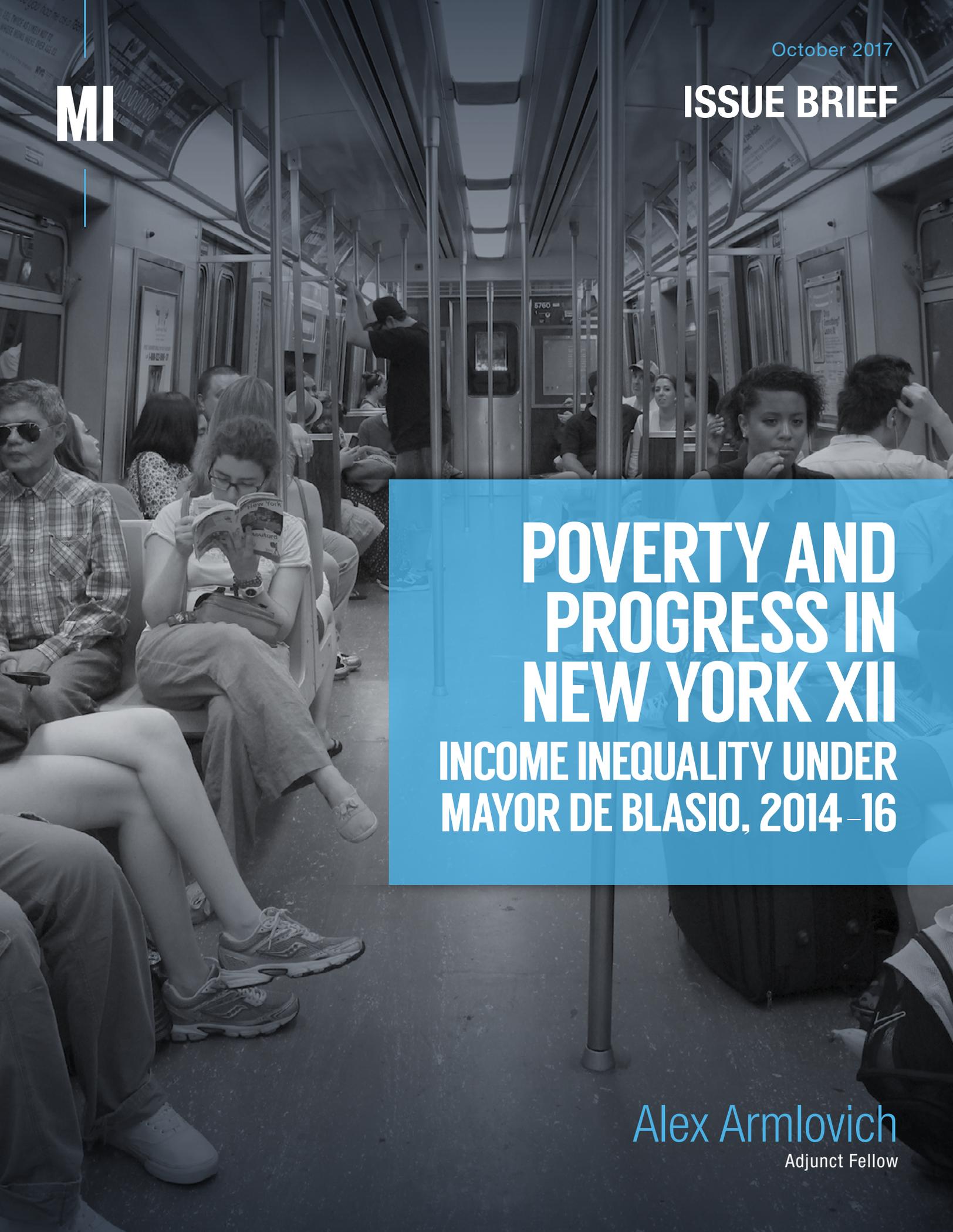


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MI

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**POVERTY AND  
PROGRESS IN  
NEW YORK XII**  
INCOME INEQUALITY UNDER  
MAYOR DE BLASIO, 2014–16

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## Executive Summary<sup>1</sup>

New York City mayor Bill de Blasio assumed office in January 2014, promising to “take dead aim at the Tale of Two Cities ... [and] put an end to economic and social inequalities that threaten to unravel the city we love.”<sup>2</sup> As the de Blasio administration nears the end of its four-year term, income inequality in 2016, the most recent year for which data are available, stood at the same level it was when former mayor Michael Bloomberg left office. During the interim, income inequality has fluctuated—at one point becoming even greater than it was when de Blasio entered office—and only more recently reverted to the Bloomberg-era level.

### Key Findings:

- ✔ According to the most recent available data, household income inequality, as measured by the Gini coefficient—a means of gauging the relative shares of income across a population—is unchanged since the end of the Bloomberg administration in December 2013.

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- ✔ The Theil Index, another way to measure income inequality, shows that changes in the extent of income inequality in New York are largely explained not by public-policy interventions but by the compensation trends of one industry: finance.

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- ✔ A transitory increase in compensation for finance professionals (as a group, the city’s highest paid) led the gap between New York’s rich and poor to increase in 2014 and 2015. In 2016, a modest decline in the concentration of compensation in that sector reduced income inequality to about the same level as when Mayor de Blasio took office.

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- ✔ These findings raise questions as to whether public policies within city government’s control that might reduce income inequality—notably, by having fewer wealthy residents (from, say, imposing higher income taxes) and fewer poor residents (by, for instance, building fewer affordable housing units)—would improve the well-being of low-income New Yorkers.



## Measuring Inequality

The Gini coefficient, or index, is a popular measure of income inequality. In simplified terms, it measures income inequality in a country or other group. The coefficient ranges between 0 and 1, where 0 represents perfect equality (everyone has the same income) and 1 represents perfect inequality (one person has all the income).

There are other measures. One can compare, for example, the share of income received by the top 1% versus the rest; the ratio of the average incomes of the 1st percentile to the 99th percentile; or the evolution of the threshold required to enter each income quintile over time. All these comparisons describe income inequality at one point in time or changes in income inequality over time.

Another measure, the Theil Index, is used in academic analyses but is not often reported or discussed in the news media. When individual income data are available, this index formulates a weighted number for each individual and then sums the numbers up into the final index number. Unlike the aggregative Gini coefficient, individual “Theil elements” can be defined for subgroups and then analyzed within and across subgroups.

Using the Theil Index, one could determine whether national income inequality is driven more by inequality within states or across states; within counties or across counties; or within industries versus across industries. Considered this way, the total Theil Index is computed by summing the “between-group” element with the “within-group” element of total inequality.<sup>3</sup>

The Theil Index enables researchers to estimate the “between-group” component of inequality even when they do not have access to individual income data. In other words, even if one cannot observe the “within-group” elements of inequality, one can observe the “cross-group” elements. This is particularly useful in seeking to understand the economic influences on income distribution, as in New York.

It also compensates for the fact that high-quality individual income data are available only with a multiyear lag, especially for subnational geographies. But local-area Quarterly Census of Employment and Wages (QCEW) data by industry sector—the raw material for the Theil Index—are available for New York City, with preliminary annual estimates available within a year.<sup>4</sup>

Unlike other inequality measures, the Theil Index provides the ability to compare subgroups directly: it tells a much richer story about the labor market than is possible with quintile shares or the indivisible Gini coefficient. These traditional analyses simply show that the rich are rich and the poor are poor, and by how much. But the Theil Index can show which industries (or any measurable subgroup) in a city contribute to measured overall inequality. The Theil Index also makes clear that, once migration is taken into account, boosting the income *share* of the local bottom quintile in a city is not synonymous with, or even necessarily consistent with, raising this group’s income.

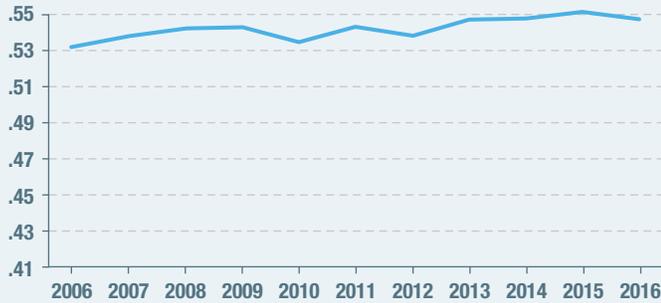
## Income Inequality in NYC Is Flat Under de Blasio

**Figure 1** depicts the Gini coefficient for New York City during the past decade. From 2006 to 2015, household income inequality gradually rose. In 2016, it declined, but only to its 2013 level, the final year of Mayor Bloomberg’s administration.

**Figure 2** depicts the Theil Index for New York across the city’s industry sectors (measured at the Census Bureau’s three-digit NAICS [North American Industry Classification System] code level), since 2000.<sup>9</sup> A rising line indicates that overall inequality has increased; a falling line indicates that overall inequality has declined. Figure 2 shows that New York City’s Theil Index in 2016 was roughly the same as it was in 2013.

FIGURE 1.

### New York City's Household Gini Coefficient, 2006–16\*



\*The higher the coefficient, the more unequal the distribution of household income. The Census Bureau's American Community Survey (ACS) reports a household Gini coefficient for various localities, including New York City.<sup>5</sup> ACS data are considered a less effective estimator of income than the national-level Current Population Survey (CPS), which asks a series of detailed income questions.<sup>6</sup> CPS data tend to underreport incomes at both the top<sup>7</sup> and the bottom.<sup>8</sup> Nonetheless, ACS data provide the only source of income inequality estimates from the Census Bureau at the local level.

Source: "American Community Survey," U.S. Census Bureau

FIGURE 2.

### New York City's Theil Index, 2000–16\*

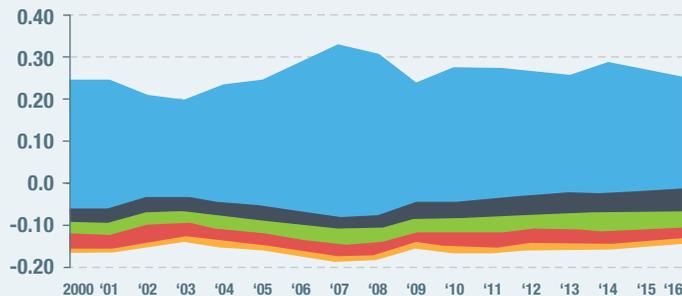


\*Like the Gini coefficient, the Theil Index has no units. Unlike the Gini coefficient, which has a fixed limit and stable interpretation in English between 0 and 1, the limit of the Theil Index depends on the number and size of groups, and so the level is not always comparable across contexts. Rather, it's most useful in showing changes over time at whatever level of aggregation—such as the city level—is available. See Hale, "The Theoretical Basics of Popular Inequality Measures."

Source: Author's calculations from "Quarterly Census of Employment and Wages," U.S. Department of Labor

FIGURE 3.

### Theil Index by Industry Sector, 2000–16



- Food Services and Drinking Places
- Professional and Technical Services
- Credit Intermediation & Related Activity
- Management of Companies and Enterprises
- Insurance Carriers & Related Activity
- Ambulatory Health-Care Services
- Administrative and Support Services
- Financial Investment & Related Activity
- Local Government
- Social Assistance
- All Other

Source: Author's calculations from "Quarterly Census of Employment and Wages," U.S. Department of Labor

**Figure 3** shows each industry's contribution to the total Theil Index displayed in Figure 2—i.e., the industry's contribution to income inequality in New York, based on salary and wages. In other words, any sector with above-average wages boosts income inequality, while any sector with below-average wages reduces it. (Because local government workers receive nontaxable benefits equal to half or more of their money wages on average, their money wages appear deceptively low.) As Figure 3 shows, finance ("Financial Investment & Related Activity")—which accounted for about 4.2% of New York's employment but about 18.1% of its wages and salaries, according to the Census Bureau's NAICS—is by far the biggest contributor to income inequality in New York.<sup>10</sup>

## Conclusion

Under Mayor de Blasio, income inequality in New York City, as measured by the Gini coefficient as well as the Theil Index, has stayed roughly constant. The Theil Index offers additional insight: income inequality in New York is especially sensitive to changes in the fortunes of Wall Street.

As New York's financial industry recovered from the Great Recession and offered increased compensation, income inequality in the city also rose. Likewise, as Wall Street's fortunes ebbed slightly in 2016, income inequality in the city fell slightly. Neither a rise nor a decline at the top of the compensation scale reveals whether low-income New Yorkers have more or less to spend or save. Moreover, to the extent that de Blasio fulfills his pledge to sharply expand affordable housing, he will exacerbate income inequality by making it possible for more poor New Yorkers to continue living in the city. Such are the limits of income inequality as a measure for gauging the quality of life of those of modest means.

## Endnotes

- <sup>1</sup> The Manhattan Institute's "Poverty and Progress in New York" series tracks the effects of Mayor de Blasio's policies on lower-income New Yorkers and on quality-of-life indicators more generally. This paper, the 12th installment, revisits the recent evolution of income inequality in the five boroughs. Some language may be identical to that published in previous MI papers in this series.
- <sup>2</sup> See "Text of Bill de Blasio's Inauguration Speech," *New York Times*, Jan. 1, 2014.
- <sup>3</sup> See Travis Hale, "The Theoretical Basics of Popular Inequality Measures," University of Texas Inequality Project.
- <sup>4</sup> "Quarterly Census of Employment and Wages," New York State Department of Labor.
- <sup>5</sup> "B19083: Gini Index of Income Inequality," U.S. Census Bureau.
- <sup>6</sup> "Fact Sheet: Differences Between the American Community Survey (ACS) and the Annual Social and Economic Supplement to the Current Population Survey (CPS ASEC)," U.S. Census Bureau.
- <sup>7</sup> Scott Winship, "The Inequality Non-Explainer, Explained," *Forbes.com*, Oct. 3, 2014.
- <sup>8</sup> Jonathan L. Rothbaum, "Comparing Income Aggregates: How Do the CPS and ACS Match the National Income and Product Accounts, 2007–2012," U.S. Census Bureau, Jan. 14, 2015.
- <sup>9</sup> It is constructed from wage and employment data and does not include income or gains from investments or the value of noncash employee benefits. Nonetheless, if trends in nonwage income and household structure are stable, changes in this index of wage inequality should predict changes in total household income inequality.
- <sup>10</sup> In this form, the Theil Index asks two questions: What is the ratio of the group's income to the population average, and what share of the population is the group? It then weights the product of those two questions by the natural log of the group's income ratio. This is important in gauging income inequality in New York, where one economic sector—finance—plays an outsized role (just as, for instance, the energy industry plays an outsized role in Houston).



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