

August 21, 2012

TO: Members of the MAG Population Technical Advisory Committee

FROM: Charlie McClendon, Avondale, Chair

SUBJECT: TRANSMITTAL OF MEETING NOTICE AND TENTATIVE AGENDA

Tuesday, August 28, 2012 - **10:00 a.m.**
MAG Office, Second Floor, **Chaparral Room**
302 North 1st Avenue, Phoenix

A meeting of the MAG Population Technical Advisory Committee (POPTAC) will be held at the time and place noted above.

Members of the POPTAC may attend either in person or by telephone conference. If you are attending via audioconference please contact Steve Gross at (602) 254-6300 at least one day prior to the meeting.

If you drive to the meeting, please park in the garage under the building and bring your ticket to the meeting; parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Scott Wilken at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Please be advised that under procedures approved by the MAG Regional Council on June 26, 1996, all MAG committees need to have a quorum to conduct business. A quorum is a simple majority of the membership or 14 people for the MAG POPTAC. If you are unable to attend the meeting, please make arrangements for a proxy from your jurisdiction with Steve Gross at (602) 254-6300.

TENTATIVE AGENDA
MAG Population Technical Advisory Committee
August 28, 2012

1. Call to Order

2. Call to the Audience

An opportunity will be provided to members of the public to address the MAG POPTAC on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested to limit their comments to three minutes. A total of 15 minutes will be provided for this agenda item, unless the Chair of the POPTAC provides for an exception to this limit. Those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

3. Approval of Meeting Minutes of June 26, 2012.

4. State Demographer's Office Update

The Council of Technical Solutions, authorized by Executive Order 2011-04 and staffed by the Arizona Department of Administration, meets every month to discuss technical issues as related to population data, methods and processes for the State of Arizona. An update on current activities will be provided.

5. Census Update

The Census Bureau is proposing to resume the Population Estimates Challenge Program for the 2011 population estimates and subsequent years. Proposed rules have been posted in the Federal Register and comments are being accepted through September 10, 2012. Additionally, the Census Bureau has announced release dates for the 2011

2. For information.

3. For information, discussion and approval of the minutes of June 26, 2012.

4. For information and discussion.

5. For information and discussion.

American Community Survey estimates. An update on Census Bureau activities will be provided.

6. MAG Socioeconomic Projections

The MAG Socioeconomic projections are based on model assumptions. These assumptions and methods are essential to the AZ-SMART model system and include, but are not limited to: special populations (e.g. group quarters, seasonal, transient), airport originations, school enrollment (K-12 and post high school). The MAG POPTAC will be requested to recommend approval of the assumptions. Please see attachment One.

7. Data Collection, Review and Presentation

Ongoing data collection efforts include land use information such as General Plan amendments and development projects. The land use data collected are used in preparing socioeconomic projections and conducting regional analyses. A schedule for the collection of data for 2012 is included in Attachment Two.

8. 2011 Employer Database

The final 2011 MAG Employer Database is now available. This database includes employment counts and locations for employers with five or more employees throughout Maricopa County. An update will be provided on the results.

In addition, members of the POPTAC have been requested to provide updated job center boundaries and complete a job center survey. This dataset provides information of the status, planned land use mix and available infrastructure for each job center. The Job Centers Database and its relation to employer data will be discussed. Please see Attachment Three.

6. For information, discussion and possible action to approve the assumptions for the preparation of the 2012 MAG Socioeconomic Projections.

7. For information and discussion.

8. For information and discussion.

9. Sustainable Transportation – Land Use Integration Study

MAG Staff will provide an update on the Sustainable Transportation Land Use Integration Study (ST-LUIS). The presentation will review the key concepts of the Draft ST-LUIS Toolkit that includes pathways and development prototypes. Additionally, MAG Staff will discuss the upcoming schedule for completing the Study by February 2013, and highlight upcoming stakeholder meetings.

10. Regional Updates

MAG POPTAC members and MAG staff will have the opportunity to provide an update on development within their jurisdiction, amendments to general plans and any special projects.

11. Next Meeting of MAG POPTAC

The next meeting is scheduled for Tuesday September 25, 2012 at 10:00 a.m.

9. For information and discussion.

10. For information and discussion.

MINUTES OF THE
MARICOPA ASSOCIATION OF GOVERNMENTS
POPULATION TECHNICAL ADVISORY COMMITTEE

June 26, 2012
MAG Offices, Chaparral Room
302 N. 1st Ave, Phoenix

MEMBERS IN ATTENDANCE

Charlie McClendon, Avondale
A-Tracy Clark, ADOT
A-Bryant Powell, Apache Junction
*Andrea Marquez, Buckeye
*DJ Stapley, Carefree
A-Ian Cordwell for Usama Abujbarah, Cave Creek
A-David de la Torre, Chandler
A-Mark Smith, El Mirage
A-Ken Valverde, Fountain Hills
*Rick Buss, Gila Bend
Linda Edwards for Patrick Banger, Gilbert
Thomas Ritz, Glendale
A-Katie Wilken, Goodyear
*Gino Turrubiarres, Guadalupe

A-Sonny Culbreth, Litchfield Park
*Matt Holm, Maricopa County
*Wahid Alam, Mesa
A-Molly Hood, Paradise Valley
*Ed Boik, Peoria
Chris DePerro, Phoenix
Dave Williams, Queen Creek
*Bryan Meyers, Salt River Pima-Maricopa Indian
Community
A-Adam Yaron, Scottsdale
*Lloyd Abrams, Surprise
Robert Yabes for Lisa Collins, Tempe
Anne McCracken, Valley Metro
A-Diane Cordova, Youngtown

** Not in attendance*

A - Participated via audioconference

OTHERS IN ATTENDANCE

Abhishek Dayal, Metro Light Rail
Eric Morgan, Avondale
A-Brad Steinke, Apache Junction
A-Sam Andrea, Chandler
Scott Wilken, MAG
Steve Gross, MAG
Jami Garrison, MAG

Anubhav Bagley, MAG
Shannon Acevedo, MAG
Jason Howard, MAG
Jesse Ayers, MAG
Mark Roberts, MAG
Vern Wolfley, MAG

1. Call to Order

The meeting was called to order at 10:07 am by Chair Charlie McClendon.

2. Call to the Audience

Anubhav Bagley introduced Vern Wolfley as the newest member of the MAG Information Services Team.

3. Approval of the Meeting Minutes of April 24, 2012

Thomas Ritz noted changes to the minutes. He pointed out a typographical error at the top of page 4, and asked that the third paragraph in Item 8 be written more clearly. Dave Williams made a motion to approve the minutes as amended. Chris DePerro seconded the motion, and the motion passed unanimously.

4. State Demographer's Office Update

Jami Garrison gave an update on the State Demographer's Office. She said that at the June meeting of the Council for Technical Solutions the state gave an update on methodology for population projections. She said that they hope to have projection figures by the end of August.

5. Assumptions for MAG Socioeconomic Projections

Jesse Ayers presented assumptions and methodologies for the MAG socioeconomic projections. He said that this presentation largely dealt with assumptions used to prepare the base dataset, and a presentation at the August meeting will deal with assumptions and methods for the projection series.

Anubhav Bagley said the assumptions and methods are very similar to those used in the past. He said the official geographies will be the Municipal Planning Areas (MPA), Traffic Analysis Zones (TAZ), and Regional Analysis Zones (RAZ). He said that projections will also be available at other geographies that help member agencies use the data, such as census geographies, zip codes, and villages. He said the 2010 base population and housing were derived primarily from Census 2010, adjusted to match the July 1, 2010 estimates from the state demographer. He said that the model needs other characteristics, as well, and that information comes from the 2006-2012 American Community Survey (ACS), and individual households are synthesized using a number of data sources and applications. He said the base employment figures take data from the Quarterly Census of Employment and Wages (QCEW) data from the Bureau of Labor Statistics, military numbers from the Department of Defense, and unincorporated self-employed numbers from the ACS and match it to the 2010 Employer Database.

Anubhav Bagley said that the county-level projection control totals come from the state demographer for population. He said that for employment, MAG has purchased county-level projections from Economy.com.

Anubhav Bagley discussed built-space and employment sector classifications. He said built spaces are classified into three residential and fifteen non-residential. For employment, he said there will be two different types based on seven different land use types and on North American Industrial Classification System (NAICS) codes.

Anubhav Bagley said the land use datasets have been collected from member agencies: Existing Land Use indicates what is built on the ground and what's available to be developed; General Plans and Developments were collected from member agencies, and include details on the densities of the categories in the general plans; and the Future Land Use is a combination of General Plans and Developments, and tells the model where land is available for development and how close to capacity parcels of land are.

Anubhav Bagley discussed population and housing projection factors. He said these drive the model, and help derive the build-out capacities, including persons per household and vacancy rates. He said staff has examined historic vacancy rates to not rely on the anomalously high

vacancy rate in Census 2010. He said staff examined historic single-family to multi-family ratios to determine the typical split between the two housing types. He said that the historic split was in line with general plans, which will provide guidance for the model.

Anubhav Bagley said that there are three major factors that have to be considered to determine non-residential density and vacancy rates. He said staff looked at the built-space database, the County Assessor's built space data, and general plans and established typical floor-area ratios (FAR) for different employment types and jobs per 1,000 square feet. He said that past models assumed that non-residential buildings were occupied, but that didn't match reality. To correct this, he said staff has analyzed data from COSTAR, which has historic vacancy rates for different types of employment and building types. He said the model will trend vacancies toward those historic figures.

Anubhav Bagley discussed the build-out methodology. He said the data that goes into build-out was reviewed with member agencies. He said that the idea behind producing build-out figures is to establish a maximum capacity. He said that this helps staff ensure that no data sets were missed in the preparation. He said for residential the method is to put the maximum number of housing units on undeveloped residential land per the general plan, and apply a persons per household rate with 100% occupancy. He said for employment the method is to apply the FARs and jobs per 1,000 square feet to undeveloped non-residential land according to the general plans.

Katie Wilken asked if staff is saying that 5% is the trending residential vacancy rate, or if there is more detailed data to find a normal vacancy rate. Anubhav Bagley said that at a county level the normal vacancy rate is about 10%, with about half of that held for seasonal units. He said that in the winter the vacancy rate is about 5% and in the summer it is about 10%. He said that the vacancy rate was about double that during the last census.

Charlie McClendon said that the POPTAC Ad Hoc subcommittee recommended approval of the AZ-SMART assumptions and methodologies for the 2012 socioeconomic projections. Dave Williams seconded the motion, and the motion passed unanimously.

6. Data Collection, Review, and Presentation

Jason Howard gave an update on data collection, review, and presentation. He said member agencies are currently reviewing the database of multi-family, RVs, mobile home parks and group quarters. He said the next review will be the Building Landmark Inventory (BLI). He said the BLI is a listing of major public buildings, along with facilities such as police and fire stations, post offices, and city halls. He said it will help identify some of the major job centers and trip generating buildings, and will add context to the online mapping sites. Tracy Clark asked if there was a size restriction placed on buildings included in the database. Anubhav Bagley said there was no size restriction used except for retail centers, focusing on the larger retail centers rather than the smaller neighborhood centers. He said that the data will be sent out in July for review in the form of an interactive map, but shapefiles and spreadsheets will be available as well.

Thomas Ritz asked if this data will be overlaid on the EXLU for review. Jason Howard said that that can be done, and would probably be helpful.

Adam Yaron asked about the apartments, mobile home, and RV park data that was sent for review. He asked if there had been any analysis of condos that had been bought by investors vs. apartments that are used as rentals. Anubhav Bagley said that analysis has not been done, but

staff could start pulling some of that information from the foreclosure dataset. He said it becomes more difficult when you try to determine if what an investor intends to do with a property.

7. Queen Creek Recent Projects

Dave Williams, Senior Planner for Queen Creek, gave a presentation on recent projects in Queen Creek. He said that Queen Creek has had a number of important projects come forward in the last 90 days. He said three different solar projects were proposed to compete for a contract with SRP for a 20 megawatt solar electricity generating facility. He said one project was selected, which is located just more than a mile northeast of the town center. He said the solar facilities are not job generators in the long run, creating about 400 jobs for 9 months and then 1-2 full-time maintenance jobs after that. He said the solar facility is slated for completion in early September. He said that the approval required an 8' decorative masonry wall on three of the four sides of the facility. Chris DePerro asked if the wall was to screen the panels from view. Dave Williams said that it is to screen the panels from view. He said any side facing residential is required to have the block wall. He said the fourth side is open chain link fencing.

Dave Williams the Church Farms subdivision was recently approved by Town Council, and the plan has been under development for about 7 years. He said the plan provides 50% more open space than required by code. He said it will be about 2,300 lots on 879 acres. He said the south end of the property is adjacent to the Queen Creek wash, which will provide connectivity to trails to Gilbert and the San Tan Mountains. He said the residential area will contain 2 community parks, and 9 neighborhood parks. He said the developer came up with the Free Play concept, which will stimulate the minds of the users. He said the play equipment at the parks will avoid the typical equipment seen at most subdivisions around the valley. He said there will be unique play equipment for kids, and nearby activities for adults, too.

Dave Williams said that Church Farms will be the largest development Queen Creek will ever see. He said the developer and town did a lot of public outreach, but never received any comments from the public. He said that toward the end of the review process, they attempted new forms of outreach, such as including Quick Response (QR) codes on zoning notification signs, posting information on Facebook and Twitter, and integrated Foresquare. He said the QR codes on the notice signs allow someone to use their smartphone or tablet to download information on the proposal without having to search. He said that the town was able to track how many people downloaded the information, even if they didn't comment. He said that Facebook, Foresquare, and Twitter allowed people to comment on the proposal easily, and allowed the town to track how many people had viewed the material. He said this outreach allowed staff to tell the Town Council that they had received positive comment, whereas traditional methods of notice had produced no comments.

Scott Wilken asked if the development approval for Church Farms specified what types of park facilities would be built or if the pictures provided were only examples. Dave Williams said that the zoning narrative specifically called out the types of facilities that were presented. He said that there are 23 miles of trails throughout the development, and different areas have different types of landscaping.

Anne McCracken asked what has been done for future transit or non-single-auto transportation. Dave Williams said that very little has been done, given the rural and remote nature of the town.

8. Regional Updates

Chris DePerro said that an article on analysis of Census figures in the Arizona Republic said that the figures came from the City. He said that those figures did not come from the city, but came from the city's redistricting consultant, and does not include the same council district boundaries. He said that the article also confused ethnicity and race.

9. Next Meeting of the MAG POPTAC

Chair Charlie McClendon said that the July meeting of the MAG POPTAC will be cancelled, and next meeting is scheduled for Tuesday, August 28, 2012 at 10:00 am. The meeting adjourned at 11:07 am.

Assumptions and Methods of MAG Socioeconomic Projections 2012

Part 2

Introduction

The purpose of this document is to detail the methodologies, assumptions, analyses, data collection activities, and data sources to be used in developing a base year database, build-out analysis, and housing, population, and employment projections. This year MAG staff will make use of a brand new model system specifically developed for the MAG region: Arizona's Socioeconomic Modeling Analysis and Reporting Toolbox, hereinafter referred to by its acronym, AZ-SMART. AZ-SMART is a complex model system that requires many more data inputs and assumptions. This document represents part 2 of a short series of documentation on the methods and assumptions in the simulation system.

This document is organized into 5 topics, each briefly summarized below:

1. Group Quarters Population

This section describes the 5 general categories of the group quarters population, the assumptions made in the projection of the totals of group quarters, and the methods by which these annual totals are allocated to sub-county geographies. It is requested that POPTAC members approve these methodologies.

2. Airport Originations

This section describes the 2 major airports that originations are projected for, the sources for the projections, and how the totals are allocated between the airports. It is requested that POPTAC members approve these methodologies.

3. Seasonal Population

This section describes seasonal populations, where they reside, how the annual totals are projected, and how the totals are allocated to sub-county geographies. It is requested that POPTAC members approve these methodologies.

4. Transient Population

This section describes transient populations, where they reside, how the annual totals are projected, and how the totals are allocated to sub-county geographies. It is requested that POPTAC members approve these methodologies.

5. School Enrollment

This section describes a new methodology for kindergarten through 12th grade school enrollment projections, along with a methodology for post secondary school enrollment. Both "top down" and "bottom up"

Assumptions and Methods of MAG Socioeconomic Projections 2012

methodologies are described and compared. It is requested that POPTAC members approve these methodologies.

I. Group Quarters

All residents not living in households are classified as living in group quarters. Population in group quarters is a part of the socioeconomic projections required by MAG transportation models. Methods for projecting the different components of population in group quarters (military quarters, prisons and jails, college dormitories, nursing homes, and other group quarters) have been identified by MAG Consultants¹. The base year group quarters population is based upon the results of the 2010 Census and the group quarter inventory prepared by MAG Staff and reviewed by POPTAC previously.

- **Military group quarters population.** Military group quarters population is held constant at the current population of Luke Air Force Base at the recommendation of a Consultant¹. MAG Staff contacted a Luke Air Force Base representative to confirm the latest population of 927.
- **Prison and jail population.** Prison and jail population is projected as a percentage of the population in the age cohort of 20-44, increasing slightly throughout the projection horizon. Based on analysis of historical Census data by a Consultant¹ it is recommended that a slight increase in the factor be applied throughout the projection horizon as follows:
 - In simulation years 2010 through 2019, the percentage is 1.4%.
 - In simulation years 2020 through 2029, the percentage is 1.6%
 - In simulation years 2030 through 2040, the percentage is 1.8%

During the simulation model run, the percentage of the population is calculated, then it is proportionally allocated to existing prison and jail sites in Maricopa County based on the current size of each facility. If a new prison or jail site is included in the simulation as a known development, the model will include that site in the allocation. The simulation model does not predict new prison and jail facilities, however.

- **College dormitory population.** College dormitory population is calculated as a percentage of the population in the age cohort 18 through 19. This percentage is held at a constant 11% throughout the forecasting horizon of 2040 at the recommendation of a Consultant¹. During the simulation model run, the percentage of the population is calculated, it is then proportionally allocated to existing dormitory sites based on their size. If new dormitory sites are included in a known development in a later simulation year, the model will include those sites in the allocation. The simulation model does not predict new dormitory sites, however.
- **Nursing home population.** Nursing home population is calculated as a percentage of the population in the age cohort 75 and older. An analysis of historical Census data by a Consultant¹ indicated a slow but steady downward trend since 1980. The pace of the decline slowed between 2000 and 2010 (0.7 percentage points) compared to the previous decade (3.4 percentage points). The consultant recommended that we trend the 2010 rate downward at a decreasing rate. To this end, the percentage decreases slightly throughout the projection horizon.
 - In simulation years 2010 through 2019, the percentage is 3.9%.
 - In simulation years 2020 through 2029, the percentage is 3.76%

Assumptions and Methods of MAG Socioeconomic Projections 2012

- o In simulation years 2020 through 2029, the percentage is 3.732%

During the simulation model run, the percentage of the population is calculated, then this total is proportionally allocated to existing nursing home sites based on their size. If new nursing home sites are included in a known development in a later simulation year, the model will include those sites in the allocation. The simulation model does not predict new nursing home sites, however.

- **Other group quarters population.** Other group quarters population, such as group homes, is calculated as a percentage of the entire population. At the recommendation of a Consultant, the percentage is held at a constant 0.3% throughout the projection horizon of 2040. During the simulation model run, the percentage of the population is calculated, then this total is proportionally allocated to existing other group quarters sites based on their size. If new other group quarters sites are included in a known development in a later simulation year, the model will include those sites in the allocation. The simulation model does not predict new other group quarters sites, however.

POPTAC Approval Requested: Approval of methodology to produce Group Quarters population variables for the 2012 official projections.

2. Airport Originations

Daily airport originations are required as part of the MAG transportation model for the 2 major airport sites in the region: Sky Harbor Airport in Phoenix, AZ and Phoenix-Mesa Gateway Airport in Mesa, AZ. Projections of flight originations for every 5 years from 2010 through 2050 were obtained from the respective airports master plans. Annual flight originations for both airports were calculated from every 5 year numbers using a simple linear interpolation methodology. The originations are simply assigned to the respective airport location in the simulation model. The simulation model does not predict new airport locations.

POPTAC Approval Requested: Approval of methodology to produce Airport Origination variables for the 2012 official projections.

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. Seasonal residents are divided into 3 categories for projections, namely those residing in single and multiple family housing units (SFMFS), mobile homes (MHS) and RV parks (RVS). The inventory of mobile home and RV parks was last reviewed and updated by MAG member agencies in July 2012.

- To calculate base year seasonal households and population by unit type (SFMFS, MHS, RVS), we start with the total units by type from the 2010 Census (SFMFS and MHS) and use the MAG RV database

Assumptions and Methods of MAG Socioeconomic Projections 2012

for RVS. We then apply the seasonal vacancy rate by type from the Census to arrive at a total number of seasonal households. Then a constant 1.9 persons per household is assumed to estimate the seasonal population in the base year^l.

- Using information from the MAG General Plan, multi-family/single-family percentages are calculated for future years. Also, due to economic conditions, the 2010 vacancy rates are assumed to be too high, so using the recommendation of our consultant, we adjust the overall seasonal and non seasonal rates down to a more normal 3.9% and 5.5% (respectively) by 2015 using a linear interpolation. These rates are held constant from 2015 to the end of the forecast horizon.
- The vacancy rates and multi-family/single-family splits are used to forecast seasonal and non-seasonal units by type in the future simulation years
- In the future simulation years, seasonal population and households by unit type are estimated from the exogenous forecast of total population, using the above calculated and adjusted vacancy rates by unit type.
- The seasonal population forecast totals by unit type are then proportionally allocated to seasonal units annually in the simulation model^l.

POPTAC Approval Requested: Approval of methodology to produce Seasonal population variables for the 2012 official projections.

4. Transient Population

Transient population is defined as residents of the area for two weeks or less and is a part of the socioeconomic projections required by the 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 was last reviewed and updated by MAG member agencies in July 2012. Current data on visitor statistics and projections were obtained from the Arizona Office of Tourismⁱⁱ to produce base transient population.

Transient Population is tightly correlated with employment and spending in the Accommodation and Food Services and Leisure and Hospitality sectors of the county economy. A Consultant recommended that we base our methodology for generating future control totals on projections of employment. Using data obtained from the Arizona Office of Tourism and projections of employment from Moody's Economy.com, the following factors are used: 14 million annual overnight visitors to Maricopa County, staying an average of 3.5 nights, with an average party size of 1.2 (increasing linearly to 2.6 in 2015, held constant thereafter), with a 63%/37% split between stays in hotels and other locations respectively.

- First, average daily visitors are calculated by dividing annual visitors (14 million) by the average daily stay (3.5). This number is then split using the aforementioned percentages to get a hotel and other locations split.

Assumptions and Methods of MAG Socioeconomic Projections 2012

- The 14 million annual visitors is increased over time in proportion to the total employment in the aforementioned sectors of the economy, giving us increasing totals for future allocation.
- Then for the future average daily visitors, we apply the same methodology to compute the base year splits by hotels and other locations.
- During the simulation, transient population projections at the county level are proportionally allocated to the hotel, motel, resort, and other sites based on their respective size. If the known developments dataset contains a new hotels, motels, or resorts, the allocation model will take those new sites into account. The simulation model does not predict new transient population sites.

POPTAC Approval Requested: Approval of methodology to produce Transient population variables for the 2012 official projections.

5. School Enrollment

For the first time, MAG staff will be forecasting both Post-Secondary school enrollment and K-12 school enrollment by school site as required by the MAG transportation models. An inventory of both K-12 and post secondary school sites was created to gather information on location, student capacity, and any expansion plans. A preliminary K-12 inventory was created for the projections, and the post secondary inventory will be reviewed by MAG member agencies in September 2012.

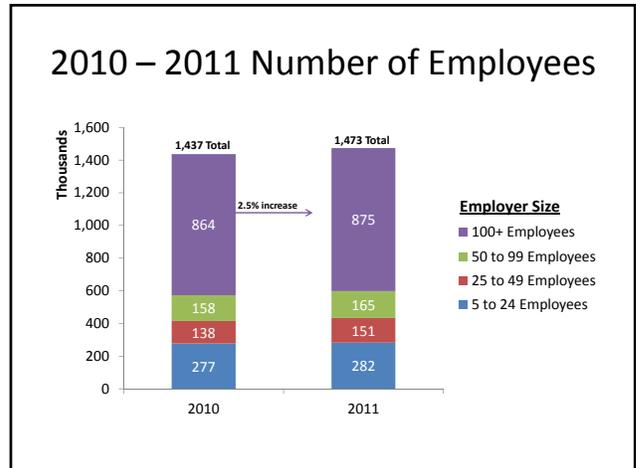
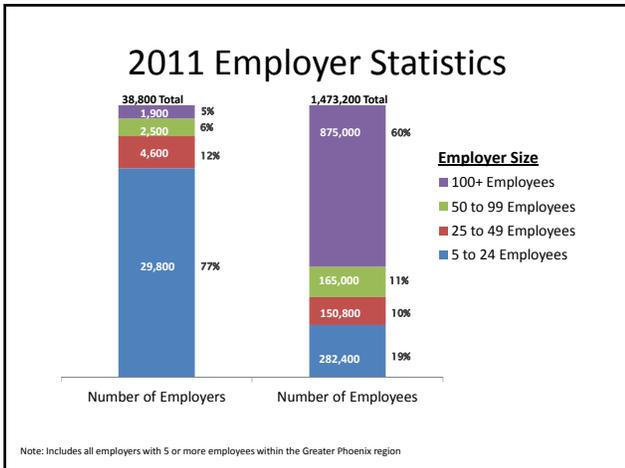
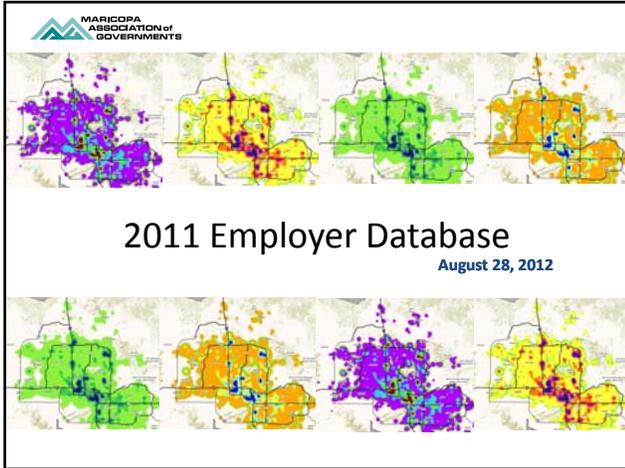
MAG Staff currently have 2 methodologies for projecting school enrollment: a “top down” approach and a “bottom up” approach. The top down methodology involves using the Census 2006-2010 ACS data and an older survey from ASU to calculate participation rates by age cohort by grade level, then holding these rates constant over the simulation horizon. The bottom up methodology involves using a newly created AZ-SMART model that predicts when a student will exit school and enter the workforce. A consultant developed this “bottom up” model and a set of rates (using the same 2006-2010 ACS data) by age cohort. As the simulation runs, the model annually, and randomly, selects a certain percentage of the population by age cohort to exit school and enter the workforce. MAG Staff are still evaluating the results of the new model at this time. In either case, the simulation uses the resulting totals and allocates them to the school locations based on the size of the institution. If the known developments dataset contains new school locations, the allocation model will take those new locations into account. The simulation model does not build new school locations at this time, however.

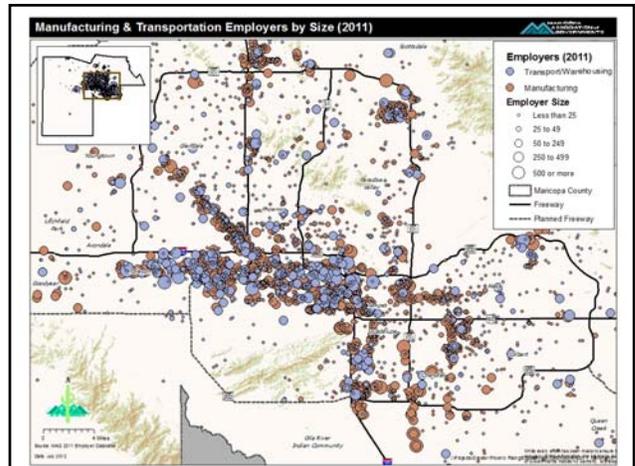
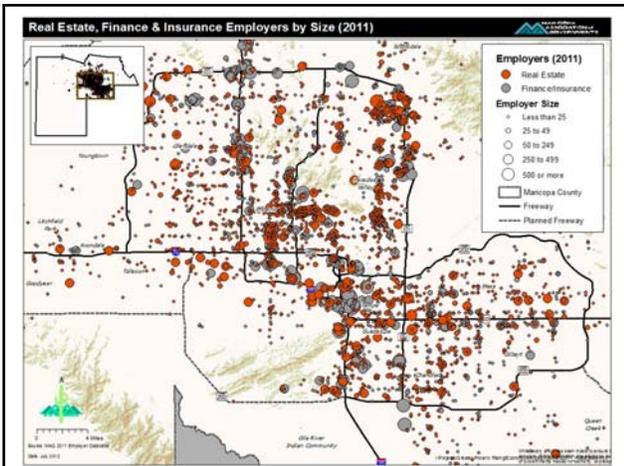
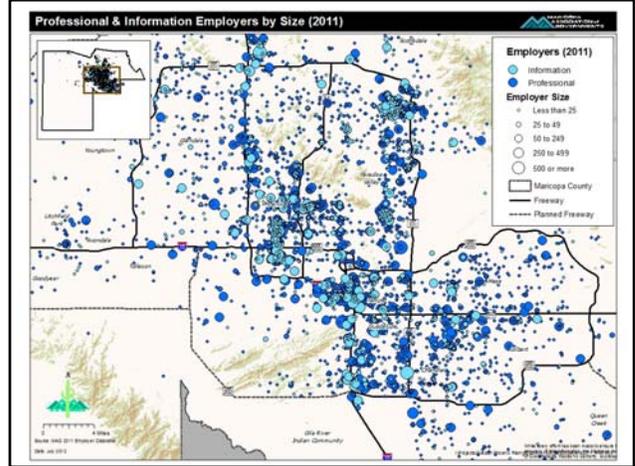
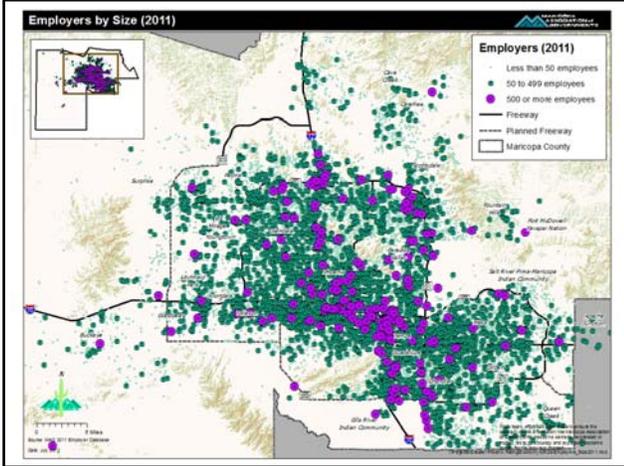
POPTAC Approval Requested: Approval of methodology to produce School Enrollment variables for the 2012 official projections.

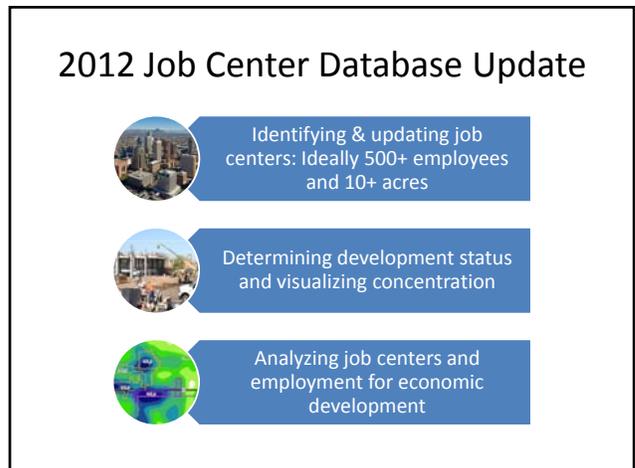
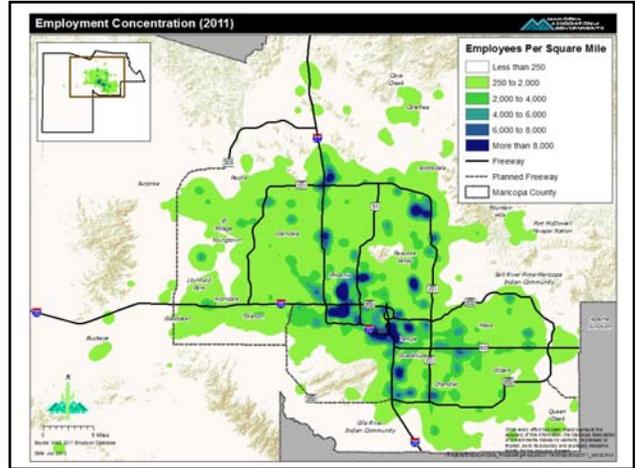
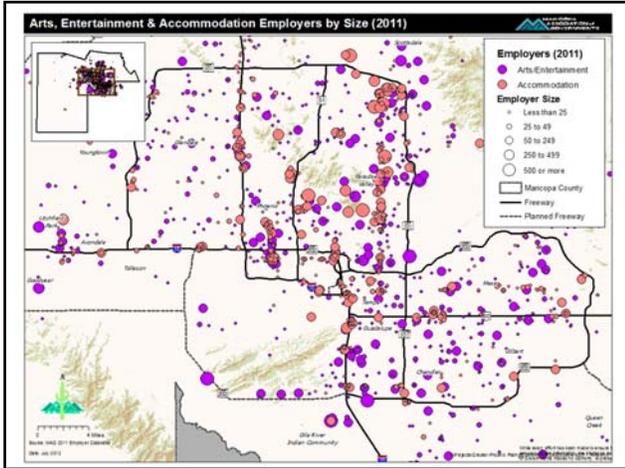
ⁱ Jeff Tayman, PhD. May 2011. Population, Housing Characteristics, Special Populations, and Employment: Data, Control Totals, and Allocation.

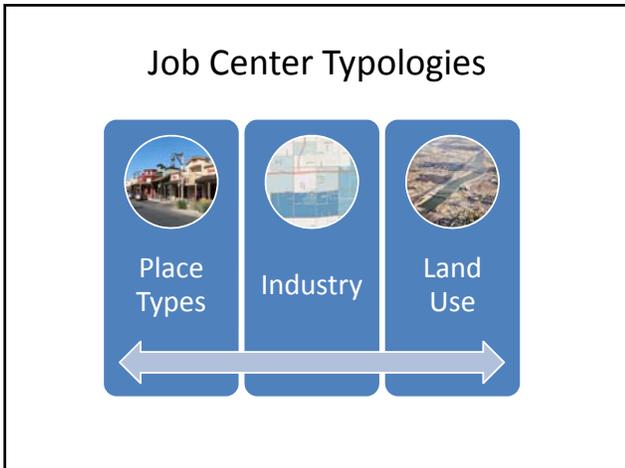
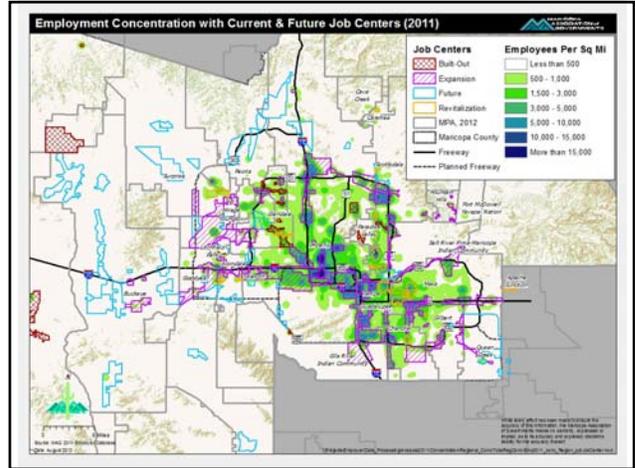
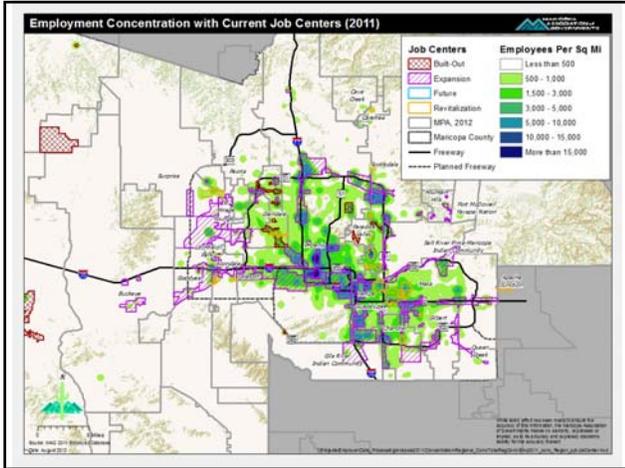
ⁱⁱ <http://www.azot.gov/research-and-statistics> (Last accessed 8/21/2012)

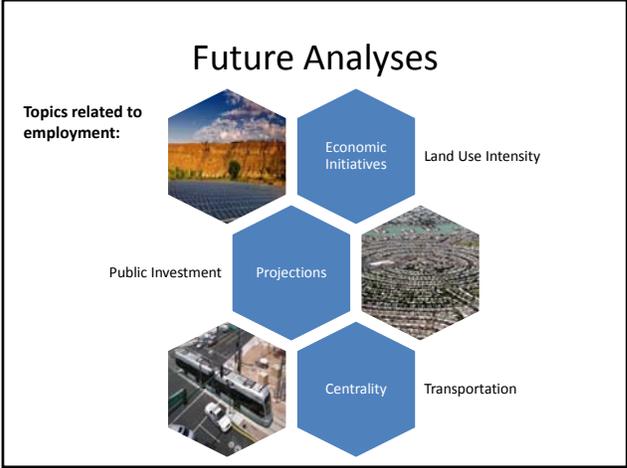
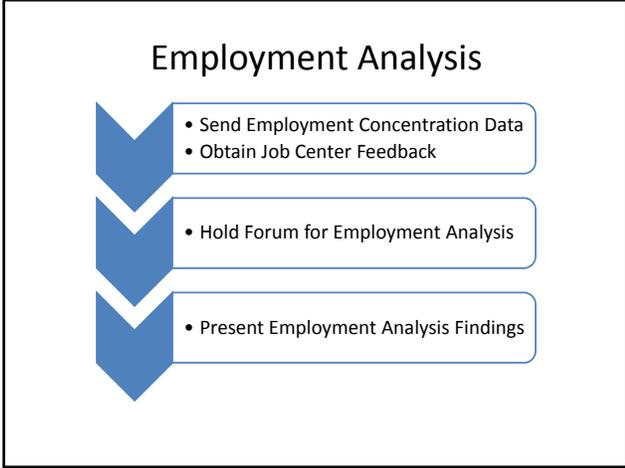
| DRAFT MAG POPTAC Timeline From August 2012 to March 2013 | | |
|---|--|--|
| MAG Due Date | Member Agency Due Date | Activity |
| | Submit when the latest Plan or update is complete. | Submit General Plans for 60 day review. |
| | Submit when Amendment is ready for review. | Submit Major General Plan Amendments for 60 day review. |
| Ongoing | Ongoing | Submit Minor General Plan Amendments, Area Plans and Development Master Plans/Community Master Plans and Amendments. |
| Ongoing | Ongoing | Submit Planned Area Developments/Planned Community Developments/Planned Residential Developments/Unit Planned Development/Final Plats and Reports. |
| Ongoing | Ongoing | Submit copy of C404 Form to MAG. |
| Ongoing | Ongoing | Submit Annexations to MAG as they occur. |
| August, 2012 | | MAG submits annexations that take place from April 1, 2012 thru June 30, 2012 to ADOA for July 1 Estimates. |
| August, 2012 | September, 2012 | Building Landmark Inventory (BLI) and Multiple Location Employer (MLE). |
| August, 2012 | September, 2012 | MAG sends jurisdictions the 2012 draft Job Centers database for review. |
| | September, 2012 | Submit public employment data for MAG Employer Database 2012. |
| | October, 2012 | Submit Q3 residential completions to MAG. |
| October, 2012 | November, 2012 | Review 2012 Existing Land Use database |
| November/December, 2012 | | Review of County and Sub-county 2012 population updates dependent upon State Demographer's Office schedule. |
| | January, 2013 | Submit Q4 residential completions to MAG. |
| December, 2012 | January, 2013 | MAG sends jurisdictions the 2012 draft Employer database for review. |
| January, 2013 | February, 2013 | MAG sends jurisdictions list of all land use documents received for calendar year 2011 for their review. |
| February, 2013 | March, 2013 | MAG sends jurisdictions the draft 2012 General Plan and developments database for review. |











MARICOPA ASSOCIATION of GOVERNMENTS

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