

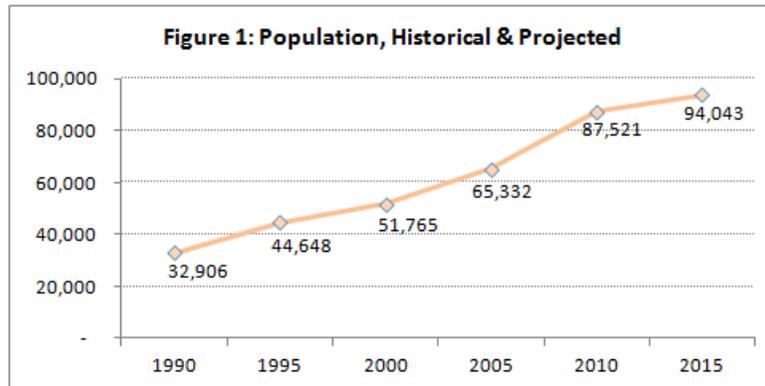
# City of Rio Rancho 2015 Population Projection

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The Mid-Region Council of Governments (MRCOG) was requested by the City of Rio Rancho to provide a 2015 population projection for the municipality. As a result, MRCOG has produced a short range projection that incorporates current economic conditions which include significant declines in employment, housing construction, and migration. Data sources that informed this effort include the US Census Bureau's population data, City of Rio Rancho's new residential starts, New Mexico Department of Health's births and deaths data, Internal Revenue Service's County-to-County Migration Flows, Bureau of Business and Economic Research's FOR-UNM quarterly economic forecast, and the Department of Workforce Solutions 2018 Employment Projections.

The population projection for the City of Rio Rancho for July 1, 2015 is 94,043. This represents a growth of 6,522 over the April 1, 2010 census count of 87,521. The projection was determined using two demographic techniques: a housing unit method and the components of change method.



## **Housing Unit Method**

The housing unit method is a common method used for estimating population when the number of new residential permits is known. It applies the following formula:

$$2010 \text{ Population} + ((\text{Residential New Starts} * 2010 \text{ Vacancy Rate}) * 2010 \text{ Persons per Household}) \\ = 2015 \text{ Population}$$

As a population projection method, this calculation relies on a reasonable projection for new housing starts. Three scenarios were created based on separate assumptions about the housing market.

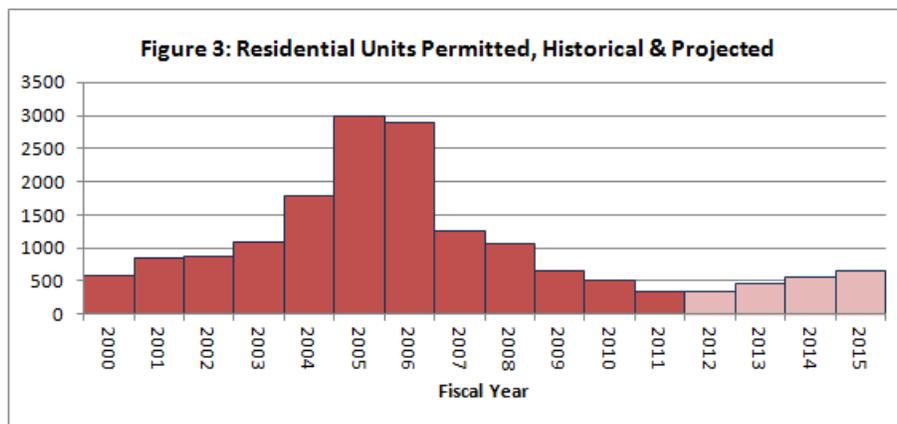
Scenario A assumes that the current level of new starts for FY 2011, which is the lowest it has been for well over two decades, will hold constant to 2015. Scenario B assumes that the number of new starts will rebound gradually back up to FY 2009 levels by 2015. Scenario C assumes the housing industry will

recover quickly and return to issuing the average number of annual new starts over the decade, removing the boom years of 2005 and 2006 from the calculation. The results of these scenarios are shown in Figure 2.

**Figure 2: Housing Unit Method, Population Projections**

SCENARIO		2015 Projection	<i>Avg. Annual Growth Rate</i>
A.	Continued Slump	92,519	1.12
B.	Gradual Rebound	93,924	1.42
C.	Full Recovery	96,385	1.95

Scenario B is the preferred scenario. It rests on the belief that employment will return to 2008 levels by late 2015 (*UNM-BBER, FOR-UNM Bulletin, Fall 2011*) and that the housing market will recover in a manner similar to employment. This scenario assumes that people have delayed home-buying for economic reasons generating a certain amount of pent-up demand for new housing. The premise is that with an increase in employment, this segment of the population will gain the confidence to enter the housing market. Figure 3 shows the historical trend of new starts and the projection forward through 2015 reflected in Scenario B.



While housing growth usually accompanies population growth, the two may diverge. For example, an increase in foreclosures may accommodate a segment of would-be new homebuyers, which may result in less construction of new homes. In addition, an increase in household size will also slow housing growth while the population continues to grow. Examples include increasingly aging seniors that are moving in with children, or young adults who may be unemployed and therefore delay moving away from home or move back in with their parents. In short, while housing permits are a key indicator of growth, they should be viewed with these caveats in mind. Figure 4 shows the housing unit projection that corresponds to each scenario.

**Figure 4: Housing Unit Method, Housing Unit Projections**

SCENARIO		April 1, 2010	July 1, 2015	New Units	Percent Change
A.	Continued Slump	33,964	35,908	1,944	5.7%
B.	Gradual Rebound	33,964	36,106	2,142	6.3%
C.	Full Recovery	33,964	37,063	3,099	9.1%

### **Components of Change Method**

A second demographic technique often used for estimating population considers the primary components of population change to project growth; births, deaths and migration. The equation is as follows:

$$\begin{aligned} &2010 \text{ Population} + ((\text{Births} - \text{Deaths}) + (\text{In-migration} - \text{Out-migration})) \\ &= 2015 \text{ Population} \end{aligned}$$

When using this method to project population the components are unknown, therefore the key is to incorporate informed assumptions about births, deaths and migration.

Natural increase (births minus deaths) is less volatile than migration as births and death rates tend to change slowly over time. This projection was performed simply by taking the net number of births over deaths for the last years of available data and bringing the same levels forward to 2015. Because births and deaths are only available at the county level, 67 percent of the births and deaths were allocated to Rio Rancho as it comprises 67 percent of the greater county population.

The migration portion of the equation was more of a challenge. More than any other county in New Mexico, Sandoval County has relied on migration as a key component of growth, both from inside and outside of the state. It is estimated that 83 percent of Sandoval County's growth over the past decade was due to migration, contributing to its status as the fastest growing county in the state. However, both nationally and regionally there has been a significant decline in mobility related to the economy. In the short term, this will have an impact on Rio Rancho's ability to sustain its historical levels of growth.

The migration assumptions resulted in the creation of three different scenarios. Scenario A assumes zero net migration and that natural increase will be the only cause of growth. Scenario B assumes that migration will return to pre-boom levels, accounting for 76 percent of Rio Rancho's growth between 2010 and 2015. Scenario C treats the former scenarios as extremes and averages the two projections. The results are in figure 5.

**Figure 5: Components of Change, Population Projections**

SCENARIO		2015 Projection	<i>Avg. Annual Growth Rate</i>
A.	No Migration	90,405	0.65
B.	Typical Migration	97,918	2.27
C.	Moderate Migration	94,162	1.47

Scenario C is the preferred scenario for several reasons. Zero migration is highly unlikely given Rio Rancho's job growth, specifically in key industries such as healthcare and education, the strong reputation of its school system, and the historical inflow from neighboring counties, Bernalillo County in particular. While migration may have slowed dramatically, it is unlikely to grind to a halt. However, given the depth of the recession and its profound impact on the housing industry, it is also not likely that migration will rebound to pre-boom levels by 2015. The average of the two provides a reasonable middle ground, reflecting continued migration but at a slower pace than the City has experienced at least over the past two decades.

**Summary**

The preferred scenarios that result from each method produce similar projections that differ by less than 1 percent. They are shown below in Figure 6. When averaged they produce a July 1, 2015 population projection of 94,043 for the City of Rio Rancho.

**Figure 6: Scenario Results and Population Projection**

	2015 Projection
Preferred Scenario: Housing Unit Method	93,924
Preferred Scenario: Components of Change Method	94,162
<b>City of Rio Rancho</b>	<b>94,043</b>

This combined approach to projecting Rio Rancho’s population incorporates the status of the housing market, recent employment projections, and the reduction in migration activity. The result is a growth projection that is slower than any 5-year period in Rio Rancho’s history, with an average annual growth rate of 1.45.

