Quality Measures for Texas at a Glance, 2020 ACS 1-Year Experimental Data

On Nov. 30, 2021, the U.S Census Bureau released the 2020 American Community Survey (ACS) 1-Year Experimental Data. Due to the significant impact of the COVID-19 pandemic on operations and the high non-response rate, the Census Bureau has reduced or revised tables and variables than those from previous years. Different methodological strategies were also used in addressing the non-response issues. Data users can find all relevant information about the 2020 ACS 1-Year Experimental Data and data tables by visiting this website: ACS 2020 Experimental Data .

As frequent users of the ACS data, staff at the Texas Demographic Center are looking into the relevant data and documentation released by the Census Bureau to evaluate the utility of the experimental data, especially as it pertains to data users in Texas. The following table shows the selected quality measures of the 2020 survey, specific to Texas, in comparison with those from previous years (2011-2019).

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	Mean 2011-2019	2020
SAMPLE SIZE		
Housing Units		
Initial Addresses Selected	247,909	205,335
Final Interviews	140,012	85,734
Group Quarters Population		
Initial Sample Selected	12,477	5,138
Final Actual Interviews	10,281	3,855
RESPONSE RATES		
Housing Units	92.2	63.7
Group Quarters	92.1	32.3
COVERAGE RATES		
Housing Units	98.1	97.5
Group Quarters	91.1	91.3

Source: U.S. Census Bureau, 2020 ACS 1-Year Experimental Estimates

It is evident from the table that Texas data from the 2020 ACS 1-Year Estimates was compromised, with a significantly reduced sample size for final interviews, response rates and coverage rates for both the housing units and the group quarters population. Furthermore, the data collected over-represented the population that was “more educated, had higher incomes, and lived in single-family housing units”, according to the Census Bureau’s assessment. Among other issues were also the underestimation of the vacant housing units. The verification of vacant units occurs through in-person interviews with field representatives; however, this did not occur due to the suspension of operations during the pandemic.

To address these non-response biases and to limit the effects of the over-represented population mentioned above, the Census Bureau employed a new “experimental” weighting strategy. In survey data, the purpose of utilizing “weights” is to increase or decrease the “importance” of individual respondents to make the responding sample looks more like the target population. Therefore, the Census Bureau utilized supplemental data from other sources such as administrative, third-party, and decennial census data for the 2020 ACS, something that had not been done in previous American Community Surveys. These data are incorporated into the final weights using entropy balancing, a form of empirical calibration that constructs a set of matching weights that forces certain metrics to hold. Analyses from the Census Bureau suggest that the experimental weighting strategy significantly reduced 2019-2020 changes in many estimates. Although the Census Bureau has made concerted efforts to minimize the effects of the pandemic on the ACS data, it is impossible to measure the effect of the new adjustments on the accuracy of the data. It also calls into question the comparability of data over time.

Users of the 2020 ACS 1-Year experimental data should take caution and whenever feasible, check the data for consistency and reasonableness against similar data from other sources, such as the Census Bureau’s experimental Household Pulse Survey, the 2021 Current Population Survey (Annual Social and Economic Supplement), the 2020 Decennial Census Redistricting data and data from reliable local sources. The 2020 ACS 5-Year Estimates are currently scheduled for release in March 2022, which will provide another source of data for use and comparison.

Staff at the Texas Demographic Center will continue their research and analyses on the ACS data and share new results with our affiliates and users when they are available.