

The 2023 Municipal Updates were developed using the following steps:

- 1) Collect and prepare data.
- 2) Estimate total group quarters population by jurisdiction.
- 3) Estimate total residential units by jurisdiction.
- 4) Estimate total household population by jurisdiction.
- 5) Estimate total population by jurisdiction.

1) Collect and prepare data

- a. Using the Census 2020 redistricting file, determine the April 1, 2020 total population, household population, group quarter population, total housing units, occupied housing units, occupancy rates and population per household for each jurisdiction and MAG member agency.
- b. Collect residential housing unit completions and demolitions for the time period from April 1, 2020 through June 30, 2023 from member agencies.
- c. Collect annexed housing unit and population counts from member agencies.
- d. Collect group quarters population for major facilities from member agencies for April 1, 2020 and July 1 for fiscal years 2020-2023.

2) Estimate July 1, 2023 group quarters population

- a. Revise Census 2020 group quarters population counts based on the accepted submittals to the 2020 Post-Census Group Quarters Review (PCGQR):
 - i. The Census Bureau has accepted requests for the Town of Florence, City of Goodyear, City of Phoenix and City of Tempe.
 - ii. However, the Census Bureau has not indicated the amount that was accepted, for the time being MAG is assuming the accepted count is the same as the submitted count.
 - iii. This assumption may change pending further information released from the Census Bureau.
- b. For each tracked group quarter facility, subtract the count for April 1, 2020 from the counts for the fiscal years to estimate the change in group quarters since the Census.
- c. Estimate group quarters population by adding the change in tracked group quarters facilities to the revised Census 2020 group quarter population counts.

3) Estimate July 1, 2023 housing units

Calculate the July 1, 2023 total housing stock by summing:

- Census 2020 residential units.
- Net new housing units (completions minus demolitions) constructed from April 1, 2020 to June 30, 2023.
- Housing units annexed from April 1, 2020 to June 30, 2023.

4) Estimate July 1, 2023 household population

- a. Apply housing unit method (HUM), by jurisdiction, to estimate *unconstrained* household population growth from 2022-2023:
 - i. Multiply net residential completions from 2022-2023 by the Census 2020 persons per household and occupancy rates.
 - ii. Add annexed population from 2022-2023.
- b. From State Demographer's Office in the Arizona Office of Economic Opportunity (OEO), obtain county-level estimates using the Modified Composite Method, wherein administrative data is tracked and applied to age-specific cohorts.
- c. Develop county-level household population controls by averaging the Modified Composite Method results with the county sums from the unconstrained HUM.
- d. Bench the HUM the jurisdiction-level unconstrained household population growth estimates to the to county-level household population controls.
- e. Add the benched jurisdiction-level household population growth to the 2022 jurisdiction-level household population totals.

5) Estimate July 1, 2023 total resident population

Estimate total population by adding the household population and group quarters population estimates.