



Ensuring Affordable Water and Sewer Rates

- ❖ Background on NYCDEP
- ❖ A look at EPA's CSO Affordability Guidance
- ❖ Why MHI is a Poor Indicator of Affordability
- ❖ EPA's Financial Capability Matrix Does not Tell the Whole Story
- ❖ Continuing the Dialogue on Affordability

Background on New York City DEP



- ❖ DEP provides over a billion gallons of water daily to over 8 million NYC residents, visitors and commuters as well as one million upstate customers. Maintains watershed of 19 reservoirs, numerous aqueducts, and 6,600 miles of water mains and distribution pipes. New filtration plant and UV disinfection facility to go online within the year.
- ❖ DEP treats ~1.3 billions gallons of wastewater daily at 14 in-city WWTPS, maintains 7,400 miles of sewers and 95 pump stations, 4 CSO storage facilities. DEP recently launched a \$2.4 green infrastructure program, and over the next 5 years will be developing LTCPs for our waterbodies.
- ❖ Funded almost entirely through rates paid by our customers. (<2% in federal and state assistance over the past 10 years) Since 2002, water & sewer rates have risen 150%

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DEP Capital Spending vs. other NYC Investments



Category	Share
Environmental Protection	28%
Education	26%
Transportation	10%
Parks & Public Buildings	6%
Technology & Equipment	6%
Housing	5%
Economic Development	3%
Public Protection	3%
Hospitals	3%
Sanitation	2%
All Other	8%
Total Commitments	100%

Source: New York City Office of the Comptroller, Comprehensive Annual Financial Report,
Fiscal Years 2002-2009

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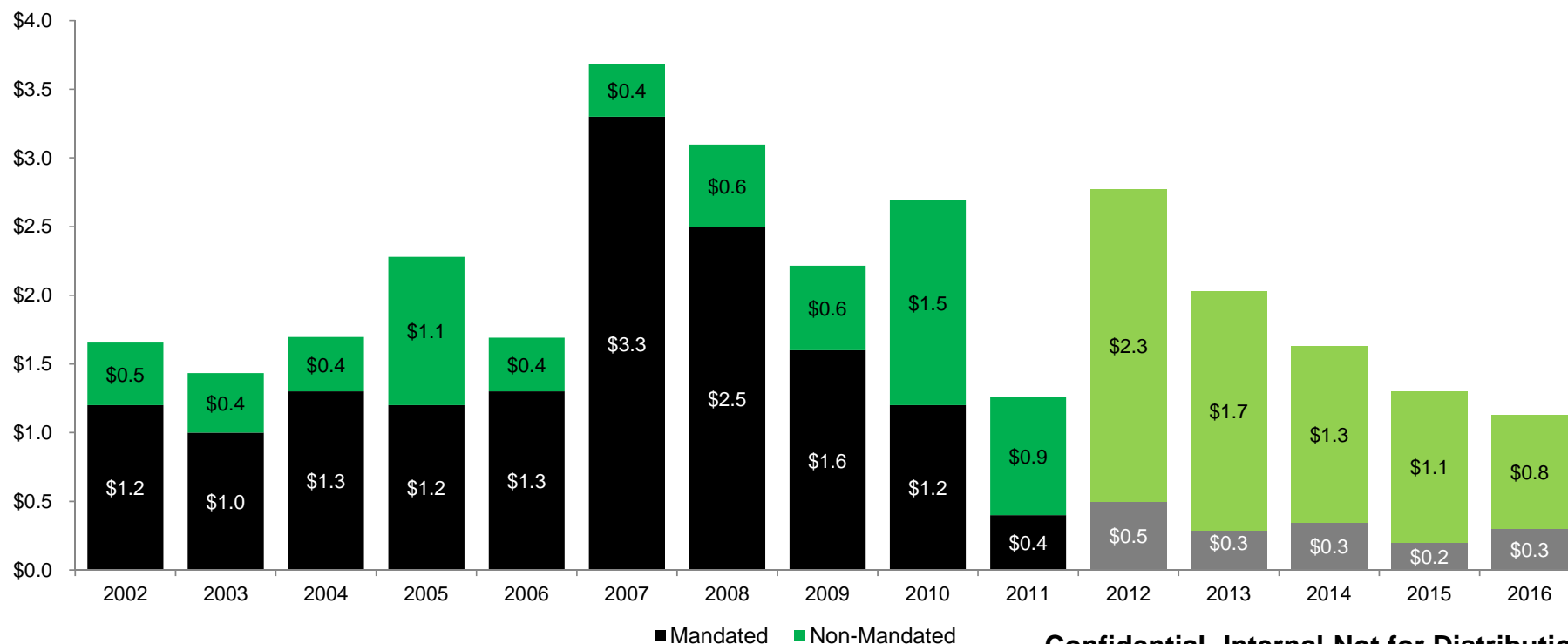
Capital Outlook

- ❖ \$15B of \$21.8B (69%) of capital commitments for FY 2002 to 2011 were driven by mandates. (\$8.7 B out of 20.4 B (42% of expenditures from FY 2001-2011 were driven by mandates)
- ❖ In next decade, DEP will spend billions addressing mandates for CSOs, treatment plant upgrades, as well as non-mandated but still critical programs to build storm sewers, replace storm and sanitary lines, and asset management.

Capital Outlook FYs 2007—2016

(\$ in billions)

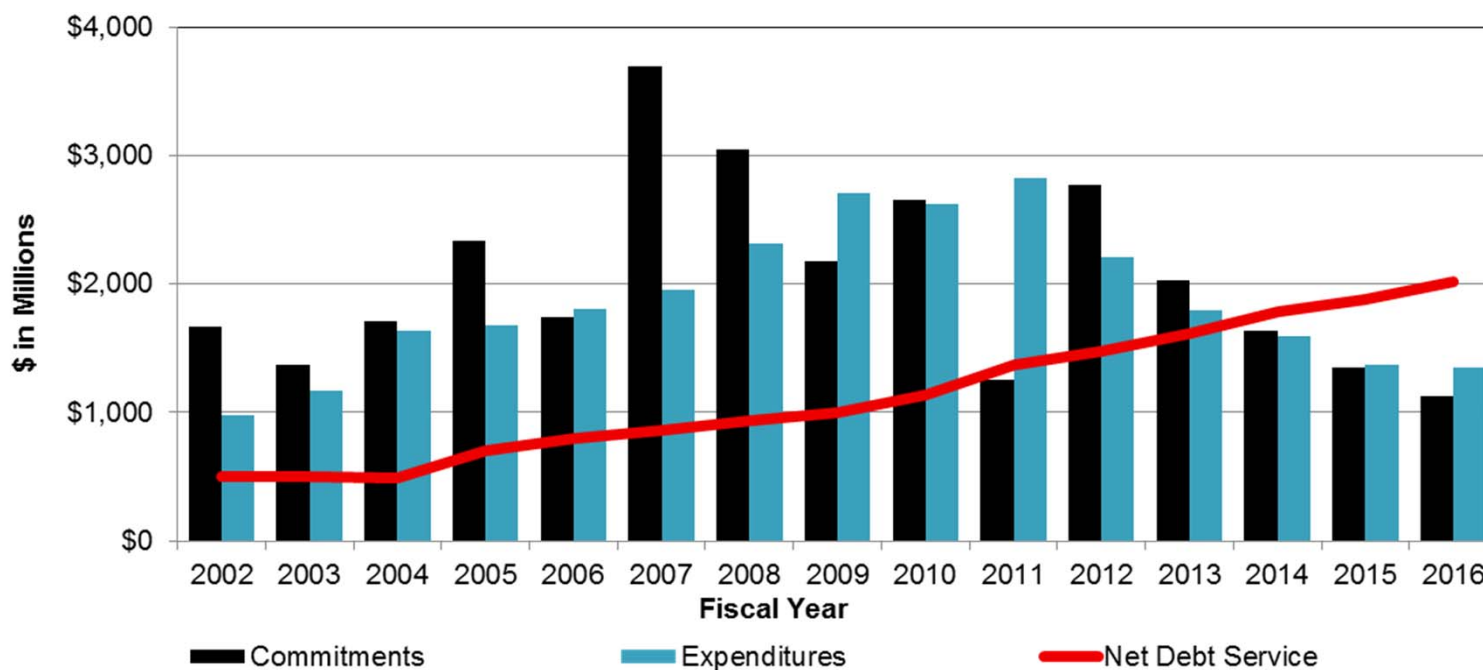
FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Total
\$3.7	\$3.1	\$2.2	\$2.7	\$1.3	\$2.8	\$2.0	\$1.6	\$1.3	\$1.1	\$21.8



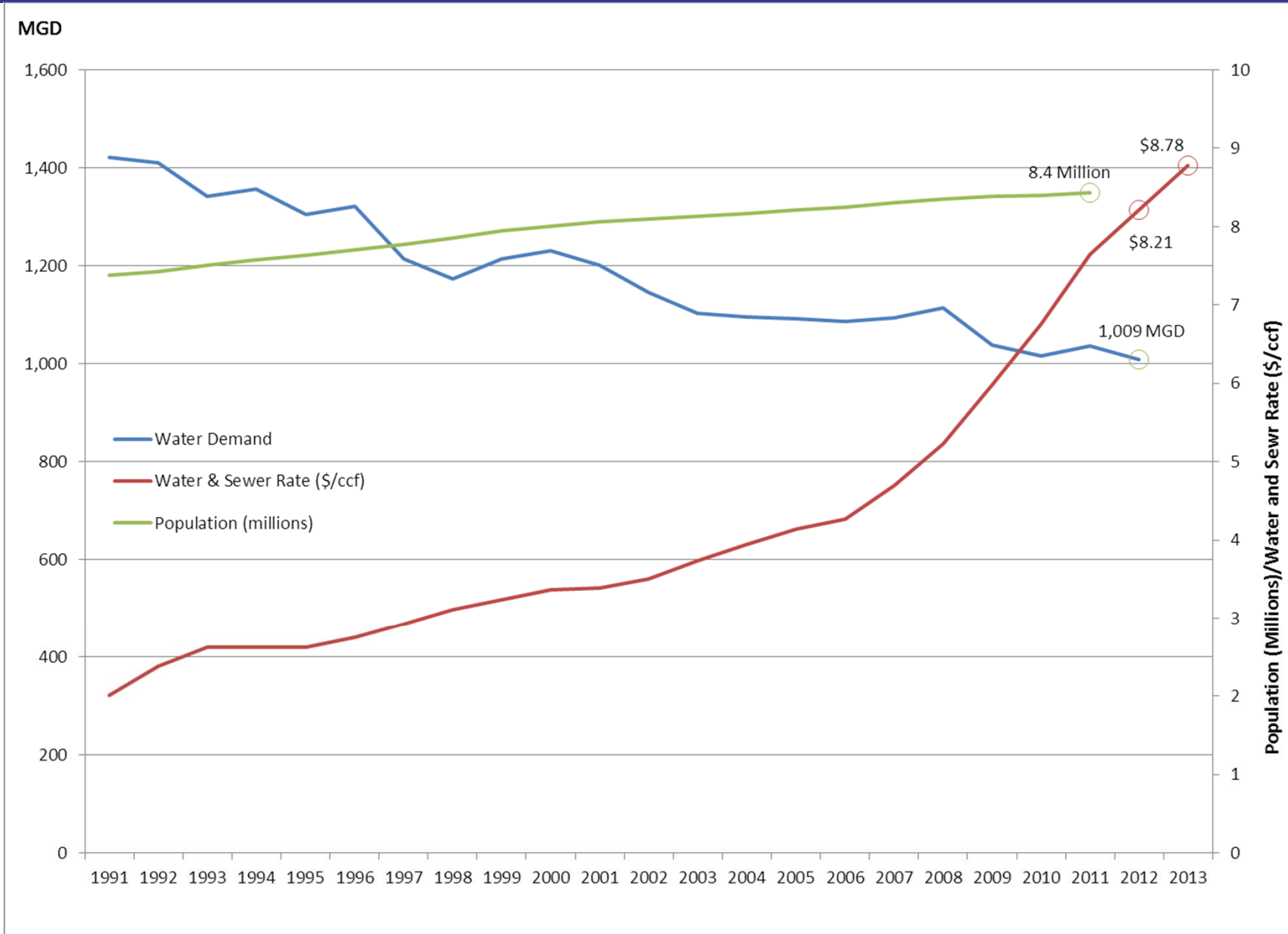
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Past Capital Costs, Current Debt Service

- ❖ Annual net debt service increased by 176% between FY 2002 and FY 2011 and is projected to increase by \$107M or 8% in 2012
- ❖ In future years, even though annual commitments and expenditures decrease, annual net debt service continues to rise



Consumption declining, Rates increasing



FY13: \$3.39/CCF for water, \$5.39/CCF for wastewater; \$8.78/CCF combined.

- ❖ EPA CSO Guidance provides two-tiered economic “tests”
 1. Affordability to residential customers: “Residential Indicator” based on City-wide Median Household Income (MHI)
 2. Utility capacity to finance mandate-related investments: “Financial Capability Indicator” based on a suite of fiscal metrics

Utilities are encouraged to submit any additional documentation that would create a more accurate and complete picture of their financial capability.

1. Municipal Preliminary Screener (Residential Indicator - RI)

$$\frac{\text{Average total water pollution cost per household}}{\text{Median household income}}$$

- ❖ **Low economic impact:** < 1.0% of MHI
- ❖ **Mid-range economic impact:** between 1.0% and 2.0% of MHI.
- ❖ **Large economic impact:** > 2.0% of MHI

(NYC average household wastewater/sewer costs are ~1% of NYC MHI)

Why 2% MHI for Wastewater Affordability?

- ❖ 2% MHI adopted in EPA 1994 CSO Guidance document, but rational for using the “2% of MHI” metric are unclear
- ❖ Use of MHI-related metric dates back to at least the 1970s, when EPA introduced affordability into its Construction Grants program for wastewater treatment plants (WWTP)
- ❖ EPA may have adopted the 2% metric from programs that predate the 1972 federal CWA (e.g., USDA rural assistance programs), and perhaps even the formation of the EPA itself
- ❖ EPA adopted the 2% metric to evaluate whether utilities had the capacity to finance and manage WWTPs
 - ❖ i.e., not to evaluate burden on households within the community.
- ❖ On drinking water side, 2.5%MHI metric applicable only to small systems requesting variances or exemptions from treatment technologies

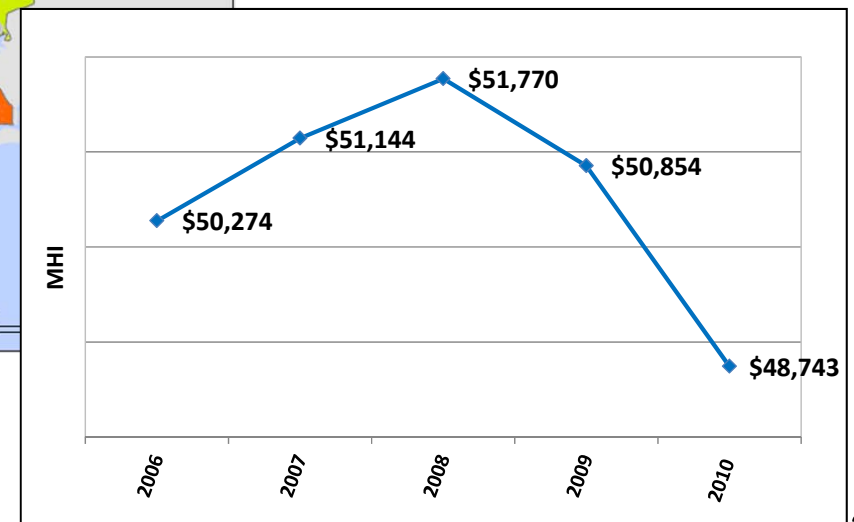
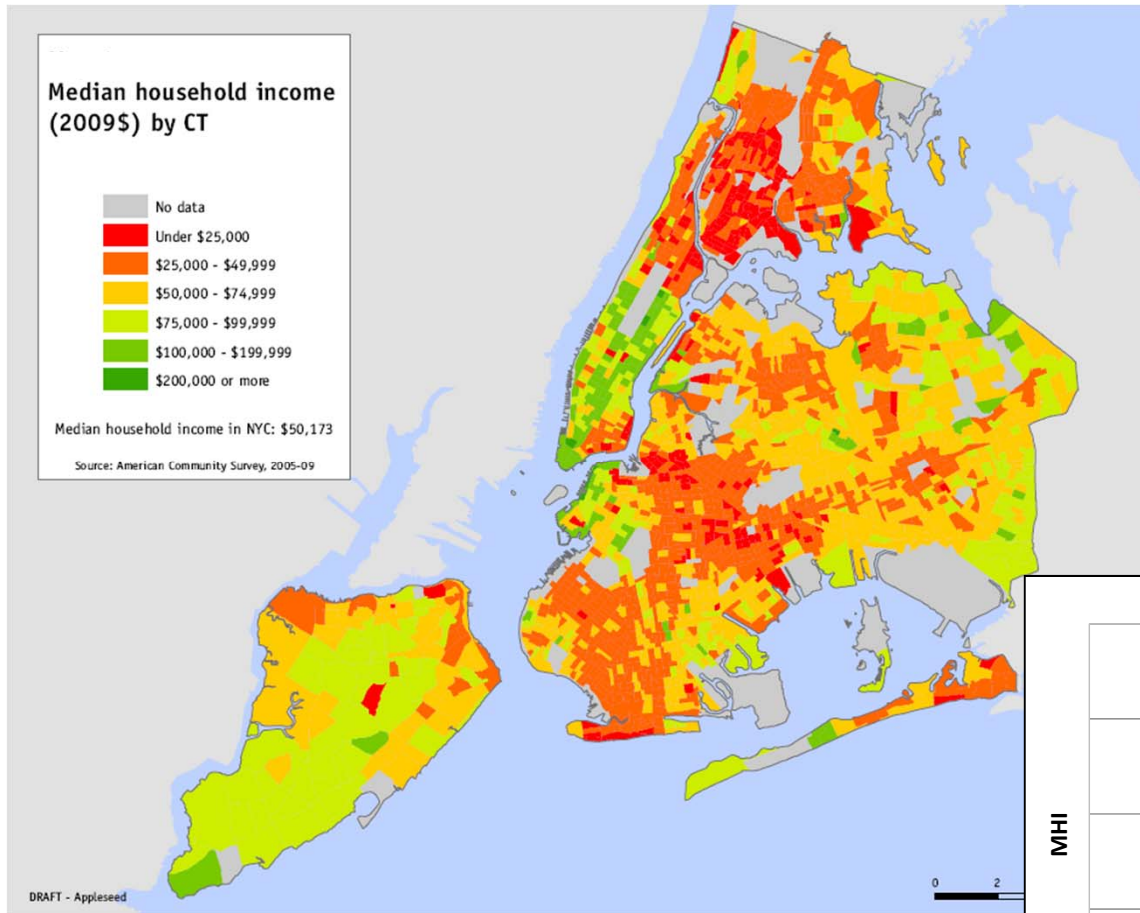
MHI is a poor indicator of affordability

- ❖ MHI does not capture impacts across large, highly diverse communities.
- ❖ Focus on the median household assumes that income distribution below the 50th percentile is the same everywhere.
- ❖ MHI is a poor indicator of economic distress and bears little relationship to poverty or other measures of economic need.
- ❖ MHI does not take into consideration cost of living

NYC Income Levels

Income levels vary widely across neighborhoods and have declined in recent years.

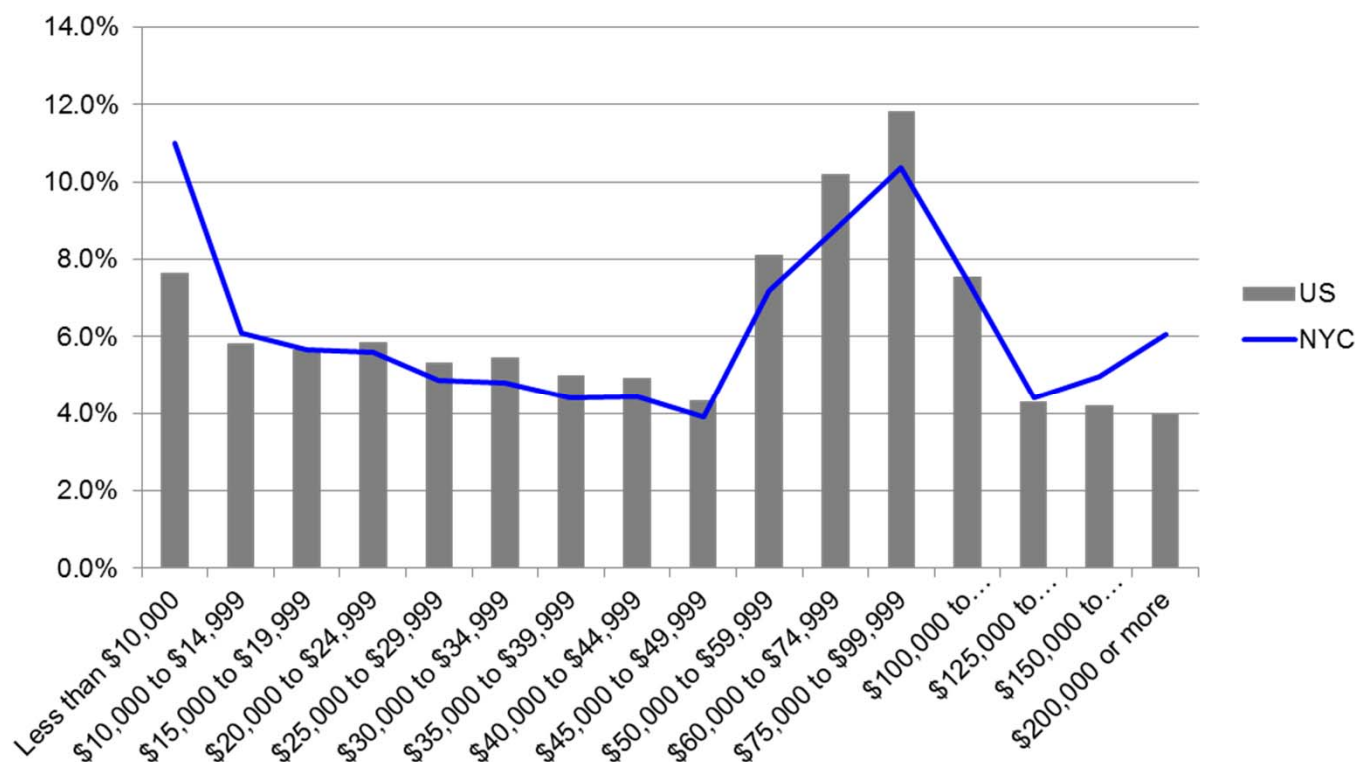
	2010 MHI
US	\$50,046
NYC	\$48,743
Bronx	\$32,568
Brooklyn	\$42,143
Manhattan	\$63,832
Queens	\$53,054
Staten Island	\$70,560



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NYC Income Distribution

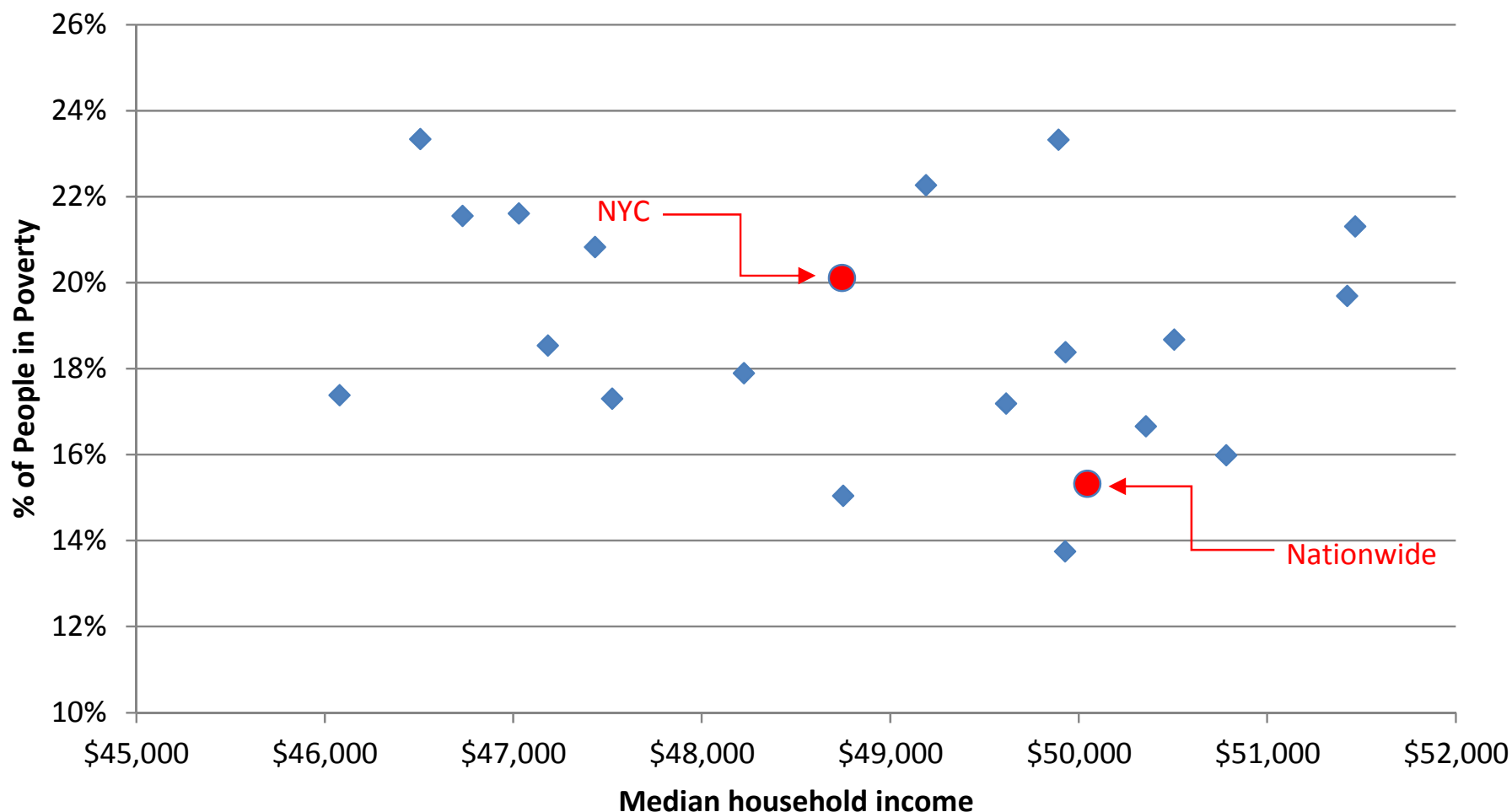
- ❖ Focus on the median household assumes that income distribution below the 50th percentile is the same everywhere.



- ❖ NYC has fourth highest “Gini” index of U.S. metropolitan areas with populations > 300,000 (Gini index is a standard measure of income inequality)

MHI bears little relationship to poverty

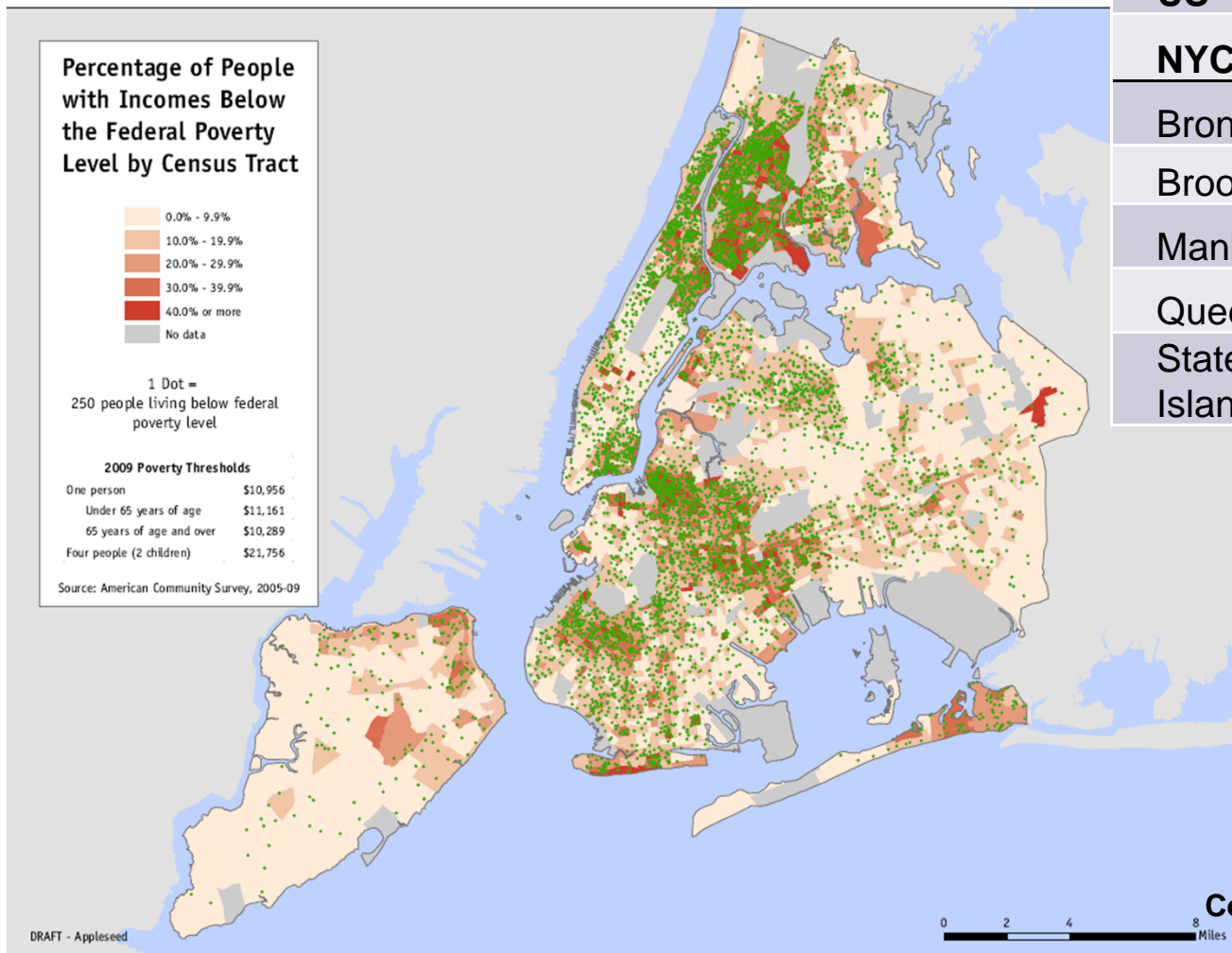
Analysis of 20 large cities with MHI similar to NYC shows no relationship between MHI and poverty rates (rates range from 13.7% to 23.3%)



NYC Poverty Rates

20.1% of NYC population (> 1.6 million people, 18.7% of households) is living below the federal poverty level

	% of individuals living below federal poverty level (2010)
US	15.3%
NYC	20.1%
Bronx	30.2%
Brooklyn	23.0%
Manhattan	16.4%
Queens	15.0%
Staten Island	11.8%



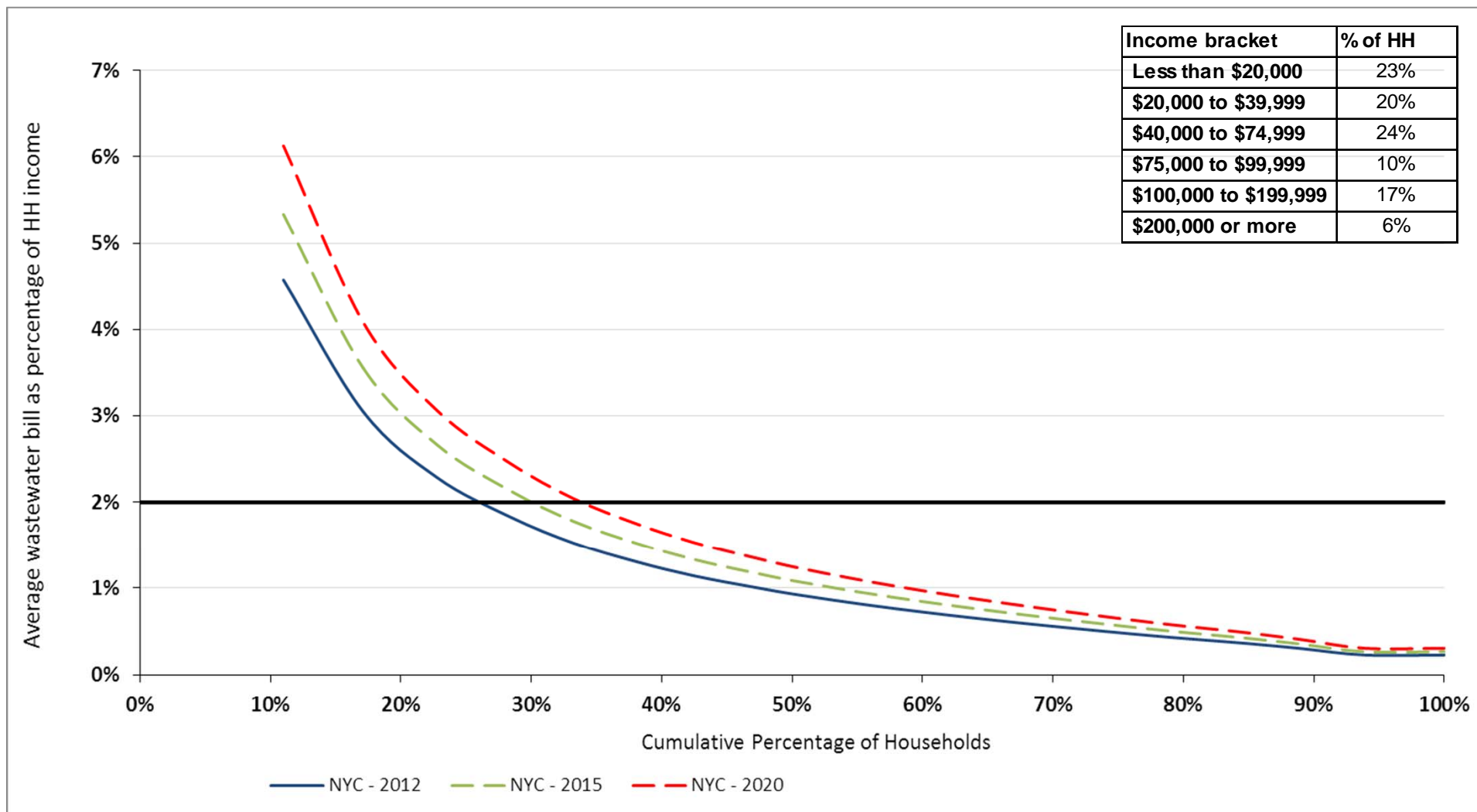
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- ❖ High housing costs in NYC further compound affordability issue
- ❖ Government agencies consider housing costs between 30%-50% of income to be a “moderate burden” and > 50% to be a “severe burden”
 - ❖ 20.7% of NYC households pay between 30% - 50% of income for housing*
 - ❖ 24.0% pay more than 50%*
 - ❖ Median gross rent-to-income ratio for renters in NYC = 31.5% (i.e., more than half of renters pay more than 31.5% of income)**
- ❖ NYC Public Housing Authority spends 5% of budget on water and sewer costs

**MPC American Community Survey 2009, iPUMS*

***2008 Housing Vacancy Survey*

Avg. Wastewater bill compared to HH Income



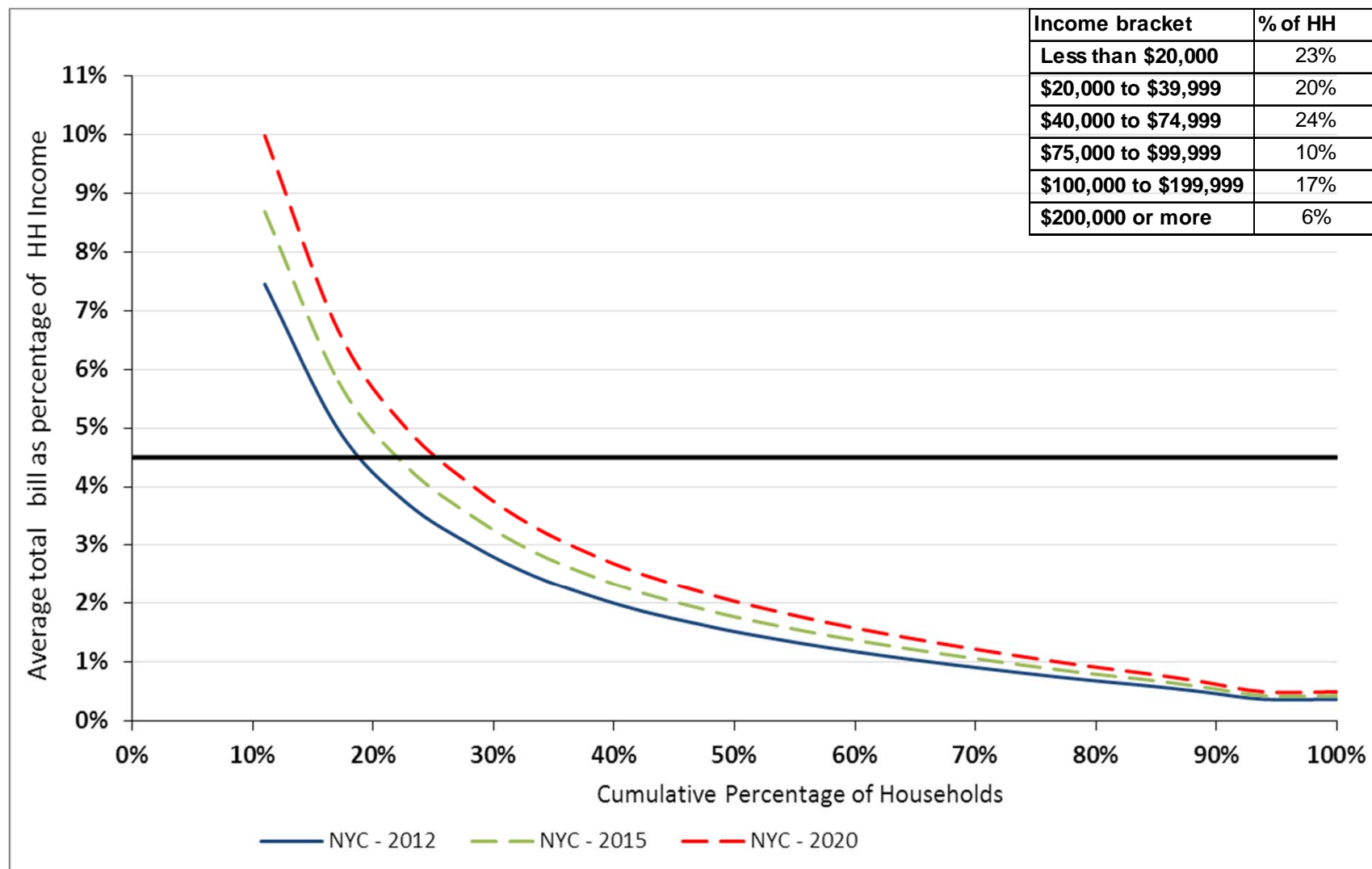
- Currently 25% of HH (755,385) pay 2% of income or more on wastewater/sewer bill
- With estimated projections of rate increases, could increase to 30% in 2015 and 34% in 2020

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Estimated average metered NYC 2012 household wastewater/sewer costs = \$457

\$457 = 2.0% of income for households earning \$22,870

Avg. Water + Sewer bill compared to HH Income



- Currently ~19 % of HH pay 4.5 % of income or more on water and wastewater services
- With estimated projections of rate increases, could increase to 22% in 2015 and 25% in 2020

Secondary Screening Analysis: Utility Financial Capability

EPA Utility Financial Capability Matrix				NYC	
Indicator	Strong	Mid-Range	Weak	Value	Rank
Bond Rating	AAA-A(S&P) or Aaa-A (Moody's)	BBB (S&P) Baa (Moody's)	BB-D (S&P) Ba- C (Moody's)	GO Bonds:AA (S&P), AA (Fitch), Aa2 (Moody's) MWFA Revenue Bonds: AAA/AA+ (S&P), AA+/AA+ (Fitch), Aa1/Aa2 (Moody's)	Strong/3
Overall net debt as % of FMPV	Below 2%	2%-5%	Above 5%	5.22%	Weak/1
Unemployment rate as % of national average	More than 1 Percentage Point Below the National Average	+/- 1 Percentage Point of National Average	More than 1 Percentage Point Above the National Average	0.1% above national average	Mid-range/2
MHI as % of national average	More than 25% Above Adjusted National MHI	+/- 25% of Adjusted National MHI	More than 25% Below Adjusted National MHI	97.40%	Mid-range/2
Property tax revenues as % of FMPV	Below 2%	2%-4%	Above 4%	2.02%	Mid-range/2
Property tax revenue collection rate	Above 98%	94%-98%	Below 94%	97.90%	Mid-range/2

Average NYC score = 2.0 (mid-range economic impact) Confidential- Internal-Not for Distribution 19

Secondary screening doesn't tell the whole story

- ❖ By comparing local unemployment rates to current national average, EPA does not take into account deteriorating economic/financial condition of communities throughout U.S.
- ❖ In recent years, national unemployment surged during the recession, but NYC unemployment rate is typically much higher than nationwide rate
- ❖ In 2009, 9.5% of NYC labor force was unemployed

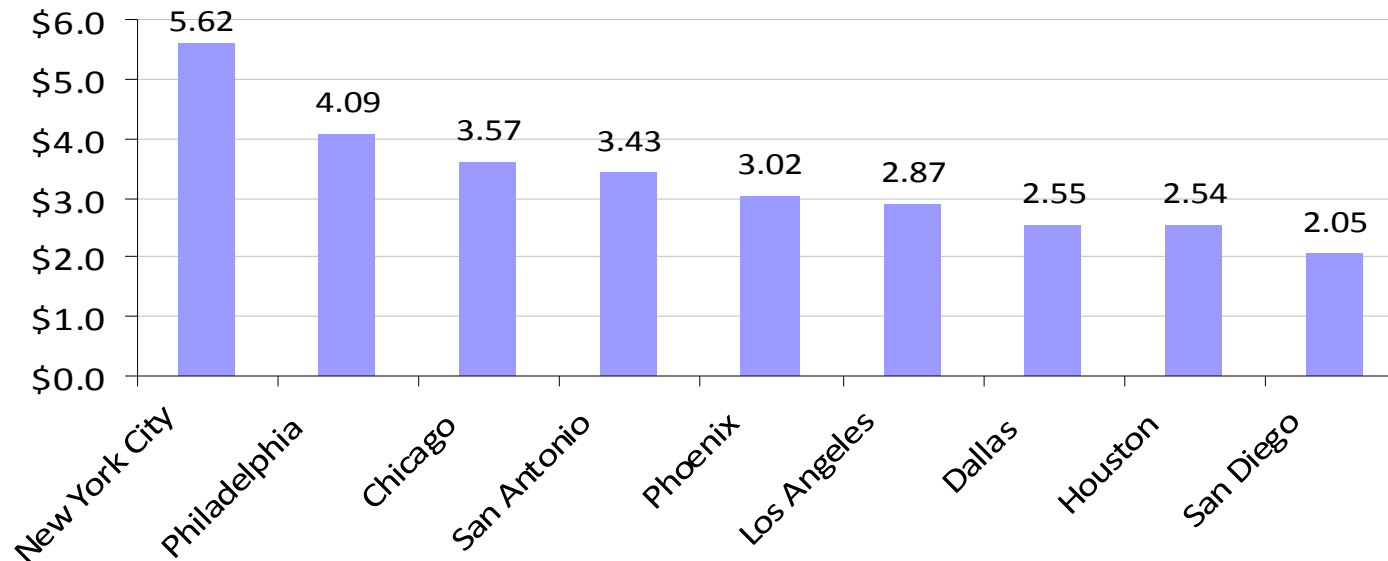


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Secondary screening doesn't tell the whole story

- EPA reliance on property tax burden does not capture impacts in cities that rely on multiple forms of taxation (e.g., income, sales and business taxes)
- NYC property taxes account for < 41% of total non-exported tax burden (2007).
- NYC has much higher tax burden than many other large cities in the U.S.*

Local taxes per \$100 of gross taxable resources in 9 large U.S. cities



*NYC Independent Budget Office, 2007

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Continuing the Dialogue on Affordability

- ❖ Affordability Considerations should include:
 - ❖ Income distribution: evaluate impact on low and middle income households
 - ❖ Poverty rates
 - ❖ Unemployment
 - ❖ Housing burden (% of income spent on housing costs) and other non-discretionary spending
 - ❖ Tax burden
 - ❖ Long term debt
- ❖ Comparing the environmental, social, and financial benefits of all water-related obligations to develop priorities for spending and the implementation of mandates.
- ❖ Assess financial capability in light of total water-related obligations, and focus limited resources where the community will get the most environmental benefit.

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Questions?

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