Population estimates and Census counts

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NY SDC MEETING 2021

The opinions expressed in this presentation and on the following slides are solely those of the presenter.
Highlights from redistricting data
Population change by voting age

Non-voting age (0-17)

Voting age (18+)

Change in non-voting age population (0-17)
- < -10%
- -10% - -5%
- -5% - 0%
- 0% - 5%
- 5% - 10%
- >= 10%

Change in voting age population (18+)
- < -10%
- -10% - -5%
- -5% - 0%
- 0% - 5%
- 5% - 10%
- >= 10%
Changing diversity

Diversity index is probability that two random residents are of different race/ethnicity
Changing diversity

Non voting age (0-17)

Voting age (18+)
Changing diversity

Comparison over time complicated because:

- Coverage differences
- Format of the question changed
- Processing of the open-ended answers changed
- Personal attitudes and race identity changed
Sub county change - population

Sub county percent population change [1014]

- No data [5]
- < -18 [14]
- -18 - -14 [29]
- -14 - -10 [69]
- -10 - -6 [193]
- -6 - -2 [271]
- -2 - 2 [217]
- 2 - 6 [123]
- 6 - 10 [46]
- 10 - 14 [22]
- 14 - 18 [8]
- >=18 [17]
Sub county change – housing units
PAD website

Redistricting data

- [https://pad.human.cornell.edu/census2020/index.cfm#pl](https://pad.human.cornell.edu/census2020/index.cfm#pl)
- Repackaged into single files
- Combined with comparable data from 2000 and 2010

County and region charts

- [https://pad.human.cornell.edu/census2020/region_profiles.cfm](https://pad.human.cornell.edu/census2020/region_profiles.cfm)
Group Quarters

Collection of Group Quarters was very difficult

Use of administrative (incomplete) data

Differential Privacy impacts totals and composition of GQ’s

Geocoding errors
Count Question resolution

- Change to correct processing errors in the count and/or location of living quarters and boundaries
- Open to local governments
- Will NOT change Census counts, but DOES benefit estimates and Census geography databases
- Federal Register notice with final rules published this fall
  - Also outreach materials though Census Bureau website
- Program opens January 2022
Population estimates
Population estimates

Produced annually

- Start with Census counts and adds/subtracts estimates of components of change
  - Births and Deaths: based on vital records collected by NYS Department of Health and NCHS
  - Domestic Migration: based on linking consecutive IRS and Medicare records
  - International Migration: national estimate based on variety of sources, distribution of national totals based on ACS Residence One Year Ago (ROYA)
Topics

Population estimates

  - Estimates evaluation
- Vintage 2021 ( Estimates from 4/1/2020 – 7/1/2021)
  - Covid adjustments
  - Blended base
- Intercensals (Revised estimates 4/1/2010 – 4/1/2020)
Estimates evaluation

Comparing estimates for April 1, 2020 with Census counts

Goal: to improve estimates model and to evaluate Census results

National:

<table>
<thead>
<tr>
<th>Nation wide comparison</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>April 1, 2020 estimate</td>
<td>329,398,742</td>
</tr>
<tr>
<td>Census count</td>
<td>331,449,281</td>
</tr>
<tr>
<td>Difference</td>
<td>2,050,539</td>
</tr>
<tr>
<td>% Difference</td>
<td>0.6%</td>
</tr>
</tbody>
</table>
Figure 2.
2020 Census Counts Compared to Vintage 2020 Estimates of Resident Population: April 1, 2020

### New York State

<p>| | |</p>
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>April 1, 2020 estimate</td>
<td>19,382,373</td>
</tr>
<tr>
<td>Census count</td>
<td>20,201,249</td>
</tr>
<tr>
<td>Difference</td>
<td>818,876</td>
</tr>
<tr>
<td>% Difference</td>
<td>4.2%</td>
</tr>
</tbody>
</table>
Counties

Estimate on average
- 652 persons lower than count
- 0.6% higher than count
New York counties

50 counties where Census count was higher than estimates

- Numerically, boroughs in New York City have largest differences
  - in total New York City count was 521,040 higher than estimates
- The largest percentage difference was in Hamilton County
  - Estimate was 4,370 (from 4,842 in 2020), Census count was 5,107. Gap is 14.4% of the count
  - Queens (-7.1%), Jefferson (-6.9%) and Brooklyn (-6.9%) also had more than 5% difference

12 counties where Census count was lower than estimates

- Numeric largest difference in Madison county (Est: 70,589, Census: 68,016)
  - Largest percentage difference in Franklin County, overestimated by 5.2%

39 counties had absolute estimate error of less than 2.5%
New York counties: Difference in change
New York counties: Difference in percentage change
Vintage 2021

Starts with April 2020 population
Not all Census counts available yet
Use of blended base
  ▶ Use combination of vintage 2010 estimates and 2020 counts
  ▶ Totals will be equal to 2020 Census counts
  ▶ Vintage 2020 estimates used to fill in characteristics
Covid-19 impact on methodology
  ▶ Adjusted births and deaths
  ▶ Standard domestic migration methods capture migration
  ▶ International migration
  ▶ Group Quarters
Intercessals

Adjusted estimates that confirm with Census 2010 and Census 2020
Let you create longer historic counts without jumps
Used for ACS controls
Cannot be released before DHC is published
Questions?

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