

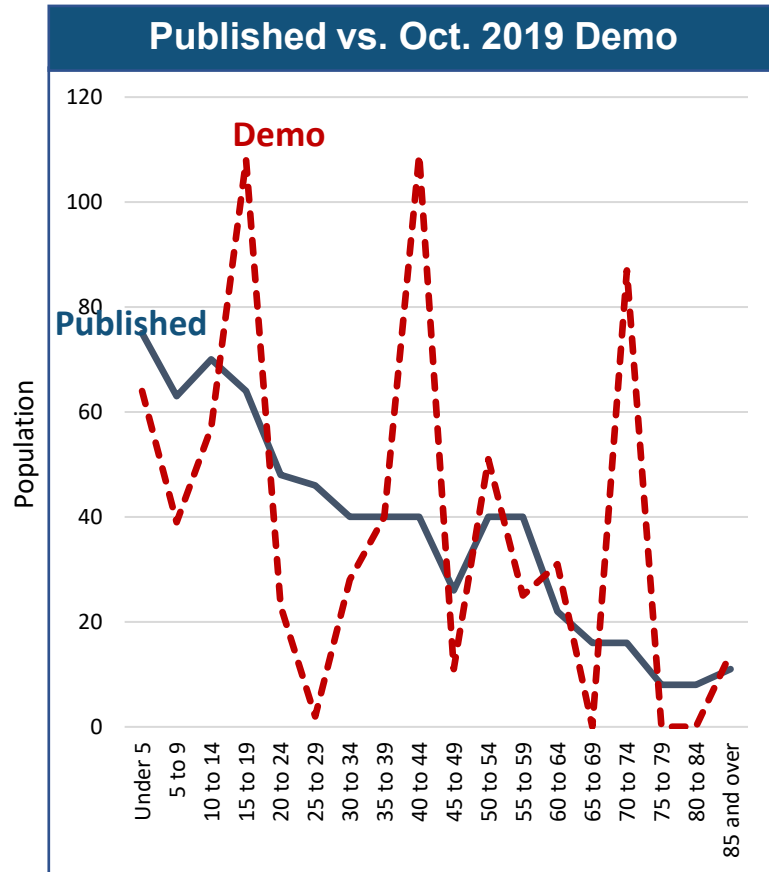
DHC Age Data's Fitness for Use in New York City Demographic Applications

**CNSTAT Workshop on the Demographic and Housing
Characteristics Files**

**Joel Alvarez & Erica Maurer
June 22, 2022**



2010 Published Data vs. Demonstration Data Age Distribution for Brooklyn Census Tract 450



Published

Demo

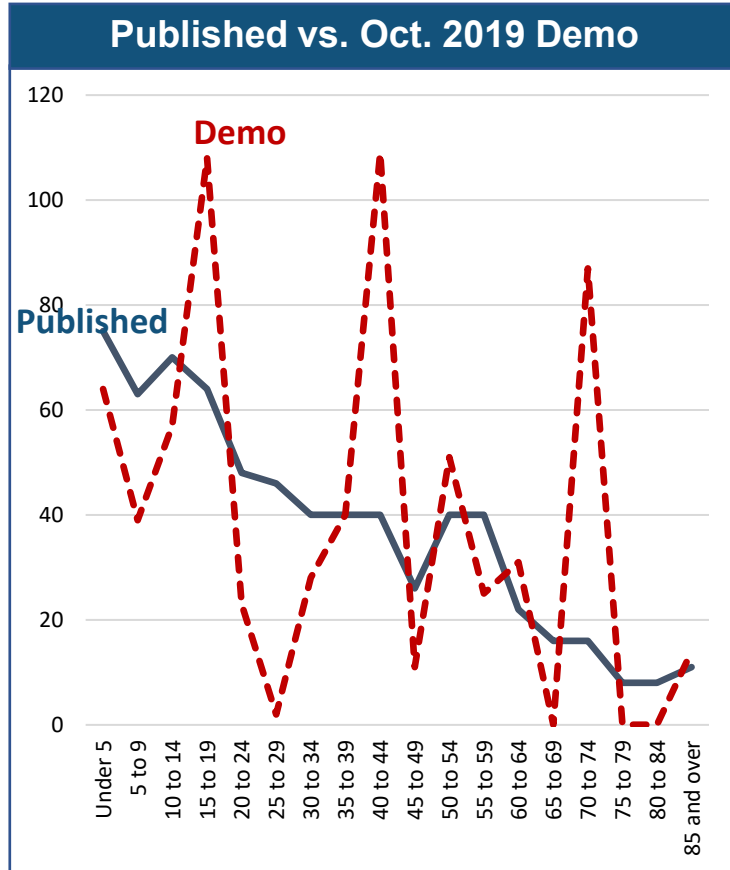
Total Population: 673 689

Avg. Absolute Slope: 6.6 40.9

Avg. Absolute Percent Difference: 79.2

2010 Published Data vs. Demonstration Data

Age Distribution for Brooklyn Census Tract 450



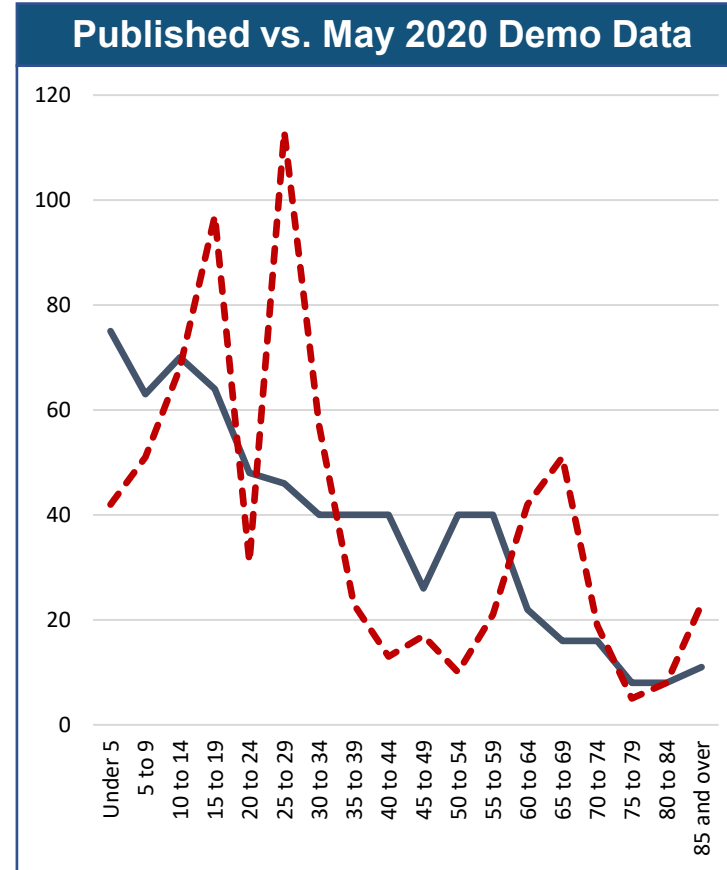
Published

Demo

Total Population: **673** **689**

Avg. Absolute Slope: **6.6** **40.9**

Avg. Absolute Percent Difference: 79.2



Published

Demo

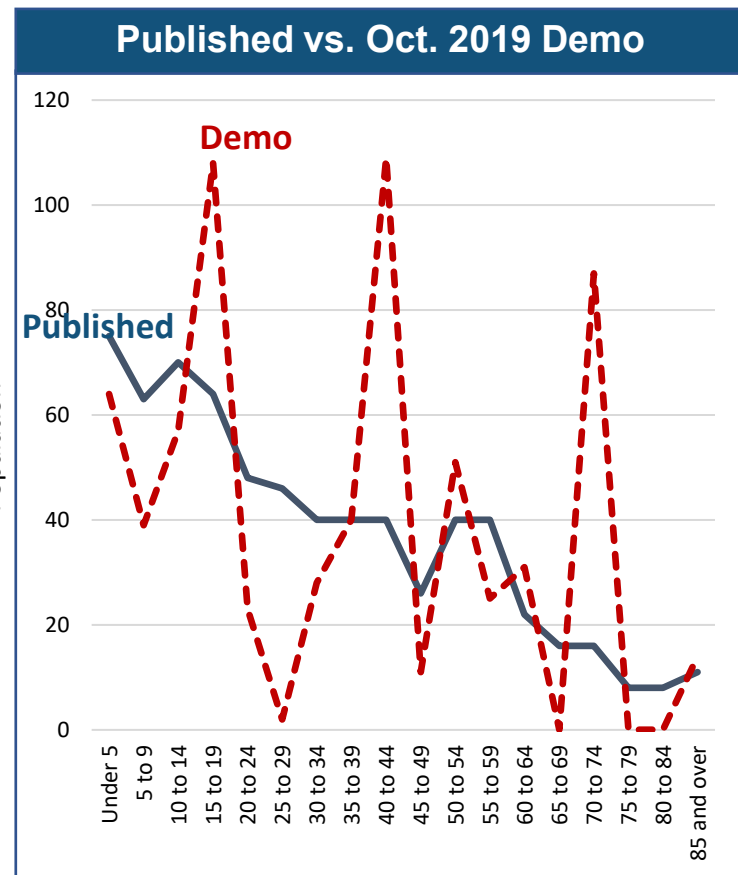
Total Population: **673** **691**

Avg. Absolute Slope: **6.6** **24.6**

Avg. Absolute Percent Difference: 60.2

2010 Published Data vs. Demonstration Data

Age Distribution for Brooklyn Census Tract 450



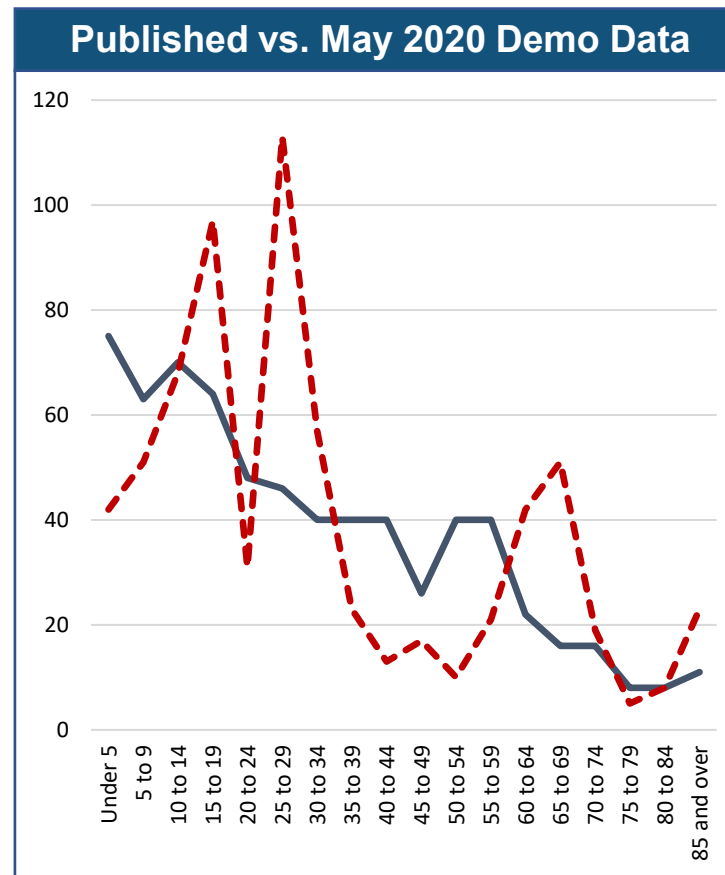
Published

Demo

Total Population: **673** **689**

Avg. Absolute Slope: **6.6** **40.9**

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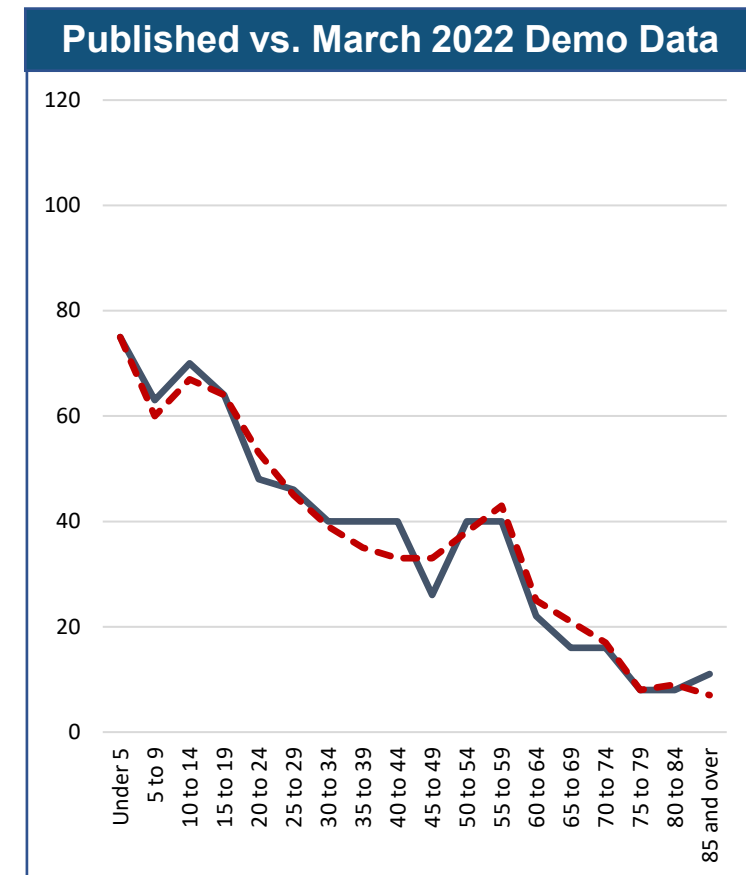
Published

Demo

Total Population: **673** **691**

Avg. Absolute Slope: **6.6** **24.6**

Avg. Absolute Percent Difference: 60.2



Published

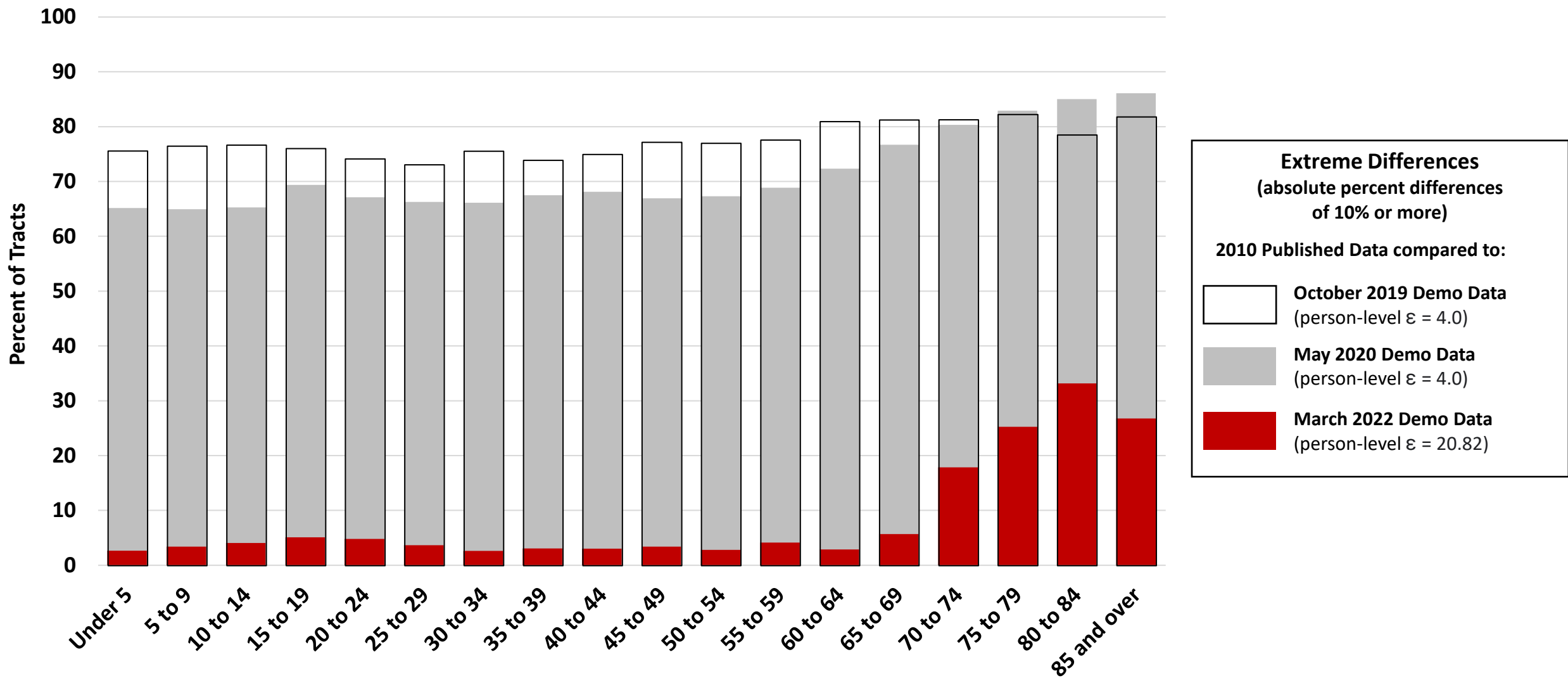
Demo

Total Population: **673** **672**

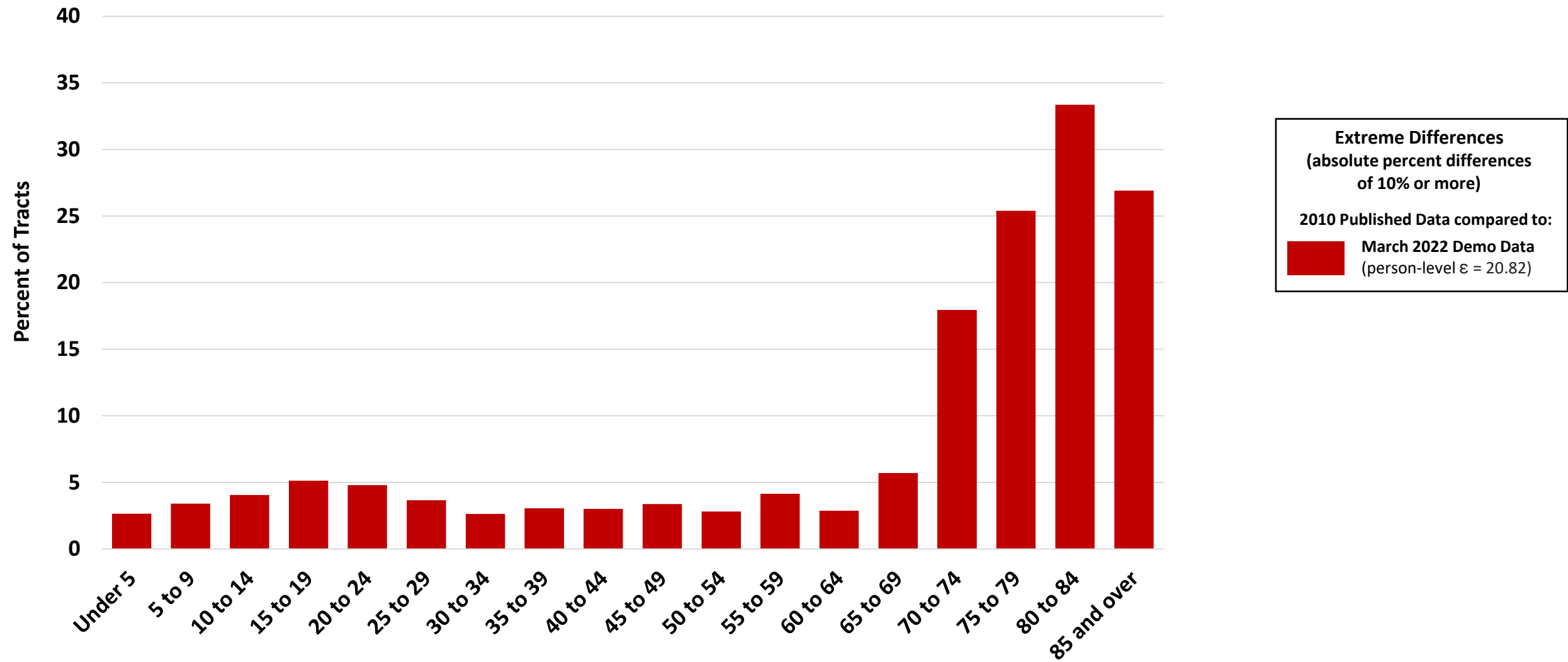
Avg. Absolute Slope: **6.6** **6.1**

Avg. Absolute Percent Difference: 10.8

2010 Published Data vs. 3 DHC Demonstration Files: Percent of New York City Census Tracts with Extreme Differences by Five-year Age Groups

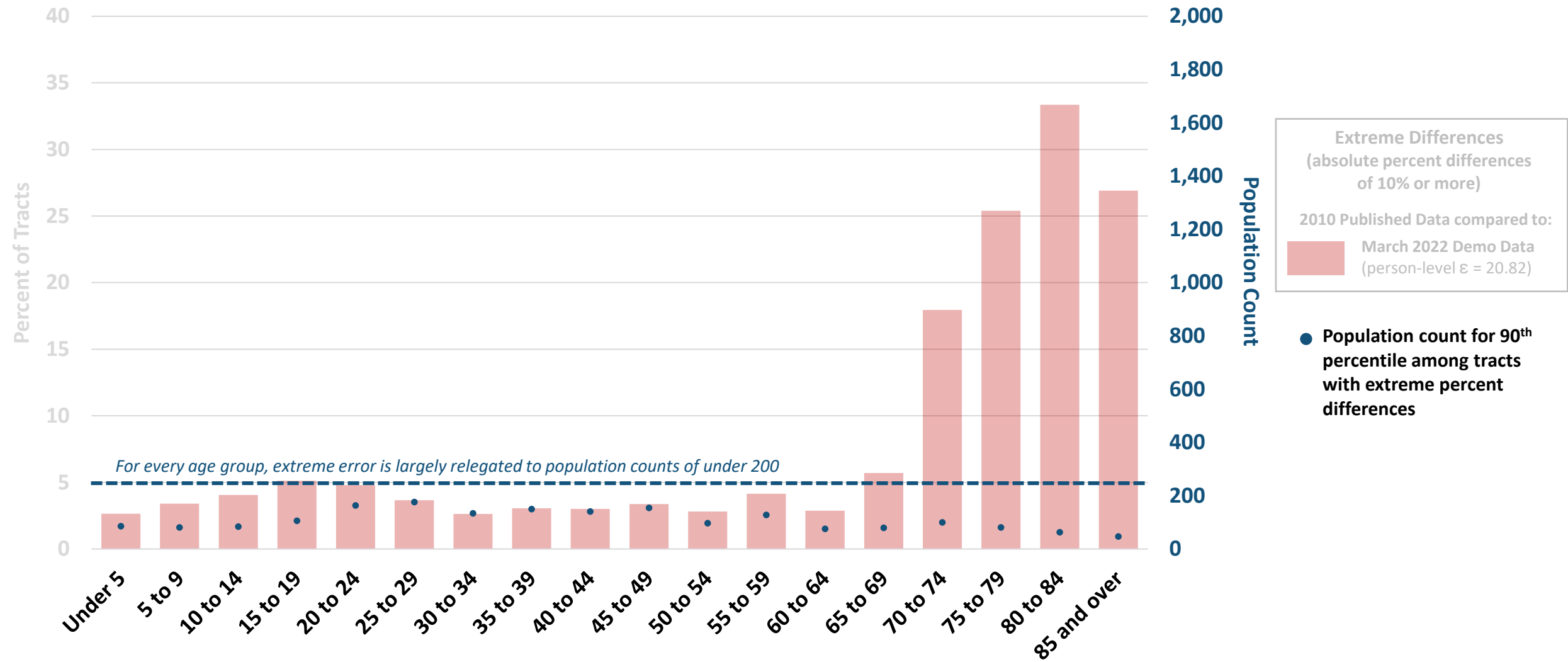


2010 Published Data vs. March 2022 DHC Demonstration File: Percent of New York City Census Tracts with Extreme Differences by Five-year Age Groups



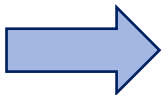
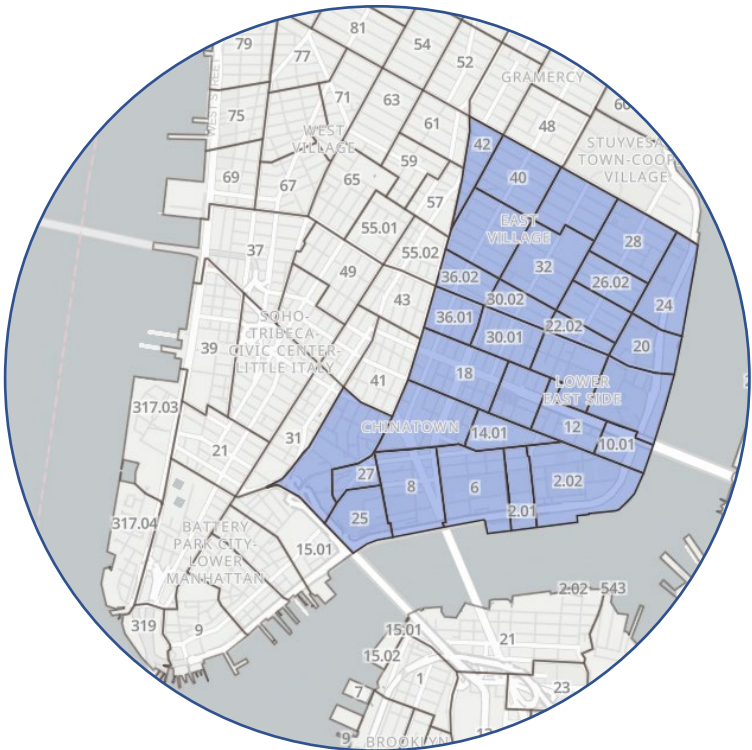
2010 Published Data vs. March 2022 DHC Demonstration File: Percent of New York City Census Tracts with Extreme Differences by Five-year Age Groups

Examining Population Counts by Age for Extreme Differences

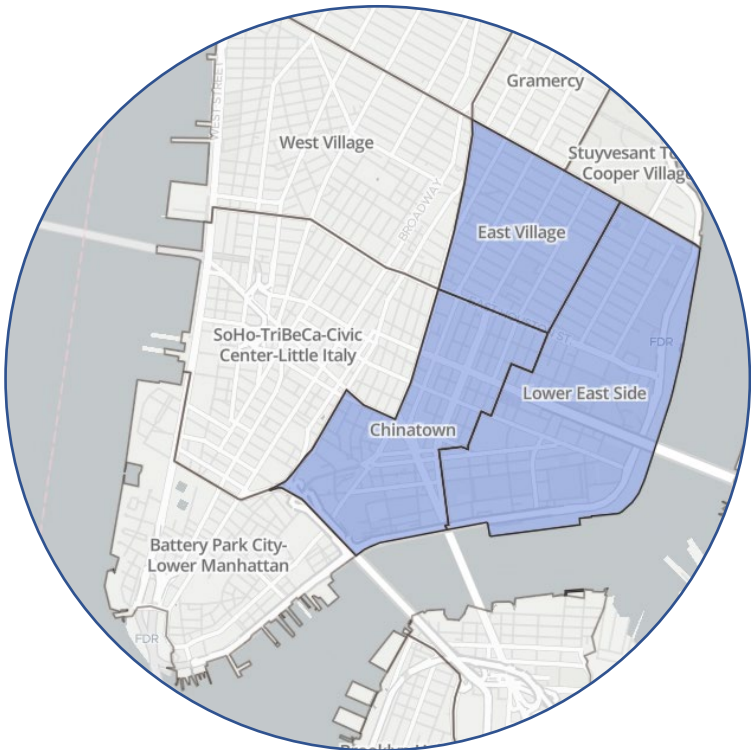




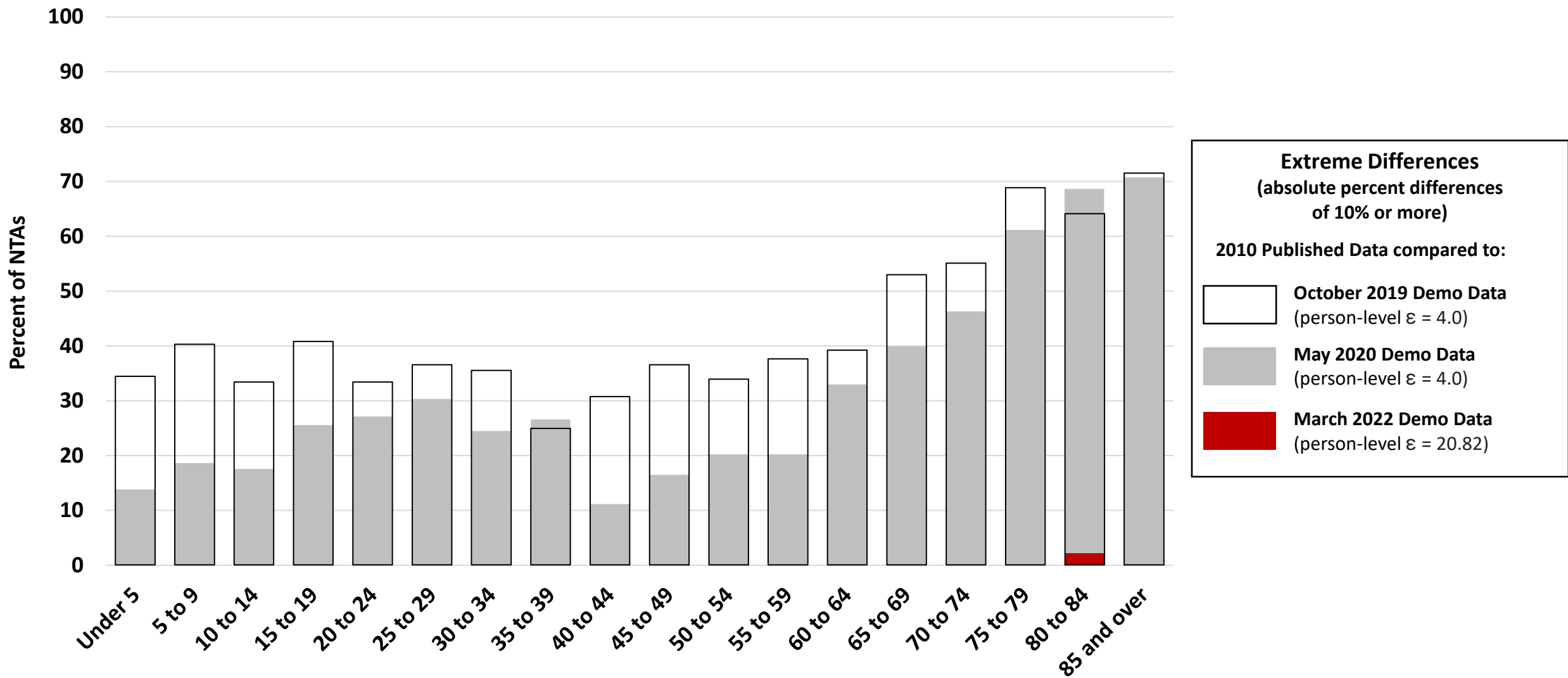
Census
Tracts



Neighborhood
Tabulation
Areas (NTA)

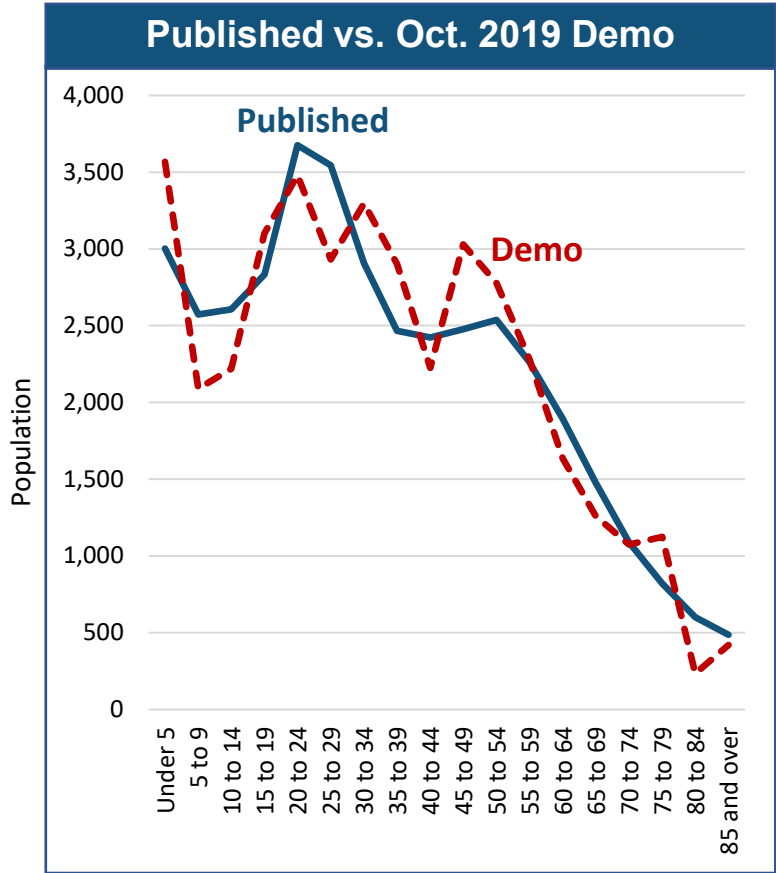


2010 Published Data vs. 3 DHC Demonstration Files: Percent of New York City NTAs with Extreme Differences by Five-year Age Groups



2010 Published Data vs. Demonstration Data

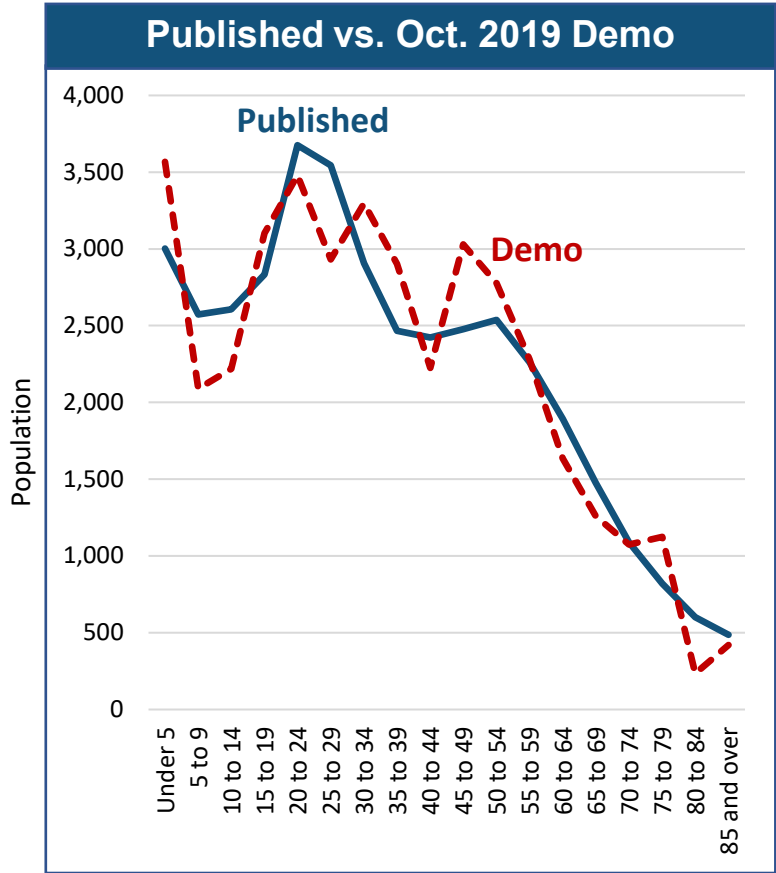
Age Distribution for Crown Heights South, Brooklyn



	Published	Demo
Total Population:	39,670	39,640
Avg. Absolute Slope:	291.4	514.1
Avg. Absolute Percent Difference:	16.6	

2010 Published Data vs. Demonstration Data

Age Distribution for Crown Heights South, Brooklyn

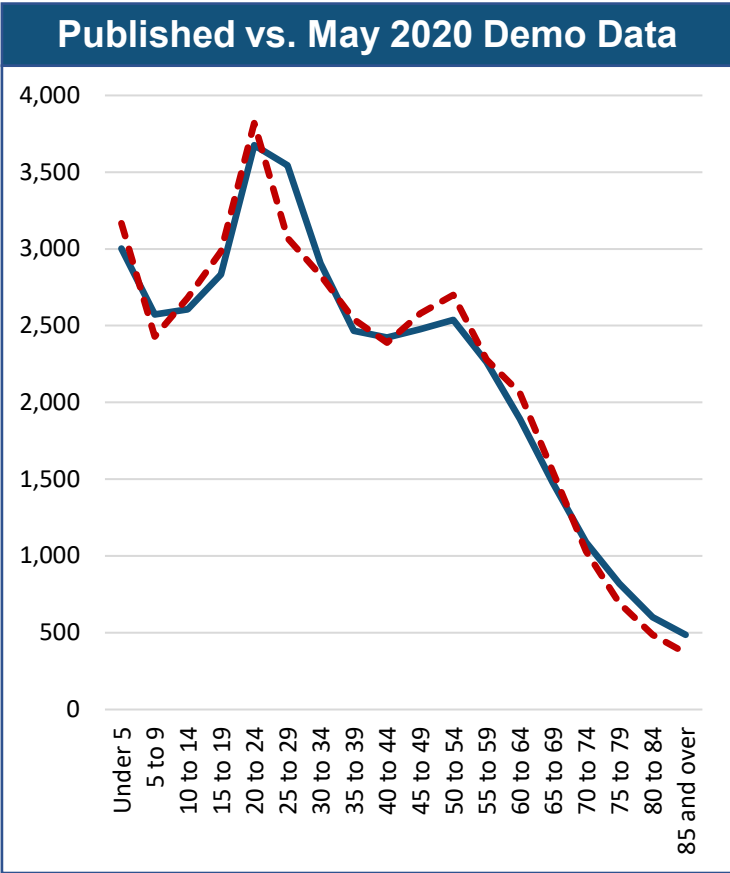


Published **Demo**

Total Population: **39,670** **39,640**

Avg. Absolute Slope: **291.4** **514.1**

Avg. Absolute Percent Difference: 16.6



Published **Demo**

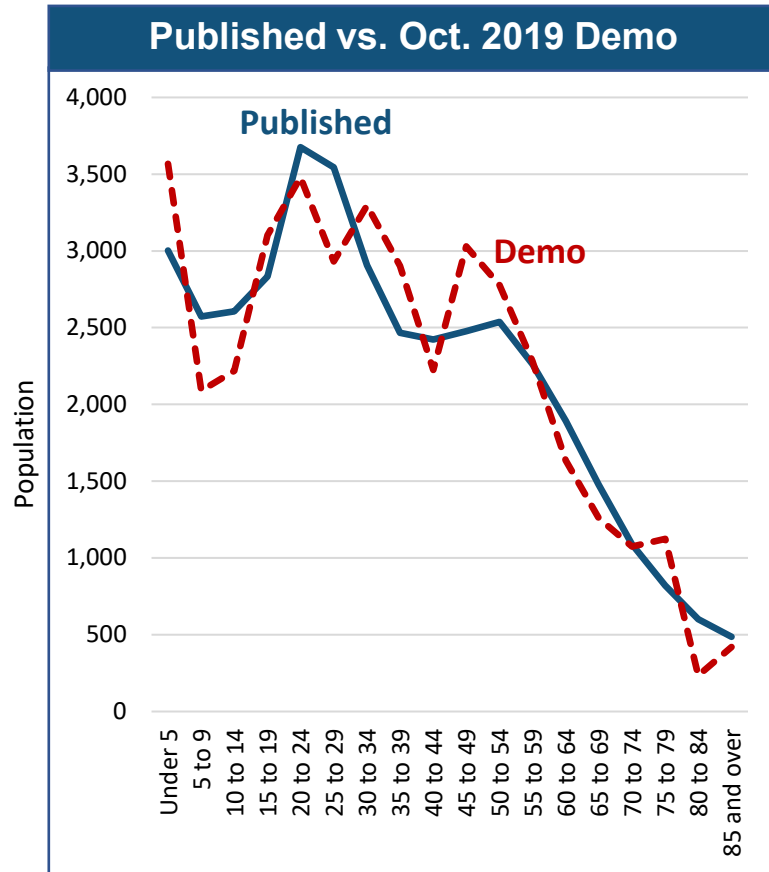
Total Population: **39,670** **39,655**

Avg. Absolute Slope: **291.4** **364.6**

Avg. Absolute Percent Difference: 7.4

2010 Published Data vs. Demonstration Data

Age Distribution for Crown Heights South, Brooklyn



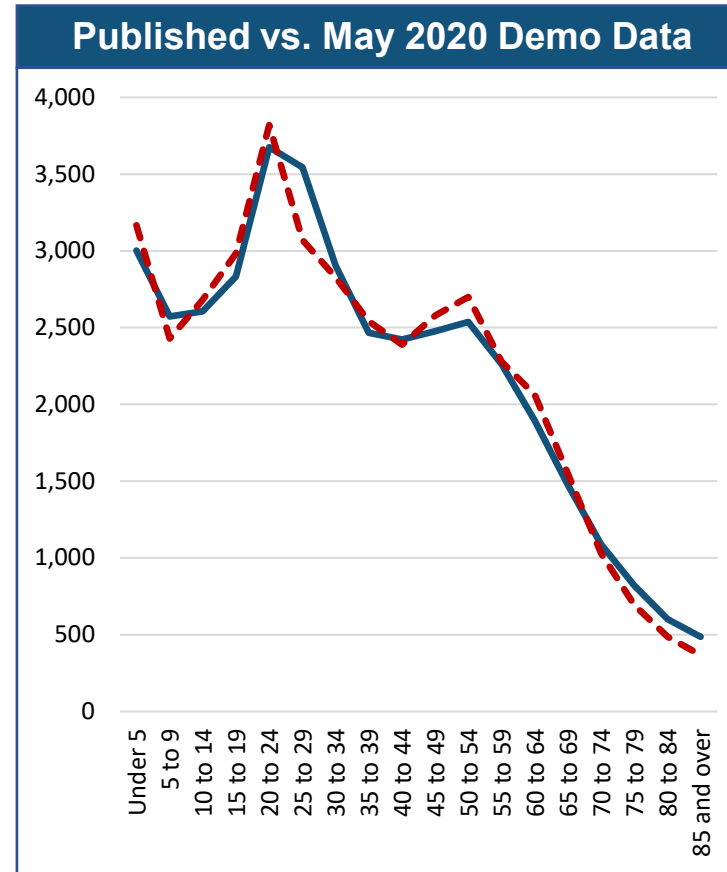
Published

Demo

Total Population: **39,670** **39,640**

Avg. Absolute Slope: **291.4** **514.1**

Avg. Absolute Percent Difference: 16.6



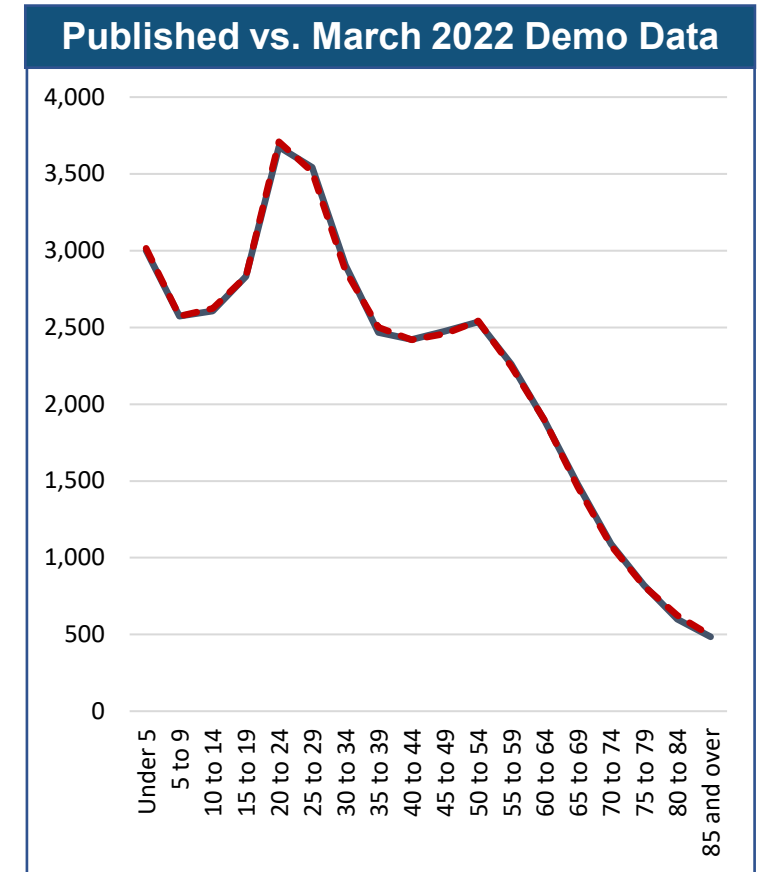
Published

Demo

Total Population: **39,670** **39,655**

Avg. Absolute Slope: **291.4** **364.6**

Avg. Absolute Percent Difference: 7.4



Published

Demo

Total Population: **39,670** **39,674**

Avg. Absolute Slope: **291.4** **296.2**

Avg. Absolute Percent Difference: 0.9

Conclusions About Fitness for Use



The latest DAS update has led to substantial improvements in accuracy as gauged by comparisons with 2010 published data. Nevertheless, 5-year age groupings should be used with caution at a tract-level.

- **Counts matter. They need to be considered for each age-group.**

Aggregations of tracts or age groups are useful ways for jurisdictions to mitigate excessive noise in DHC age data.

- **In New York City, 5-year age groupings for Neighborhood Tabulation Areas (which are tract aggregations) are fit for use in most demographic applications.**

Final thoughts...

What's missing from DHC?

- Age-sex data for household population below county level
- Detailed race & Hispanic ethnicity

Proposed release represents 2-year delay

- Delays in essential data have real-world impacts
- Not all data are equally important, so could have a segmented release

An example of what's missing from proposed DHC:

Chinese Population by Census Tract
2010 Census, Brooklyn

