

**ASSUMPTIONS & METHODS
POPULATION PROJECTIONS 2007**

1. Households by Age of Householder and Housing Units by Age of Unit

- The MAG transportation models require projections for the age of the head of householder by Socioeconomic Analysis Zone (SAZ).
- If such data is not available, the MAG transportation models require projections for the number of housing units in each SAZ by four categories of housing unit age (less than 10, 10 to 19, 20 to 29, and 30 or more years old).
- A survey of the large-population Metropolitan Planning Organizations revealed that forecasts of the age of head of householder are not common. Possible projection methods for age of head of householder will be reviewed in the next update of MAG socioeconomic models.
- Building age data from Maricopa County Assessors Residential Master database was analyzed to identify units for demolition.
- The current MAG methodology for calculating housing unit age - ages the existing housing stock, adds the change in residential construction projected by SAM-IM, and rebuilds demolished units.

POPTAC Recommendation Requested:

- Use the method as described above for calculating housing units by age of unit in each SAZ by four age categories.

2. Households by Income

- The MAG transportation models require projections for the number of households in each SAZ by five income quintiles.
- The data for 2000 was collected as part of the Census long form and was aggregated to RAZs and SAZs as the base dataset for households by income group.
- The current MAG methodology projects households by income groups by RAZ using Metropilus, the latest version of DRAM/EMPAL. The projected change in income distribution is assigned to each SAZ within the RAZ using the base year income distribution, future development characteristics, and the age of existing development.

POPTAC Recommendation Requested:

- Use the method as described above for calculating households in each SAZ by five income quintiles.

3. Seasonal Population

- Seasonal population is defined as residents of the area for two weeks to six months and is a part of the socioeconomic projections required by the MAG transportation models.

- An inventory of mobile home parks and RV parks was created to gather information on location and characteristics of the parks, expansion plans, as well as the number and types of residents during peak and low seasons.
- The inventory of mobile home and RV parks was last reviewed and updated by MAG Member Agencies in December 2006.
- Seasonal residents are divided into two categories for projections, namely those residing in RV and mobile home parks and those residing in permanent housing units.
- The RV and mobile home parks component of Seasonal Population projection by SAZ is based on existing inventory and known expansion plans.
- The permanent housing component of seasonal population is based on the ratio of 2000 “non-park mobile home” seasonal housing units by SAZ to the 2000 total housing units by SAZ.
- This ratio is assumed to be constant over time since no evidence is available on which to quantify any systematic change.
- Seasonal population is projected by multiplying the seasonal units with the 2000 estimate of seasonal persons per household. This estimate of seasonal persons per households is held constant over time.
- The Seasonal population used for MAG Transportation models is the average of the high season and the low season projections.
- When there is not enough information at the SAZ zone level for projecting permanent housing component of seasonal population, the next level of geography (RAZ) is used.
- When there is not enough information at the RAZ zone level for projecting permanent housing component of seasonal population, the next level of geography (MPA) is used.

POPTAC Recommendation Requested:

- Accept the seasonal population projection methodology as identified above.

4. Transient Population

- Transient population, defined as residents of the area for two weeks or less, is a part of the socioeconomic projections required by MAG transportation models.
- To estimate transient population, an inventory of hotels, motels, and resorts was created to gather information on their location, number of rooms, occupancy, expansion plans and information on new facilities.
- The inventory of hotels/motels was last reviewed and updated by MAG Member Agencies in December 2006.
- Transient population numbers for winter and summer seasons by SAZ were derived from the inventory and its corresponding data.
- Separate methodologies were developed to produce projections of the transient population traveling to the Phoenix area for business reasons and the transient population coming for non-business reasons.
- Current data on visitor statistics was obtained from the Arizona Office of Tourism and the Greater Phoenix Convention & Visitors Bureau Statistical Reports
- Transient population projections at the County level are distributed to SAZ zone level using the existing Hotel/Motel room share by SAZ, augmented by known future plans.

- The Transient population used for MAG Transportation models is the average of the high and low transient population projections.

POPTAC Recommendation Requested:

- Accept the transient population projection methodology as described.

5. Age Restricted Communities

- MAG transportation models require SAZs to have identifiers for Age Restricted Areas.
- A survey of the existing age restricted communities was conducted and a GIS coverage of the communities was created.
- All developments are reviewed with member agencies to identify additional age restricted communities.
- SAZs with fifty percent or more of the total land area of communities with deed restrictions on age of residents are flagged as Retirement Areas.

POPTAC Recommendation Requested:

- Accept the method as described for identifying Age Restricted SAZs.

6. Post Secondary Enrollment

- Post-secondary enrollment projections are a component of socioeconomic projections required by the MAG transportation models.
- An inventory of post high school institutions was created to gather information on their location, current enrollment, expansion plans, and projected enrollment.
- Post high school institutions were classified into three categories for this analysis: community colleges, public universities (ASU), and private colleges.
- This dataset was updated in 2006 with a phone and internet survey of post-secondary education providers to gather information on current enrollment and expansion plans.
- The updated inventory of Post High School institutions was reviewed by MAG Member Agencies in December 2006.
- Participation rates for the three institution types were calculated using data from 2000 Census and age cohort data on enrollment by campus.
- Using county age-by-year distribution of population from Arizona Department of Economic Security (AZDES) and average participation rates by institution type the total enrollment for each institution type was calculated.
- Allocate the projected enrollment to individual campus based on known future expansion plans, capacity, and institutional projections if available.

POPTAC Recommendation:

- Use the post-secondary enrollment projection methodology as identified above.