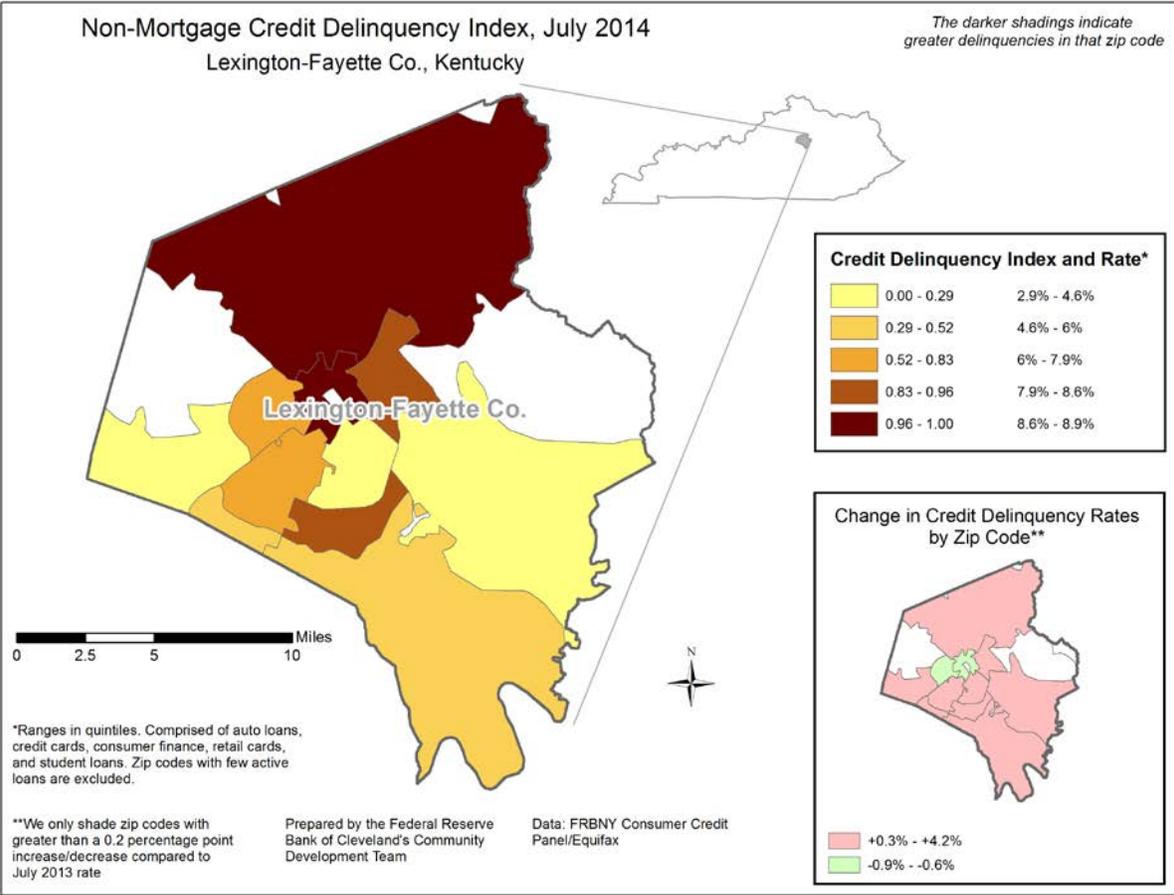
3. **REO Index:** REO rates remain very low in Lexington, with all zip codes below 1 percent and none having increased more than 0.2 percent since 2013. The county-wide average REO rate is a mere 0.4 percent.



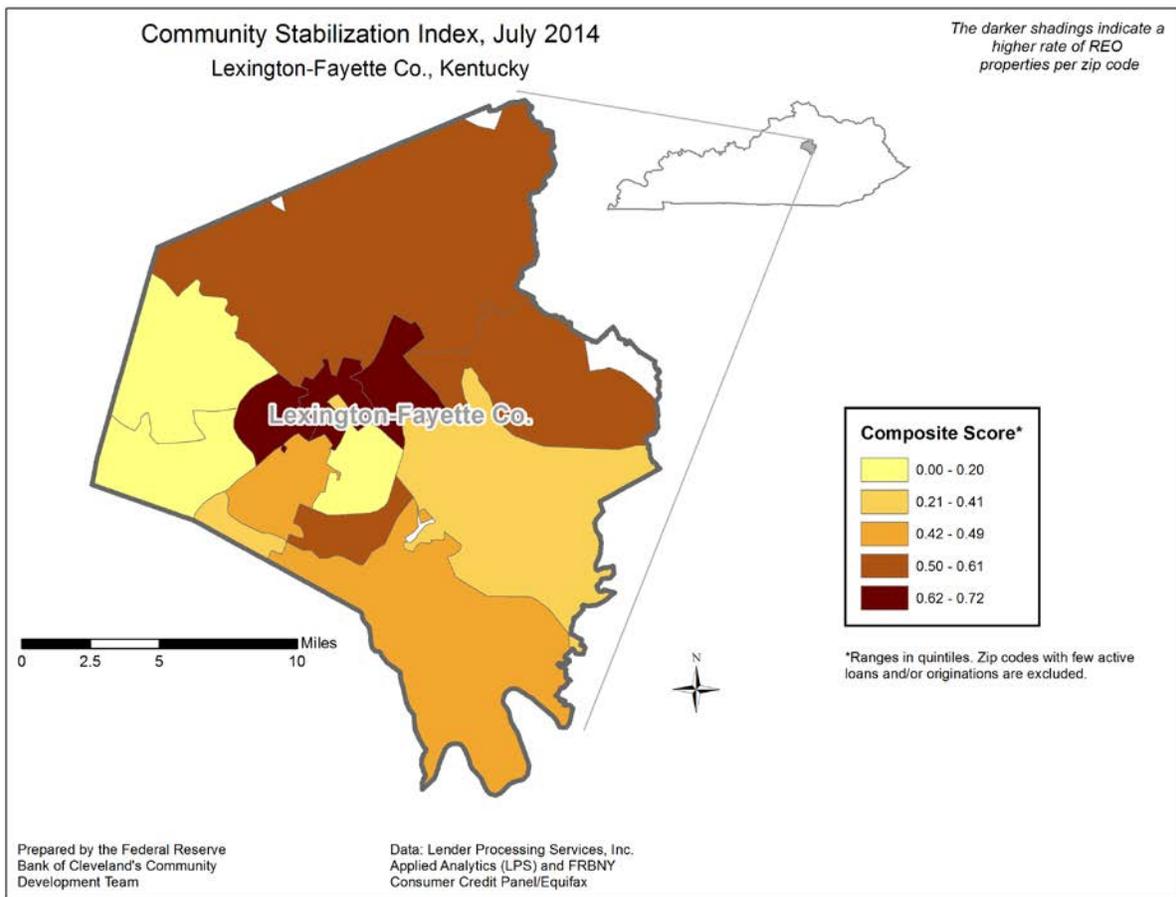
- Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the regional level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, Fayette County is not doing so well. While the median home value has fallen just 4.5 percent overall since the housing crisis began in 2005, over half that drop has occurred in the past year. Most of the value loss appears to be in the northeastern part of the county.



5. **Originations-to-Shadow-Inventory Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. This ratio fell on average from 1.53 in 2013 to 0.79 in 2014, meaning that originations have decreased more than the shadow inventory in most places; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map. Such a decline in originations is consistent with trends across the US from 2013 to 2014; refinancing activity, for instance, is down 60 percent over the past year.



6. **Credit Delinquency Index:** Non-mortgage credit delinquency has increased across Lexington since 2013, with the highest rates in the northern part of the county. On the plus side, all zip codes are faring better than the rest of eastern Kentucky, where average credit delinquency rates are at 10.6 percent. Lexington-Fayette Co. has an average of 6.5 percent.



- Community Stabilization Index:** Thanks to drops in foreclosure and REO property rates, Lexington-Fayette County remains relatively stable. That being said, the continued decline of median home values and low levels of originations over the past year are not encouraging signs for the housing market moving forward.

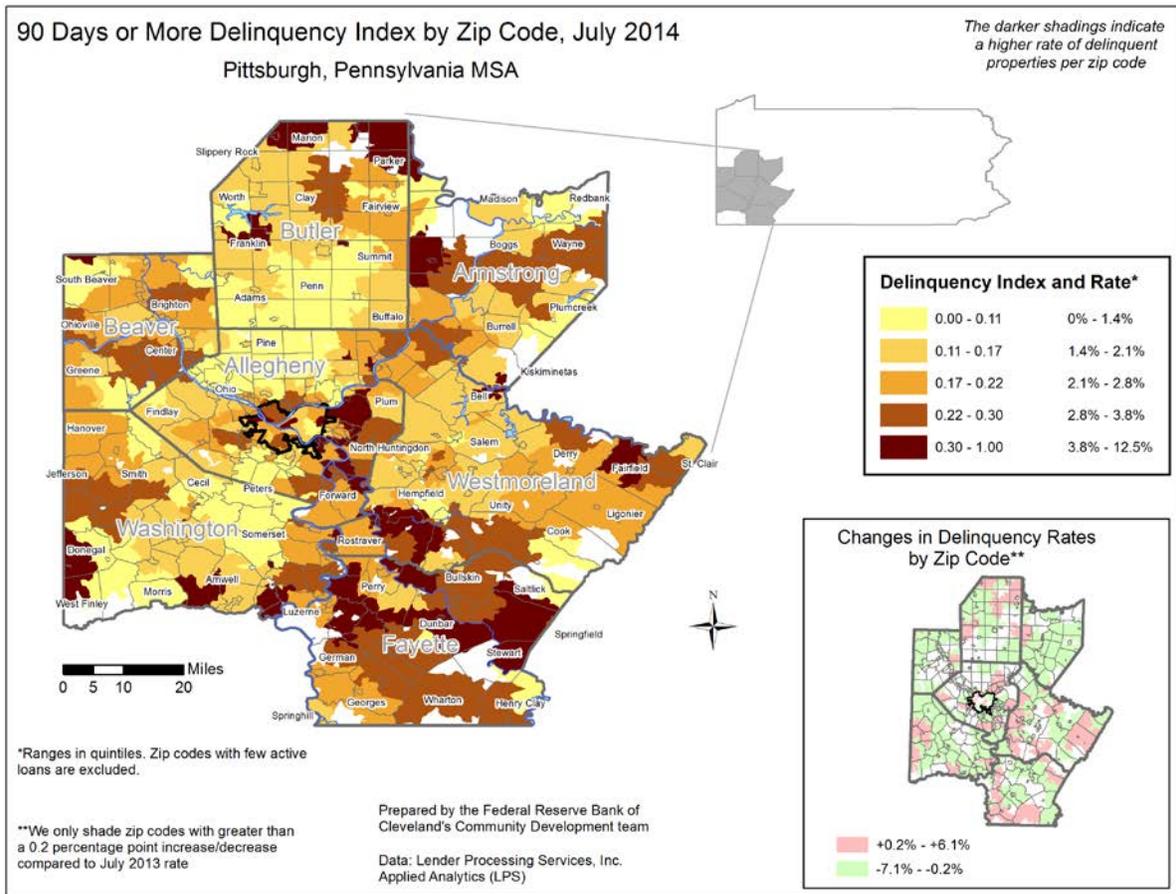
Community Stabilization Index for Pittsburgh, Pennsylvania, MSA

Analysis updated December 2014, using July 2014 data

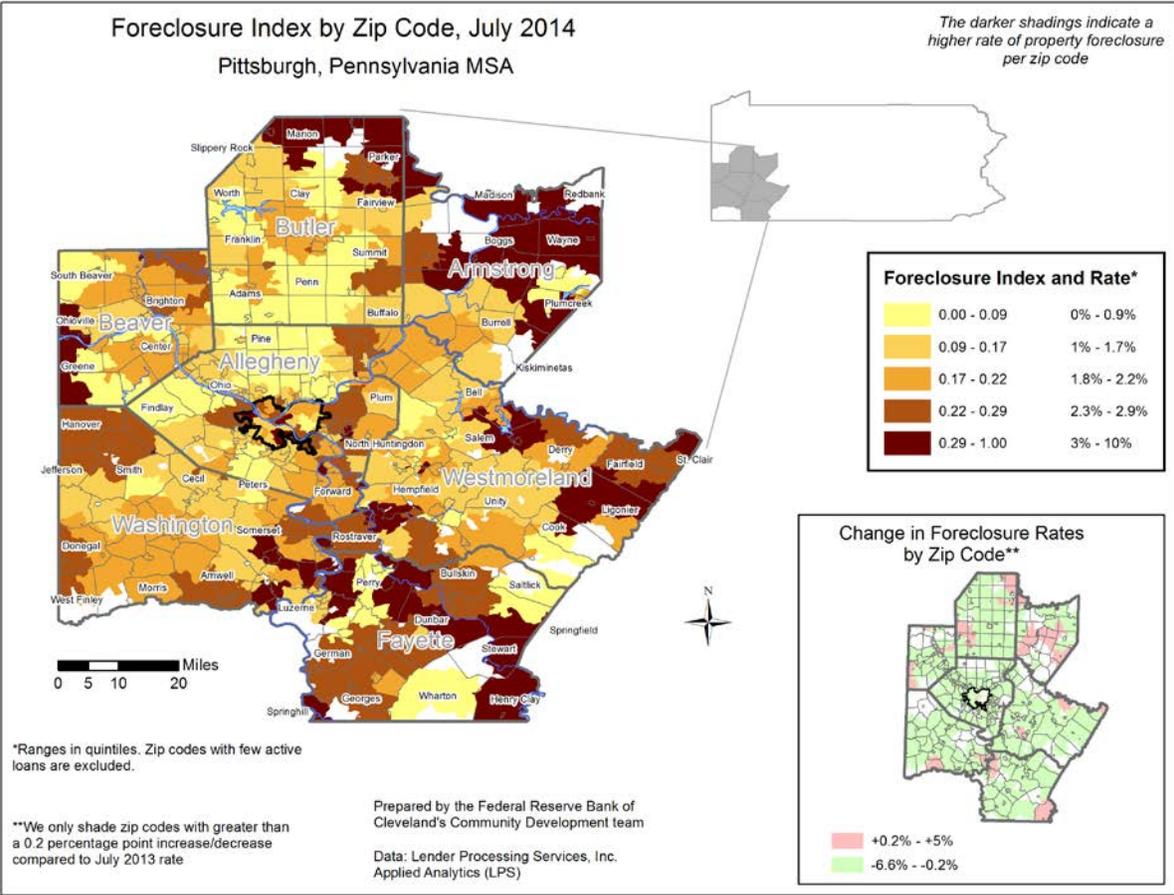
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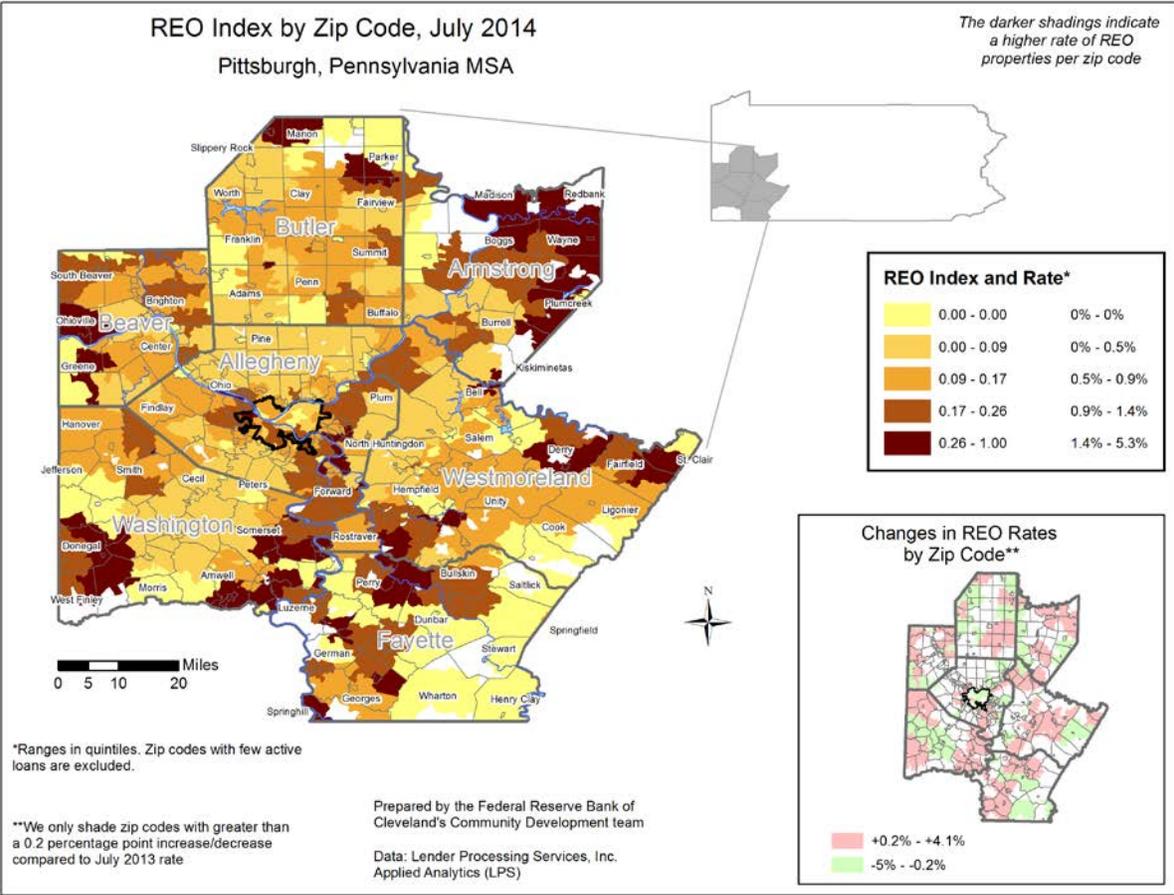
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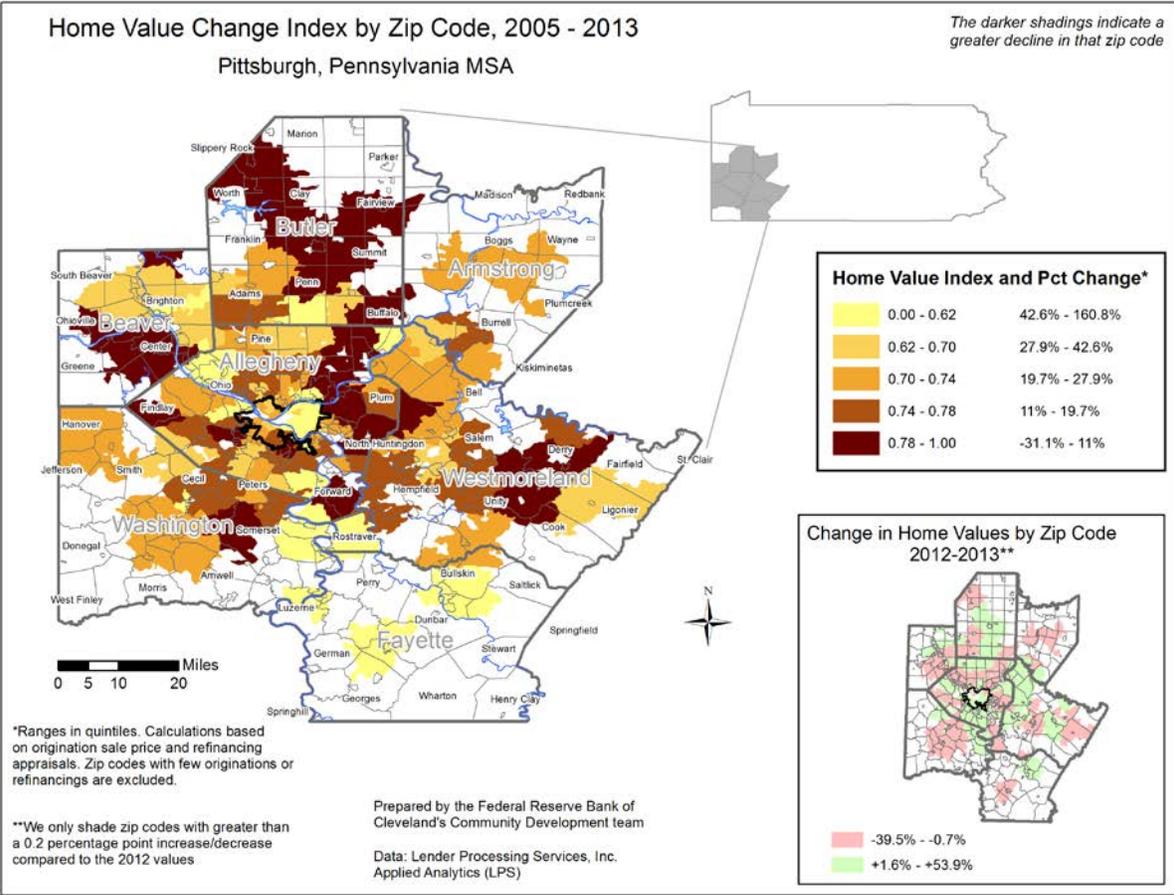
1. **90 Days or More Delinquency Index:** The seven-county Pittsburgh MSA's delinquency rate has dropped slightly from 3.1 percent in July 2013 to 2.8 percent in July 2014. The highest rates, up to 12.5 percent, can be found in the City of Pittsburgh, southeastern Allegheny County, and Fayette County. Delinquency rates in many zip codes of Allegheny County have changed less than 0.2 percentage points over the past year; these tend to be the more stable areas.



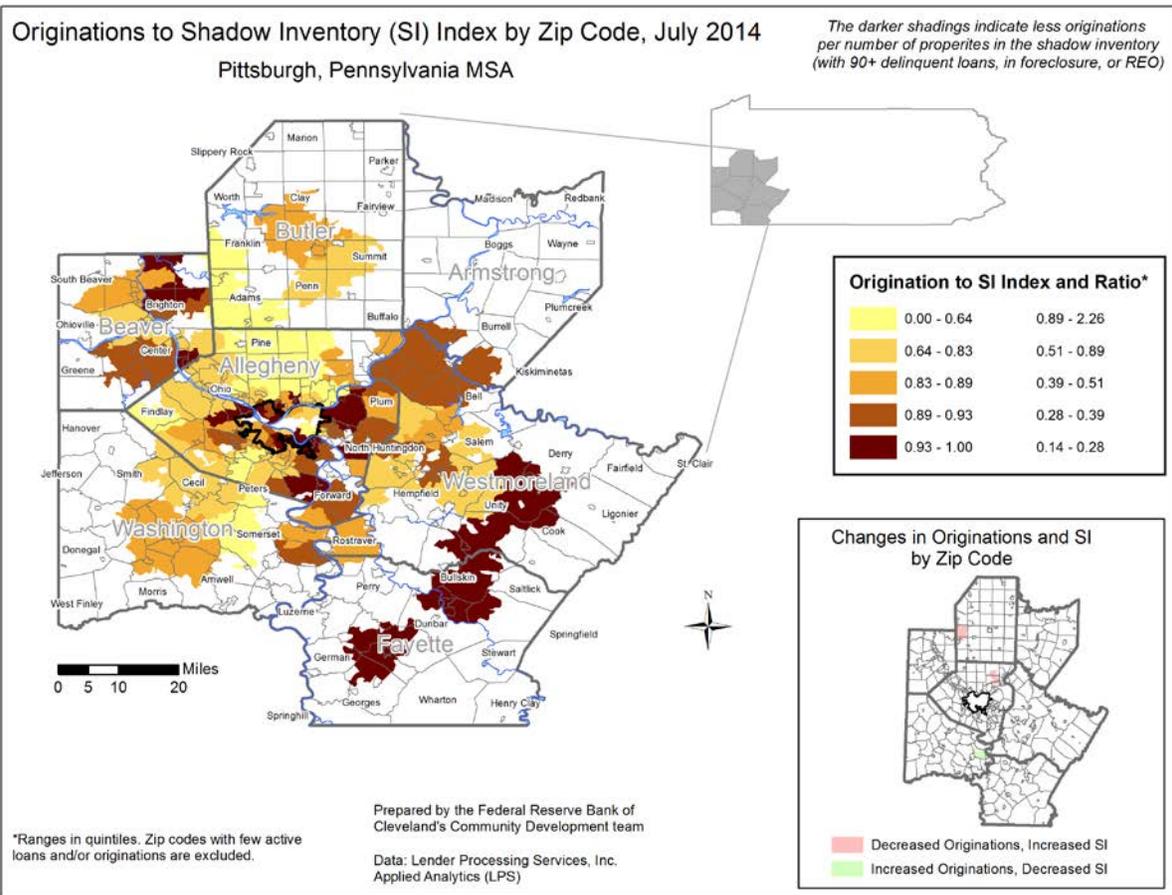
2. **Foreclosure Index:** The region's foreclosure rates have fallen, on average, by about 0.7 percentage point from July 2013 to July 2014. The regional average is currently 2.1 percent. Most zip codes have experienced declining rates over the past year, except for much of Armstrong County, where we see the highest rates of foreclosure in the MSA. Fayette County is also struggling in this regard.



3. **REO Index:** REO rates remain very low in the Pittsburgh MSA, with rates below 1 percent in most zip codes. Unfortunately, though, in the six surrounding counties, rates are on the rise. This is something to keep an eye on in the near future.



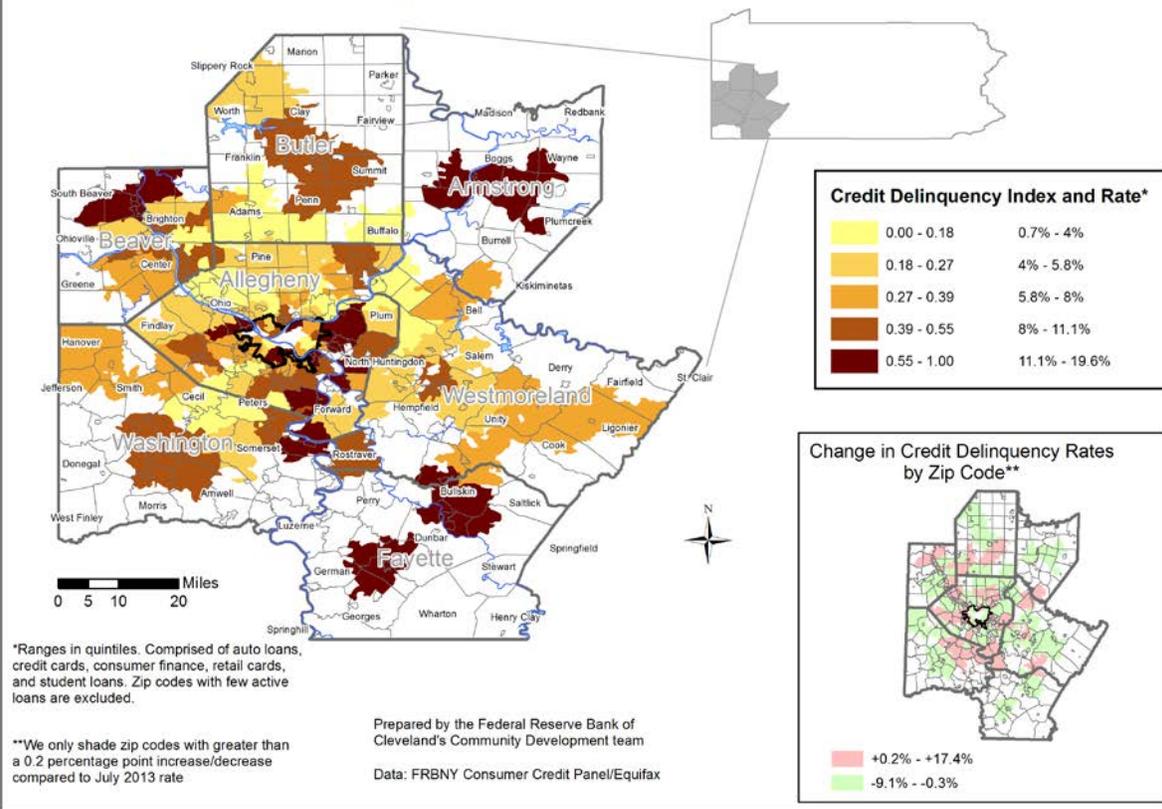
4. **Home Value Change Index:** Falling property values are not a problem for the Pittsburgh MSA. As if the housing crisis never happened, the median price of homes rose by an astonishing 23 percent from 2005 to 2013, and by 3.9 percent from 2012 to 2013 alone. In fact, Allegheny County has not had an annual average decrease in home values since the 1990s. According to [real estate analysts](#) and [local business owners](#), the region's success is typically credited to the City of Pittsburgh's transformation from a blue-collar Rust Belt town to a local economy centered on the high-tech and medical industries.



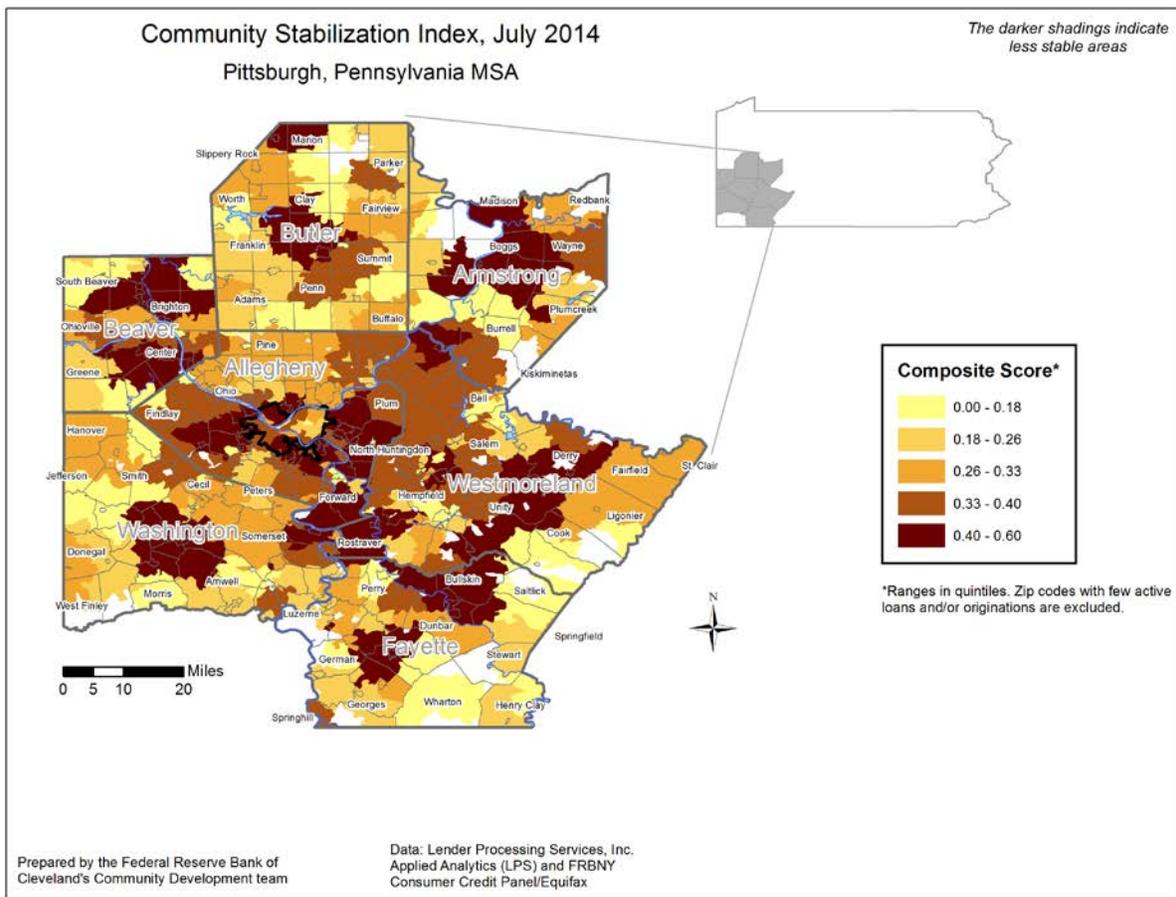
5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. Most zip codes across the seven-county MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. Despite the rising home prices in the region, this is likely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory (seriously delinquent loans, foreclosures, and REOs) has decreased across the region, originations have decreased even more. The most affected zip codes appear to be in southeastern Allegheny County and parts of Westmoreland, Fayette, and Beaver Counties.

Non-Mortgage Credit Delinquency Index by Zip Code, July 2014
Pittsburgh, Pennsylvania MSA

The darker shadings indicate greater delinquencies in that zip code



6. **Credit Delinquency Index:** High rates of non-mortgage credit delinquency could exacerbate underlying problems in the housing market in zip codes in southeastern Allegheny County, as well as in Armstrong and Beaver Counties.



- Community Stabilization Index:** Zip codes in the collar counties tended to have the lowest composite scores. This means that such places performed better overall relative to other zip codes in the region during the period of analysis for which the indices were calculated. However, comparisons should be made with caution given that the composite score in many of the “more stable” zip codes, in this case, does not account for all indices due to low data coverage in outlying areas. Notwithstanding, the housing market in the entire Pittsburgh MSA continues to show signs of strength. REO rates are below 1 percent throughout most of the region and home values are still on an upward trajectory.

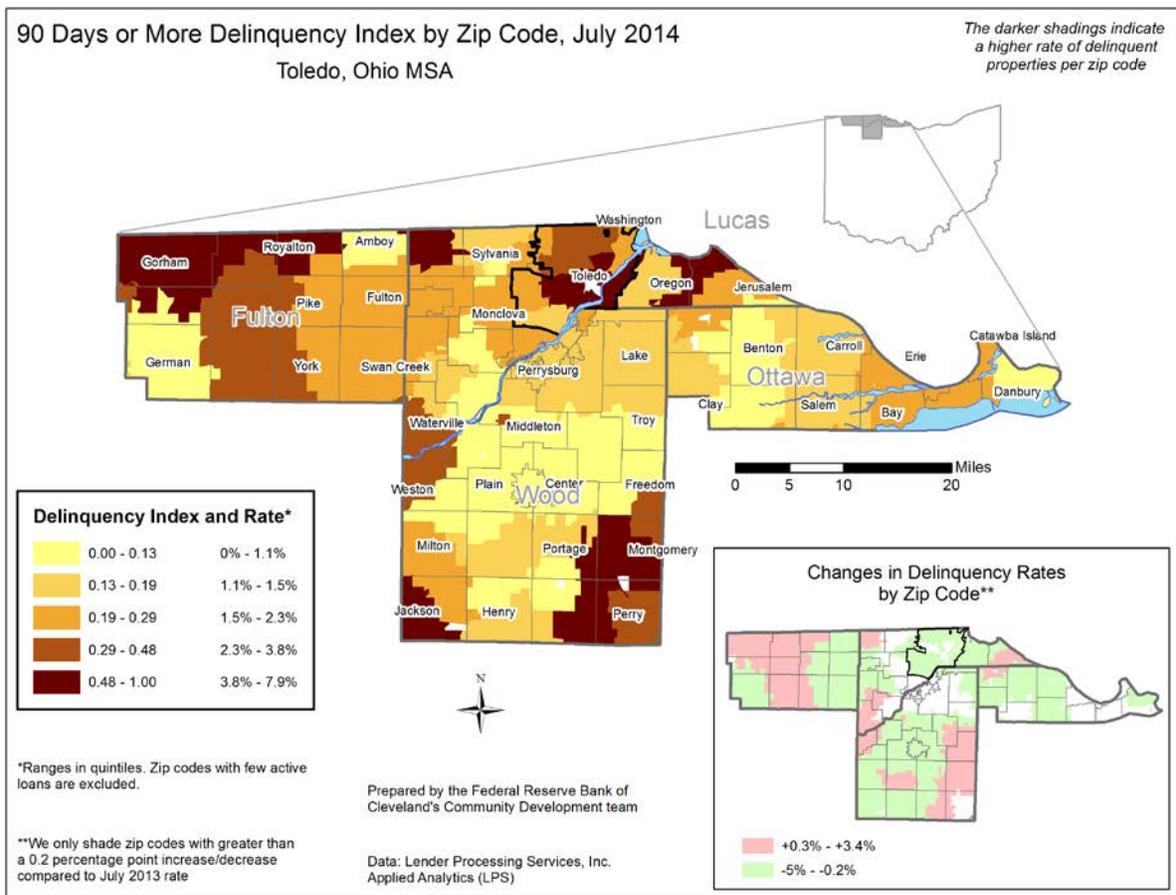
Community Stabilization Index for Toledo, Ohio, MSA

Analysis updated December 2014, using July 2014 data

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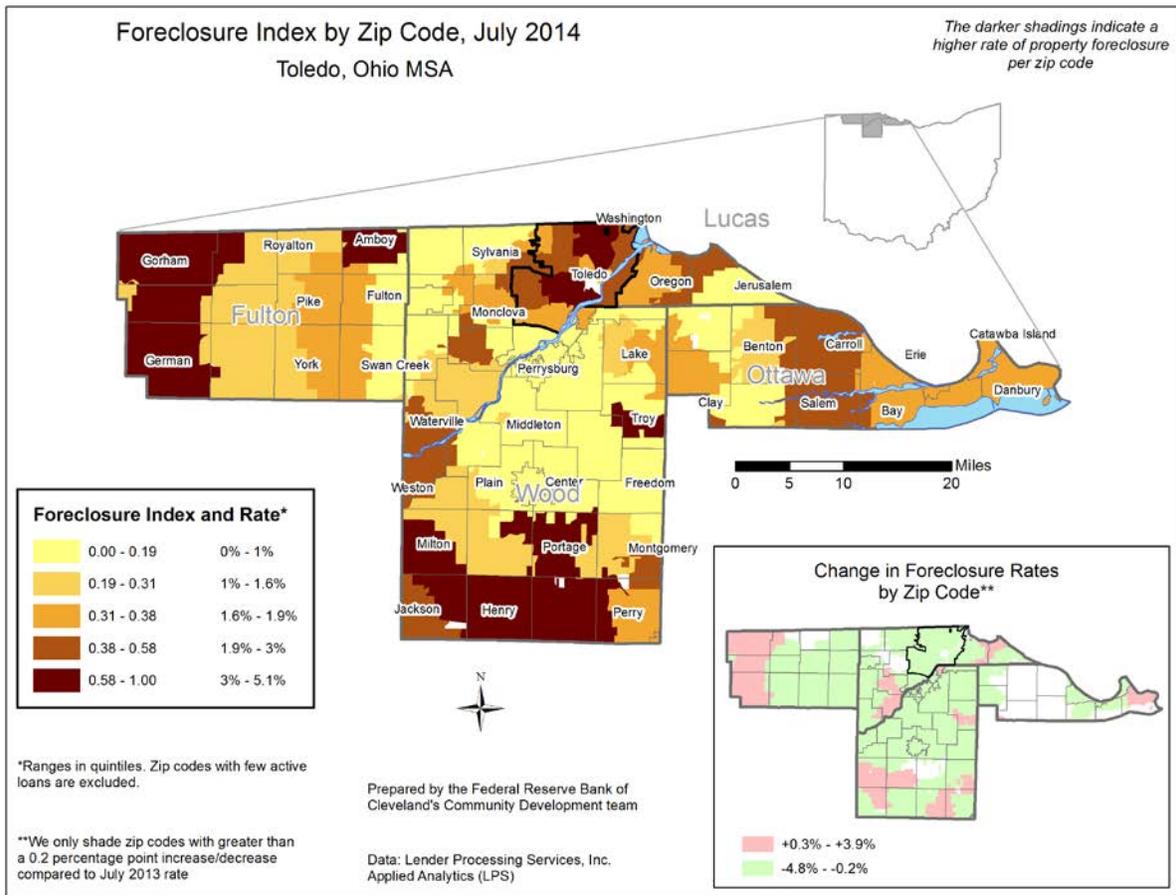
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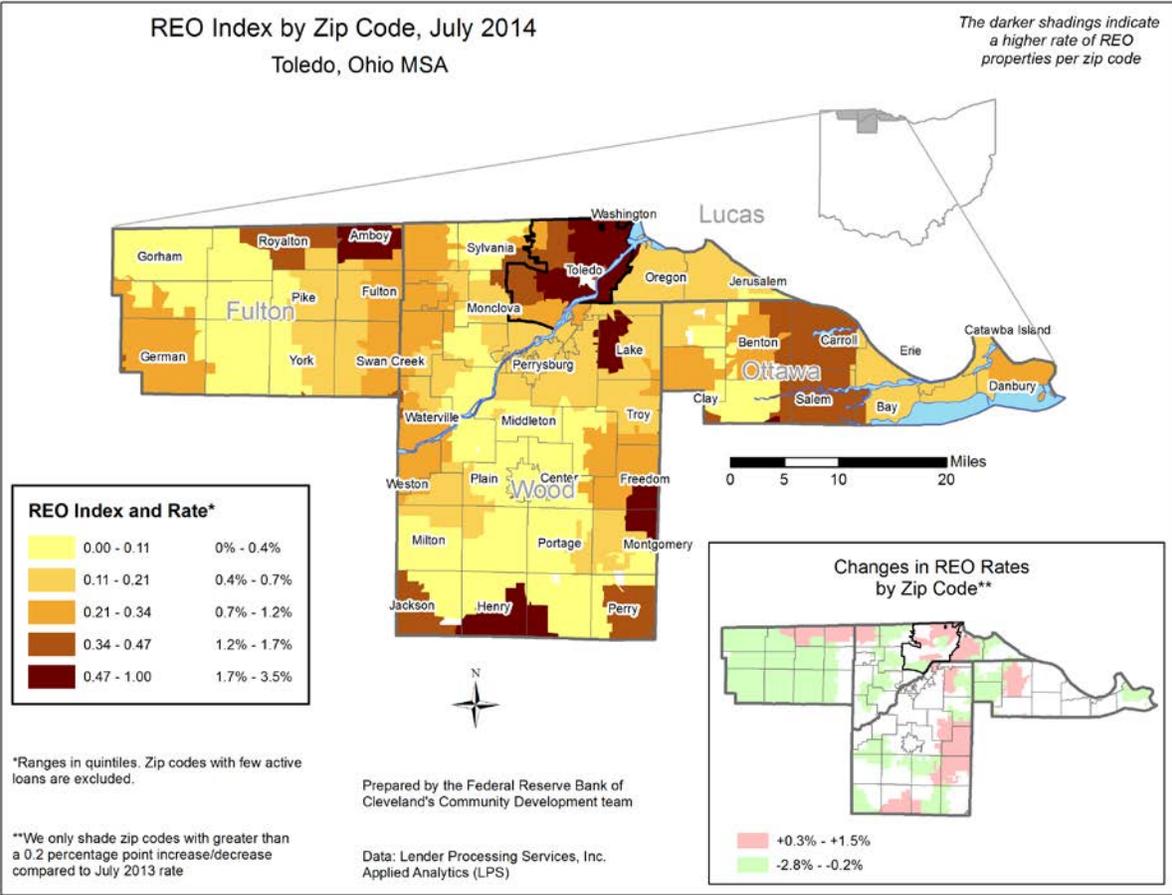


1. **90 Days or More Delinquency Index:** The region's delinquency rate has declined by more than half from its peak of 5.4 percent in January 2010 to 2.2 percent in July 2014. This delinquency rate is below the state average of 2.7 percent. The highest rates are in Lucas County zip codes surrounding Toledo's downtown, as well as in southeast Wood County and along almost the

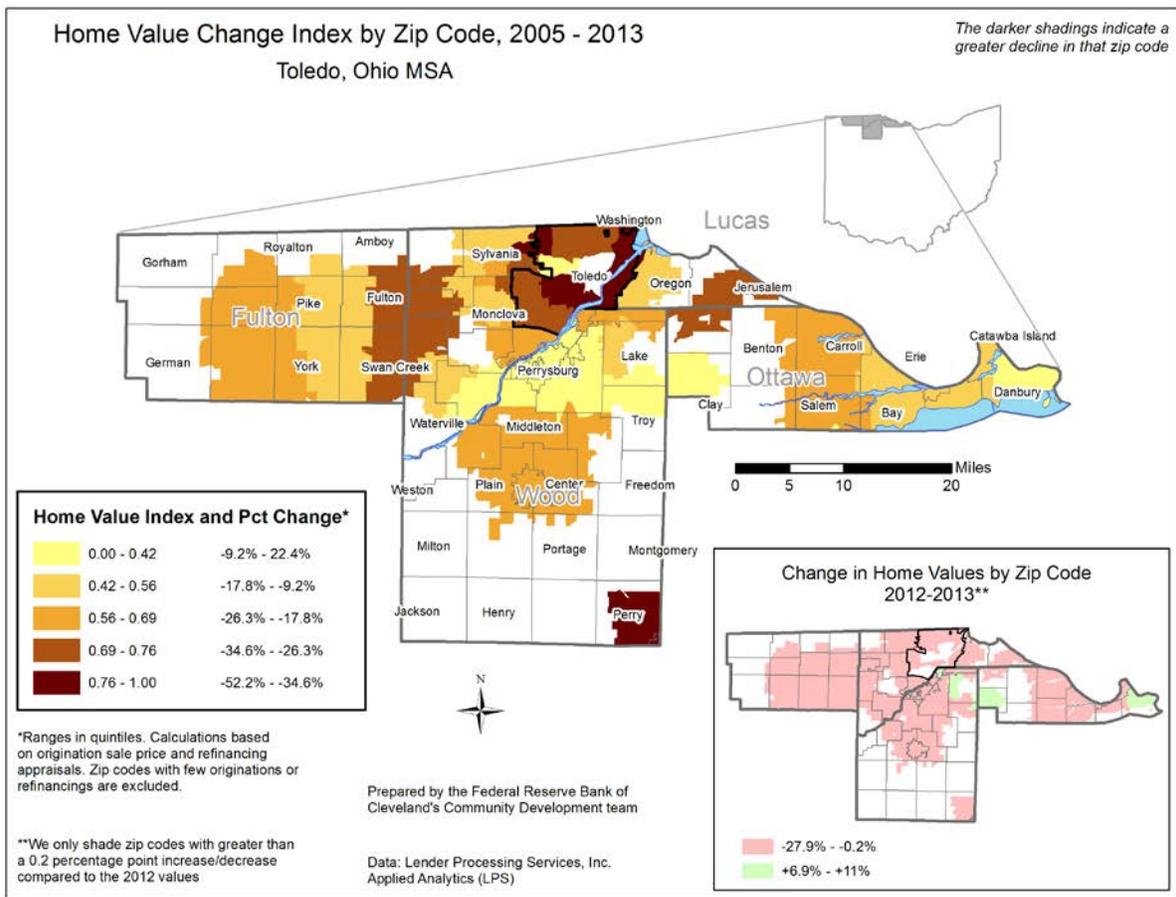
entire northern border of Fulton County. The lowest delinquency rates are seen mostly in central Wood County communities.



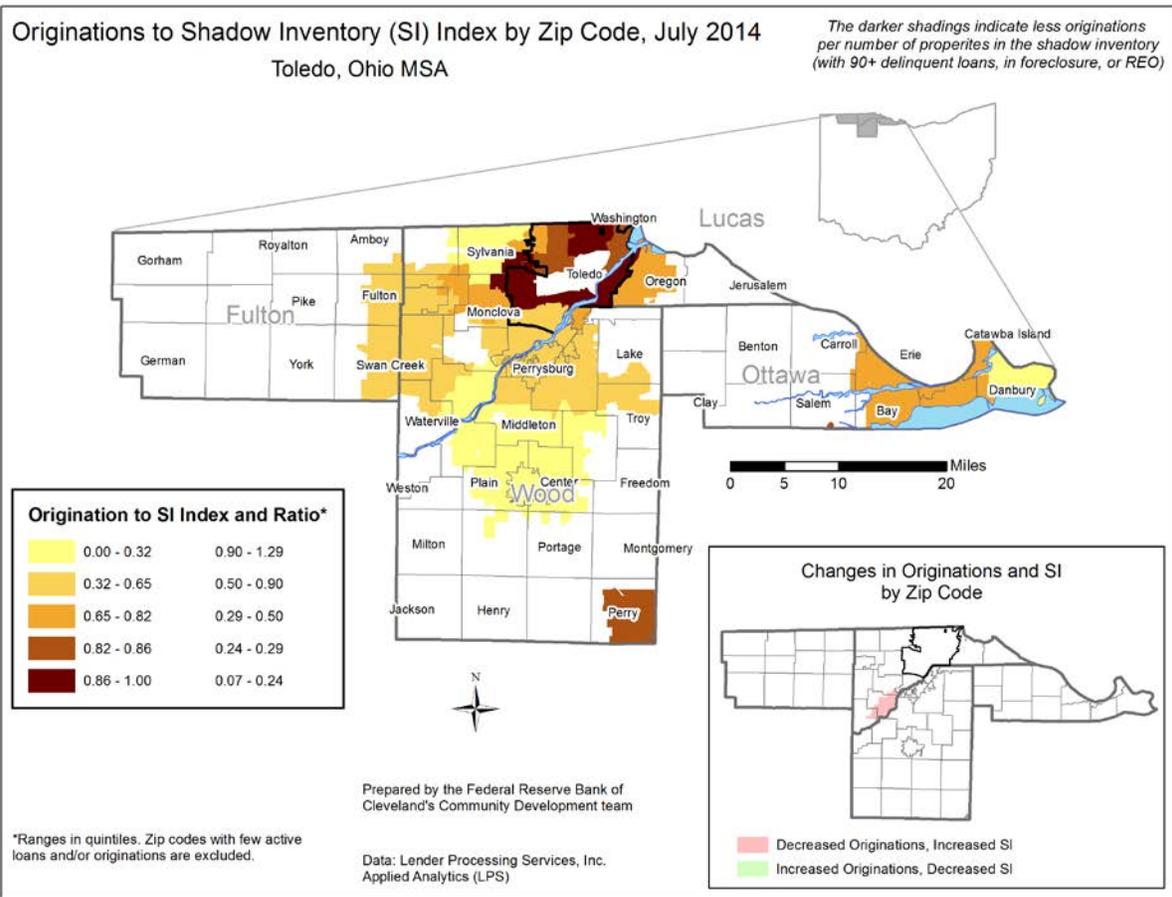
- Foreclosure Index:** The region's foreclosure rate has also fallen from its peak of 4.8 percent in December 2010 to the current rate of 2.0 percent, which is on par with the state average foreclosure rate. The highest rates in the four-county MSA are seen in outerlying zip codes of Wood and Fulton Counties. The lowest rates are in Freedom Township in Wood County and in parts of Ottawa County. Compared to January 2013, many zip codes near Toledo have seen declines in their foreclosure rates.



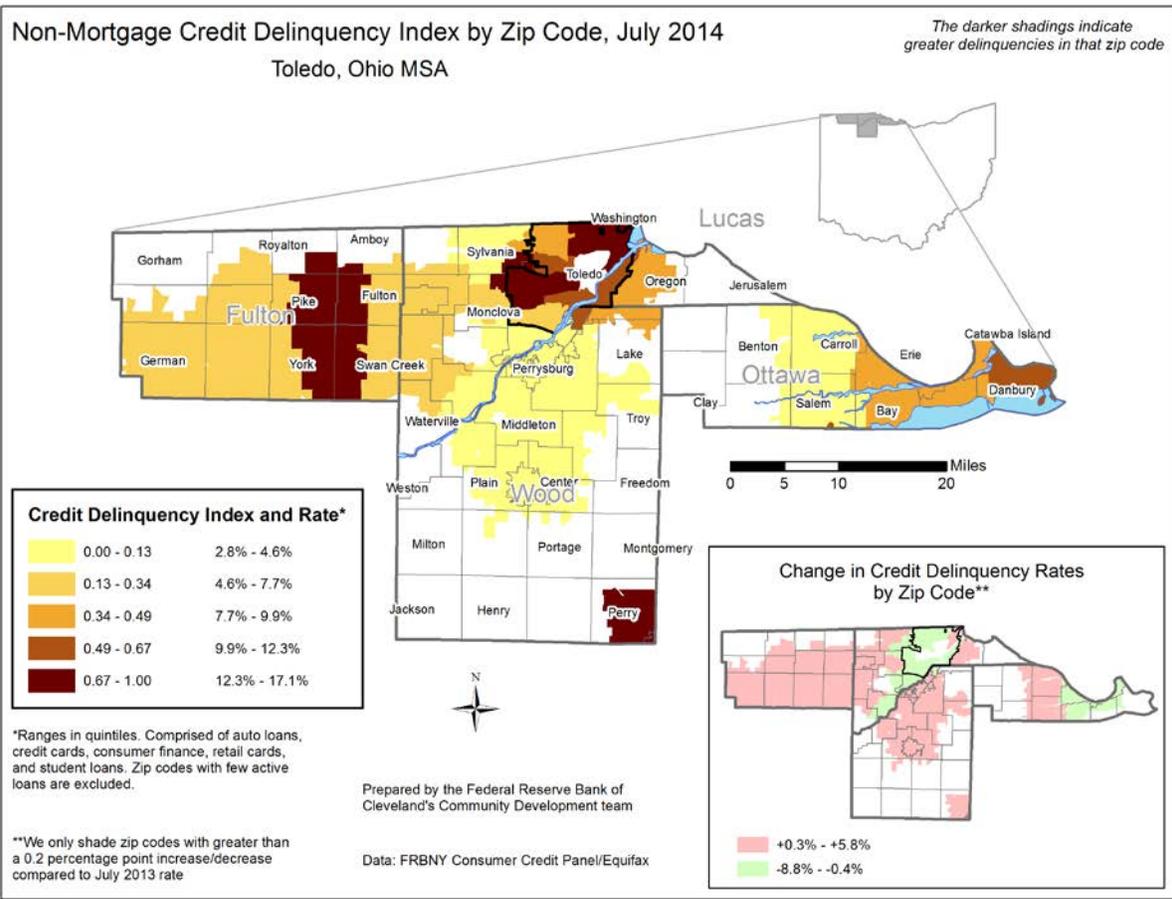
3. **REO Index:** Only eight zip codes in the entire four-county region show REO rates greater than two percent; these are located primarily in Toledo, Freedom, and Amboy, on the northern edge of Fulton County. Compared to January 2013, only 20 percent of the region's zip codes saw an increase of one percentage point or more in REO rates.



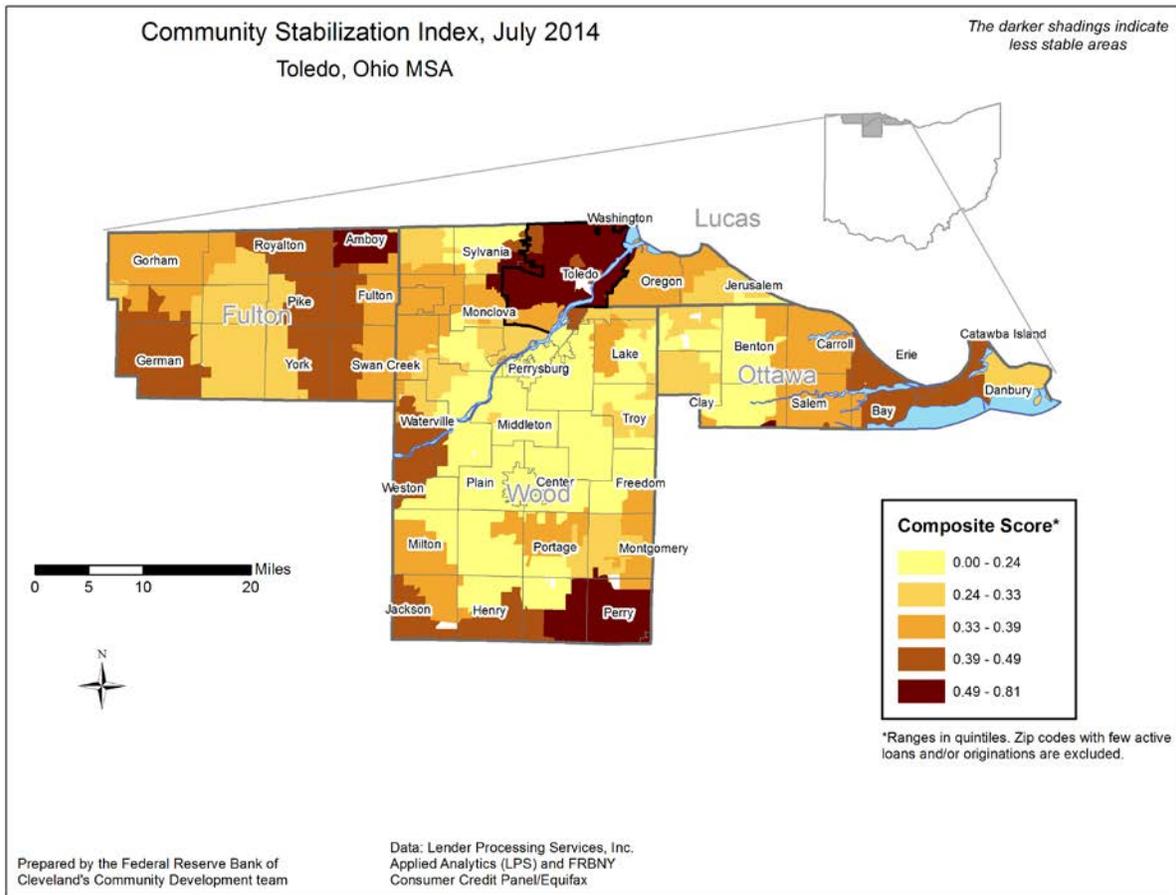
4. **Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the news is not so encouraging; the region experienced the largest home value decline in the 4th district—both over the entire period and in the most recent year of the data. From 2005 to 2013, median home values decreased on average by 19.1 percent. From 2012 to 2013 alone, median values dropped by 8.5 percent.



5. **Originations-to-Shadow-Inventory Index:** According to this indicator, a zip code with more mortgage originations per distressed units indicates a sign of recovery. This ratio is lowest—a bad sign—in several Toledo neighborhoods, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is likely due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory (defined here as seriously delinquent loans, foreclosures, and REOs) has decreased across the region, originations have decreased even more. Given limited data coverage in Fulton, Ottawa, and Wood Counties, it is difficult to gauge how their zip codes are faring.



6. **Credit Delinquency Index:** The highest delinquency rates are in Toledo, while the lowest are in several communities south of Toledo in Wood County. In more encouraging news for Toledo, although the City's zip codes show some of the highest credit delinquency rates of the MSA, they have also seen the largest decline in these rates since January 2013. The largest increases, on the other hand, occurred in the communities of Pike and York in Fulton County.



- Community Stabilization Index:** Despite drops in foreclosure and REO property rates, ongoing declines in home values across the MSA and stagnant growth in originations remain causes for concern. No other region in the 4th district lost more value to their housing stock from 2005 to 2013. And while values in other hard-hit places like Cleveland have begun to stabilize, greater Toledo's housing market continued its decline from 2012 to 2013.

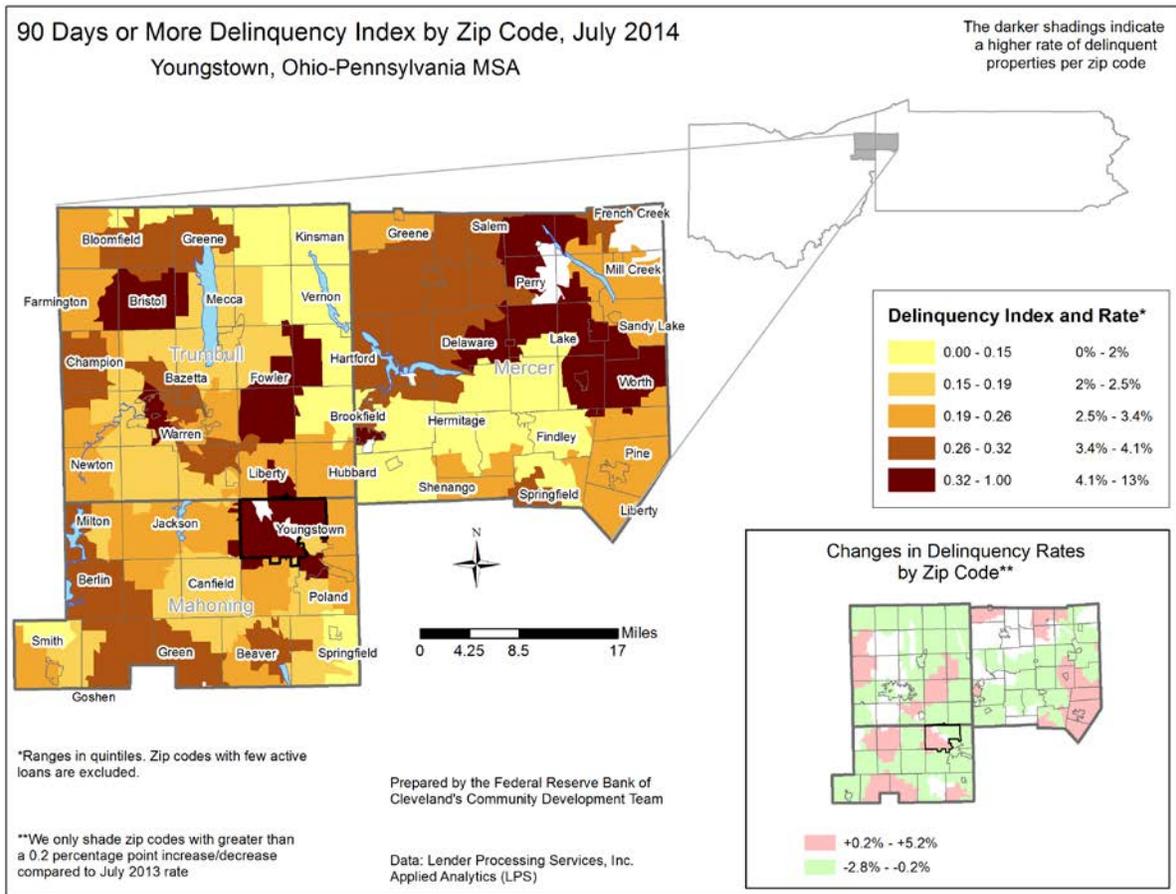
Community Stabilization Index for Youngstown, Ohio, MSA

Analysis updated December 2014, using July 2014 data

The Community Stabilization Index (CSI) is a composite index that aims to provide community leaders with a relative measure of local housing market conditions, with a particular focus on recovery potential. The index is specific to conditions at the zip code level, and is comparable across all zip codes within a county or larger geographic area. Another helpful feature of the CSI is that periodic recalculations allow leaders to track relative changes in housing market conditions through time at the zip code level.

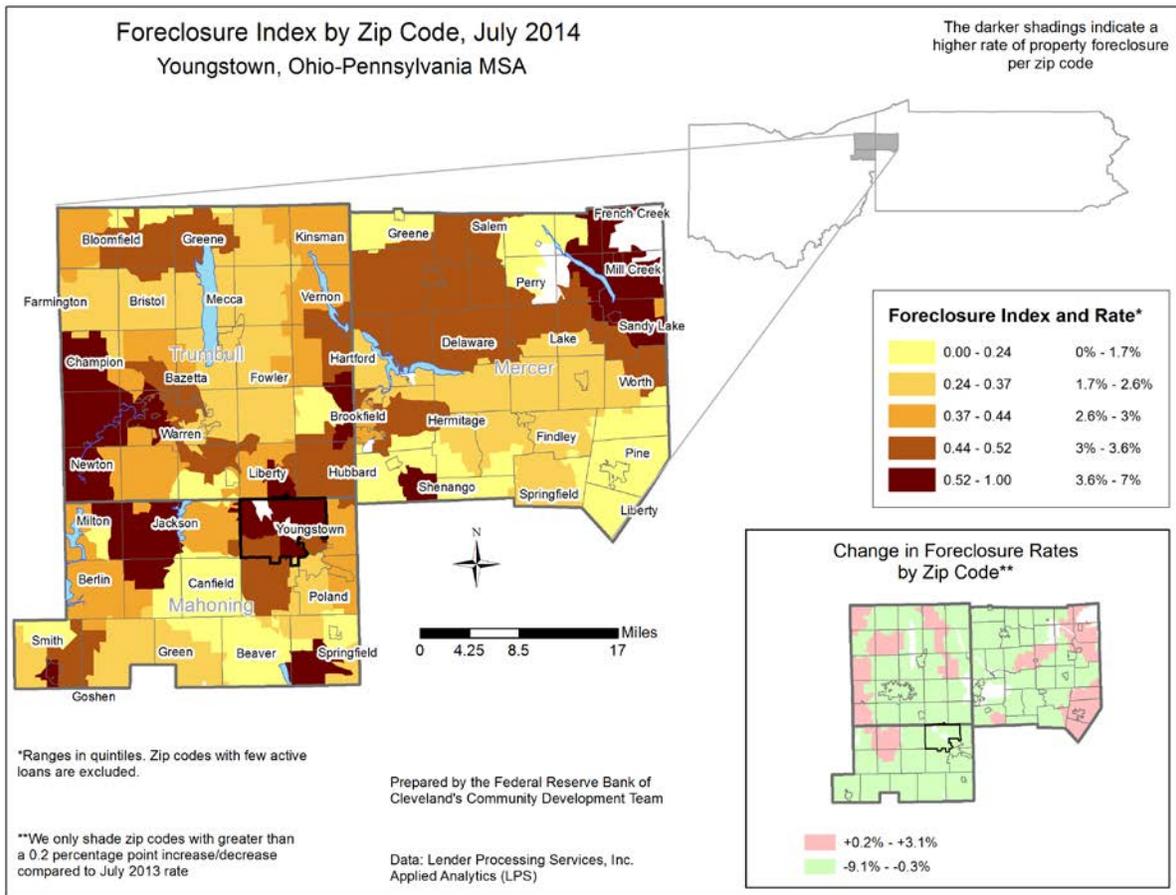
The CSI synthesizes several variables into a single comparable measure of recovery potential. However beneficial, this simplification should not deemphasize the importance of tracking underlying and other available housing variables, nor preclude understanding the limitations of this tool.

For more information about data sources and methodology, and to locate previous analyses, go to www.clevelandfed.org.

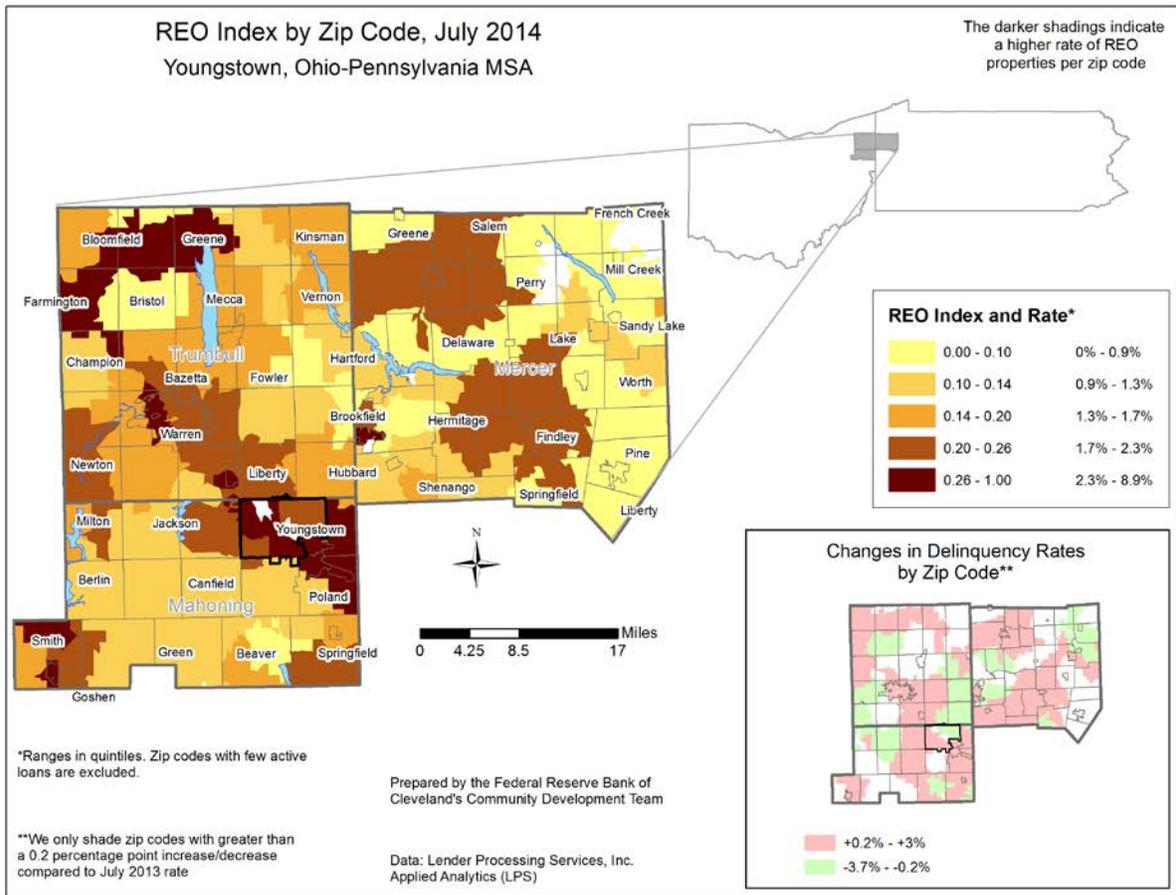


1. **90 Days or More Delinquency Index:** Delinquency rates declined modestly in the Youngstown MSA, a three-county area that straddles Ohio and Pennsylvania, from an average of 3.6 percent in July 2013 to an average of 3.3 percent in July 2014. This is slightly above the Ohio state average. However, rates as high as 13 percent prevail in the City of Youngstown, as well as in

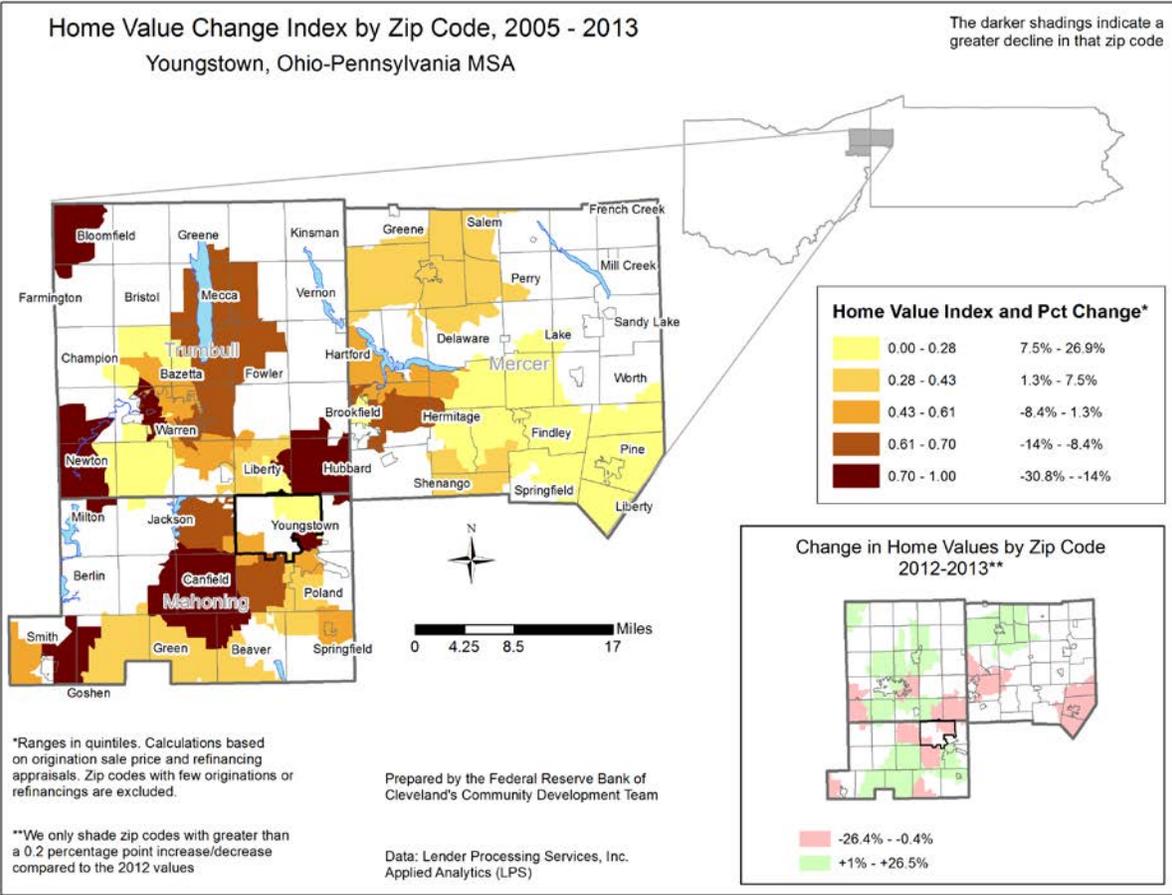
parts of Trumbull and Mercer Counties—and rates are still increasing in the most troubled zip codes.



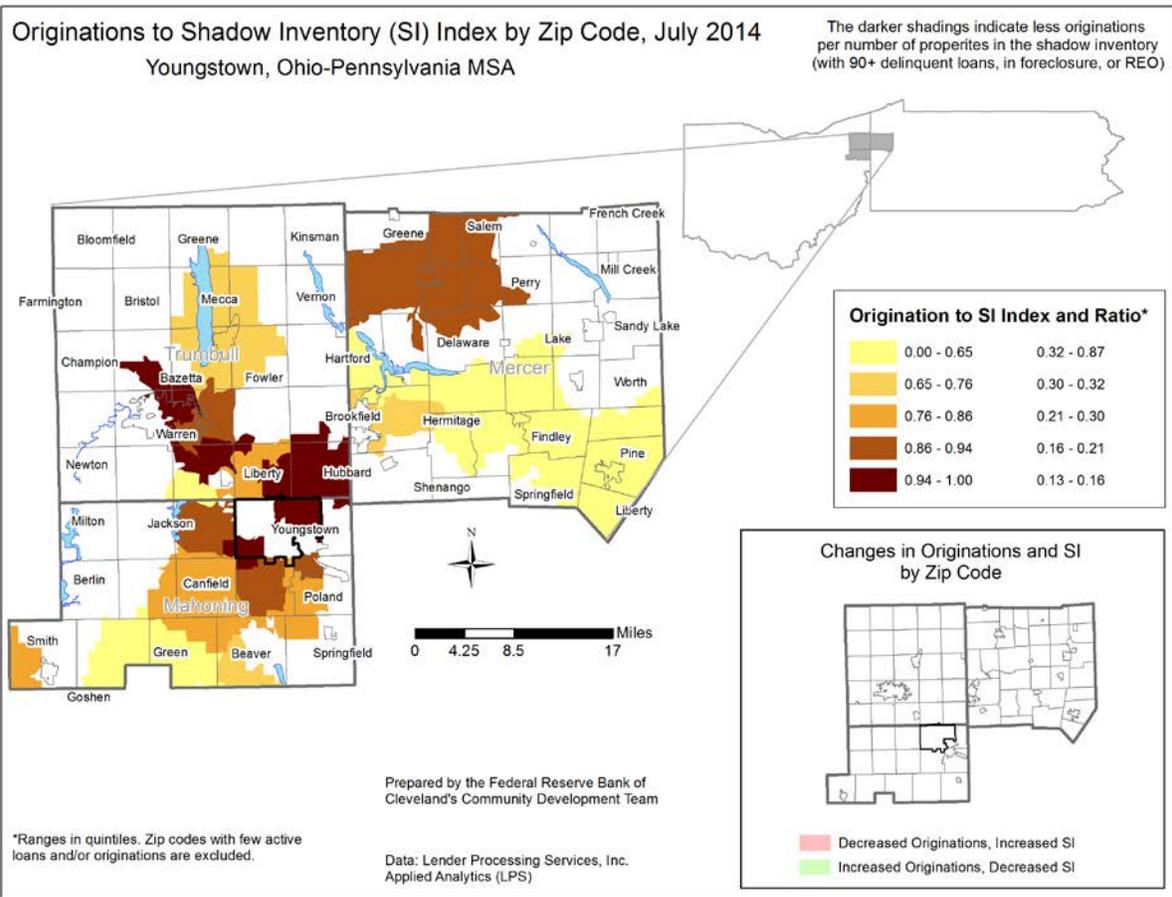
- Foreclosure Index:** The outlook on foreclosure rates is more encouraging than the one for 90-days-or-more delinquency. Foreclosure rates in most of the region decreased from July 2013 to July 2014—more than anywhere in Ohio except in the Akron MSA. Even the City of Youngstown enjoyed this positive trend.



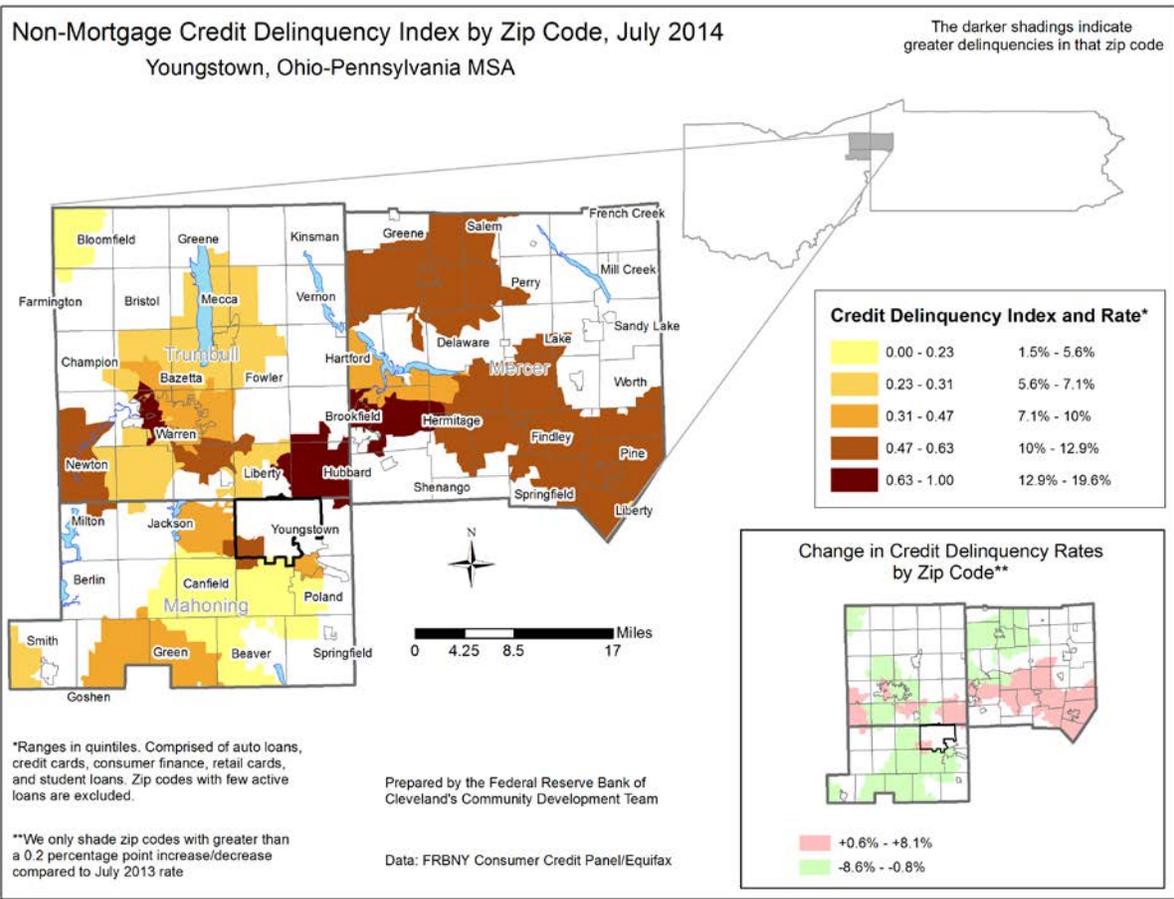
- REO Index:** The average rate of REO properties increased modestly in the Youngstown MSA, from 1.4 percent in July 2013 to 1.7 percent in July 2014. Zip codes in and around the City of Youngstown continue to suffer from the highest rates in contrast to most parts of Mercer County, which appears to be faring better than the rest of the region.



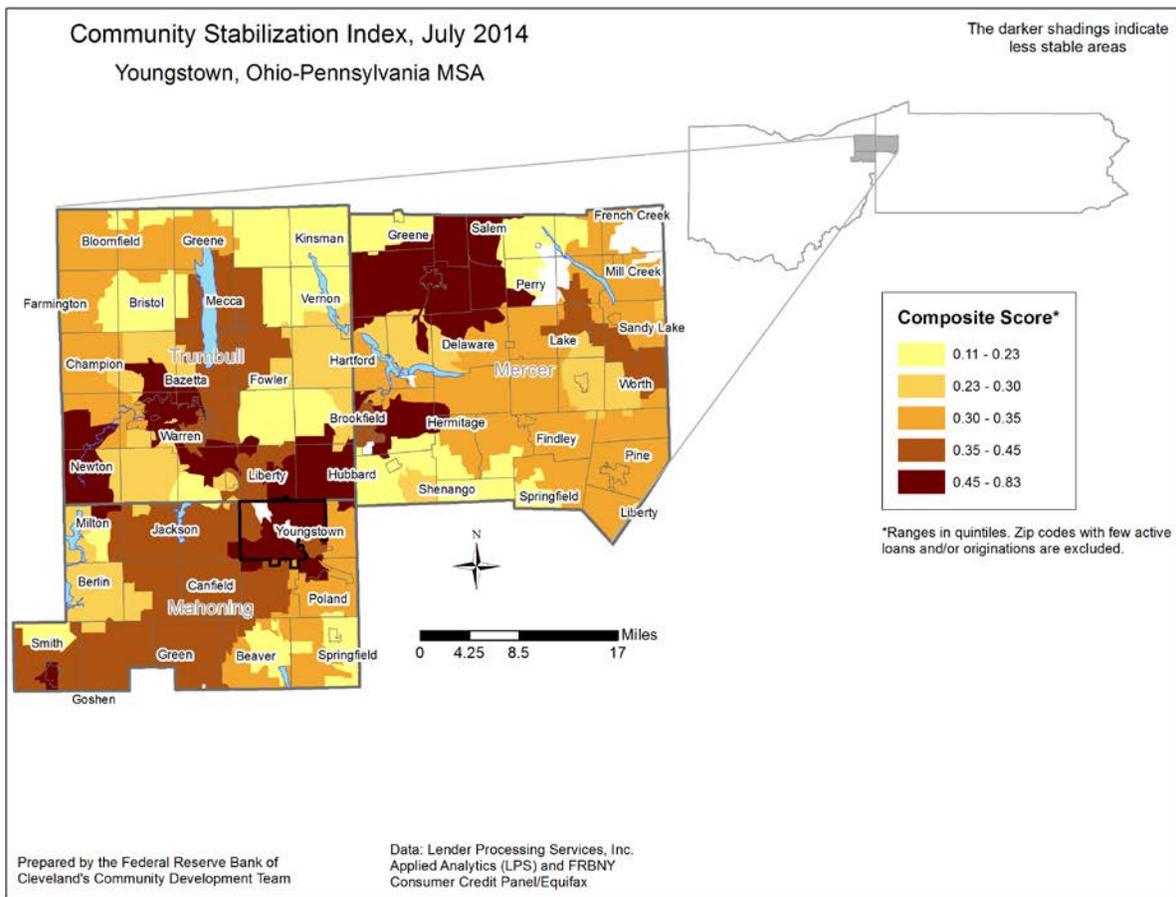
4. **Home Value Change Index:** This index is based on origination sale prices and refinancing appraisals from 2005 to 2013. While trends at the MSA level are generally consistent with home prices from other data sources (e.g. Haver Analytics), changes at the zip code level may not be representative of the entire housing stock in each zip code. According to this indicator, the median value of homes across the region in 2013 was at about the same level as in 2005. Some zip codes in the City of Youngstown even experienced increases in the range of 7.5 and 26.9 percentage points—excellent news for a region hit hard by the foreclosure crisis—though values dipped a bit from 2012 to 2013.



5. **Originations-to-Shadow-Inventory (SI) Index:** According to this indicator, a zip code with more mortgage originations per distressed units is a sign of recovery. All zip codes across the three-county MSA have a ratio less than one, meaning there were fewer originations than distressed units in the housing stock from July 2013 to July 2014. This is probably due to a steep drop-off in mortgage originations across the country over the past year; refinancing activity, for instance, is down 60 percent in the US since 2013. So, while the shadow inventory has decreased across the region, originations have decreased even more; but nowhere are originations and SI moving in opposite directions as indicated by the blank inset map. The City of Youngstown and adjacent areas had the fewest originations per distressed units.



6. **Credit Delinquency Index:** The most troubled areas in the MSA for non-mortgage credit delinquency include zip codes in Trumbull and Mercer Counties, where rates are as high as 19.6 percent. If left unchecked, such high rates could exacerbate underlying housing market distress in places such as Warren, Hubbard, and Brookfield.



- Community Stabilization Index:** While the City of Youngstown has experienced progress in reducing their shadow inventory over the past year, they still appear to have a more distressed housing stock relative to the rest of the MSA. The region as a whole should keep an eye on the recent up-tick in REO rates and higher-than-average non-mortgage credit delinquency rates. Otherwise, with median home values surprisingly stable and rates of 90-days-or-more delinquency and foreclosure on the decline, the housing market outlook is mostly encouraging—or at least not discouraging.

Contact Information

Brett Barkley

Research Analyst

Tel 216-206-3658

Brett.Barkley@clev.frb.org

Lisa Nelson

Community Development Advisor

Tel 216-579-2903

Lisa.A.Nelson@clev.frb.org



FEDERAL RESERVE BANK *of* CLEVELAND

1455 East Sixth Street
Cleveland, Ohio 44114

Web ClevelandFed.org/CommunityDevelopment

Twitter @CleveFed_ComDev