

# New York Housing Conference – NYC Housing Tracker Data Dictionary/Methodology

This document includes sources for the data used and calculations done in the production of the New York Housing Conference’s City Council Housing Tracker.

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## NYC Mayor

### Affordable Housing Production

Affordable housing production counts units that have closed on financing before they begin construction, including 2014 – 2023, and come from NYC HPD through NYC Open Data. The data includes all units counted towards the city’s affordable housing plan. Affordable homeownership data also comes from this dataset.

<https://data.cityofnewyork.us/Housing-Development/Housing-New-York-Units-by-Building/hg8x-zxpr>

### HPD Capital Spending

Capital spending data comes from the NYC Independent Budget Office’s [Fiscal History](#) Capital Expenditures Since 1985 and the Comptroller’s Comprehensive Annual Financial Report.

### Affordable Housing Metrics & Homelessness to Housing Metrics

Data can be found in the [Mayor’s Management Report](#). Average cost of shelter is calculated by multiplying the average cost per day for shelter facilities and the average length of stay in shelter, which is shown in days.

### People in NYC DHS Shelters

Data comes from NYC DHS, collected by the [Coalition for the Homeless](#).

### NYCHA Needs

NYCHA units preserved comes from NYCHA. Capital needs reflects the total needs in the 2023 Physical Needs Assessment. Capital spending comes from NYCHA and public budget documents.

## City Council

### HOUSING PRODUCTION DATA

Total housing production includes existing housing units and net new housing units completed with a certificate of occupancy (including all types: private, market rate, public, affordable etc.). The net new units take into account new construction, demolitions, and alterations that changed unit counts. The data is from the Department of City Planning Housing Database:

<https://www1.nyc.gov/site/planning/data-maps/open-data.page#housingdevelopment>

Affordable housing production counts units that have closed on financing before they begin construction, including 2014 – 2023, and come from NYC HPD through NYC Open Data. The data includes all units counted towards the city’s affordable housing plan. The data was

downloaded March 8, 2024. <https://data.cityofnewyork.us/Housing-Development/Housing-New-York-Units-by-Building/hg8x-zxpr>

Charts showing housing production by income omits data categorized as “other” for its affordability level.

We ranked Council districts based on the total number of new construction affordable housing units financed in the district between 2014 and 2023.

The data in the 2024 report uses the new Council District lines following the most recent redistricting for current and historical numbers. Housing totals for individual districts from this year’s report may be less than (or more than) the totals in last year’s report due to the redistricting, with some neighborhoods and housing units moving into different districts.

*Note: The total housing production numbers and the affordable housing production numbers cannot be directly compared annually because they are tracked at different times. Affordable housing production is counted when the deal closes on financing, which mostly happens before construction. Market rate housing production is tracked when the building receives a certificate of occupancy, which happens after construction ends.*

### 2023 Affordable Housing Income Ranges – Area Median Income (for a family of two)

Extremely Low Income  
0-30% AMI  
< \$37,290

Very Low Income  
31-50% AMI  
\$37,290 - \$62,150

Low Income  
51-80% AMI  
\$62,150 - \$99,440

Moderate Income  
81-120% AMI  
\$99,440 - \$149,160

Middle Income  
121-165% AMI  
\$149,160 - \$205,095

Upper Middle Income  
> 165% AMI  
> \$205,095

<https://www.nyc.gov/site/hpd/services-and-information/area-median-income.page>

## Households Entering DHS Shelters

This data shows the number of individuals in shelter that came from the community board. More specifically, it shows the number of individuals that were in shelter as of April 2023 when we pulled the data whose last address was in the community board. We used the NYC Open Data set Associated Address by Borough and Community District. The data was not detailed enough to be calculated at the council district level so we included it by community board. The tracker displays the data for community boards that overlap with that council district.

<https://data.cityofnewyork.us/Social-Services/Associated-Address-by-Borough-and-Community-Distri/ur7y-ziyb>

## Housing Code Violations Per 100 Units

Code violations come from NYC Open Data Housing Maintenance Code Violations dataset. We included only violations with an issue date (NOVIssueDate) in 2023 (1/1/2023 - 12/31/2023). We divided the number of violations in the district by the number of units in the district multiplied by 100.

<https://data.cityofnewyork.us/Housing-Development/Housing-Maintenance-Code-Violations/wvxf-dwi5>

## Expiring Affordable Units 2024 - 2028

We used the NYU Furman Center's [Core Data](#). Because many buildings are in multiple programs, we created a field that shows the latest expiration date among all the programs the building uses. We then filtered for buildings where the last expiration date was in calendar years 2024 - 2028.

## New York Housing Authority (NYCHA) Data

Two data points in the tracker are sourced from NYCHA, detailing the level of need (capital construction work) and the total amount of housing run by NYCHA in each council district.

### Capital Needs

The Capital Need figure is an estimate of physical need provided by NYCHA to the New York Housing Conference. The estimate is based on the Physical Needs Assessment conducted by NYCHA surveying building conditions, including a comprehensive inspection of various

building components and sub-components, which range from roofs to corridors to heating/cooling systems.

### Unit Count

NYCHA provided to NYHC the number of public housing units by Council District under the new City Council District lines.

## Housing Choice Voucher (HCV) Program (formerly Section 8) Units

Section 8-unit counts use the US Department of Housing and Urban Development’s (HUD) Data Dictionary for Picture of Subsidized Households: 2023. The tracker uses Housing Choice Voucher total units defined as the “Number of units under contract for federal subsidy and available for occupancy” by HUD. Entries with values labeled as “missing” were omitted. The census tracts listed were matched using the tracker’s master crosswalk and unit counts were aggregated to the council district level.

## Demographic, Existing Stock, & Housing Needs Data

Demographic and other data from the U.S. Census was compiled by Nikki Miller for the New York Housing Conference. We appreciate her work calculating this data.

### Census Tract Data

The demographic and housing/household characteristics found in the tracker were Census Tract level estimates aggregated to the City Council District level. Census Tracts were assigned to Council Districts using a created crosswalk between new census tract boundaries (2020) and city council districts (2023).

### [2020 Census Tracts - Tabular City Council Districts \(Clipped to Shoreline\)](#)

To create the crosswalk census tracts were mapped onto City Council Districts and the area of that intersection between a census tract and City Council District calculated. In the case where a census tract fell into more than one district, it was assigned to the district with a higher tract-district match based on land area (where tract-district match = area of intersection / area of census tract). All 2325 census tracts including Joint Interest Areas (JIAs) have been matched.

The final crosswalk can be found here: [master-crosswalk-2024.csv](#)

Related data for every NYC census tract was pulled from the U.S. Census Bureau data APIs using the **tidycensus** package in R. To get started working with **tidycensus**, users should load the package along with the **tidyverse** package and set their Census API key. A key can be obtained from [Request a US Census Data API Key](#).

### [Read more about tidycensus](#)

2018 – 2022 American Community Survey (5-Year Estimates)

The American Community Survey (ACS) is the most comprehensive nationwide survey, bringing the gaps in the Decennial Census and providing much more detail. The monthly ACS surveys samples approximately 300,000 addresses. These are then released into includes both annual releases of survey data and "5-year roll-ups" of estimates ranging from demographic and financial information to household characteristics and employment. The tracker utilizes the 5-year estimates of the ACS specifically from [detailed tables](#), [subject tables](#), and [data profiles](#).

Table Name	Label	Indicator
Hispanic or Latino Origin by Race		
B03002_001	Total (denominator)	% Racial and ethnic makeup
B03002_012	Hispanic or Latino	% Racial and ethnic makeup
B03002_002	Not Hispanic or Latino	% Racial and ethnic makeup
B03002_003	White Alone	% Racial and ethnic makeup
B03002_004	Black or African American Alone	% Racial and ethnic makeup
B03002_006	Asian Alone	% Racial and ethnic makeup
Age and Sex		
S0101_C01_030	65 years and over	% Seniors - 65 and older
S0101_C01_001	Total population (denominator)	% Seniors - 65 and older, Density in the district (PPL per acre)
Households and Families		
S1101_C01_001	Total households (denominator)	Families with children
S1101_C01_005	Households with own children of the householder under 18 years	Families with children
Employment Characteristics of Families		
S2302_C01_001	Total Families (denominator)	Families with children

S2302_C03_001	Families with own children under 18 years	Families with children
Poverty Status in the Past 12 Months		
S1701_C01_001	Total Population for whom poverty status is determined (denominator)	People living below the poverty line
S1701_C02_001	Population below poverty level	People living below the poverty line
Poverty Status in the Past 12 Months of Families		
S1702_C01_042	All Families (Renters)	# of people living below the poverty line by tenure
S1702_C02_042	Percent Families (Renters) below poverty level *	# of people living below the poverty line by tenure
S1702_C01_041	All Families (Owners)	# of people living below the poverty line by tenure
S1702_C02_041	Percent Families (Owners) below poverty level *	# of people living below the poverty line by tenure
Place Of Birth By Poverty Status In The Past 12 Months In The United States		
B06012_002	Population below 100 percent of the poverty level	# of people living 150% below poverty level
B06012_003	Population between 100 to 149 percent of the poverty level	# of people living 150% below poverty level
B06012_004	Population above 150 percent of the poverty level	# of people living 150% below poverty level
Tenure by Age of Householder		
B25007_019 B25007_020 B25007_021	Renter - Householder 65 to 74 years Renter - Householder 75 to 84 years Renter - Householder 85 years and over	# of seniors 65+ older (renters)

B25007_009 B25007_010 B25007_011	Owner - Householder 65 to 74 years Owner - Householder 75 to 84 years Owner - Householder 85 years and over	# of seniors 65+ older (owners)
Age of Householder by Gross Rent as a Percentage of Household Income in the Past 12 Months		
B25072_027 B25072_028	30 to 34.9 percent 35.0 percent or more	# of seniors 65+ older rent burdened
B25072_023	Total Householders 65 years and over (denominator)	% of seniors 65 + older rent burdened
Gross Rent as a Percentage of Household Income in the Past 12 Months		
B25070_001	Total Renter Households (denominator)	% of renter households that are moderately/severely rent burdened
B25070_007 B25070_008 B25070_009	30.0 to 34.9 percent 35.0 to 39.9 percent 40.0 to 49.9 percent	% of renter households that are moderately rent burdened
B25070_010	50.0 percent or more	% of renter households that are severely rent burdened
Selected Housing Characteristics		
DP04_0045	Housing Tenure - Occupied Housing Units (denominator)	% Homeowners and Renters
DP04_0046P	Housing Tenure - Percent Owner Occupied	% Homeowners
DP04_0047P	Housing Tenure - Percent Renter Occupied	% Renters
Units in Structure		
B25024_001	Total (denominator)	Percent of units 1-4 Family Homes, 5-19, 20+ unit Buildings
B25024_002 B25024_003 B25024_004	1, detached 1, attached 2	Percent of units in 1-4 Family Homes



B25024_005	3 or 4	
B25024_006 B25024_007	5-9 10-19	Percent of units in 5-19 Unit Buildings
B25024_008 B25024_009	20 to 49 50 or more	Percent of units in 20+ Unit Buildings
Other Variables		
B19013_001	Median Household Income in the Past 12 Months (in 2022 Inflation-Adjusted Dollars)	Median Household Income
B25004_002 B25003_003	Vacancy Status - For Rent Vacancy Status - Renter Occupied	Rental Vacancy Rate
S2501_C01_001 S2501_C01_007	Occupied Housing Units (denominator) 1.01 to 1.50 occupants per room	% of households that are overcrowded

## Methodology

### Census Data Calculations

- **Race & Ethnicity Variables** are made up of those racial categories (White, Black, and Asian) minus those with Hispanic ethnicity. The "Hispanic" categorization includes all individuals who responded with "Hispanic" as their ethnicity despite what race(s) respondents noted. "Other" includes the percentage left after accounting for these four groupings.
- **The Racial Diversity Index** calculates the probability that two randomly chosen people in a given geographic area will be of a different race. NYHC used the categories listed above – Asian, Black, Hispanic, and white to calculate the index, excluding the category of other, which is the percentage that were not in one of those four groups. The index is calculated using the following formula:  $1 - (\text{Percent Asian}^2 + \text{Percent Black}^2 + \text{Percent Hispanic}^2 + \text{Percent white}^2)$  A higher number indicates a more racially diverse population.
  - If a Council district is inhabited by a single racial/ethnic group, its Racial Diversity Index would be zero while if the population is evenly distributed among the four groups (25% of residents are Asian, 25% are Black, 25% are Hispanic and 25% are white), its Racial Diversity Index would be 0.75.
- **Number of people (families) living below the poverty level broken out by renters and owners** was calculated by using the Percent Families (Renters) below poverty level and the Percent of Families (Owners) below the poverty level and deriving the number value of the percentages and aggregating up to the district level.
- **Density in the District** was calculated using the total land area converted from square feet to acres, divided by the total population.
- **Percent homeowners/Renters** at the district level was calculated by averaging the percentages originally provided at the census tract level.

- **Rental Vacancy Rate** was calculated using estimates for all unoccupied rental units (for rent) divided by the sum of total of occupied rental units and unoccupied rental units.
- **The units-in-structure** estimates are percentages of the sum total of the structure types listed as responses from the ACS.
- The following indicators were calculated by aggregating up to the district level (and calculating the percentage if necessary).
  - Percent of people in the district that are
    - Seniors - 65 and older
    - Families with children
    - People living below the poverty line
  - Number of people living below 150% of the poverty level
  - Number of seniors 65 and older broken out by
    - Renters
    - Owners
    - Rent Burdened
  - Median Household Income
  - Percent of Households that are moderately/severely rent burdened. (Universe: renter occupied housing units)
  - Percent of households that are overcrowded. (Universe: occupied housing units)
  - Percent of Seniors Rent Burdened
- **Housing Choice Voucher (HCV) Program (formerly Section 8) Units** - Section 8-unit counts use the US Department of Housing and Urban Development's (HUD) Data Dictionary for Picture of Subsidized Households: 2023. The tracker uses Housing Choice Voucher total units defined as the "Number of units under contract for federal subsidy and available for occupancy" by HUD. Entries with values labeled as "missing" were omitted. The census tracts listed were matched using the tracker's master crosswalk and unit counts were aggregated to the council district level.

## PUMA-District Data for Rent Stabilized Units

Rent Stabilized units by Public Use Microdata Areas (PUMA) data were retrieved from the Housing Vacancy Survey (HPD). To translate the rent stabilized units from PUMAS to the City Council District level, Districts were assigned to PUMAS using a created crosswalk between new PUMA boundaries (2020) and city council districts (2023).

[City Council Districts \(Clipped to Shoreline\)](#)  
[2020 Public Use Microdata Areas \(PUMAs\)](#)

To create the crosswalk City Council Districts were mapped onto PUMAS and the area of that intersection between a District and PUMA calculated. In the case where a district fell into more than one puma, it was assigned to the puma with a higher district-puma match based on land area (where district-puma match = area of intersection / area of district). All 51 districts have been matched with one PUMA based on this district-puma match. Because PUMAS and districts do not have a one-to-one relationship, caution with interpreting the rent stabilized units estimates should be taken. Some estimates at the PUMA level have been suppressed.

The final crosswalk can be found here: [puma-district-crosswalk-2024.csv](#)

