
The Joseph C. Cornwall Center for Metropolitan Studies at Rutgers University-Newark is pleased to present "Map of the Week" — a weekly blog series designed to explore some of the community and economic development and social equity issues present in the Newark, New Jersey region through the use of maps and infographics. The Cornwall Center uses research and demonstration to address key urban and metropolitan problems in Newark and the surrounding region.

Exploring Income Diversity and Segregation in New Jersey

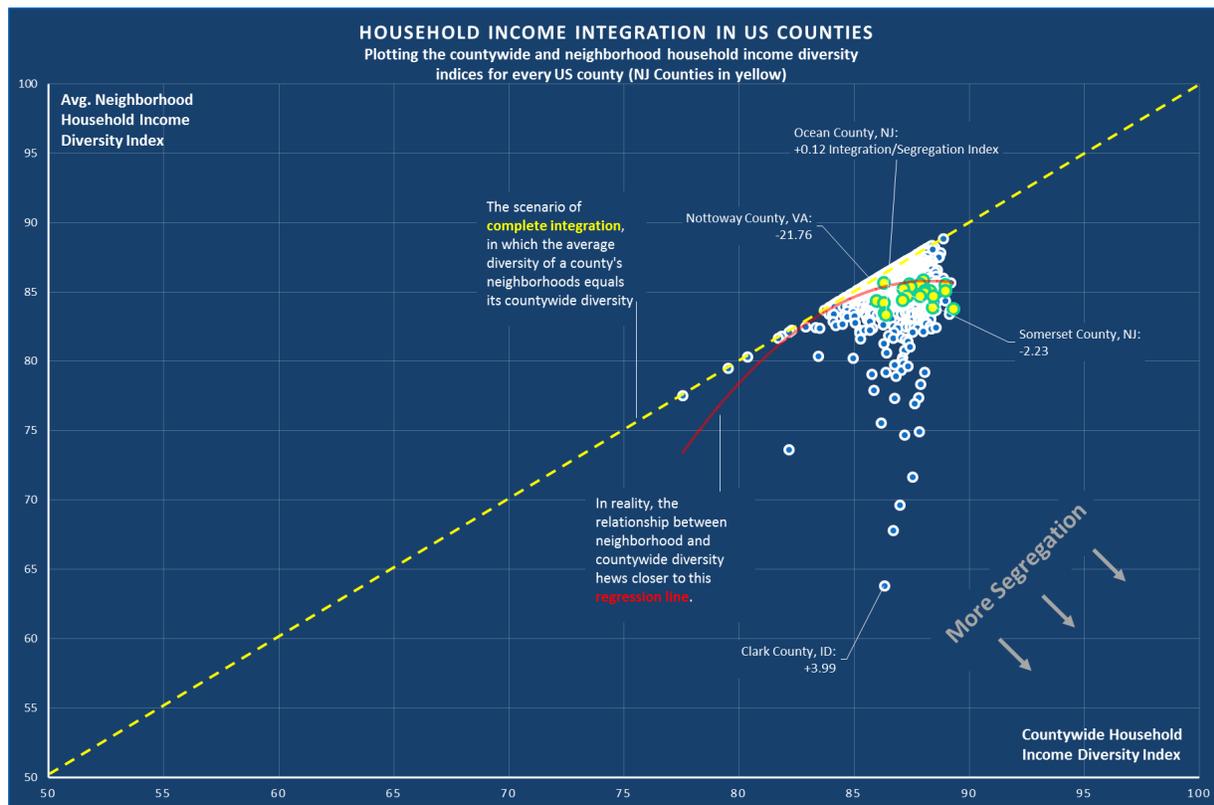
February 1, 2016:

How Integrated, in Terms of Household Income, are New Jersey's Counties?

In our final post regarding the diversity and segregation of household income in New Jersey we will explore the relationship between counties' overall household income diversity and their neighborhood household income diversity. This exploration will help us understand if our counties are well-integrated (i.e. household income diversity in neighborhoods closely matches the diversity in the county, overall) or segregated (i.e. neighborhoods are much more homogeneous than the county, overall).

To conduct this analysis, we plotted each US county's Countywide Diversity Index Score against its Average Neighborhood Diversity Index Score on a scatter plot. The results are shown below, in Figure 1. Some counties' neighborhood diversity equaled their countywide diversity, meaning these counties were perfectly mathematically integrated. However, in order to measure integration in relation to all US counties, rather than in relation to an absolute perfect integration possibility, a regression line was calculated which showed a truer relationship seen between the diversity scores. Counties that fall above the regression line (the red line on the chart) are counties whose difference between their neighborhood and countywide diversity scores are small enough that, compared to all other US counties, they are considered integrated. The opposite is true for counties that fall below the red regression line. They are counties whose difference between their neighborhood and countywide diversity scores are large enough that they are considered segregated. Neighborhoods in counties that are considered to be well-integrated are likely comprised of roughly equal shares of households from many income groups. Neighborhoods in counties that are considered to be highly segregated are likely comprised mainly of households from one particular income group, creating pockets of high- or low-income households.

Figure 1: Household Income Integration in US Counties



Data Source: Cornwall Center Analysis of U.S. Census Bureau's 2010-2014 5-year ACS Data

As seen in Figure 1, only one New Jersey county, Ocean County, falls above the regression line and is considered to be integrated. With an Integration/Segregation Index Score of +0.12, Ocean County is extremely close to the regression line and can be considered as integrated as the average US county. Somerset County is New Jersey's most segregated. Its Integration/Segregation Index Score of -2.23 places Somerset County in the highest-segregated quartile of US counties and suggests it is 2.23 times as segregated as the average US County.

Map 1, below, shows how household income integration and segregation plays out across all New Jersey counties. On the map, counties are shaded depending on which US county Integration/Segregation quartile they fall in. Counties that fall in the bottom quartile of US counties are considered to be highly segregated, while counties that fall in the highest quartile are considered to be well-integrated.

This residential sorting, or segregation by household income, is prevalent across our country and is one of the primary factors that shape a person's quality of life and define what a person has access to. Homogenous neighborhoods likely function as exclusionary pockets of high or low income, and are likewise limited in the housing options, services, and amenities that are available. Enclaves of low-income households likely find it difficult to attract traditional banks, grocery stores and healthy food options, or popular amenities, as such amenities seek areas of higher disposable incomes to maximize their profits. Additionally, these areas likely find it difficult to attract higher-income households, further dissuading traditional and popular amenities from locating in these areas.

Diverse neighborhoods, on the other hand, likely function as mixed-income neighborhoods and likely feature a variety of housing options, services, and amenities to serve the wider range of incomes that reside within. A variety of housing options suggest that individuals employed in lower-earning occupations, such as janitors, retail workers, restaurant workers, and even teachers and librarians, could live in or near the neighborhoods in which they work. Lower-income households living in mixed-income neighborhoods likely have better access to the traditional amenities discussed earlier because amenities are more willing to locate in these areas.

Just as exclusionary housing and land use development practices employed throughout the 20th century created these pockets of neighborhood income homogeneity, inclusionary practices employed today, such as the provision of workforce housing in affluent neighborhoods, policies that encourage developers to build below-market-rate housing and services in exchange for greater densities, and the location of public housing units away from neighborhoods of concentrated poverty can help change the landscape of homogenous neighborhoods into mixed-income neighborhoods.

In Table 1, below, you can see every New Jersey county's Countywide and Average Neighborhood Household Income Diversity Index Scores as well as its Household Income Integration/Segregation Score. While two of the most diverse New Jersey counties (Essex and Mercer) are also two of the most segregated counties, this is not a clear pattern that plays out. In fact, two other counties that rank in the top four most diverse counties (Passaic and Hudson), are more-integrated, compared to the remainder of New Jersey counties. This observation leads one to believe that just because a county is comprised of households from a mixture of different income groups, these households do not necessarily live in homogeneous neighborhoods. For more information regarding the household income diversity of every neighborhood in New Jersey, please view our [interactive map](#).

Map 1: Household Income Integration and Segregation in New Jersey Counties

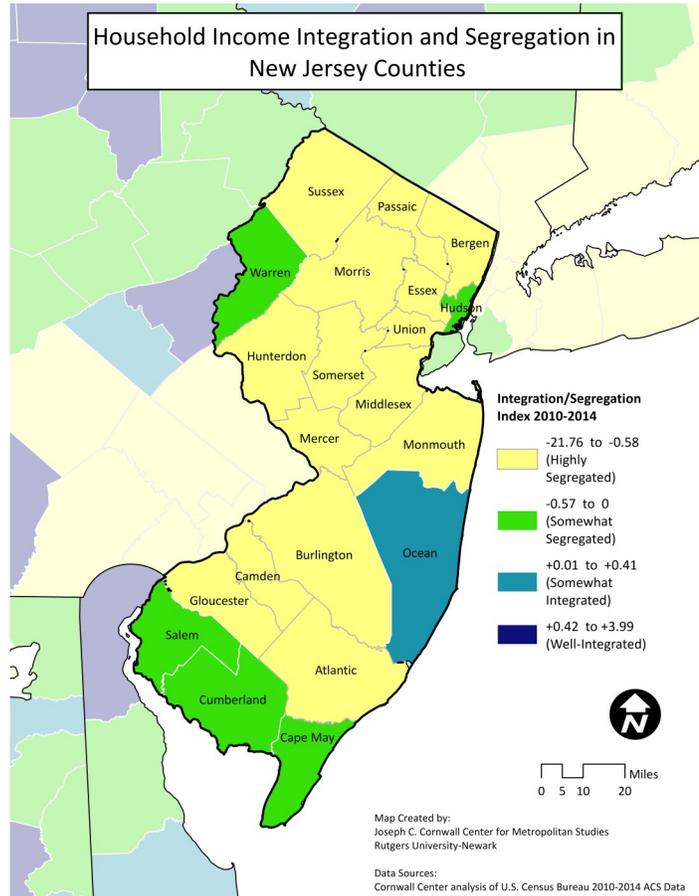


Table 1: Household Income Integration/Segregation Index Score of NJ Counties

COUNTY	COUNTYWIDE HH INCOME DIVERSITY INDEX 2010-2014	AVG NEIGHBORHOOD HH INCOME DIVERSITY INDEX 2010-2014	HH INCOME INTEGRATION/ SEGREGATION INDEX 2010- 2014
OCEAN COUNTY	86.26	85.68	+0.12
CAPE MAY COUNTY	87.98	85.85	-0.15
WARREN COUNTY	87.38	85.59	-0.32
CUMBERLAND COUNTY	87.83	85.57	-0.41
HUDSON COUNTY	88.93	85.51	-0.45
SALEM COUNTY	87.42	85.40	-0.52
GLOUCESTER COUNTY	87.13	85.23	-0.63
PASSAIC COUNTY	88.94	85.10	-0.86
CAMDEN COUNTY	88.27	85.12	-0.89
ATLANTIC COUNTY	88.05	85.10	-0.89
BERGEN COUNTY	88.04	84.96	-1.04
HUNTERDON COUNTY	85.96	84.36	-1.06
MIDDLESEX COUNTY	87.29	84.72	-1.18
MONMOUTH COUNTY	87.84	84.73	-1.25
UNION COUNTY	88.43	84.72	-1.28
SUSSEX COUNTY	86.27	84.24	-1.32
BURLINGTON COUNTY	87.10	84.43	-1.42
MORRIS COUNTY	86.31	83.51	-2.07
ESSEX COUNTY	89.30	83.82	-2.07
MERCER COUNTY	88.40	83.88	-2.12
SOMERSET COUNTY	86.38	83.37	-2.23

Data Source: Cornwall Center Analysis of U.S. Census Bureau's 2010-2014 5-year ACS Data

Author: John Manieri, AICP

Research, Analysis, and Technical Assistance: Steve Scott