



February 2017

A DISCUSSION OF THE 2040 POPULATION PROJECTIONS PRODUCED BY UNM'S GEOSPATIAL POPULATION STUDIES GROUP

In November 2016, the Geospatial and Population Studies (GPS) Group at the University of New Mexico released preliminary 2040 population projections by county.¹ GPS projections underlie the growth assumptions used by the Mid-Region Council of Governments (MRCOG) and the Metropolitan Planning Organization (MPO) for the purposes of long-range transportation planning. This paper presents the new projections and compares them with the preceding projection series (released in 2012) so that planners and other stakeholders may anticipate and respond to expected changes in the regional outlook as they relate to future demand for transportation and land use.

What do the new population projections say?

With approximately 911,000 people today, the MRCOG region represents 43 percent of New Mexico's total population. By 2040, the region is expected to encompass over 46 percent of the state's total population. Figure 1 presents the newly released preliminary 2040 population projections for the MRCOG region and the state of New Mexico.²

Figure 1: Population Estimate (2015) and Population Projection (2040), UNM-GPS

| County | 2015 Population Estimate | 2040 Population Projection (p) | Absolute Change | Percent Change |
|------------------------|--------------------------------|--------------------------------------|--------------------|----------------|
| New Mexico | 2,099,856 | 2,401,480 | 301,624 | 14.4% |
| Bernalillo | 679,810 | 799,465 | 119,655 | 17.6% |
| Sandoval | 138,928 | 213,929 | 75,001 | 54.0% |
| Torrance | 15,731 | 14,684 | -1,047 | -6.7% |
| Valencia | 76,312 | 80,655 | 4,343 | 5.7% |
| MRCOG Region | 910,781 | 1,108,733 | 197,952 | 21.7% |
| <i>Source: UNM-GPS</i> | | | | |
| <i>(p) preliminary</i> | | | | |

The MRCOG region is expected to capture nearly two-thirds of the state's growth by adding approximately 198,000 people over the next 25 years to reach 1.1 million by 2040. Among the four counties in the region, Bernalillo County will add the most people (120,000) and Sandoval County will grow the fastest (54.0 percent). Valencia County will see modest growth and Torrance County is projected to experience a slight population decline over the projection period.

¹ GPS produces county level population projections for the state using a demographic technique known as the cohort-component method. The cohort-component method bases future projections on the three components of change: births, deaths, and migration. This is accomplished by determining appropriate rates, usually based on past trends, and moving them forward in time. GPS population projections are widely utilized by state agencies such as the Department of Finance, the Department of Health, and the Office of the State Engineer. The current projection incorporates a minor revision performed in January of 2017.

² The MRCOG region includes a small portion of southern Santa Fe County that encompasses the greater Edgewood area. Since UNM-GPS does not produce sub-county projections for this area specifically, it has been excluded from this analysis.



February 2017

A DISCUSSION OF THE 2040 POPULATION PROJECTIONS PRODUCED BY UNM'S GEOSPATIAL POPULATION STUDIES GROUP

How do they compare with previous projections?

The new population projections represent a reduction in expected growth from the projection series released in 2012. Figure 2 demonstrates the difference between the two projection series.

Figure 2: A Comparison of 2040 Population Projections , UNM-GPS

| | 2040 Population Projection 2012 release | 2040 Population Projection 2016 release (<i>p</i>) | Absolute Difference | Percent Difference |
|--------------------------|---|--|------------------------|-----------------------|
| NEW MEXICO | 2,827,692 | 2,401,480 | -426,212 | -15.1% |
| Bernalillo | 970,371 | 799,465 | -170,906 | -17.6% |
| Sandoval | 265,607 | 213,929 | -51,678 | -19.5% |
| Torrance | 19,801 | 14,684 | -5,117 | -25.8% |
| Valencia | 106,830 | 80,655 | -26,175 | -24.5% |
| MRCOG Region | 1,362,609 | 1,108,733 | -253,876 | -18.6% |
| Source: UNM-GPS | | | | |
| (<i>p</i>) preliminary | | | | |

The 2040 population projection in the MRCOG region is 254,000 shy of the previous projection, or 18.6 percent lower overall. Every county is affected, with Bernalillo County demonstrating the largest numeric difference (lower by 171,000) and Torrance County exhibiting the largest percentage difference (lower by 25.8 percent).

Figure 3 illustrates the change in projected growth between 2015 and 2040 between the two projection series for the entire MRCOG region.

Figure 3: Comparison of Projected Growth in the MRCOG Region, UNM-GPS

| | 2015 | 2040 | # Growth | % Growth |
|-------------------------------------|---------|-----------|----------|----------|
| 2012 Projection Series | 974,772 | 1,362,609 | 387,837 | 40% |
| 2016 Projection Series (<i>p</i>) | 910,781 | 1,108,733 | 197,952 | 22% |
| (<i>p</i>) preliminary | | | | |

Stated in terms of overall growth, the region is now expected to gain approximately half of the growth that was previously expected over the next 25 years; 198,000 new people compared with 388,000.

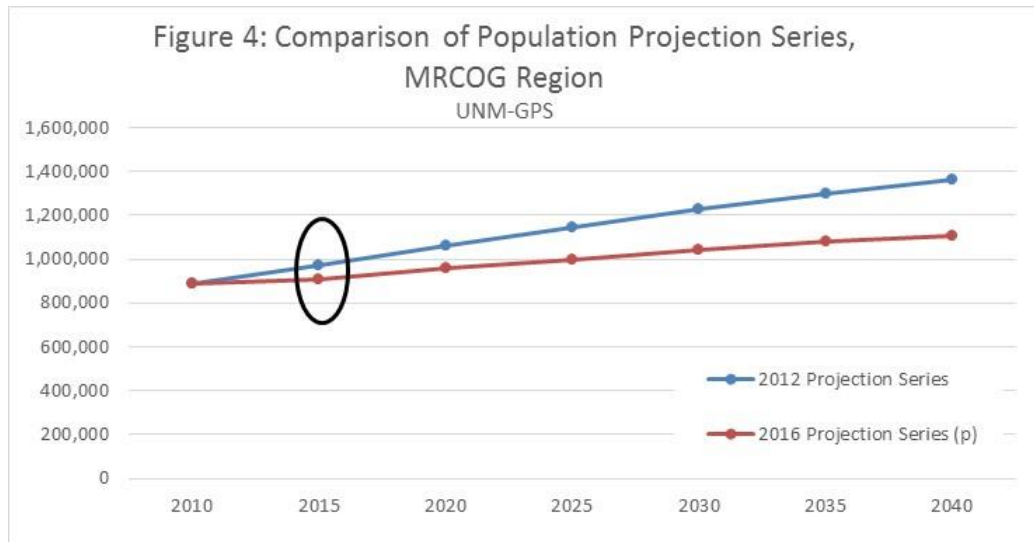
What is the reason for the difference?

The difference between the projection series rests on the availability of four additional years of information regarding the key components of population change: births, deaths and migration. Specifically, the changes that occurred between 2012 and 2016 include, 1) a declining birth rate, and 2) negative net migration. Taken together, these factors contributed to a 7 percent lower base year population estimate for 2015 than the previous estimate, which in turn contributes to a lower growth trajectory for the MRCOG region overall.



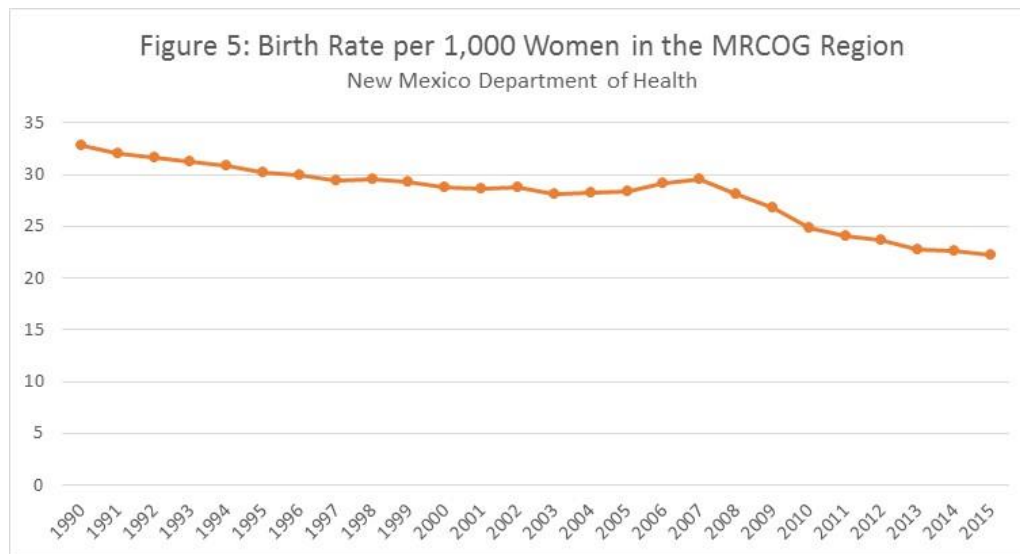
February 2017

A DISCUSSION OF THE 2040 POPULATION PROJECTIONS PRODUCED BY UNM'S GEOSPATIAL POPULATION STUDIES GROUP



Declining Birth Rate

While birth rates in general have experienced a gradual descent over time, since 2007 they began to drop faster in the MRCOG region. This trend is echoed in New Mexico and the United States.



A recession-related decrease in family formation is at least partially behind the drop in birth rates, however a reversal of this trend has not occurred as of yet. Considering that the pace of the decline has picked up over the last several years, the birth rate assumptions that underlie the 2016 projection series would be lower than the 2012 projection series, thereby contributing to lower levels of projected growth.

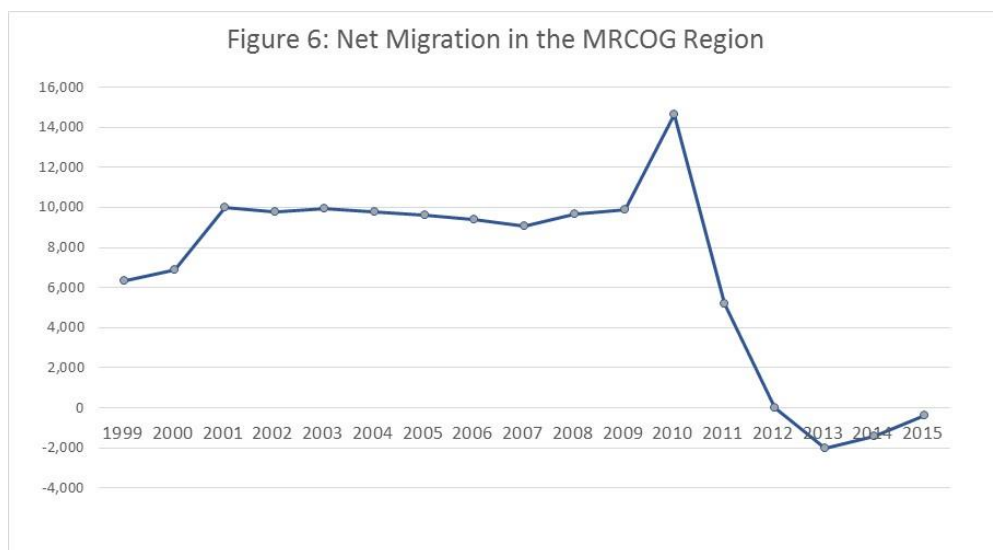


February 2017

A DISCUSSION OF THE 2040 POPULATION PROJECTIONS PRODUCED BY UNM'S GEOSPATIAL POPULATION STUDIES GROUP

Negative Net Migration

While birth and death rates are typically fairly stable over the long-term barring unforeseen economic or public health events, migration tends to be more unpredictable in nature. Even though migration has varied in magnitude over the past several decades, net migration has always amounted to a positive number both regionally and statewide. That is, more people have consistently moved into the area than out. Following the recession that ceased to be true and net migration has been negative for the past four years in the MRCOG region and in New Mexico.



While migration loss is clearly related to the depth of the recession and the subsequent lack of employment opportunities in the region, it is uncertain how quickly the region will rebound to positive levels. Figure 6 would suggest that the region's migration loss is moving back towards the positive territory but only time will reveal this for sure. It is likely that a rebound will be slow and heavily dependent on job creation and other opportunities that successfully attract newcomers to the region.

When the previous projection was released in 2012, migration had begun to slow but had not yet fallen into negative territory. It is certain that four years of negative net migration has had an impact on the assumptions that underlie the new projections, and as such is a significant factor towards explaining why this projection series is much lower than the previous one.

What does this mean for the Metropolitan Transportation Plan?

Through a cooperative process among its local jurisdictions, the MPO is required by federal law to facilitate the development of a long-range metropolitan transportation plan (MTP). The MTP is responsible for the allocation of future federal transportation dollars based on projected needs.



February 2017

A DISCUSSION OF THE 2040 POPULATION PROJECTIONS PRODUCED BY UNM'S GEOSPATIAL POPULATION STUDIES GROUP

Investment decisions are guided by future travel demand forecasts which are based on MRCOG's population and employment projections. MRCOG has historically used GPS's projections as the regional control targets for the future population total.

The projection that underlies the approved 2040 MTP will continue to serve as MRCOG's "official" projection until a new MTP is approved in the spring of 2020. In addition, the goals and objectives on which the 2040 MTP is based remain unchanged. The plan that replaces the 2040 MTP will use the finalized projection series from GPS as the new population projection for the MRCOG region.



The population projection that underlies the MTP is critical to establishing future year transportation conditions and anticipating mobility needs and priorities. A reduction in growth as anticipated by the new population projections will have implications for future infrastructure needs. Simply put, less growth translates into diminished demand for new housing and jobs, fewer drivers, less goods movement, lower region-wide congestion, and a reduction in the overall demand for new infrastructure. While this broad statement applies at a regional-scale, the MTP process itself will be necessary in order to investigate the potential transportation impacts as they relate to smaller geographies within the region as well as various modes of transportation.

Which numbers should local planners use?

Federal law requires that metropolitan transportation plans be updated every four to five years in order to incorporate the most recent data and planning assumptions. This timeline is reasonable for long-range regional planning, however, it can pose a challenge to local agencies that strive to make project-level decisions based on current information. When the preliminary projections from GPS are finalized, local officials, planners, and engineers may choose to use the new numbers in their planning processes rather than relying on the population projections from the 2040 MTP. However, if a project is seeking federal funding, it must demonstrate compliance and consistency with the approved MTP. Outside of projects that require federal funding, the determination of whether or not to integrate the new numbers into local planning processes and project design remains at the discretion of the individual entities and governing bodies.