Date: October 14, 2014

To: Board of County Commissioners

From: Robert Griego, Planning Manager

Via: Katherine Miller, County Manager
Penny Ellis-Green, Growth Management Director
Adam Leigland, Public Works Director

Re: Presentation on updated Population and Employment Forecasts for Santa Fe County

Discussion

Santa Fe County contracted with UNM Regents to conduct a land use assessment to include Employment Forecasts and Population Forecasts for Santa Fe County. The reports will update the Growth Trends and Growth Projections report completed as part of the Sustainable Growth Management Plan (SGMP) which was initiated prior to the recession. The updated forecasts will be part of the County Land Use Assumptions.

UNM's Geospatial and Population Studies (GPS) and Bureau of Business and Economic Research (BBER) provided forecasts for Santa Fe County population and employment through 2030. The forecasts were completed Countywide and for the following geographies:

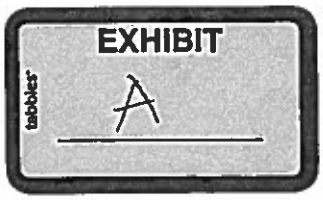
- Land Use Regulatory Jurisdiction
- Land Use Regulatory Jurisdiction by Growth Management Area
- Sustainable Development Areas
- Utility Service Area

Recommendation

This is a presentation only and no action is required.

Attachments

Attachment A:	Bureau of Business and Economic Research Report
Attachment B:	Geospatial and Population Studies Report
Attachment C:	Presentation of Employment Projections
Attachment D:	Presentation of Growth Projections



Population Estimates and Forecasts for:

Growth Management Areas, Sustainable Development Areas, and the Water/Wastewater Service Area

County of Santa Fe

1990-2030

Geospatial and Population Studies

The University of New Mexico

October 6, 2014

Correspondence to:

Jack Baker, PhD
Senior Research Scientist
kali@unm.edu
(505) 277-2216

Acknowledgments:

This report was greatly enhanced by a number of contributors—both direct and indirect—whose assistance merits my expression of gratitude. Special thanks goes to Mr. Robert Griego for coordinating the project and answering my many questions about the scope and purpose of how these data would be used as well as for many thoughtful substantive comments on draft forecasts. County staff including Steve Brugger (Affordable Housing) and David Griscom (Economic Development) are much appreciated for their inputs on housing market dynamics and economic development within the County. Mr. Tim Cannon deserves a special acknowledgement for his generosity. His GIS expertise and willingness to share data and thoughts—both spatial and not—greatly improved the final product. Likewise, Mr. Reed Liming, Director of the City of Santa Fe's Long Term Planning Division, deserves a special thanks for generously donating many hours over the course of the last few months to help out a County project. His cheerful willingness to input his thoughts about the last 30 years of demographic and economic history in both the City and County of Santa Fe has improved not only this report, but also the revised set of county-level projections that grew out of this work.

Kay Davis-McGill, Administrator for the Town of Edgewood, deserves a special thanks for sharing an afternoon out of her busy schedule to talk with us about some exciting upcoming developments in that community.

Mr. Daren Ruiz, Research Scientist at the Bureau of Business and Economic Research at UNM, is much appreciated for sharing thoughts on economic development, population, and mathematical modeling in GIS. Mr. Ruiz has been a valued colleague for nearly a decade and his contributions to this work, and to the overall work at GPS, are ongoing and highly-valued.

Likewise, support staff including Research Scientists Anirudh Kannan Vinakayaram and Robert Rhatigan are valued and appreciated. Each provided key inputs to support this project.

An ongoing methodological research program in demographic modeling and analytics, supported by the State of New Mexico and providing a funding offset for projects such as these, should always be remembered. My colleagues, Dr. Adelamar Alcantara (Director of Geospatial and Population Studies at UNM) and Mr. Xiaomin Ruan (now with Portland State University's Population Forecasting unit) started this project off and have been my partners in developing various demographic methodologies over the last decade. Their partnership continues to be highly-valued and appreciated as well.

Executive Summary of Population Projections & Forecasts

- Santa Fe County's growth is expected to slow between 2014 and 2030, most markedly between 2014 and 2020.
- Between now and 2030, the population will become more centralized within the City of Santa Fe—by 2030, over half the County's population will be within the City.
- This centralization will be driven primarily by the recent annexations of unincorporated County by the City.
- Proposed shifts in zoning regulations in unincorporated areas are anticipated to have only minor impacts on long-term trends of population distribution within the County.
- The forecast reported here is most sensitive to shifts in the Santa Fe Community College Planned Development District, which will coincide with the County's plan to focus growth into Sustainable Development Area 1.
- Population concentration within the *El Centro* Growth Management Area will be notable. By 2030 it is anticipated that this GMA will comprise approximately 2/3 of the unincorporated County population.
- While growth rates will flatten in Sustainable Development Area 2 (SDA-2) and accelerate in Sustainable Development Area 1 (SDA-1), the majority of the unincorporated County population total will continue to be found within SDA-2 across the entire forecast horizon.
- The results reported here depend on an assumption of continued slowed growth throughout the remainder of the 2010-2020 decade, followed by a return to historical growth patterns between 2020-2030.
- The results reported here depend upon an assumption that the county level population forms an appropriate control total—changes in sub-county population are share-based.
- An expert-opinion-based rate of buildout in the Santa Fe Community College Planned Development District will systematically direct growth, primarily into SDA-1 and 2, at a modest tempo consistent with county growth overall and similar historical developments.
- Trends in housing units correspond with trends in population change 2010-2030.

Supplemental Summary: A Harmonization of Population Forecasts with Employment Projections Produced by the Bureau of Business and Economic Research (BBER-UNM)

Daren Ruiz, Research Scientist, Bureau of Business and Economic Research

The Geospatial and Population Studies (GPS) and the Bureau of Business and Economic Research (BBER) expect that the population and employment of Santa Fe County will reach 165,290 and 73,464 in 2030, respectively. From 2013, population is expected to increase by 18,443 people (or 13%) while employment is expected to increase by 12,834 jobs (or 21%).

The population growth rate has been slowing and we expect to see this trend continue, with a slight reversal in the last decade of the forecast. From 1990 to 2000, population increased by 27,787 people (or 27.4%). However, from 2000 to 2010, population only increased by 15,386 (or 11.9%). From 2010 to 2020 and subsequently from 2020 to 2030, we expect population to increase by 7,364 (or 5.1%) and 13,380 (or 8.8%), respectively. **Table S1** presents Santa Fe County historical and forecasted population and employment decennially.

The employment growth rate has suffered recently because of the Great Recession. From 1990 to 2000, employment increased by 15,372 jobs (or 36.3%). However from 2000 to 2010, employment increased by only 2,867 (or 5.0%). Specifically, employment started to fall in 2007, where it peaked at 65,908 jobs. We expect that it will be 13 years later for employment to reach that previous peak, with 65,984 in 2020. From 2010 to 2020 and subsequently from 2020 to 2030, we expect employment to increase by 5,446 (or 9.0%) and 7,480 (or 11.3%).

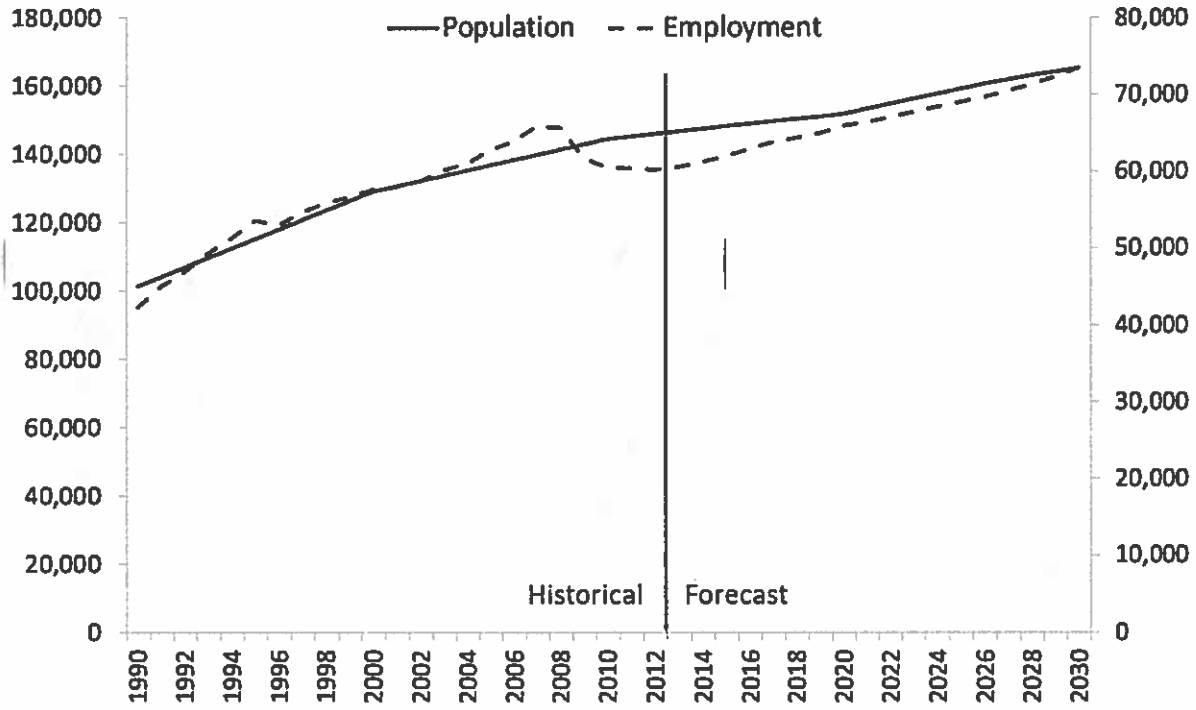
Table S1: Santa Fe County population and employment estimates and forecasts

	Population		Employment	
Year	Count	% Change	Count	% Change
1990	101,373		42,298	
2000	129,160	27.4	57,671	36.3
2010	144,546	11.9	60,538	5.0
2020	*151,910*	5.1	*65,984*	9.0
2030	*165,290*	8.8	*73,464*	11.3

Source: University of New Mexico, Geospatial Population Studies (estimate and forecast) and Bureau of Business and Economic Research (forecast), U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (estimate).

The historic trend of Santa Fe County employment and population share a similar growth path, up to the Great Recession. Immediately preceding the recession, employment grew faster than population, and then commencing with the recession, employment suffered loses. While many people lost their jobs during the recession, many of them remained in the county. We expect that employment will grow faster than population as the economy recovers. **Figure S1** displays estimated (1990-2012) and forecasted (2013-2030) population (on the left axis) and employment (on the right axis).

Figure S1: Estimated (1990-2012) and forecasted (2013-2030) population (left axis) and employment (right axis) for Santa Fe County

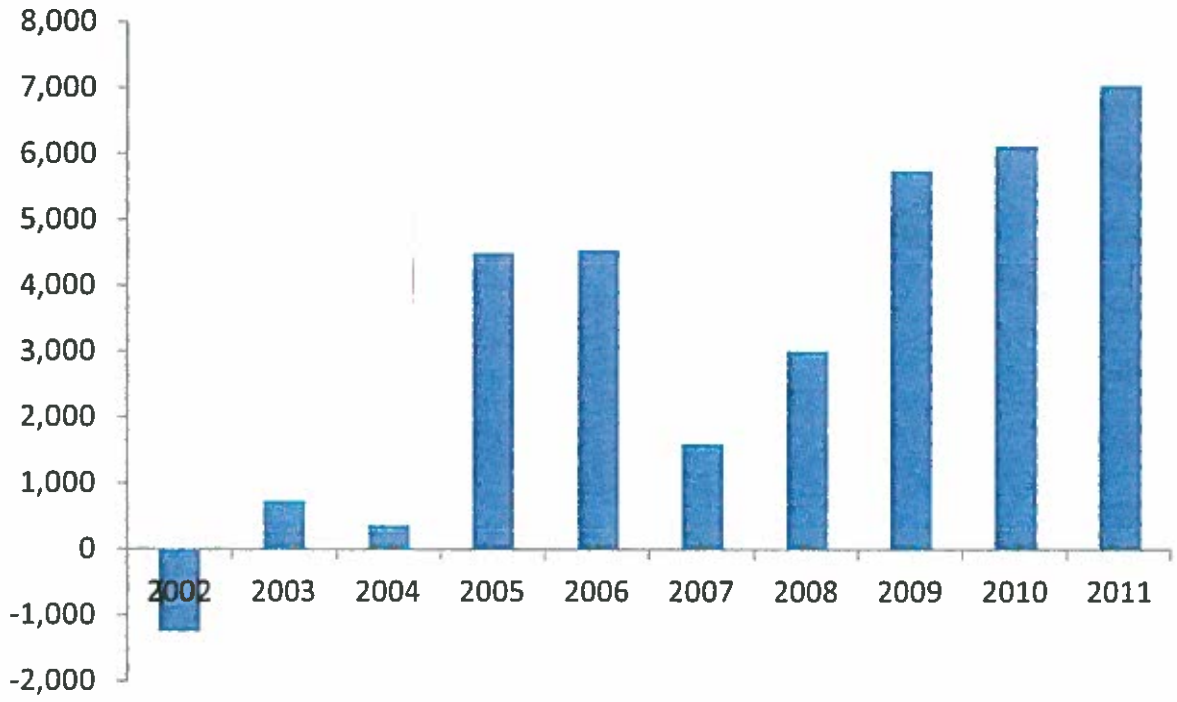


Source: University of New Mexico, Geospatial Population Studies (history and forecast) and Bureau of Business and Economic Research (forecast), U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (history).

Commuting trends have played a role in population/employment dynamics and we expect them to play a larger role in the future. Although we did not forecast the flow of commuters entering or leaving the county, the Figure S2 suggests that the net inflow will increase in the future. The net flow of workers commuting to Santa Fe County was negative in 2002, but has increased from 2003 through 2011.

Although we expect population to increase by 18,443 people and employment to increase by 12,834 jobs, we do not expect that the increase in employment will be fully filled by the increase in population.

Figure S2: Net inflow/outflow of Santa Fe County commuters



Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2012); estimates and forecasts performed by UNM BBER.

Introduction

This report was commissioned by the County of Santa Fe's Growth Management Department for planning purposes as part of the County's Land Use Assumptions. The report presents population estimates and projections/forecasts for the period 1990-2030 for the County as a whole, for portions of incorporated municipalities within the County, the unincorporated County, and for eight geographies defined by the County to assist in its Sustainable Growth Management Plan (SGMP) process.

The customized geographies include four growth management areas (GMAs), three sustainable development areas (SDAs), and one Water Wastewater Utility Service Area—an area anticipated to be the primary center of new growth during the next ten years.

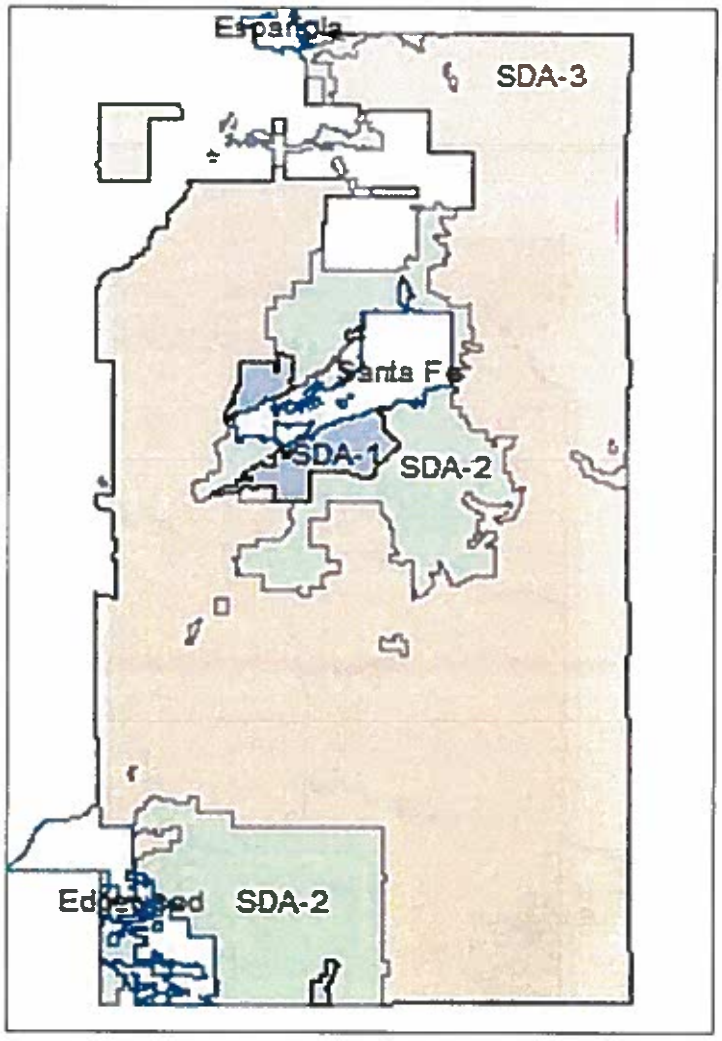
The four GMAs are defined as *El Norte, El Centro, Galisteo, and Estancia* comprise the entire area of the county, less the incorporated municipalities as one moves from North to South within the County (Map 1). The *El Norte* GMA describes the area North of

Map 1. Growth Management Areas, Santa Fe County

the City of *Santa Fe*, less Tribal Lands held in Federal Trust and those lands within the incorporated municipality of Espanola, which is split between *Santa Fe* and *Rio Arriba* counties. The *El Centro* GMA encompasses the areas West and East of the City of *Santa Fe* while the Galisteo GMA is comprised primarily of unincorporated and sparsely-populated areas of the County as one moves toward the South. The *Estancia* GMA is also sparsely populated, but includes the Santa Fe County portions around the Town of Edgewood.

The Sustainable Development Areas are numbered 1-3 (Map 2) and have been specifically identified as Service Areas for the County. They are, consequently, intended to be used to target and leverage both public and private funding and investment and direct and phase future growth into specific areas of the unincorporated County. SDA-1 identifies the primary area in which population growth is anticipated to occur in the next ten years, while SDA-2

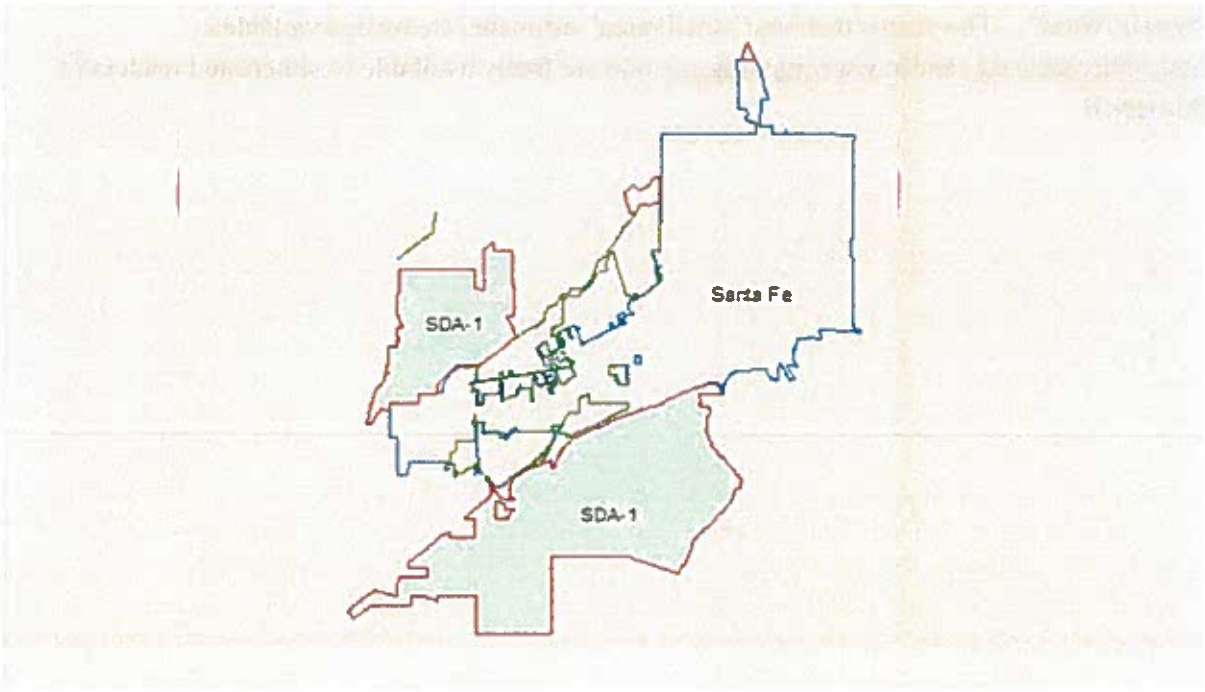
Map 2. Sustainable Development Areas Within Santa Fe County



defines areas subject to infill within existing communities over the next ten years and new development over the next twenty years. SDA-2 areas are found around the City of *Santa Fe* and the Town of Edgewood. In SDA-3 areas, no plans to provide urban or suburban facilities or services exist. These last areas are, obviously, largely within sparsely-populated areas of unincorporated *Santa Fe* County.

The Water and Wastewater Utility Service Area (WSA) is comprised of the majority of the SDA-1 Area within the *El Centro* GMA—again largely representing the primary area of anticipated growth over the next ten years. **Map 3** presents the overlap and non-intersection between the two geographies, with City of *Santa Fe* in blue, City of *Santa Fe* Annexations in green (which are mostly accomplished), SDA-1 in red, and the WSA in green shade.

Map 3. Water and Wastewater Utility Service Area, County of Santa Fe



Within this geographic context, the current report presents population estimates and projections for the 1990-2030 period. All estimates and projections are presented in the most current geographic boundaries. Any annexations occurring between 2009 and 2018 (most of these have occurred) by the City of *Santa Fe* are represented in both estimates and projections, meaning that values reported here are *presented as if the post-annexation boundaries had existed since 1990*. To ensure the accuracy of estimates and projections for the unincorporated County that form the control total for all those presented for sub-areas (GMAs, SDAs, and the WSA), separate estimates and projections were made for the City of *Santa Fe*, the City of *Espanola*, the Town of Edgewood, and Tribal areas within the County.

The estimates and forecasts presented here are described independently, as well as being collated in Appendix 1. The same is true for housing units: while these are presented for each of the geographies independently within the report, Appendix 2 collates forecasted housing unit counts. Appendix 3 presents details of the methodology utilized in this study. All estimates and projections make use of decennial census data from 1990, 2000, and 2010 as well as various forms of microdata utilized by the Geospatial and Population Studies group for making demographic estimates and projections for small-areas (census tracts and Department of Health "Small Areas"). The census tract and "small area" estimates are made available at http://bber.unm.edu and at www.nm.ibis.gov and are freely available for interested readers of this report.

1. Santa Fe County, Unincorporated County, Municipalities, and Tribal Areas

Table 1. Population Estimates and Forecasts, 1990-2030

Year	County	City of Santa Fe	Town of Edgewood	City of Espanola	Tribal Lands	Unincorporated County
1990	101,373	63,819	1,655	1,987	2,975	30,937
1991	104,152	65,148	1,776	2,051	2,997	32,180
1992	106,931	66,505	1,906	2,117	3,019	33,384
1993	109,710	67,890	2,045	2,185	3,041	34,549
1994	112,488	69,303	2,195	2,255	3,063	35,672
1995	115,266	70,747	2,355	2,327	3,085	36,752
1996	118,045	72,220	2,528	2,402	3,107	37,788
1997	120,823	73,724	2,712	2,479	3,130	38,778
1998	123,603	75,259	2,911	2,559	3,153	39,721
1999	126,382	76,826	3,124	2,641	3,176	40,615
2000	129,160	78,426	3,352	2,726	3,199	41,457
2001	130,699	78,755	3,386	2,776	3,223	42,559
2002	132,237	79,085	3,421	2,827	3,247	43,657
2003	133,774	79,416	3,456	2,878	3,271	44,753
2004	135,315	79,749	3,492	2,931	3,296	45,847
2005	136,853	80,083	3,527	2,985	3,321	46,937
2006	138,392	80,419	3,564	3,039	3,346	48,024
2007	139,930	80,756	3,600	3,095	3,371	49,108
2008	141,470	81,095	3,637	3,152	3,396	50,190
2009	143,007	81,435	3,674	3,209	3,421	51,268
2010	144,546	81,776	3,742	3,268	3,447	52,313
2011	*145,309*	*81,776*	*3,750*	*3,307*	*3,452*	*53,024*
2012	*146,077*	*82,463*	*3,789*	*3,347*	*3,457*	*53,021*
2013	*146,846*	*82,809*	*3,827*	*3,386*	*3,461*	*53,363*
2014	*147,622*	*83,156*	*4,348*	*3,426*	*3,466*	*53,226*
2015	*148,402*	*83,504*	*4,898*	*3,467*	*3,471*	*53,062*
2016	*149,094*	*83,854*	*5,453*	*3,505*	*3,473*	*52,809*
2017	*149,790*	*84,206*	*5,509*	*3,544*	*3,476*	*53,055*
2018	*150,484*	*84,559*	*5,566*	*3,583*	*3,478*	*53,298*
2019	*151,172*	*84,913*	*5,623*	*3,622*	*3,480*	*53,534*
2020	*151,910*	*85,269*	*5,680*	*3,663*	*3,483*	*53,815*
2021	*153,447*	*85,627*	*5,739*	*3,723*	*3,504*	*54,854*
2022	*154,876*	*85,985*	*5,797*	*3,781*	*3,522*	*55,791*

2023	*156,323*	*86,346*	*5,857*	*3,840*	*3,541*	*56,739*
2024	*157,781*	*86,708*	*5,917*	*3,899*	*3,559*	*57,698*
2025	*159,257*	*87,071*	*5,978*	*3,960*	*3,578*	*58,670*
2026	*160,751*	*87,436*	*6,039*	*4,021*	*3,597*	*59,658*
2027	*161,914*	*87,803*	*6,101*	*4,074*	*3,608*	*60,328*
2028	*163,226*	*88,171*	*6,163*	*4,132*	*3,622*	*61,138*
2029	*164,246*	*88,540*	*6,227*	*4,182*	*3,629*	*61,668*
2030	*165,289*	*88,911*	*6,290*	*4,234*	*3,637*	*62,217*

Table 1 reports population estimates and forecasts for the County as a whole, for the municipalities of *Santa Fe, Espanola*, and Edgewood, for Tribal Lands, and for the sum remainder unincorporated County. These account for existing or proposed annexations by the City of *Santa Fe*, occurring between 2009 and 2018. The striking overall trend is the increasing consolidation of the County's population within the City of *Santa Fe*, with the annexations being the primary driver of this trend.

Growth is anticipated to slow overall within the County and is apparent within all of the sub-county geographies. **Charts 1 and 2** (next page) present these trends graphically. This flattening growth is apparent in all geographies, even in the Town of Edgewood whose forecast is here step-jumped in view of current development of the Google/Titan Aerospace facility in Moriarty. The majority of the residential housing development associated with this employment boost is anticipated to occur in Edgewood. In the forecasts presented here, a supplementary increase of 1,250 persons between 2014 and 2020 is included, with a return to historical growth levels beyond 2020.

Between 1990 and 2010, the County (**Table 1**) as a whole grew by over 42.58 percent (2.13 percent per year); the diminished anticipated growth is reflected in an increase of only 14.35 percent over the forecast period (.0072 percent per year). The unincorporated County areas during the historical period (1990-2010) grew at a slightly faster rate (69.10 percent overall or 3.46 percent per year), but in a numeric sense this growth was swamped by the momentum provided by the larger City area. It should be remembered that much of the City of Santa Fe growth was actually in the unincorporated County during this historical period, only recently being annexed. Over the forecast period, the unincorporated County is also anticipated to slow its growth, to only 17.34 percent between 2010 and 2030 (.009 percent per year). Growth in Tribal areas is slower than the County overall in both periods. These geographies grew by only 15.87 percent between 1990 and 2010 (.008 per year), at a rate similar to the unincorporated County areas. During the projection period, their growth is anticipated to slow even more relative to the unincorporated County as well as the County as a whole. Between 2010 and 2030, it is anticipated that these areas will grow at a rate of only .003 percent per annum, resulting in a numeric increase of only 5.5 percent between 2010 and 2030.

Smaller incorporated areas of Edgewood and Espanola (*Santa Fe* County) have

Chart 1. Population Growth (1990-2030) for Santa Fe County and the City of Santa Fe

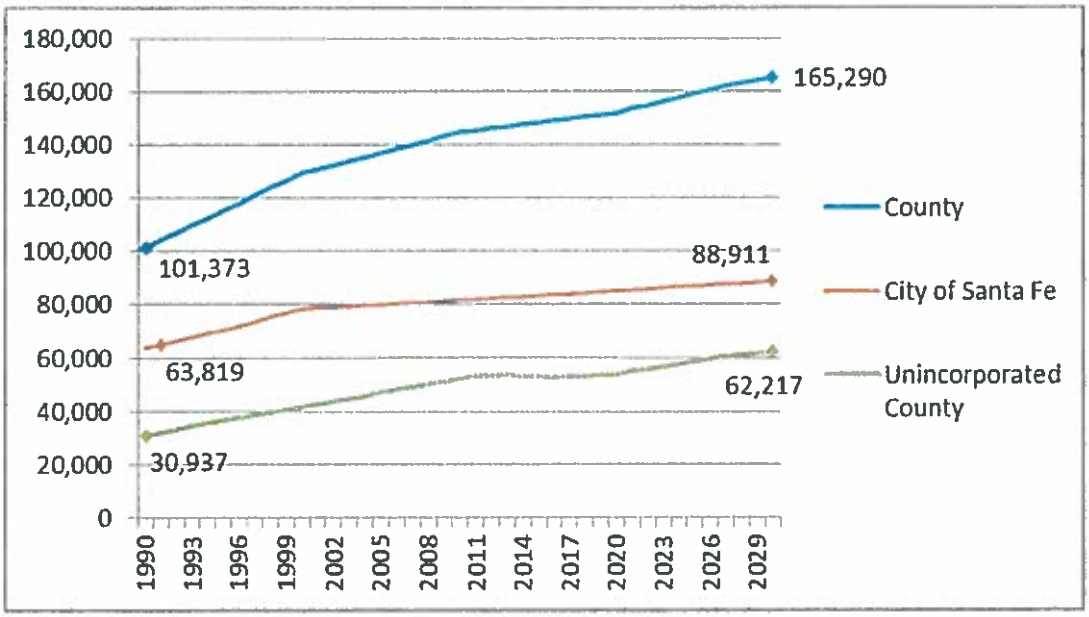
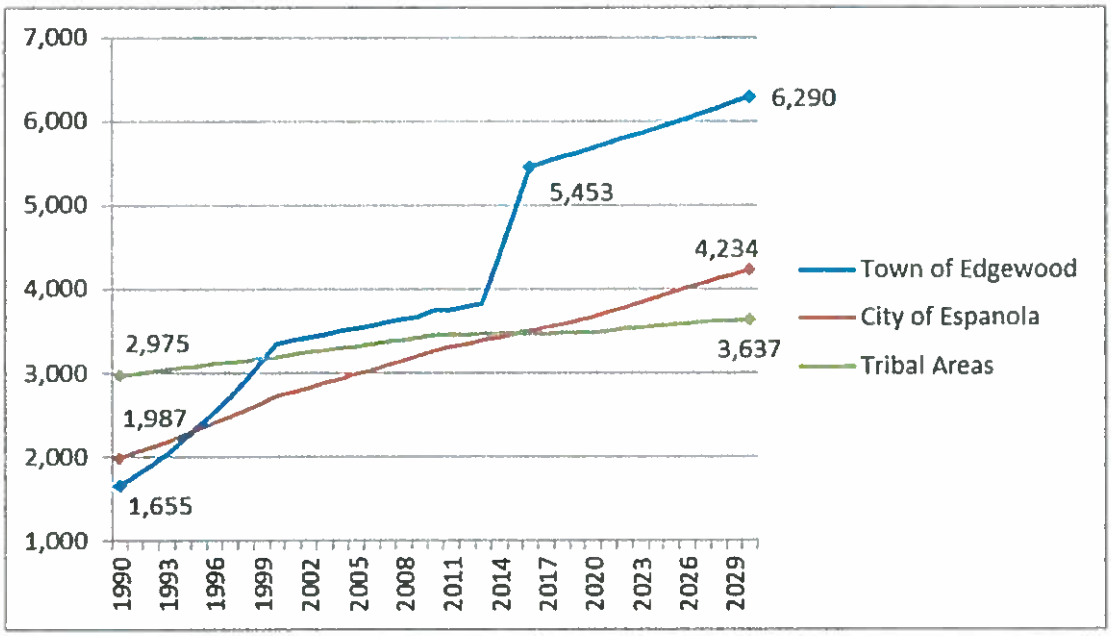


Chart 2. Population Growth (1990-2030) for Smaller Municipalities and Tribal Areas



grown rapidly in the 1990-2010 period and although their growth is anticipated to slow in the forecast period as well, they will continue to grow somewhat more rapidly than the whole County, the City of Santa Fe, or unincorporated areas of the County. The Town of Edgewood's 1990-2010 growth has seen an over doubling (126 percent increase) of their population (6.3 percent per year), though this has slowed somewhat between 2000 and 2010 when compared to the 1990-2000 period. Over the forecast period, it is anticipated that they will grow by an additional 68.1 percent or at a rate of 3.41 percent per year. The City of Espanola's segment within Santa Fe County will also grow rapidly, 29.56 percent over the 2010-2030 period (at a rate of 1.5 percent per year).

Table 2. Annualized Growth Rates by Decade, 1990-2030

Year	County	City of Santa Fe	City of Espanola	Town of Edgewood	Tribal Lands	Unincorporated County
1990 to 2000	0.0242	0.0206	0.0316	0.0706	0.0073	0.0293
2000 to 2010	0.0113	0.0042	0.0181	0.0110	0.0075	0.0233
2010 to 2020	0.0050	0.0042	0.0114	0.0417	0.0010	0.0028
2020 to 2030	0.0084	0.0042	0.0145	0.0102	0.0043	0.0145

Table 3. Forecasted Housing Units, 1990-2030

Year	County	City of Santa Fe	Town of Edgewood	City of Española	Tribal Areas	Unincorporated County
2010	**71,285**	**42,600**	**1,552**	**1,420**	**1,417**	**24,296**
2011	*71,661*	*42,795*	*1,560*	*1,428*	*1,424*	*24,454*
2012	*72,040*	*43,108*	*1,576*	*1,445*	*1,426*	*24,484*
2013	*72,420*	*43,265*	*1,593*	*1,462*	*1,428*	*24,672*
2014	*72,802*	*43,423*	*1,809*	*1,479*	*1,430*	*24,661*
2015	*73,186*	*43,582*	*2,038*	*1,497*	*1,432*	*24,638*
2016	*73,529*	*43,741*	*2,269*	*1,513*	*1,433*	*24,573*
2017	*73,871*	*43,901*	*2,292*	*1,530*	*1,434*	*24,714*
2018	*74,213*	*44,061*	*2,316*	*1,547*	*1,435*	*24,854*
2019	*74,553*	*44,222*	*2,340*	*1,564*	*1,436*	*24,991*
2020	*74,917*	*44,384*	*2,364*	*1,581*	*1,437*	*25,151*
2021	*75,674*	*44,547*	*2,388*	*1,607*	*1,445*	*25,687*
2022	*76,380*	*44,710*	*2,412*	*1,632*	*1,453*	*26,172*
2023	*77,092*	*44,874*	*2,437*	*1,658*	*1,461*	*26,663*
2024	*77,812*	*45,039*	*2,462*	*1,684*	*1,468*	*27,160*
2025	*78,540*	*45,204*	*2,487*	*1,710*	*1,476*	*27,663*
2026	*79,277*	*45,370*	*2,513*	*1,736*	*1,484*	*28,174*
2027	*79,850*	*45,537*	*2,538*	*1,759*	*1,488*	*28,527*
2028	*80,497*	*45,704*	*2,565*	*1,784*	*1,494*	*28,950*
2029	*81,001*	*45,872*	*2,591*	*1,806*	*1,497*	*29,234*
2030	*81,515*	*46,041*	*2,617*	*1,828*	*1,501*	*29,528*

Housing unit accumulation will mirror population within the County between 2010 and 2030 (**Table 3**). During this time, the County's overall housing unit stock is anticipated to grow by 10,230 units, of which 3,441 are to be found within the City of Santa Fe. During the same period, the Town of Edgewood's housing unit stock is anticipated to grow by 1,065 units while units within the *Santa Fe* County portion of the City of Espanola and within Tribal areas will grow much more slowly—by 411 units and 84 units, respectively. The relationship between population and housing is always complex and the dynamics forecasted here suggest that for each housing unit added the county population will increase by 1.95 persons. This relationship varies across sub county geographies, however, from 2.07 in the City of Santa Fe to 2.39, 2.26, and 2.21 in the Town of Edgewood, City of Espanola, and Tribal Areas, respectively.

2. Growth Management Areas

Table 4. Population Estimates and Forecasts, 1990-2030

Year	Unincorporated County	*El Norte*	*El Centro*	*Estancia*	*Galisteo*
1990	30,937	12,694	6,939	3,478	7,826
1991	32,180	13,397	7,126	3,596	8,061
1992	33,384	14,100	7,298	3,707	8,279
1993	34,548	14,801	7,455	3,811	8,481
1994	35,672	15,499	7,597	3,909	8,667
1995	36,752	16,193	7,723	4,000	8,836
1996	37,788	16,880	7,834	4,085	8,989
1997	38,778	17,560	7,930	4,162	9,126
1998	39,721	18,231	8,011	4,233	9,246
1999	40,615	18,891	8,078	4,296	9,350
2000	41,457	19,538	8,130	4,352	9,437
2001	42,559	20,320	8,227	4,434	9,578
2002	43,658	21,114	8,319	4,513	9,712
2003	44,753	21,920	8,404	4,589	9,840
2004	45,846	22,739	8,483	4,663	9,961
2005	46,937	23,570	8,556	4,735	10,076
2006	48,024	24,413	8,624	4,803	10,184
2007	49,109	25,267	8,685	4,870	10,287
2008	50,189	26,133	8,741	4,933	10,382
2009	51,267	27,010	8,791	4,994	10,472
2010	52,313	27,882	8,831	5,050	10,550
2011	*53,024*	*28,664*	*8,762*	*5,085*	*10,513*
2012	*53,022*	*29,058*	*8,577*	*5,051*	*10,336*
2013	*53,364*	*29,548*	*8,482*	*5,069*	*10,265*
2014	*53,225*	*29,768*	*8,312*	*5,041*	*10,104*
2015	*53,062*	*29,968*	*8,142*	*5,011*	*9,941*
2016	*52,809*	*30,114*	*7,961*	*4,972*	*9,762*
2017	*53,054*	*30,544*	*7,856*	*4,979*	*9,675*
2018	*53,299*	*30,976*	*7,751*	*4,985*	*9,587*
2019	*53,534*	*31,407*	*7,643*	*4,989*	*9,495*
2020	*53,815*	*32,022*	*7,578*	*4,760*	*9,455*
2021	*54,854*	*32,978*	*7,566*	*4,812*	*9,498*
2022	*55,792*	*33,894*	*7,538*	*4,839*	*9,521*
2023	*56,739*	*34,828*	*7,507*	*4,864*	*9,540*

2024	*57,699*	*35,780*	*7,474*	*4,888*	*9,557*
2025	*58,669*	*36,751*	*7,438*	*4,910*	*9,570*
2026	*59,658*	*37,742*	*7,402*	*4,932*	*9,582*
2027	*60,327*	*38,540*	*7,323*	*4,925*	*9,539*
2028	*61,138*	*39,435*	*7,260*	*4,929*	*9,514*
2029	*61,668*	*40,154*	*7,162*	*4,908*	*9,444*
2030	*62,217*	*40,796*	*7,050*	*5,018*	*9,353*

Growth within the unincorporated areas of Santa Fe County around the City of *Santa Fe* has largely driven growth toward the El Centro GMA during the 1990-2010 historical period. This increasing concentration should continue in the forecast period (2010-2030). While *El Norte*, *Estancia,* and *Galisteo* GMAs have also grown rapidly, the *El Centro* GMA has over doubled in size between 1990 and 2010. In numeric terms, this meant an increase from 12,694 persons in 1990 to 27,882 persons in 2010 (**Table 4**). Moving forward, this momentum will continue, with an additional 13,000 persons being added to this GMA—at the expense of other GMAs. Beyond 2010, the *El Norte, Galisteo,* and *Estancia* GMAs are anticipated to either stabilize (*Estancia*) or slightly decline over the remainder of the forecast horizon to 2030.

This concentration of population within the *El Centro* GMA is reflected in the fact that between 1990 and 2010, the GMA grew by over 100 percent (119.66 percent)—at an annual rate of 5.98 percent. In comparison, *El Norte*, *Estancia,* and *Galisteo* GMAs grew by 27.26, 45.21, and 34.80 percent respectively, at corresponding annual rates of 1.36, 2.26, and 1.74 percent. The most rapidly growing of the remaining GMAs, *Estancia*, grew by not half of the growth rate observed in the *El Centro* GMA. Though slowing, these patterns carry forward into the population forecasts (**Table 2**), with the *El Centro* GMA forecasted to grow by an additional 46.32 percent (2.32 percent per year) by 2030. The *El Norte*, *Estancia*, and *Galisteo* GMAs, in contrast will decrease by 21.17 percent (*El Norte*), 11.4 percent (*Galisteo*), and less than 1.0 percent (*Estancia*). This overall trend largely reflects an intensity of population movement into the area around the City of Santa Fe. The forecasts assume that this will reflect a movement of people within the County into the *El Centro* GMA over the 2010-2030 period, rather than an influx of persons from outside the County into this area.

Housing unit loss is predicted for three of the four GMAs: El Norte, Estancia, and Galisteo (Table 6, p. 19). Between 2010 and 2030, 6,200 units are predicted to be added to the stock of the *El Norte* GMA, with an associated population gain of 1.96 persons per housing unit.

Chart 3. Population Growth (1990-2030), by Growth Management Area

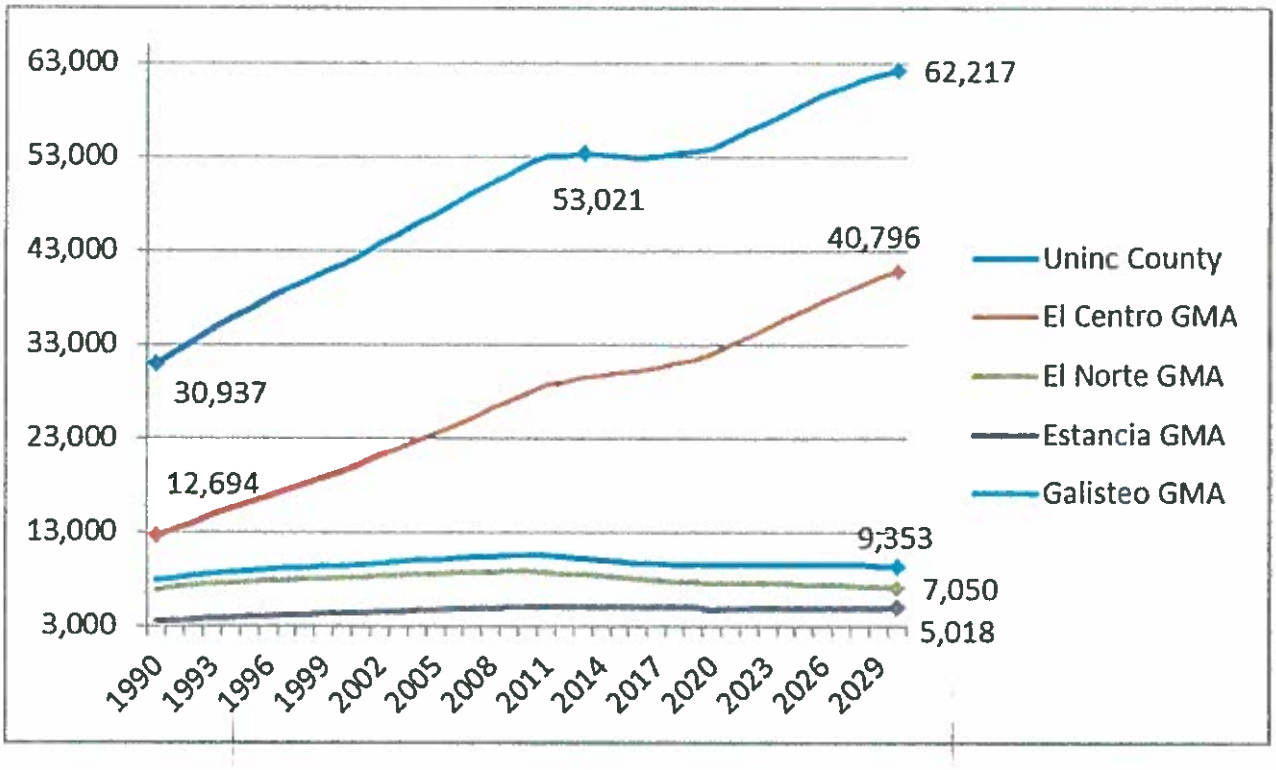


Table 5. Annualized Growth Rate by Decade, 1990-2030

Year	Unincorporated County	El Norte	El Centro	Galisteo	Estancia
1990 to 2000	0.0293	0.0158	0.0431	0.0187	0.0224
2000 to 2010	0.0233	0.0083	0.0356	0.0111	0.0149
2010 to 2020	0.0028	-0.0153	0.0138	-0.0110	-0.0059
2020 to 2030	0.0145	-0.0072	0.0242	-0.0011	0.0053

Table 6. Forecasted Housing Unit Changes, 1990-2030

Year	*El Centro*	*El Norte*	*Galisteo*	*Estancia*	Unincorporated County
2010	**12,103**	**4,671**	**2,127**	**5,395**	**24,296**
2011	*12,181*	*4,702*	*2,141*	*5,430*	*24,454*
2012	*12,260*	*4,699*	*2,144*	*5,381*	*24,484*
2013	*12,568*	*4,661*	*2,136*	*5,307*	*24,672*
2014	*12,660*	*4,654*	*2,124*	*5,223*	*24,661*
2015	*12,751*	*4,634*	*2,113*	*5,141*	*24,638*
2016	*12,812*	*4,617*	*2,096*	*5,048*	*24,573*
2017	*12,997*	*4,614*	*2,099*	*5,004*	*24,714*
2018	*13,185*	*4,608*	*2,102*	*4,959*	*24,854*
2019	*13,370*	*4,604*	*2,104*	*4,913*	*24,991*
2020	*13,642*	*4,604*	*2,009*	*4,896*	*25,151*
2021	*14,094*	*4,622*	*2,037*	*4,934*	*25,687*
2022	*14,524*	*4,635*	*2,054*	*4,958*	*26,172*
2023	*14,962*	*4,649*	*2,070*	*4,981*	*26,663*
2024	*15,410*	*4,662*	*2,086*	*5,002*	*27,160*
2025	*15,866*	*4,675*	*2,100*	*5,022*	*27,663*
2026	*16,333*	*4,687*	*2,115*	*5,040*	*28,174*
2027	*16,699*	*4,691*	*2,114*	*5,023*	*28,527*
2028	*17,114*	*4,698*	*2,119*	*5,019*	*28,950*
2029	*17,439*	*4,698*	*2,112*	*4,985*	*29,234*
2030	*17,730*	*4,697*	*2,161*	*4,940*	*29,528*

3. Sustainable Development Areas

Table 7. Population Estimates and Forecasts, 1990-2030

Year	Unincorporated County	SDA-1	SDA-2	SDA-3
1990	30,937	3,326	22,280	5,331
1991	32,180	3,310	23,496	5,374
1992	33,384	3,289	24,688	5,408
1993	34,548	3,263	25,851	5,435
1994	35,672	3,232	26,986	5,454
1995	36,752	3,197	28,088	5,467
1996	37,788	3,159	29,157	5,473
1997	38,778	3,117	30,189	5,473
1998	39,721	3,071	31,183	5,467
1999	40,615	3,023	32,136	5,455
2000	41,457	2,972	33,047	5,438
2001	42,559	3,278	33,761	5,520
2002	43,658	3,584	34,473	5,601
2003	44,753	3,889	35,182	5,682
2004	45,846	4,195	35,888	5,763
2005	46,937	4,500	36,593	5,844
2006	48,024	4,805	37,295	5,924
2007	49,109	5,110	37,995	6,003
2008	50,189	5,414	38,693	6,083
2009	51,267	5,718	39,388	6,162
2010	52,313	6,018	40,058	6,237
2011	*53,024*	*6,330*	*40,436*	*6,258*
2012	*53,022*	*6,560*	*40,267*	*6,194*
2013	*53,364*	*6,833*	*40,359*	*6,171*
2014	*53,225*	*7,046*	*40,088*	*6,091*
2015	*53,062*	*7,255*	*39,798*	*6,009*
2016	*52,809*	*7,449*	*39,443*	*5,917*
2017	*53,054*	*7,714*	*39,460*	*5,882*
2018	*53,299*	*7,980*	*39,473*	*5,845*
2019	*53,534*	*8,248*	*39,480*	*5,807*
2020	*53,815*	*8,524*	*39,518*	*5,773*
2021	*54,854*	*8,927*	*40,108*	*5,819*
2022	*55,792*	*9,321*	*40,618*	*5,852*
2023	*56,739*	*9,725*	*41,130*	*5,883*
2024	*57,699*	*10,140*	*41,644*	*5,914*

2025	*58,669*	*10,565*	*42,162*	*5,943*
2026	*59,658*	*11,002*	*42,684*	*5,972*
2027	*60,327*	*11,387*	*42,974*	*5,967*
2028	*61,138*	*11,805*	*43,359*	*5,974*
2029	*61,668*	*12,174*	*43,541*	*5,952*
2030	*62,217*	*12,553*	*43,733*	*5,931*

Sustainable Development Area 2 (SDA-2) has historically contained the greatest proportion of the unincorporated County population. Consequently, it has largely mirrored overall Santa Fe County trends and will continue to do so throughout the forecast period. It also has been—and will be—the largest SDA throughout the period in terms of population. This trend is part of the larger trend already noted toward the increasing concentration within the *El Centro* GMA over both the historical and forecast periods. Between 1990 and 2010, SDA-2 grew from 22,280 persons to 40,058 persons—an increase of 79.80 percent (4.0 percent per year). Between 2010 and 2030, it is anticipated that this SDA will grow by only an additional 3,297 persons—posting less than one half the growth observed in the previous 20 years (0.005 percent per annum or a total of 9.2 percent).

SDA-1 and SDA-3 have displayed more complicated historical dynamics. SDA-1 grew by 81.00 percent (4.00 percent per annum) between 1990 and 2010 while SDA-3 grew by only 16.90 percent (.008 percent per annum). In spite of the rapid growth of SDA-1, this only constituted a numeric increase of 2,693 persons (3,326 to 6,018). SDA-3 increased by 906 persons from 5,331 to 6,237 persons). Between 2010 and 2020, both SDAs are tapering off in growth, reflecting the overall county-level trend. Likewise, as County growth picks back up between 2020 and 2030, SDA-1 and SDA-3 are both assumed to do so in correspondence.

Table 8. Annualized Growth Rate by Decade, 1990-2030

Year	Unincorporated County	SDA-1	SDA-2	SDA-3
1990 to 2000	0.0293	-0.0112	0.0394	0.0020
2000 to 2010	0.0233	0.0706	0.0192	0.0137
2010 to 2020	0.0028	0.0348	-0.0014	-0.0077
2020 to 2030	0.0145	0.0387	0.0101	0.0027

Chart 4. Growth in Unincorporated Santa Fe County and within SDA-2

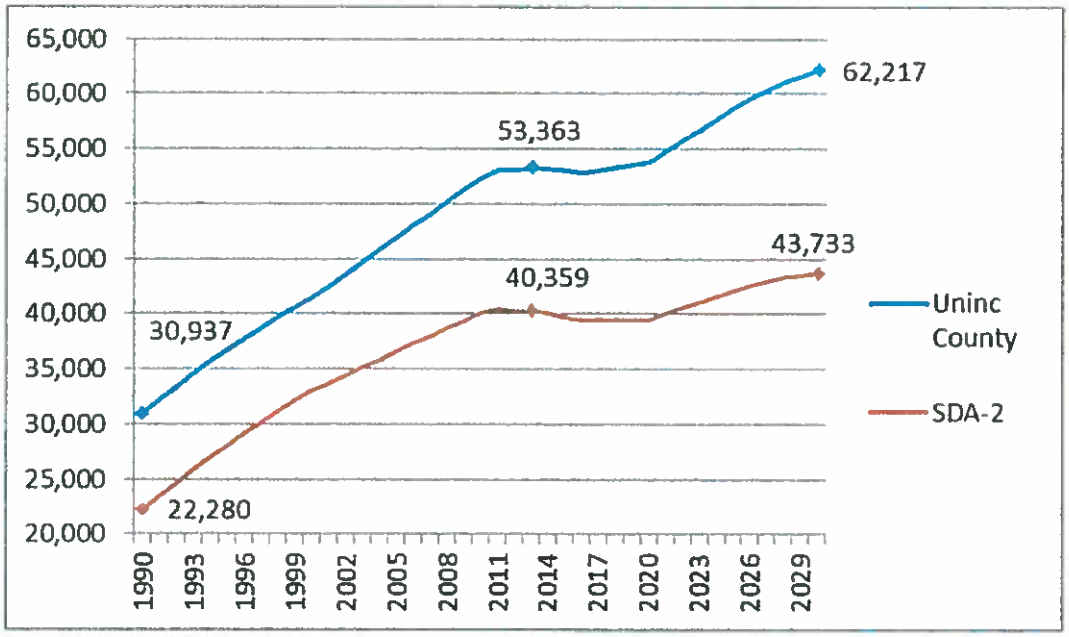


Chart 5. Growth in SDA-2 and SDA-3 (1990-2030)

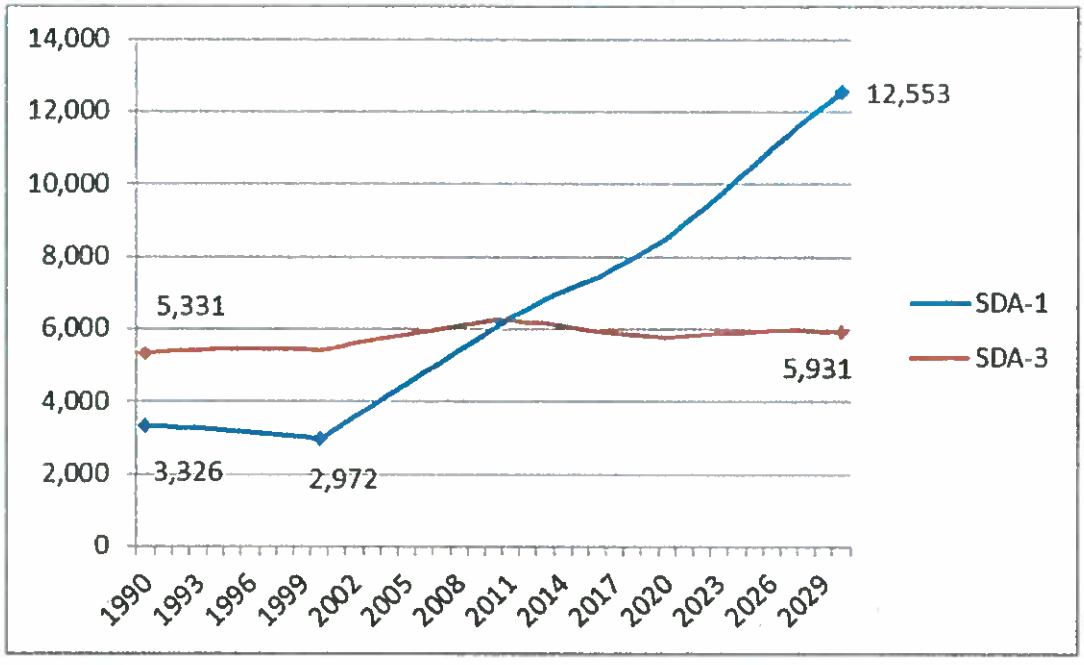


Table 9. Forecasted Housing Units, 1990-2030

Year	SDA-1	SDA-2	SDA-3	Unincorporated County
2010	**1,984**	**19,242**	**3,070**	**24,296**
2011	*1,997*	*19,367*	*3,090*	*24,454*
2012	*2,065*	*19,335*	*3,085*	*24,484*
2013	*2,148*	*19,425*	*3,099*	*24,672*
2014	*2,210*	*19,361*	*3,090*	*24,661*
2015	*2,269*	*19,290*	*3,079*	*24,638*
2016	*2,324*	*19,187*	*3,062*	*24,573*
2017	*2,403*	*19,240*	*3,071*	*24,714*
2018	*2,482*	*19,293*	*3,080*	*24,854*
2019	*2,561*	*19,342*	*3,088*	*24,991*
2020	*2,644*	*19,408*	*3,099*	*25,151*
2021	*2,771*	*19,760*	*3,155*	*25,687*
2022	*2,896*	*20,071*	*3,205*	*26,172*
2023	*3,023*	*20,384*	*3,256*	*26,663*
2024	*3,153*	*20,700*	*3,306*	*27,160*
2025	*3,287*	*21,018*	*3,358*	*27,663*
2026	*3,424*	*21,340*	*3,410*	*28,174*
2027	*3,542*	*21,543*	*3,442*	*28,527*
2028	*3,671*	*21,796*	*3,483*	*28,950*
2029	*3,783*	*21,945*	*3,507*	*29,234*
2030	*3,892*	*22,103*	*3,533*	*29,528*

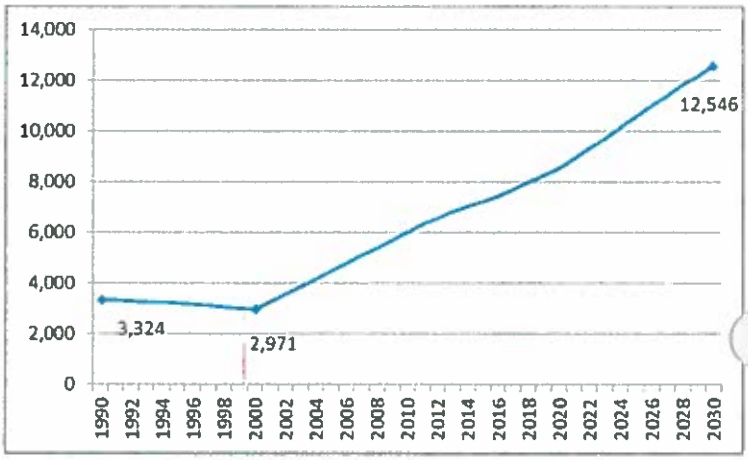
The forecast of housing units by Sustainable Development Area accords with the population forecast, with the greatest percentage growth between 2010 and 2030 occurring within SDA-1. It is anticipated to grow by 2,189 units, which constitutes an 89.66 percent increase over that 20 year time period. SDA-2 will grow similarly in numeric terms, adding 2,618 housing units by 2030; however, due to the large numerical dominance of SDA-2, this actually results in a deceleration of growth in the housing unit stock (only 11.06 percent). SDA-3, comprised of rural sections of *Santa Fe* County will grow by only 426 units—an 11.27 percent increase. Within SDA-1, this results in a 2.99 person per housing unit increase (an almost ½ person increase in density within each housing unit from 2010, which was 2.57 persons). It suggests a 1.40 person per housing unit increase in SDA-2. Again, this reinforces the notion that SDA-1 will be the primary growth attractor within unincorporated *Santa Fe* County.

4. Water and Wastewater Service Utility Area (WSA)

Table 10. Population, WSA, 1990-2030

		Forecasted	
1990	3,324		
1991	3,308	2011	*6,327*
1992	3,287	2012	*6,556*
1993	3,261	2013	*6,830*
1994	3,230	2014	*7,043*
1995	3,196	2015	*7,251*
1996	3,157	2016	*7,445*
1997	3,115	2017	*7,710*
1998	3,070	2018	*7,976*
1999	3,021	2019	*8,244*
2000	2,971	2020	*8,520*
2001	3,276	2021	*8,922*
2002	3,582	2022	*9,316*
2003	3,887	2023	*9,720*
2004	4,193	2024	*10,135*
2005	4,498	2025	*10,560*
2006	4,803	2026	*10,996*
2007	5,107	2027	*11,381*
2008	5,411	2028	*11,799*
2009	5,715	2029	*12,168*
2010	6,015	2030	*12,546*

Chart 6. Population Growth, Water Service Area *1990-2030*



The difference between the SDA-1 forecast and that of the Water Service Area is trivial owing to the fact that only small portions of the County's population reside in the areas that do not form an intersection between the Water Service Area and SDA-1. The same trajectories described for SDA-1 hold for the Water Service Area. The population increased by some 2,694 persons between 1990 and 2010—a near doubling of population. Forecasted increases suggest that the population will again nearly double over the next twenty years (2010-2030), from 6,015 persons in 2010 to 12,546 by 2030. Housing units within the WSA are nearly identical to the analysis presented for SDA-1.

Appendix 1. All Estimates and Forecasts in a Single Table

County of Santa Fe: Population Estimates and Projections (1990-2030) by Geography

Year	County	City of Santa Fe	Town of Edgewood	City of Espanola	Tribal Areas	Unincorporated County	El Centro GMA	El Norte GMA	Estancia GMA	Galisteo GMA	SDA-1	SDA-2	SDA-3	WSA
1990	101,373	63,819	1,655	1,987	2,975	30,937	12,694	6,939	3,478	7,826	3,326	22,280	5,331	3,324
1991	104,152	65,148	1,776	2,051	2,997	32,180	13,397	7,126	3,596	8,061	3,310	23,496	5,374	3,308
1992	106,930	66,505	1,906	2,117	3,019	33,384	14,100	7,298	3,707	8,279	3,289	24,688	5,408	3,287
1993	109,709	67,890	2,045	2,185	3,041	34,549	14,801	7,455	3,811	8,481	3,263	25,851	5,435	3,261
1994	112,488	69,303	2,195	2,255	3,063	35,672	15,499	7,597	3,909	8,667	3,232	26,986	5,454	3,230
1995	115,267	70,747	2,355	2,327	3,085	36,752	16,193	7,723	4,000	8,836	3,197	28,088	5,467	3,196
1996	118,045	72,220	2,528	2,402	3,107	37,788	16,880	7,834	4,085	8,989	3,159	29,157	5,473	3,157
1997	120,824	73,724	2,712	2,479	3,130	38,778	17,560	7,930	4,162	9,126	3,117	30,189	5,473	3,115
1998	123,603	75,259	2,911	2,559	3,153	39,721	18,231	8,011	4,233	9,246	3,071	31,183	5,467	3,070
1999	126,381	76,826	3,124	2,641	3,176	40,615	18,891	8,078	4,296	9,350	3,023	32,136	5,455	3,021
2000	129,160	78,426	3,352	2,726	3,199	41,457	19,538	8,130	4,352	9,437	2,972	33,047	5,438	2,971
2001	130,699	78,755	3,386	2,776	3,223	42,559	20,320	8,227	4,434	9,578	3,278	33,761	5,520	3,276
2002	132,237	79,085	3,421	2,827	3,247	43,657	21,114	8,319	4,513	9,712	3,584	34,473	5,601	3,582
2003	133,776	79,416	3,456	2,878	3,271	44,753	21,920	8,404	4,589	9,840	3,889	35,182	5,682	3,887
2004	135,314	79,749	3,492	2,931	3,296	45,847	22,739	8,483	4,663	9,961	4,195	35,888	5,763	4,193
2005	136,853	80,083	3,527	2,985	3,321	46,937	23,570	8,556	4,735	10,076	4,500	36,593	5,844	4,498
2006	138,392	80,419	3,564	3,039	3,346	48,024	24,413	8,624	4,803	10,184	4,805	37,295	5,924	4,803
2007	139,930	80,756	3,600	3,095	3,371	49,108	25,267	8,685	4,870	10,287	5,110	37,995	6,003	5,107
2008	141,469	81,095	3,637	3,152	3,396	50,190	26,133	8,741	4,933	10,382	5,414	38,693	6,083	5,411
2009	143,007	81,435	3,674	3,209	3,421	51,268	27,010	8,791	4,994	10,472	5,718	39,388	6,162	5,715
2010	144,546	81,776	3,742	3,268	3,447	52,313	27,882	8,831	5,050	10,550	6,018	40,058	6,237	6,015
2011	145,309	81,776	3,750	3,307	3,452	53,024	28,664	8,762	5,085	10,513	6,330	40,436	6,258	6,327
2012	146,076	82,463	3,789	3,347	3,457	53,021	29,058	8,577	5,051	10,336	6,560	40,267	6,194	6,556
2013	146,847	82,809	3,827	3,386	3,461	53,363	29,548	8,482	5,069	10,265	6,833	40,359	6,171	6,830
2014	147,622	83,156	4,348	3,426	3,466	53,226	29,768	8,312	5,041	10,104	7,046	40,088	6,091	7,043
2015	148,401	83,504	4,898	3,467	3,471	53,062	29,968	8,142	5,011	9,941	7,255	39,798	6,009	7,251
2016	149,095	83,854	5,453	3,505	3,473	52,809	30,114	7,961	4,972	9,762	7,449	39,443	5,917	7,445
2017	149,790	84,206	5,509	3,544	3,476	53,055	30,544	7,856	4,979	9,675	7,714	39,460	5,882	7,710
2018	150,484	84,559	5,566	3,583	3,478	53,298	30,976	7,751	4,985	9,587	7,980	39,473	5,845	7,976
2019	151,172	84,913	5,623	3,622	3,480	53,534	31,407	7,643	4,989	9,495	8,248	39,480	5,807	8,244
2020	151,910	85,269	5,680	3,663	3,483	53,815	32,022	7,578	4,760	9,455	8,524	39,518	5,773	8,520
2021	153,446	85,627	5,739	3,723	3,504	54,854	32,978	7,566	4,812	9,498	8,927	40,108	5,819	8,922
2022	154,877	85,985	5,797	3,781	3,522	55,791	33,894	7,538	4,839	9,521	9,321	40,618	5,852	9,316
2023	156,322	86,346	5,857	3,840	3,541	56,739	34,828	7,507	4,864	9,540	9,725	41,130	5,883	9,720
2024	157,781	86,708	5,917	3,899	3,559	57,698	35,780	7,474	4,888	9,557	10,140	41,644	5,914	10,135
2025	159,257	87,071	5,978	3,960	3,578	58,670	36,751	7,438	4,910	9,570	10,565	42,162	5,943	10,560
2026	160,751	87,436	6,039	4,021	3,597	59,658	37,742	7,402	4,932	9,582	11,002	42,684	5,972	10,996
2027	161,914	87,803	6,101	4,074	3,608	60,328	38,540	7,323	4,925	9,539	11,387	42,974	5,967	11,381
2028	163,226	88,171	6,163	4,132	3,622	61,138	39,435	7,260	4,929	9,514	11,805	43,359	5,974	11,799
2029	164,247	88,540	6,227	4,182	3,629	61,668	40,154	7,162	4,908	9,444	12,174	43,541	5,952	12,168
2030	165,290	88,911	6,290	4,234	3,637	62,217	40,796	7,050	5,018	9,353	12,553	43,733	5,931	12,546

Appendix 2. Housing Units by Forecast Geography *2010-2030.*

	County of Santa Fe: Housing Units by Forecast Geography *2010-2030*													
Year	County	City of Santa Fe	Town of Edgewood	City of Espanola	Tribal Areas	Unincorporated County	El Centro GMA	El Norte GMA	Estancia GMA	Galisteo GMA	SDA-1	SDA-2	SDA-3	WSA
2010	**71,285**	**42,600**	**1,552**	**1,420**	**1,417**	**24,296**	**12,103**	**4,671**	**2,127**	**5,395**	**1,984**	**19,242**	**3,070**	**1,969**
2011	71,661	42,795	1,560	1,428	1,424	24,454	12,181	4,702	2,141	5,430	1,997	19,367	3,090	1,982
2012	72,040	43,108	1,576	1,445	1,426	24,484	12,260	4,699	2,144	5,381	2,065	19,335	3,085	2,050
2013	72,420	43,265	1,593	1,462	1,428	24,672	12,568	4,661	2,136	5,307	2,148	19,425	3,099	2,133
2014	72,802	43,423	1,809	1,479	1,430	24,661	12,660	4,654	2,124	5,223	2,210	19,361	3,090	2,195
2015	73,186	43,582	2,038	1,497	1,432	24,638	12,751	4,634	2,113	5,141	2,269	19,290	3,079	2,254
2016	73,529	43,741	2,269	1,513	1,433	24,573	12,812	4,617	2,096	5,048	2,324	19,187	3,062	2,309
2017	73,871	43,901	2,292	1,530	1,434	24,714	12,997	4,614	2,099	5,004	2,403	19,240	3,071	2,388
2018	74,213	44,061	2,316	1,547	1,435	24,854	13,185	4,608	2,102	4,959	2,482	19,293	3,080	2,467
2019	74,553	44,222	2,340	1,564	1,436	24,991	13,370	4,604	2,104	4,913	2,561	19,342	3,088	2,546
2020	74,917	44,384	2,364	1,581	1,437	25,151	13,642	4,604	2,009	4,896	2,644	19,408	3,099	2,629
2021	75,674	44,547	2,388	1,607	1,445	25,687	14,094	4,622	2,037	4,934	2,771	19,760	3,155	2,756
2022	76,380	44,710	2,412	1,632	1,453	26,172	14,524	4,635	2,054	4,958	2,896	20,071	3,205	2,881
2023	77,092	44,874	2,437	1,658	1,461	26,663	14,962	4,649	2,070	4,981	3,023	20,384	3,256	3,008
2024	77,812	45,039	2,462	1,684	1,468	27,160	15,410	4,662	2,086	5,002	3,153	20,700	3,306	3,138
2025	78,540	45,204	2,487	1,710	1,476	27,663	15,866	4,675	2,100	5,022	3,287	21,018	3,358	3,272
2026	79,277	45,370	2,513	1,736	1,484	28,174	16,333	4,687	2,115	5,040	3,424	21,340	3,410	3,409
2027	79,850	45,537	2,538	1,759	1,488	28,527	16,699	4,691	2,114	5,023	3,542	21,543	3,442	3,527
2028	80,497	45,704	2,565	1,784	1,494	28,950	17,114	4,698	2,119	5,019	3,671	21,796	3,483	3,656
2029	81,001	45,872	2,591	1,806	1,497	29,234	17,439	4,698	2,112	4,985	3,783	21,945	3,507	3,768
2030	81,515	46,041	2,617	1,828	1,501	29,528	17,730	4,697	2,161	4,940	3,892	22,103	3,533	3,877

Appendix 3. Methods

Population Projections vs. Population Forecasts

Population projections extrapolate future population growth strictly from historical trends. Population forecasts, on the other hand, predict future growth while considering various external factors including economic circumstances, zoning-constrained land use, etc. Commonly, the two terms are used interchangeably—but the distinction is clear. Here, we utilize projections for municipal-level (except for Edgewood) predictions of future population totals as well as for the overall county totals. **All estimates of future counts within the geographies specifically developed for this contract are forecasts in that they explicitly consider zoning and development plans within the mathematical model used to capture growth.**

Revised Total County Population Projection from Geospatial and Population Studies

A revised county total population projection was made that weighs current economic trends and prospects—supported by demographic analysis—more heavily than the projections produced in 2012 by Geospatial and Population Studies. This revision was made using the standard component method of demographic modeling which relies upon the population balancing equation:

$$N_{t+1} = N_t + [B_{t,t+1} - D_{t,t+1} + I_{t,t+1} - E_{t,t+1}]$$

[**N** for a population count, **B** for births, **D** for deaths, **I** for Immigration, **E** for Emigration, and **t** for "time" in the subscript].

Revisions of these totals were made by adjusting for anticipated migration over the 2010-2030 period in light of historical and current demographic and economic trends observed in the past two years within the County.

Defining the Control Total (Unincorporated County of Santa Fe)

Small-area demographic projections are improved considerably by the use of a larger-scale control total. In this case, the scope of the project is the *unincorporated* county of Santa Fe. The first objective, therefore, was to isolate the portion of the county within incorporated municipalities as well as Tribal lands, which are held in Federal Trust. This land was isolated within ESRI's Arc-GIS and bases for 1990, 2000, and 2010 were formulated using *current boundaries of the City of Santa Fe which include annexations have occurred or will occur within three phases between 2009 and 2018.* The vast majority of these annexations have already occurred. The use of these bases requires estimating a population as of July 1 1990, 2000, and 2010. The added base for the City of Santa Fe is over 5,000 persons in 1990, nearly 13,000 persons in 2000, and 13,623 persons in 2010. This makes the total estimate for the City of Santa

Fe significantly different from the April 1 decennial census counts for each of these times. Since the US Census Bureau does not appear to have the current boundaries of the City (as of their 2013 municipal-level estimates), these will also result in large differences from the City of Santa Fe's estimated population count from the Bureau's Population Division. These differences hinge upon the city's annexations. In this report, they have been considered as executed and all demographic estimates and forecasts reported here include the annexation areas.

Projections are reported for not only for the City of Santa Fe, but also for the portions of the Town of Edgewood and City of Espanola that are within the County of Santa Fe, and for Tribal Lands within the County. The difference between the county total projection and the sum of these areas defines the total of the unincorporated County of Santa Fe population. These estimates and projections for this total form the control total for the projection of Growth Management Areas (GMAs) and, indirectly, for the Sustainable Development Areas (SDAs) and Water Service Area (WSA).

Estimation of Historical Growth in Unincorporated Areas

Estimates were made for: (1) County of Santa Fe, (2) City of Santa Fe, (3) Town of Edgewood (*Santa Fe* portion), (4) City of Espanola (*Santa Fe* portion), (5) Tribal Lands, (6) the unincorporated areas of the County of Santa Fe, (7) four Growth Management Areas, (8) 3 Sustainable Development Areas, (9) one Water Service Area, and (10) the Santa Fe Community College Planned Development District. These estimates were formulated by aggregating block level population counts from 1990, 2000, and 2010. Block-level aggregates for 2000 and 2010 were made from actual decennial census counts using simple overlays in ESRI's Arc-GIS (v. 11.1). Block counts from 1990 involve *normalization* of 1990 block counts to 2000 census boundaries. When boundaries for the target year are larger than those of the year to be normalized, minimal to no distortion of data should be anticipated. However, when it involves proportional allocation of population in the case of when target boundaries split those to be normalized, it is known to distort population counts. This is an inherent limitation because the Census Bureau releases block-level summary counts, not the xy-point-level data required to make a precise conversion of 1990 data in 2000 or 2010 boundaries. When these block counts are re-aggregated to a larger geography, distortions are known to be minimal—in the area of 5-7 percent for census tracts. In the current study, we expect this distortion to be trivial since the re-aggregation geographies are larger than census tracts. Distortions in the 1990 bases should be less than 5 percent.

Forecasting of Future Growth in Unincorporated Areas

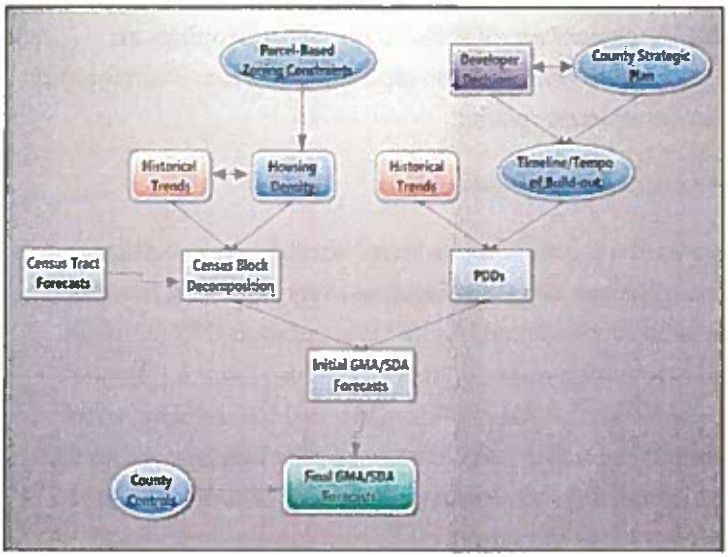


Figure A3.1. Projections Methodology

A logical/computational model of the forecast methodology is presented in **Figure A3.1**. Forecasts are based on historical trends with hierarchical controls at the County and Census tract level. Block-level decompositions of tract-level projections are used to re-aggregate data to the projection geographies (GMAs, SDAs, and the WSA). These decompositions are also constrained to totals that conform to both historical trends and limits to growth imposed by zoning strategies that cap housing unit accumulation. Planned Development Districts (PDDs) are treated separately, subjected to historical trends and modeled according to specific timeline/tempo build-out scenarios that reflect both the official development plans as well as the expert opinion of the staff of County and City. The resulting projections for the PDDs are then built into the overall projections for GMAs, SDAs, and the WSA. Finally, these draft forecasts are controlled to the unincorporated county total projections.

Municipal-Level and Tribal Area Forecasts and the Unincorporated County

Municipal-level projections were made for the City of Santa Fe, the City of Espanola (*Santa Fe* County portion), city of Edgewood (*Santa Fe* County portion), and the Federal/Tribal Areas using a shift-share based extrapolation of 2000 to 2010 trends. These shifts reflect decelerating growth in the City of *Santa Fe*, which is the largest contributor to overall county-level population dynamics. The City of Espanola's *Santa Fe* county portion and the Tribally-held lands comprise small portions of the county's total growth. The City of *Santa Fe's* growth corresponds well with the recent observation of diminishing growth as well as the tendency of the city to add population at a lower rate than housing (nearly one-person per housing unit) in the 1990-2010 period.

The Town of Edgewood's growth was deemed to require separate treatment, based on developments there that were estimated to be "highly-likely" by Geospatial and Population Studies as well as County staff after meeting with planners from the Town in July, 2014. Specifically, it is anticipated that acquisition of Titan Aerospace by Google for the purposes of developing aerial drone-based delivery of Internet services will bring as many as 500 jobs to the area. The Town is annexing specific portions of checkerboard areas that are now under the jurisdiction of the county with the express purpose of developing appropriate technology parks to

support this effort and is planning housing development to provide residences for this influx. ***On this basis, the Town's forecast was augmented by 1,250 persons over the 2014-2020 period, then allowed to grow multiplicatively at its historical rate (2000-2010).*** This provides an estimate of the population level impact of this development (this step-based increase corresponds to 2.5 persons per household added) that is considered realistic.

Census Tract Forecasts and Block-Level Decompositions

Census tract level projections were used as a basis for the small-area decompositions required to make forecasts for the study geographies. These projections were based on the 1990-2013 age/sex-structured estimates for census tracts produced by the Geospatial and Population Studies unit at UNM and available at both http://bber.unm.edu/ and www.nmibis.gov. Block-level decompositions were made using the shift-share from 2000 to 2010 of blocks relative to each Santa Fe County tract. These decomposition factors were then used moving forward with shifts; however, the shifts were constrained according to a density-dependent model (the Pearl-Reed logistic model) that provided an upper-limit to the number of housing units that could accumulate in a given block. This upper limit on density was defined *specifically based on the zoning-based build-out estimates provided by the County of Santa Fe* at the parcel level. They utilized the lower bound of these build-out estimates.

The parcel-level file was used to attribute the limit to each census block, then the historical trend extrapolated under density-dependence as:

$$N_{t+1} = N_t * e^{r*[(K-N)/K]}$$

N_{t+1} = Population at one time step forward
N_t = Population at the year prior
e = the exponential (2.17....)
r = the historical annual exponential growth rate (determined by the 2000 to 2010 trend)
K = the zoning-based "carrying capacity" of the census block
N = the population at N_t

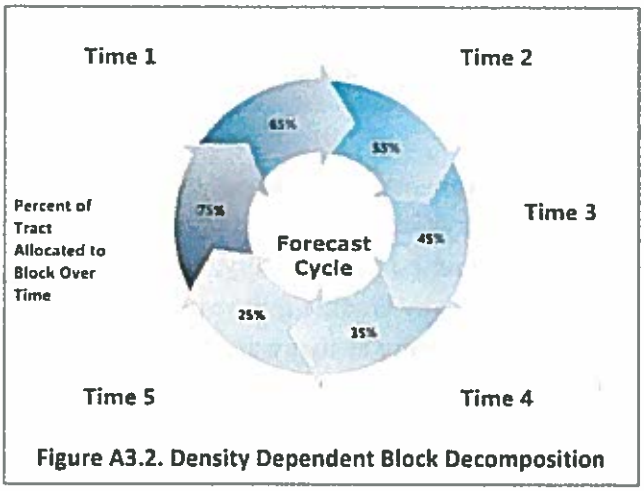


Figure A3.2. Density Dependent Block Decomposition

This model defined a share for each census block (proportional to the tract) at each time-step forward. In cases where a given block reaches K, the population remains constant and the share computed at each step forward will diminish as other blocks where the carrying capacity has not been reached will be eligible to receive a greater share of the t to t+1 growth. Figure A3.2 captures this graphically. The

proportion of the census tract forecast allocated to each block depends, at each time step, on the density of housing within that block relative to its capacity limit. Over each step in the projection, the proportion of new growth allocated to a growing block declines. Eventually, it reaches zero when the block is built out relative to zoning requirements. These blocks are then re-aggregated to the forecast geographies specified in this project.

Santa Fe Community College Planned Development District

Draft projections suggested that the overall forecast was sensitive to only one of the Planned Development Districts: the Santa Fe Community College (SFCC) District. On this basis, the remaining PDDs were allowed to grow using the methodology described above and the SFCC District was modeled separately. The upper limit capacity for this area was treated not at the block level, but at the level of the PDD, in conformance with the logic of the Development District plans. After consultation with County Staff, the upper limit used was the lower-bound build-out scenario provided by the County of Santa Fe's Planning Division. The overall projection was made sensitive to this upper limit in a projection out to 2050, which reflected the tempo/timeline of build out for this PDD suggested by County staff as realistic. This resulted in a substantial, but realistic increase in the population of this PDD. This projection was incorporated into the GMA, SDA, and WSA projections as appropriate, with blocks within it extracted from the original methodological process, then reintegrated as a final step. The methodology used to project this area was identical to the methodology for defining an upper limit to growth described for the blocks—except that this upper limit was defined for the PDD as a whole, rather than for any single census block within it.

UNM Bureau *of* Business & Economic Research

Employment Forecast for Santa Fe County and Santa Fe County Service Areas: 2013 to 2030

Part 2: Santa Fe County Employment Forecast

Prepared by:

University of New Mexico

Bureau of Business and Economic Research

Prepared for:

Santa Fe County Growth Management Department

2014 September 12

Acknowledgments

Many people contributed to this report. Robert Griego, Planning Manager for Santa Fe County Growth Management Department, contracted UNM's Geospatial and Population Studies and Bureau of Business and Economic Research to forecast population and employment for Santa Fe County. Lee Reynis, Director of the Bureau of Business and Economic Research, helped define the scope of work and provided comments to improve the forecast. Tim Cannon of Santa Fe County Growth Management Department supplied the GIS shapefiles for Santa Fe County service areas. Suzan Reagan, Data Bank Senior Program Manager of the Bureau of Business and Economic Research, provided and explained employment data. Michael O'Donnell, Research Scientist for the Bureau of Business and Economic Research, provided the FOR-UNM employment forecast for Santa Fe County for 2013 through 2019 and provided comments to improve the report. David Griscom of the Santa Fe County Economic Development; Fabian Trujillo, Division Director of the City of Santa Fe Economic Development Division; and Kay McGill, Administrator of Edgewood, provided insight into near term economic growth opportunities for Santa Fe County. Steven Brugger of the Santa Fe County Growth Management Department's Planning Division, and Reed Liming, Long Range Planning Division Director for the City of Santa Fe Housing and Community Development Department, provided feedback to the forecast. Jack Baker, Senior Research Scientist for Geospatial and Population Studies, provided comments to improve the forecasts. Larry Compton, Library Information Specialist for the Bureau of Business and Economic Research, provided comments to improve the report.

While many people contributed to this report, I am responsible for any errors or omissions.

Daren Ruiz

Research Scientist

Bureau of Business and Economic Research

University of New Mexico

Table of Contents

Executive Summary

The Geospatial and Population Studies (GPS) and the Bureau of Business and Economic Research (BBER) expect that the population and employment of Santa Fe County will reach 165,290 and 73,464 in 2030, respectively. From 2013, population is expected to increase by 18,443 people (or 13%) while employment is expected to increase by 12,834 jobs (or 21%).

The population growth rate has been slowing and we expect to see this trend continue, with a slight reversal in the last decade of the forecast. From 1990 to 2000, population increased by 27,787 people (or 27.4%). However, from 2000 to 2010, population only increased by 15,386 (or 11.9%). From 2010 to 2020 and subsequently from 2020 to 2030, we expect population to increase by 7,364 (or 5.1%) and 13,380 (or 8.8%), respectively. Table 1 presents Santa Fe County historical and forecasted population and employment decennially.

The employment growth rate has suffered recently because of the Great Recession. From 1990 to 2000, employment increased by 15,372 jobs (or 36.3%). However from 2000 to 2010, employment increased by only 2,867 (or 5.0%). Specifically, employment started to fall in 2007, after it peaked at 65,905 jobs. We expect that it will be 13 years from 2007 for employment to reach that previous peak, with 65,982 jobs in 2020. From 2010 to 2020 and subsequently from 2020 to 2030, we expect employment to increase by 5,446 (or 9.0%) and 7,480 (or 11.3%).

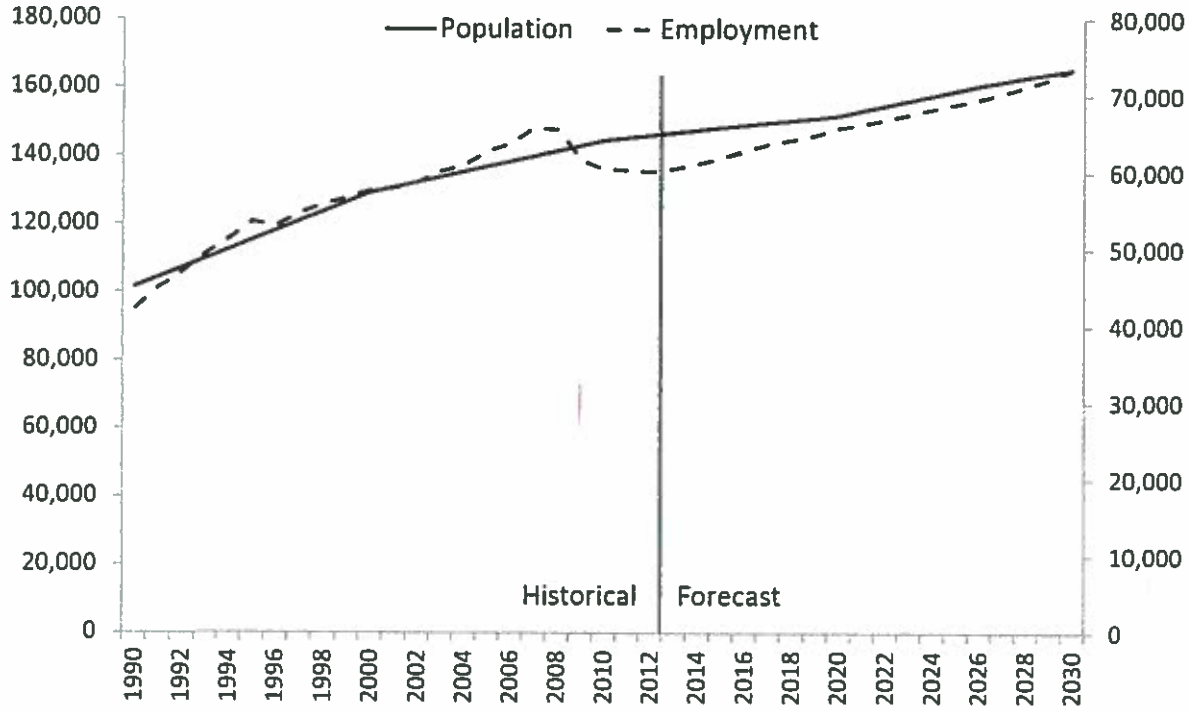
Table 1: Santa Fe County population and employment estimates and forecasts

	Population		Employment	
Year	Count	% Change	Count	% Change
1990	101,373		42,298	
2000	129,160	27.4	57,671	36.3
2010	144,546	11.9	60,538	5.0
2020	151,910	5.1	65,984	9.0
2030	165,290	8.8	73,464	11.3

Sources: University of New Mexico, Geospatial Population Studies (population estimate and forecast) and Bureau of Business and Economic Research (employment forecast), U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (employment estimate).

The historic trend of Santa Fe County employment and population share a similar growth path, leading up to the Great Recession. Immediately preceding the recession, employment grew faster than population, and then commencing with the recession, employment suffered loses. While many people lost their jobs during the recession, many of them remained in the county. We expect that employment will grow faster than population as the economy recovers and many of those unemployed workers will return to the workplace. Figure 1 displays estimated (1990-2012) and forecasted (2013-2030) population (on the left axis) and employment (on the right axis).

Figure 1: Estimated (1990-2012) and forecasted (2013-2030) population (left axis) and employment (right axis) for Santa Fe County



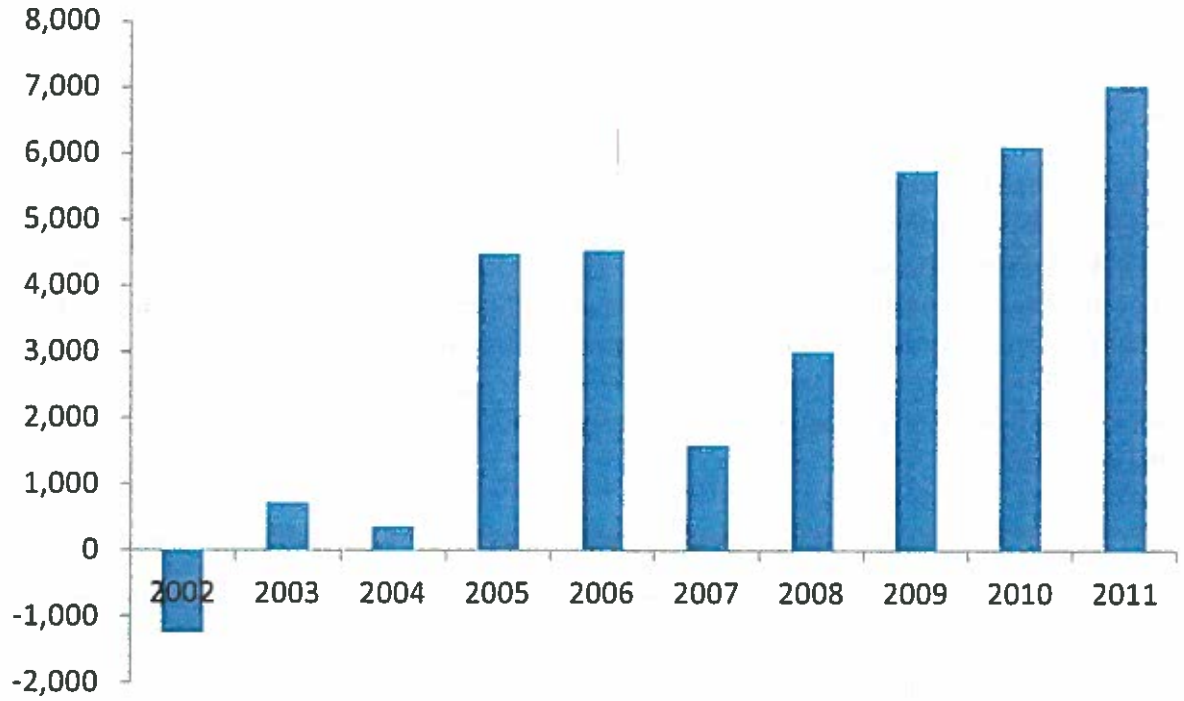
Source: University of New Mexico, Geospatial Population Studies (population estimate and forecast) and Bureau of Business and Economic Research (employment forecast), U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (employment estimate).

The historic commuting trends of Santa Fe County residents and employees have played a role in population/employment dynamics and we expect them to play a larger role in the future.

Although the flow of commuters entering or leaving the county to work was not forecasted, Figure 2 suggests that the net inflow will increase in the future. The net flow of workers commuting to Santa Fe County was negative in 2002, but has increased from 2003 through 2011. For example, in 2002, 13,689 employees commuted to Santa Fe County while 14,936 Santa Fe County residents commuted to work outside Santa Fe County for a net outflow of 1,247. However, in 2011, 25,887 employees commuted to Santa Fe County, while only 18,840 Santa Fe County residents commuted to work outside of Santa Fe County, for a net inflow of 7,047 employees.

Although we expect population to increase by 18,443 people and employment to increase by 12,834 jobs in the forecast period, we do not expect that the increase in employment will be fully filled by the increase in population, or unemployed workers returning to the workplace. We expect that commuters will fill some of the increase in Santa Fe County employment.

Figure 2: Net inflow/outflow of Santa Fe County commuters



Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics, OnTheMap (2002-2012).

Introduction

The Santa Fe County Growth Management Department contracted UNM's Geospatial and Population Studies (GPS) and Bureau of Business and Economic Research (BBER) to forecast Santa Fe County population and employment, respectively. In this report, BBER will forecast employment for 2013 through 2030 for Santa Fe County and the following Santa Fe County service areas:

- Land Use Regulatory Jurisdiction[1]
    - Land Use Regulatory Jurisdiction by Growth Management Area

Sustainable Development[2]

- SDA-1
- SDA-2
- SDA-3

Utility/Water Service[3]

Growth Management[4]

- El Centro
- El Norte
- Estancia
- Galisteo

The first section of this report describes Santa Fe County employment forecast by sector. The second section describes total employment forecast for Santa Fe County, the City of Santa Fe, Santa Fe County parts of Edgewood and Espanola, Tribal Area, and the Land Use Regulatory Jurisdiction Area. The third section describes total employment for Land Use Regulatory Jurisdiction by Growth Management Areas. The fourth section describes total employment forecast for the Sustainable Development Areas and the Utility/Water Service Area. The Appendix describes the method used to forecast Santa Fe County employment by sectors and the method used to allocate total forecasted Santa Fe County employment to the service areas.

---

[1] Areas where Santa Fe County has land use regulatory authority, does not include municipalities, Tribal, or federal land.

[2] Santa Fe County identified these areas, which are only in the unincorporated county, as part of the Sustainable Growth Management Plan process. These areas have been identified to target and leverage public/private funding/investment to ensure adequate public facilities/services to direct and phase future growth.
SDA-1 is the County's primary growth area, where new development is likely and reasonable to occur within the next 10 years.
SDA-2 is County area where new development is likely and reasonable to occur over the next 10 to 20 years and in some cases, as infill within existing communities within the next 10 years.
SDA-3 is County area where there are no plans to provide urban or suburban facilities and services. Infrastructure is not available or budgeted. Any infrastructure will be provided solely at the expense of new development.

[3] Santa Fe County determined Utility/Water Service Area to be SDA-1 in El Centro, which is a primary growth area where new development is likely to occur within the next 10 years.

[4] Santa Fe County delineated these areas as part of the Sustainable Growth Management Plan process.

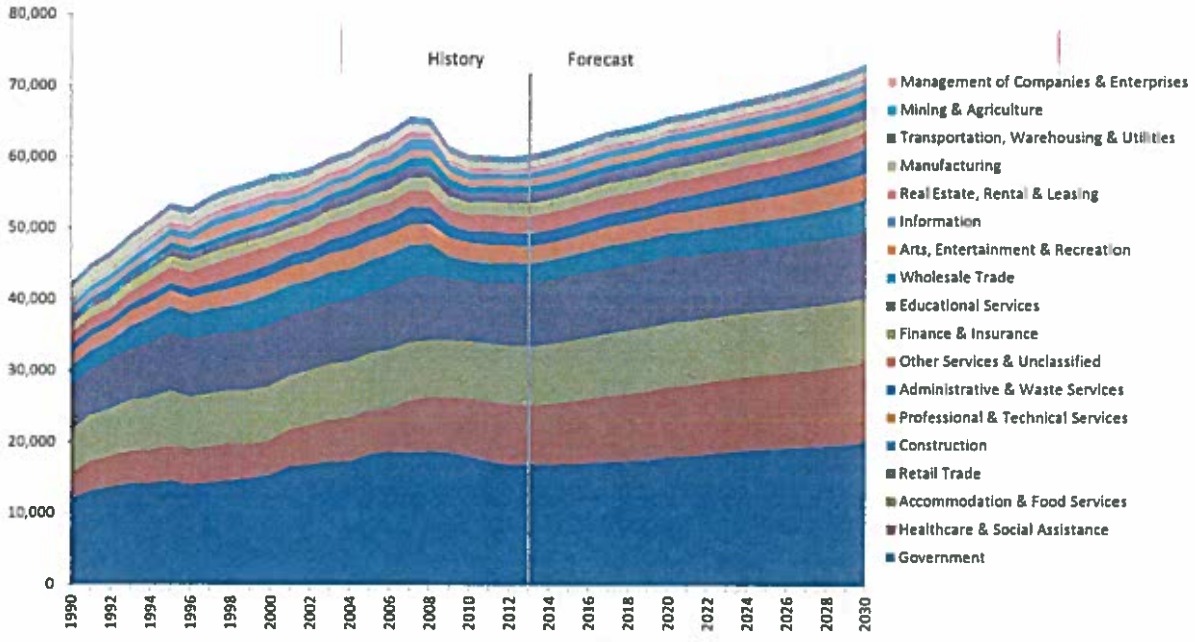
Santa Fe County Employment by Sector

Santa Fe County employment growth has varied in recent decades. The annual compound growth rate ranged from .7% (from 1995 through 2012) to 2.6% (from 1990 through 2007). Table 2 displays Santa Fe County employment from 1990 through 2012. County employment peaked in 2007 with 65,905 jobs and we expect that it will take until 2020 for the county to recover to its previous employment peak with 65,982 jobs.

From 2013 through 2030, we expect employment to grow at an annual compound rate of 1.1% from 60,630 to 73,464. Figure 3 displays historical (1990-2012) and forecasted (2013-2030) Santa Fe County employment by sector. Table 3 displays forecasted Santa Fe County employment from 2013 through 2030.

From 1990 through 2012, Healthcare & Social Assistance and Government grew the most, increasing by 4,982 and 4,917 jobs respectively (or by 1.6% and 4.1% annually respectively). We expect these two sectors to also grow the most in the forecast period and increase by 3,041 and 3,210 respectively (or 1.9% and 1.0% annually respectively). From 1990 through 2012, Construction lost 272 jobs due to the housing bubble collapse. We expect this sector to gain 1,799 jobs in the forecast period, but remain below it historic high employment level reached in 2006 of 4,729.

Figure 3: Historical (1990-2012) and forecasted (2013-2030) Santa Fe County employment by sector



Sources: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages (1990-2012); University of New Mexico, Bureau of Business and Economic Research, FOR-UNM (2013-2019), BBER forecast (2020-2030).

Table 2: Santa Fe County employment history by sector from 1990 through 2012

Sector	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Mining & Agriculture	287	296	252	247	261	285	270	306	331	324	344	353	290	243	218	219	290	276	299	234	215	234	255
Construction	2,934	2,714	2,741	3,210	3,576	3,674	3,480	3,589	3,620	4,239	4,289	4,389	4,257	4,415	4,412	4,409	4,729	4,710	4,391	3,154	2,792	2,714	2,662
Manufacturing	1,590	1,559	1,669	1,761	1,613	1,653	1,604	1,542	1,526	1,489	1,469	1,399	1,251	1,164	1,207	1,207	1,116	1,068	914	801	770	772	776
Wholesale Trade	618	831	879	794	827	850	826	793	835	850	819	836	986	950	980	1,104	1,148	1,218	1,254	1,114	1,005	972	913
Retail Trade	6,046	6,321	6,796	7,098	7,697	8,074	8,141	8,225	8,161	8,266	8,654	8,343	8,359	8,473	8,493	8,570	8,753	8,932	9,094	8,546	8,416	8,558	8,884
Transportation, Warehousing & Utilities	545	576	660	685	643	659	689	639	665	657	631	674	694	670	687	639	652	668	690	664	669	640	651
Information	820	931	939	954	1,143	1,029	1,078	1,055	1,109	1,205	1,069	973	887	925	874	1,051	1,197	1,688	1,626	1,103	1,049	850	745
Finance & Insurance	1,205	1,237	1,336	1,370	1,510	1,536	1,611	1,616	1,679	1,533	1,543	1,529	1,711	1,738	1,780	1,803	1,855	1,788	1,809	1,755	1,694	1,735	1,776
Real Estate, Rental & Leasing	723	667	669	749	858	977	950	985	1,075	1,021	1,021	1,072	1,004	1,030	1,048	1,001	1,217	1,075	942	847	804	758	747
Professional & Technical Services	1,831	1,935	1,961	2,099	2,085	2,242	2,276	2,288	2,431	2,508	2,568	2,594	2,534	2,595	2,766	2,755	2,773	2,854	2,839	2,625	2,568	2,580	2,468
Management of Companies & Enterprises	50	120	92	96	121	135	139	150	162	179	184	200	205	203	229	360	269	250	225	225	223	238	192
Administrative & Waste Services	1,145	1,026	996	997	1,116	1,053	1,172	1,231	1,503	1,541	1,550	1,679	1,773	1,989	2,117	2,213	2,048	2,470	2,273	1,811	1,615	1,928	1,733
Educational Services	651	666	790	820	920	1,058	1,022	1,025	1,111	1,141	1,193	1,320	1,273	1,389	1,425	1,566	1,550	1,485	1,539	1,237	1,196	1,297	1,411
Healthcare & Social Assistance	3,452	4,177	4,333	4,495	4,602	4,897	4,945	5,033	5,729	4,825	4,864	5,155	5,627	5,944	6,121	6,231	6,142	7,298	7,608	7,799	8,153	8,427	8,434
Arts, Entertainment & Recreation	707	761	833	793	833	882	1,005	1,738	1,633	1,556	1,885	1,051	1,072	1,033	973	1,005	949	1,003	993	971	890	890	924
Accommodation & Food Services	6,056	6,482	6,641	7,186	7,304	7,769	7,330	7,509	7,425	7,578	7,602	7,557	7,650	7,786	7,926	8,006	8,177	8,229	8,026	7,991	8,031	8,083	8,296
Other Services & Unclassified	1,620	1,695	1,635	1,761	1,965	2,265	2,387	2,665	2,735	2,851	2,542	2,245	2,313	2,357	2,422	2,368	2,344	2,333	2,431	2,284	2,356	2,396	2,446
Government	12,020	13,109	13,688	14,236	14,286	14,577	14,103	14,319	14,663	14,924	15,445	16,620	16,847	17,297	17,359	18,349	18,690	18,560	18,757	18,616	18,094	17,405	16,937
Total	42,300	45,103	46,910	49,351	51,360	53,615	53,028	54,708	55,893	56,687	57,672	57,989	58,733	60,201	61,037	62,856	63,899	65,905	65,710	61,777	60,540	60,477	60,250

Source: U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

Table 3: Santa Fe County employment forecast by sector from 2013 through 2030

Sector	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Mining & Agriculture	244	250	248	247	244	241	240	240	239	239	239	240	241	242	242	243	244	244
Construction	2,695	2,788	2,939	3,104	3,228	3,216	3,257	3,356	3,432	3,499	3,588	3,691	3,811	3,956	4,098	4,225	4,346	4,494
Manufacturing	823	816	818	829	834	834	825	828	827	824	824	828	828	826	825	823	817	814
Wholesale Trade	944	944	955	962	968	972	975	1,010	1,045	1,080	1,116	1,151	1,186	1,221	1,256	1,291	1,326	1,361
Retail Trade	8,924	8,929	8,993	9,054	9,120	9,170	9,231	9,193	9,127	9,065	8,983	8,929	8,909	8,921	8,993	9,102	9,204	9,304
Transportation, Warehousing & Utilities	682	668	667	667	667	668	669	671	672	674	675	676	679	682	684	686	689	690
Information	898	1,009	1,014	1,025	1,035	1,042	1,052	1,056	1,060	1,065	1,069	1,072	1,072	1,070	1,070	1,072	1,074	1,076
Finance & Insurance	1,775	1,778	1,785	1,792	1,800	1,808	1,817	1,808	1,794	1,783	1,774	1,764	1,763	1,758	1,754	1,754	1,756	1,762
Real Estate, Rental & Leasing	799	834	850	871	876	864	842	851	858	865	873	881	890	899	911	926	943	961
Professional & Technical Services	2,420	2,429	2,466	2,535	2,584	2,633	2,684	2,745	2,820	2,901	2,982	3,063	3,151	3,249	3,348	3,446	3,543	3,640
Management of Companies & Enterprises	195	200	200	200	202	203	203	206	208	210	211	212	210	208	207	207	207	207
Administrative & Waste Services	1,818	1,823	1,842	1,877	1,888	1,877	1,872	2,053	2,204	2,359	2,525	2,695	2,828	2,952	3,084	3,215	3,349	3,486
Educational Services	1,447	1,441	1,501	1,549	1,574	1,595	1,638	1,606	1,569	1,530	1,493	1,464	1,438	1,409	1,386	1,377	1,373	1,367
Healthcare & Social Assistance	8,285	8,515	8,715	8,984	9,295	9,470	9,665	9,831	9,980	10,121	10,252	10,360	10,470	10,601	10,760	10,952	11,144	11,326
Arts, Entertainment & Recreation	953	987	993	998	1,005	1,011	1,018	1,024	1,029	1,036	1,041	1,045	1,051	1,058	1,072	1,088	1,101	1,119
Accommodation & Food Services	8,361	8,413	8,518	8,630	8,746	8,862	8,976	8,981	8,983	8,980	8,968	8,956	8,939	8,924	8,929	8,952	8,984	9,016
Other Services & Unclassified	2,475	2,498	2,475	2,468	2,482	2,492	2,482	2,467	2,457	2,448	2,436	2,431	2,432	2,437	2,445	2,463	2,481	2,495
Government	16,892	16,928	17,069	17,186	17,320	17,443	17,574	18,056	18,140	18,424	18,706	18,984	19,164	19,294	19,425	19,565	19,751	20,102
Total	60,630	61,250	62,048	62,978	63,868	64,401	65,020	65,982	66,444	67,103	67,755	68,442	69,062	69,707	70,489	71,387	72,335	73,464

Source: University of New Mexico, Bureau of Business and Economic Research, FOR-UNM (2013-2019), BBER forecast (2020-2030).

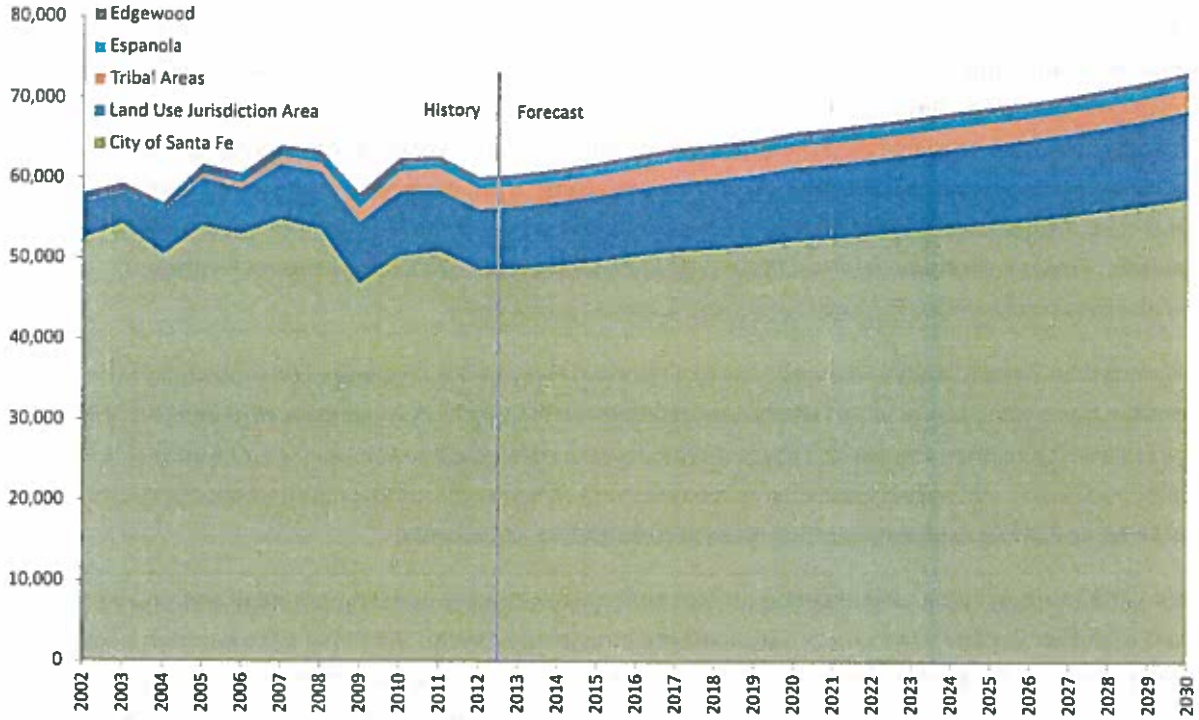
Santa Fe County, Municipalities, Tribal Areas, and Land Use Regulatory Jurisdiction Area

Santa Fe County employment growth has also varied among the municipalities, tribal areas, and the land use jurisdiction areas. From 2002 through 2012, Santa Fe County employment increased by .3% annually. However, during this period, the City of Santa Fe employment shrunk by .7% annually, while the Santa Fe County parts of Edgewood and Espanola employment grew by 4.7% annually, the Land Use Jurisdiction Area employment grew by 4.9% annually, and the Tribal Areas employment grew by 60.4% annually. Table 4 displays historical (2002-2012) and forecasted (2013-2030) Santa Fe County employment by municipality, tribal area, and land use jurisdiction.

Although the City of Santa Fe lost jobs over the period, those job losses were concentrated in the construction sector as a result of the housing bubble burst in 2007. Conversely, although the Tribal Areas gained jobs over the period, those job gains were connected to the opening of Buffalo Thunder Hotel and Resort. We expect construction to reemerge from the Great Recession depths in the City of Santa Fe and Tribal Area employment growth to return to historic rates.

From 2013 through 2030, we expect employment to grow at an annual compound growth rate of 1.1% from 60,630 to 73,464. The City of Santa will lead the job gains with 8,810 (or 1.0% annually), followed by the Land Use Jurisdiction Area with 3,256 (or 2.1% annually), Espanola in Santa Fe County with 411 (or 2.2% annually), the Tribal Areas with 190 (or .4% annually), and part of Edgewood in Santa Fe County with 167 (or 1.3% annually). Figure 4 displays estimated (2002-2012) and forecasted (2013-2030) Santa Fe County employment by municipality, tribal area, and land use jurisdiction. Map 1 displays Santa Fe County municipalities, tribal areas, and land use jurisdiction.

Figure 4: Historical (2002-2012) and forecasted (2013-2030) Santa Fe County employment by municipality, tribal area, and land use jurisdiction



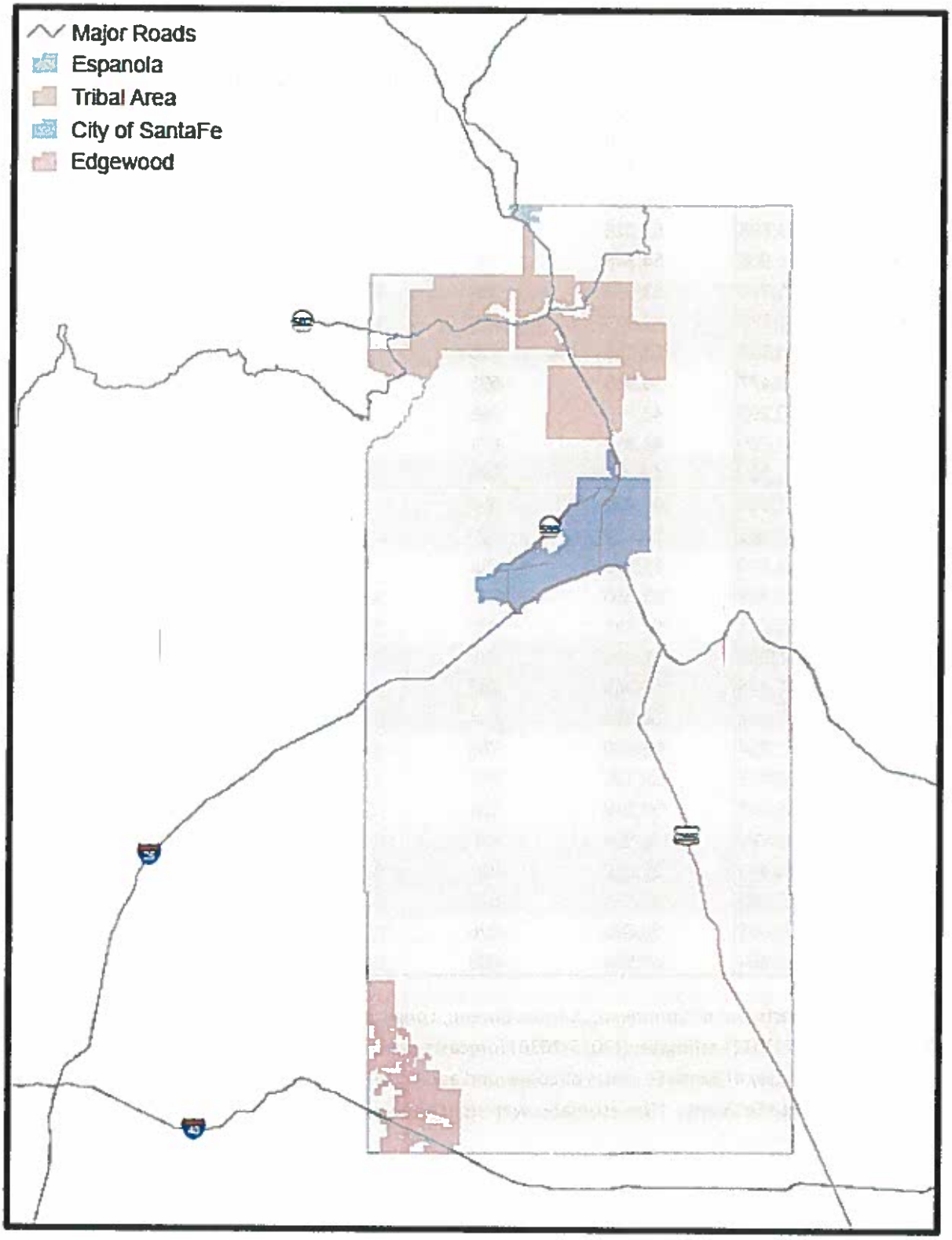
Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics, OnTheMap (2002-2012); estimates and forecasts performed by UNM BBER.

Table 4: Santa Fe County employment estimates (2002-2012) and forecast (2013-2030)

Year	Santa Fe County	City of Santa Fe	Edgewood	Espanola	Tribal Areas
2002	58,731	52,455	422	562	22
2003	60,201	54,300	527	579	31
2004	61,038	50,467	448	597	34
2005	62,857	54,038	529	726	493
2006	63,898	53,028	563	698	626
2007	65,908	54,848	506	919	903
2008	65,710	53,639	590	1,048	952
2009	61,775	46,909	719	1,250	1,601
2010	60,538	50,318	728	1,001	2,370
2011	60,477	50,955	695	915	2,611
2012	60,250	48,670	666	887	2,480
2013	60,630	48,853	671	904	2,476
2014	61,251	49,239	679	924	2,482
2015	62,048	49,772	689	947	2,495
2016	62,980	50,417	700	973	2,513
2017	63,870	51,033	711	999	2,530
2018	64,402	51,365	718	1,019	2,532
2019	65,021	51,771	727	1,041	2,538
2020	65,984	52,454	739	1,069	2,557
2021	66,445	52,740	745	1,089	2,556
2022	67,102	53,184	754	1,112	2,563
2023	67,754	53,626	763	1,136	2,569
2024	68,445	54,100	773	1,161	2,577
2025	69,063	54,519	781	1,184	2,581
2026	69,706	54,959	790	1,209	2,587
2027	70,489	55,510	801	1,236	2,597
2028	71,388	56,154	813	1,265	2,612
2029	72,335	56,836	826	1,296	2,628
2030	73,464	57,664	838	1,315	2,666

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics, OnTheMap (2002-2012) estimates; (2013-2030) forecasts performed by UNM BBER. Note that prior to 2012, the sum of City of Santa Fe, parts of Edgewood and Espanola in Santa Fe County, and Tribal Areas do not equal Santa Fe County. The estimates were spatial queried using OnTheMap and spatial error was introduced.

Map 1: Santa Fe County

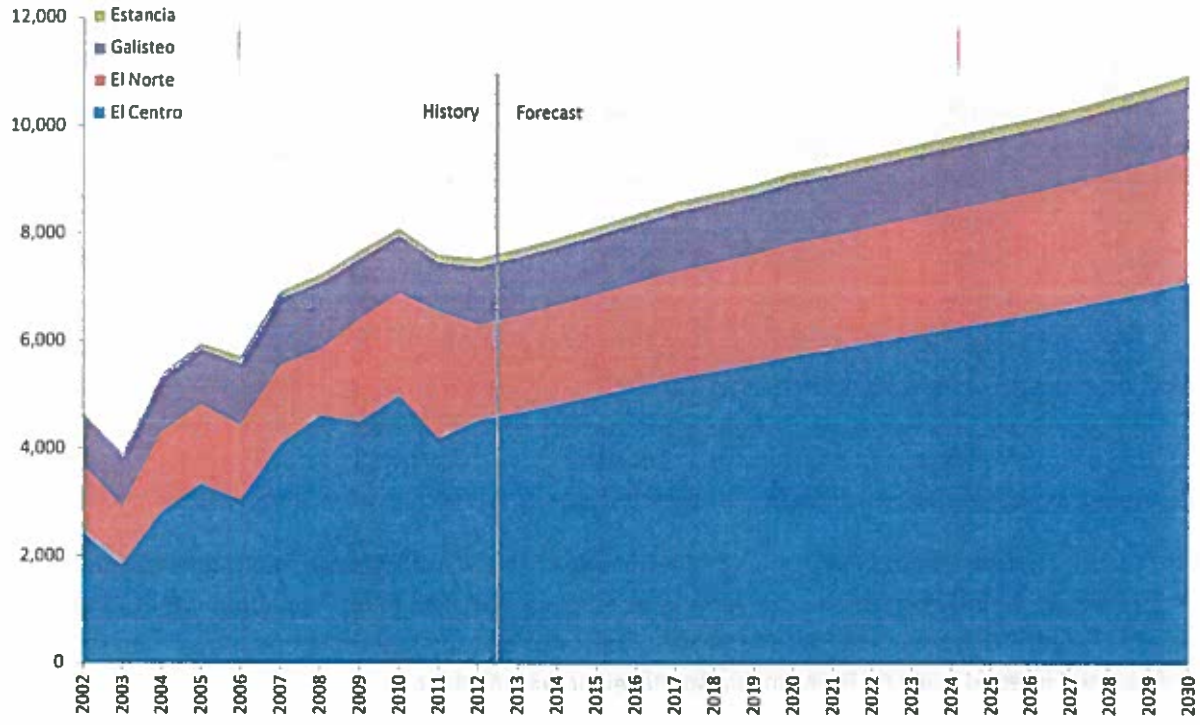


Santa Fe County Land Use Jurisdiction by Growth Management Areas

As noted earlier, from 2002 through 2012, Santa Fe County Land Use Jurisdiction Area employment increased by a 4.9% annual growth rate. However, during this period, employment growth varied Areas within the Land Use Jurisdiction among the Growth Management Areas. Galisteo employment increased by a 2.0% annual growth rate, El Norte employment increased by a 3.5% annual growth rate, El Centro employment increased by a 6.4% annual growth rate, and Estancia employment increased by 6.7% annual growth rate. Table 5 displays estimated (2002-2012) and forecasted (2013-2030) Santa Fe County Land Use Jurisdiction by Growth Management Area employment.

From 2013 through 2030, we expect employment to grow at an annual compound growth rate of 2.5% from 4,671 to 7,104. El Centro will lead the job gains with 2,433 (or 2.5% annually), followed by El Norte with 624 (or 1.8% annually), Galisteo with 132 (or .7% annually), and Estancia with 68 (or 2.1%). We expect that the proximity of El Centro to the City of Santa Fe will continue to have positive impact in attracting jobs to the area, along with the fact that El Centro contains two of the three SDA-1 areas. Figure 5 displays estimated (2002-2012) and forecasted (2013-2030) Land Use Jurisdiction by Growth Management Area for Santa Fe County employment. Map 2 displays Land Use Jurisdiction by Growth Management Area for Santa Fe County.

Figure 5: Employment history (2002-2012) and forecast (2013-2030) for Land Use Jurisdiction by Growth Management Area



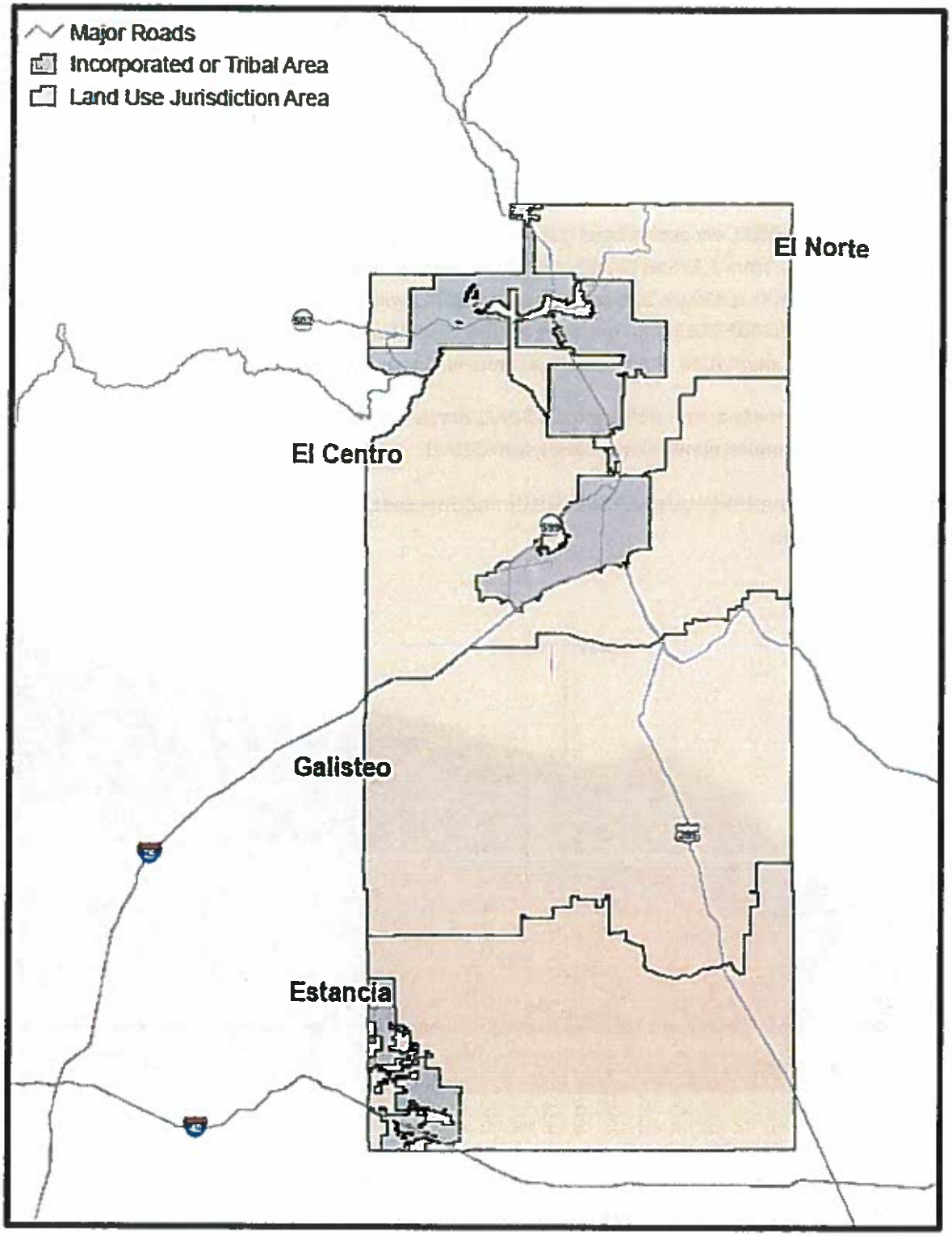
Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2012); estimates and forecasts performed by UNM BBER.

Table 5: Employment history (2002-2012) and forecast (2013-2030) for Land Use Jurisdiction by Growth Management Area

Year	Land Use Jurisdiction Area	El Centro	El Norte	Estancia	Galisteo
2002	4,678	2,448	1,250	81	899
2003	3,924	1,835	1,066	97	926
2004	5,399	2,805	1,488	92	1,014
2005	5,964	3,339	1,482	112	1,031
2006	5,721	3,042	1,383	149	1,147
2007	6,935	4,089	1,462	135	1,249
2008	7,246	4,610	1,228	150	1,258
2009	7,690	4,509	1,902	152	1,126
2010	8,104	4,990	1,897	138	1,079
2011	7,615	4,188	2,365	149	913
2012	7,546	4,531	1,770	154	1,091
2013	7,726	4,671	1,802	158	1,094
2014	7,927	4,823	1,841	162	1,101
2015	8,145	4,985	1,883	167	1,111
2016	8,376	5,154	1,928	171	1,123
2017	8,598	5,317	1,971	176	1,133
2018	8,767	5,447	2,003	180	1,138
2019	8,944	5,582	2,036	183	1,143
2020	9,166	5,744	2,080	188	1,155
2021	9,315	5,860	2,107	191	1,157
2022	9,489	5,992	2,140	195	1,163
2023	9,660	6,121	2,172	198	1,169
2024	9,835	6,253	2,205	202	1,175
2025	9,997	6,376	2,235	205	1,180
2026	10,161	6,501	2,266	209	1,185
2027	10,344	6,638	2,302	212	1,193
2028	10,544	6,785	2,340	216	1,202
2029	10,749	6,936	2,380	221	1,213
2030	10,982	7,104	2,426	226	1,226

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics OnTheMap (2002-2012); estimates and forecasts performed by UNM BBER. Note that prior to 2012, the sum of El Centro, El Norte, Estancia, and Galisteo do not equal Land Use Jurisdiction Area. The estimates were spatial queried using OnTheMap and spatial error was introduced.

Map 2: Land Use Jurisdiction by Growth Management Area for Santa Fe County



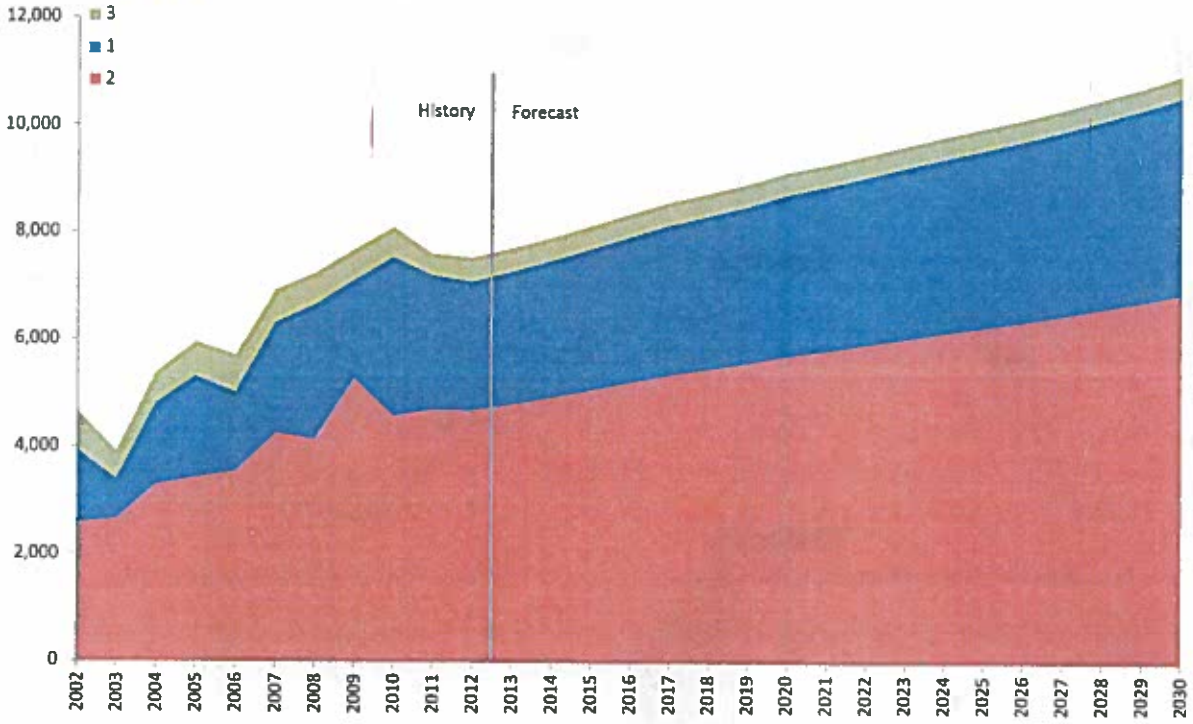
Santa Fe County Sustainable Development Areas

As noted earlier, from 2002 through 2012, Santa Fe County Land Use Jurisdiction Area employment increased by a 4.9% annual growth rate. However, employment growth varied among the Sustainable Development Areas (SDAs). From 2002 through 2012, SDA-3 employment decreased by .48% annually, SDA-2 employment increased by 6.1% annually, and SDA-1 employment increased by 5.9% annually. Table 6 displays estimated (2002-2012) and forecasted (2013-2030) Sustainable Development Area employment.[5]

From 2013 through 2030, we expect Land Use Jurisdiction employment to grow at an annual compound growth rate of 2.1%, from 7,726 to 10,982. SDA-2 will lead the job gains with 2,086 (or 2.1% annually), followed by SDA-1 with 1,200 (or 2.3% annually), and SDA-3 will lose 30 jobs (or -.04% annually). Figure 6 displays historical (2002-2013) and forecasted (2013-2030) Santa Fe County employment by Sustainable Development Area. Map 3 displays Santa Fe County Sustainable Development Areas.

The Water/Utility service area is defined to be SDA-1 that is within El Centro, not including SDA-1 in Estancia, hence its employment follows closely with SDA-1.

Figure 6: Employment historical (2002-2012) and forecast (2013-2030) for Sustainable Development Area



Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2012) OnTheMap; estimates and forecasts performed by UNM BBER.

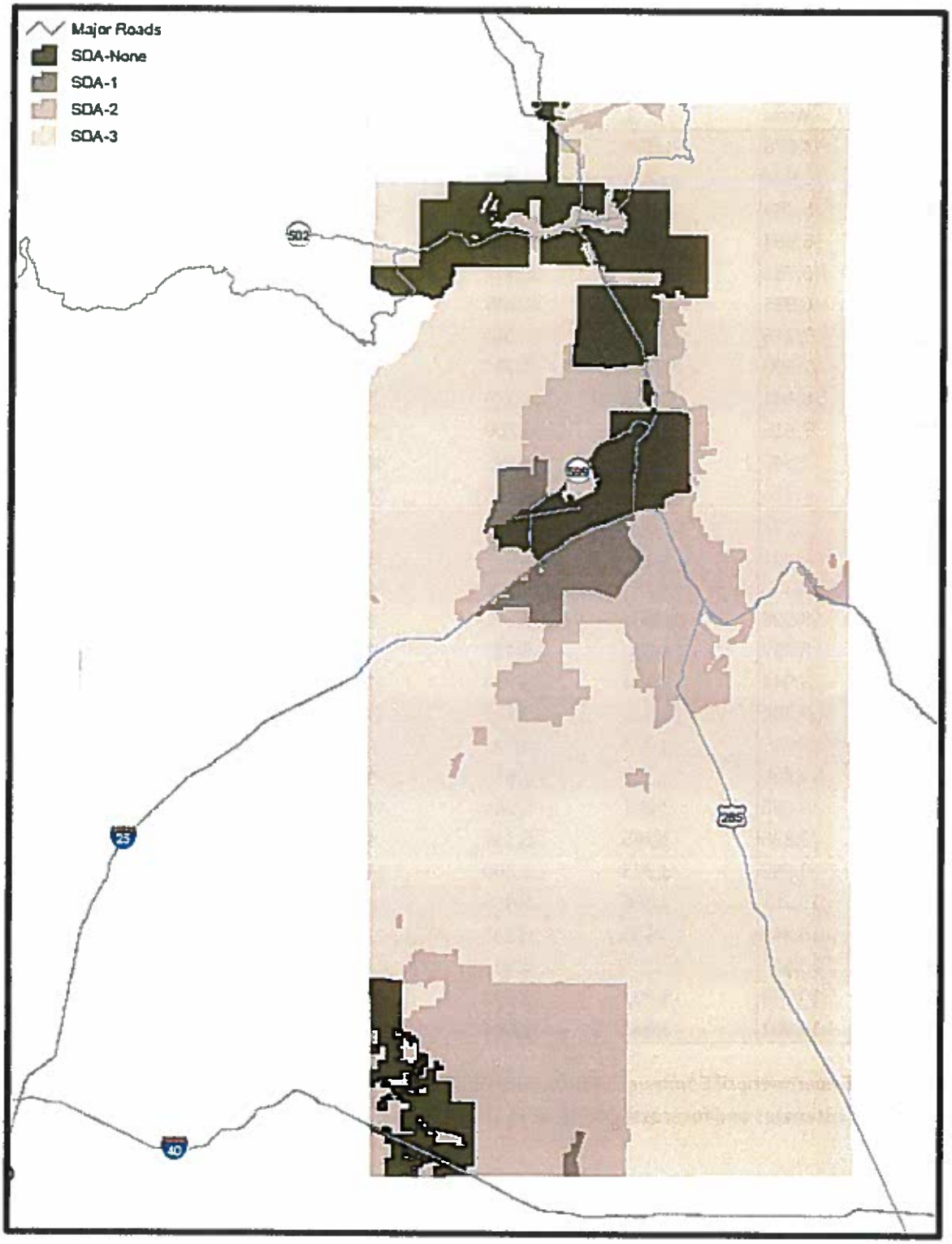
[5] Although SDA-1 is expected to be developed sooner than SDA-2, it is much smaller geographically than SDA-2, and thus has less employment than SDA-2.

Table 6: Employment history (2002-2012) and forecast (2013-2030) for Sustainable Development Areas

Year	Land Use Jurisdiction Area	1	2	3	Water/ Utility Service Area
2002	4,678	1,364	2,581	733	1,331
2003	3,924	743	2,649	532	733
2004	5,399	1,524	3,294	581	1,482
2005	5,964	1,890	3,425	649	1,830
2006	5,721	1,483	3,537	701	1,445
2007	6,935	2,075	4,245	615	2,004
2008	7,246	2,512	4,146	588	2,408
2009	7,690	1,838	5,274	578	1,774
2010	8,104	2,968	4,579	557	2,817
2011	7,615	2,507	4,700	408	2,398
2012	7,546	2,412	4,685	449	2,283
2013	7,726	2,482	4,802	441	2,352
2014	7,927	2,559	4,932	437	2,426
2015	8,145	2,640	5,072	433	2,505
2016	8,376	2,725	5,220	432	2,588
2017	8,598	2,806	5,362	430	2,667
2018	8,767	2,870	5,471	426	2,724
2019	8,944	2,936	5,585	423	2,783
2020	9,166	3,017	5,726	423	2,855
2021	9,315	3,073	5,823	419	2,905
2022	9,489	3,138	5,934	417	2,962
2023	9,660	3,201	6,044	415	3,018
2024	9,835	3,265	6,156	414	3,075
2025	9,997	3,325	6,260	412	3,128
2026	10,161	3,386	6,365	410	3,181
2027	10,344	3,453	6,482	410	3,241
2028	10,544	3,525	6,609	410	3,305
2029	10,749	3,599	6,740	410	3,371
2030	10,982	3,682	6,888	412	3,445

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2012); estimates and forecasts performed by UNM BBER.

Map 2: Santa Fe County sustainable development areas



Conclusion

The Geospatial and Population Studies (GPS) and the Bureau of Business and Economic Research (BBER) expect that the population and employment of Santa Fe County will reach 165,290 and 73,464 in 2030, respectively. From 2013, population is expected to increase by 18,443 people (or 13%) while employment is expected to increase by 12,834 jobs (or 21%).

The expected increase in employment will be filled by the expected increased working population, those who lost their jobs during the Great Recession, and commuters from outside of Santa Fe County.

The annual compound growth rate of Santa Fe County employment ranged from .7% (from 1995 through 2012) to 2.6% (from 1990 through 2007). From 2013 through 2030, we expect employment to grow at an annual compound growth rate of 1.1%, with the largest employment increases expected to be in the Healthcare & Social Assistance and Government sectors, which already comprise the two largest sectors of the economy.

Issues and Limitations

It is important to note issues and limitations with the forecast so that the forecast is viewed with an appropriate dose of skepticism.

- The forecast does not and cannot anticipate extraordinary events, either good or bad.
- The forecast is based on the most current data available. However, this data is subject to revision, while the forecast is not.
- The forecast assumes that the historical relationships and trends will continue to hold into the future.
- The forecast assumes that IHS Global Insight's U.S. employment by sector forecast will be accurate.
- Forecast reliability decreases as the length of time increases.
- Forecast reliability decreases as the level of detail increases, both categorical (employment by sector) and geographical (employment by service area).

Appendix

Employment Measure

BBER measured historical employment levels with the Quarterly Census of Employment and Wages (QCEW) in Part 1. To keep the unit of measure consistent across both reports, BBER will also forecast employment levels in units analogous with QCEW in Part 2.

The U.S. Department of Labor, Bureau of Labor Statistics (BLS) produces the QCEW in cooperation with State Employment Security Agencies and includes tabulation of employment covered by state Unemployment Insurance (UI) laws and federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program, which together cover about 98 percent of U.S. jobs. The QCEW includes partial information on agricultural industries and employees in private households. However, QCEW does not include non-profits, religious organizations, members of the armed forces, the self-employed, proprietors, domestic workers, unpaid family workers, railroad workers covered by the railroad UI system, work study employees, or hospital interns.

Forecast Method

QCEW employment data is available from 1990 through 2012, thus the forecast presented begins in 2013. From 2013 through 2019, the forecast is supplemented with the short-term FOR-UNM employment forecast.[6] From 2020 through 2030, BBER forecasted Santa Fe County employment by sector.

The Santa Fe County employment by sector was aggregated and the resulting total Santa Fe County employment was allocated to the service areas by shifting shares. Finally, input from local economic development officials was included to adjust the forecast to reflect near term potential economic developments.

BBER estimated the historic relationship of Santa Fe County employment by sector to U.S. employment by sector and applied that relationship to forecasted U.S. employment by sector to forecast Santa Fe County employment by sector.

[6] Based on IHS Global Insight's five-year short term forecast of the U.S. economy, BBER produces a five-year short-term forecast of New Mexico and New Mexico MSA's (including Santa Fe MSA, which is defined to be Santa Fe County) total employment by 2-digit NAICS, income, housing, and other variables. Global Insight also produces a long-term forecast (30 years out) of the U.S. economy based on trends and other scenarios.

The historical relationship between Santa Fe County employment by sector and U.S. employment by sector was estimated via Ordinary Least Squares regression. If the adjusted r-square was low, modifications were made to the model.[7] Modifications to the model include the introduction of a dummy variable to remove an outlying observation, the introduction of a time trend, or the specification of the model to be based only on a time trend. Either a dummy variable was introduced to remove an outlying observation, or the model was specified to include a time trend, or the model was specified to only be based on a time trend. On average, the model modifications doubled the adjusted r-square from 21 percent to 42 percent. The table below lists the adjusted r-square and modified adjusted r-square for each regression along with 2012 employment. The regression results are presented in Table A2.

Table A1: Regression diagnostics for historical relationship estimation between Santa Fe County employment by sector and U.S. employment by sector

	Adjusted R-Square		
Sector	Original	Modified	2012 Employment
Government	**0.94**		16,938
Retail Trade	**0.81**		8,884
Healthcare & Social Assistance	**0.94**		8,434
Accommodation & Food Services	**0.83**		8,296
Construction	0.74		2,662
Professional & Technical Services	0.73		2,468
Other Services & Unclassified	0.45	0.56	2,446
Finance & Insurance	0.75		1,776
Administrative & Waste Services	0.70		1,733
Educational Services	0.73		1,411
Arts, Entertainment & Recreation	0.00	0.28	924
Wholesale Trade	0.26	0.48	913
Manufacturing	0.93		776
Real Estate, Rental & Leasing	0.51	0.56	747
Information	0.00	0.35	745
Transportation, Warehousing & Utilities	0.17	0.46	651
Mining & Agriculture	0.02	0.13	255
Management of Companies & Enterprises	0.24	0.57	192

Sources: University of New Mexico, Bureau of Business and Economic Research; U.S. Department of Labor, Bureau of Labor Statistics, Quarterly Census of Employment and Wages.

[7] In our case, the adjusted r-square is the proportion of variation in county employment that is explained by U.S. employment with an adjustment made to account for the number of explanatory variables used.

The largest sector, Government, had the best fit with an adjusted r-square of .94. Moreover, four of the five largest sectors (Government, Retail Trade, Healthcare & Social Assistance, and Accommodation & Food Services) had the highest adjusted r-squares, which account for 72% of the employment.

Conversely, three of the five smallest sectors (Mining & Agriculture, Transportation, Warehousing & Utilities, and Information) had the lowest adjusted r-squares, which only account for 3% of the employment.

Once the historical employment relationship was estimated, it was applied to IHS Global Insight forecasted U.S. employment by sector. Global insight provides economic and financial information as well as economic forecasts, of which the BBER subscribes to the U.S. economic forecasts and uses this forecast as an input to the FOR-UNM forecast.

Table A2: Regression results from regressing Santa Fe County employment by sector on U.S. employment by sector (if needed with modifications)

Sector	Intercept	Dummy Variable	U.S. Sector Employment	Time Trend
Mining & Agriculture	404	-75	-0.00009	
Construction	-534		0.0007	
Manufacturing	-934		0.0001	
Wholesale Trade	-29,278			15
Retail Trade	-4,326		0.0009	
Transportation, Warehousing & Utilities	431	101	0.00003	
Information	1,307	-659	0.00013	
Finance & Insurance	-541		0.0004	
Real Estate, Rental & Leasing	-490	194	0.00063	
Professional & Technical Services	1,111		0.0002	
Management of Companies & Enterprises	-184	-188	0.00031	
Administrative & Waste Services	-494		0.0003	
Educational Services	113		0.0004	
Healthcare & Social Assistance	-2,202		0.0006	
Arts, Entertainment & Recreation	1,542	-847	0.00019	
Accommodation & Food Services	3,303		0.0004	
Other Services & Unclassified	383	-568	0.00049	
Government	-12,872		0.0014	

Source: University of New Mexico, Bureau of Business and Economic Research.

Allocation

Since the service area forecast is based on total employment rather than sector employment, the employment forecast for Santa Fe County by sector was aggregated and then allocated to the service areas. BBER allocated total employment for all Santa Fe County service areas, but for exposition, only the allocation for the Growth Management Areas (GMAs) will be detailed. The forecasted employment shares for Sustainable Development Areas, Land Use Jurisdiction Area, Land Use Jurisdiction by GMAs, and Water/Utility Service Area are in the Appendix.

Data Source

The U.S. Department of Commerce, Census Bureau has partnered with the New Mexico Department of Workforce solutions (and every state employment agency) to produce the Longitudinal Employer-Household Dynamic OnTheMap product.[8] OnTheMap allows spatial query of QCEW employment data that is user defined for 2002 through 2011. BBER used the shapefiles provided by the Santa Fe County Growth Management Department to query employment data by GMAs (and other service areas).

The GMAs completely cover the county and are comprised of four regions: El Norte, El Centro, Galisteo, and Estancia. Each GMA roughly represents about a quarter of the area of the county, but not necessarily a quarter of the employment. El Centro, which contains the City of Santa Fe, leads the GMA in employment share. It comprised 95% of the share of employment in 2003 and 88% in 2011. Table 3 and Table 4 display employment and employment share by GMA from 2002 through 2011. El Centro's share of employment has been whittled away by El Norte with the opening of the casinos in Pojoaque and Tesuque. Map 1 displays the GMAs.

[8] http://onthemap.ces.cunsus.gov/

Map A1: Santa Fe County Growth Management Areas

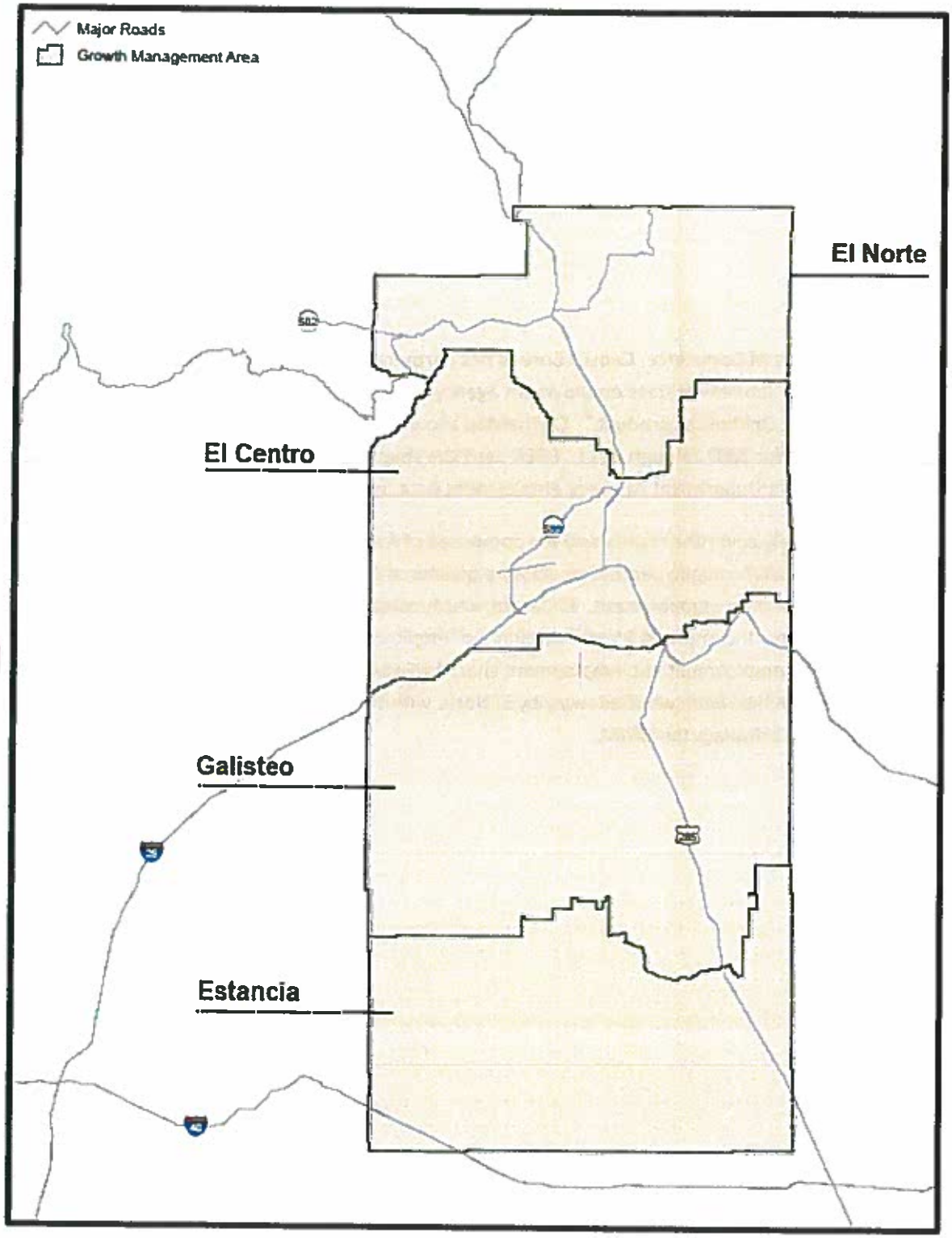


Table A3: Employment by Growth Management Area from 2002 through 2011

GMA	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
El Norte	1,834	1,676	2,119	2,701	2,707	3,284	3,228	4,902	5,268	5,891
El Centro	54,903	56,135	53,272	57,377	56,070	58,937	58,249	51,162	55,308	55,143
Galisteo	899	926	1,014	1,031	1,147	1,249	1,258	1,221	1,079	913
Estancia	503	624	540	641	712	641	740	884	866	844
Total	58,139	59,361	56,945	61,750	60,636	64,111	63,475	58,169	62,521	62,791

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics OnTheMap; adjustments made by UNM BBER

Table A4: Employment share by Growth Management Area from 2002 through 2011

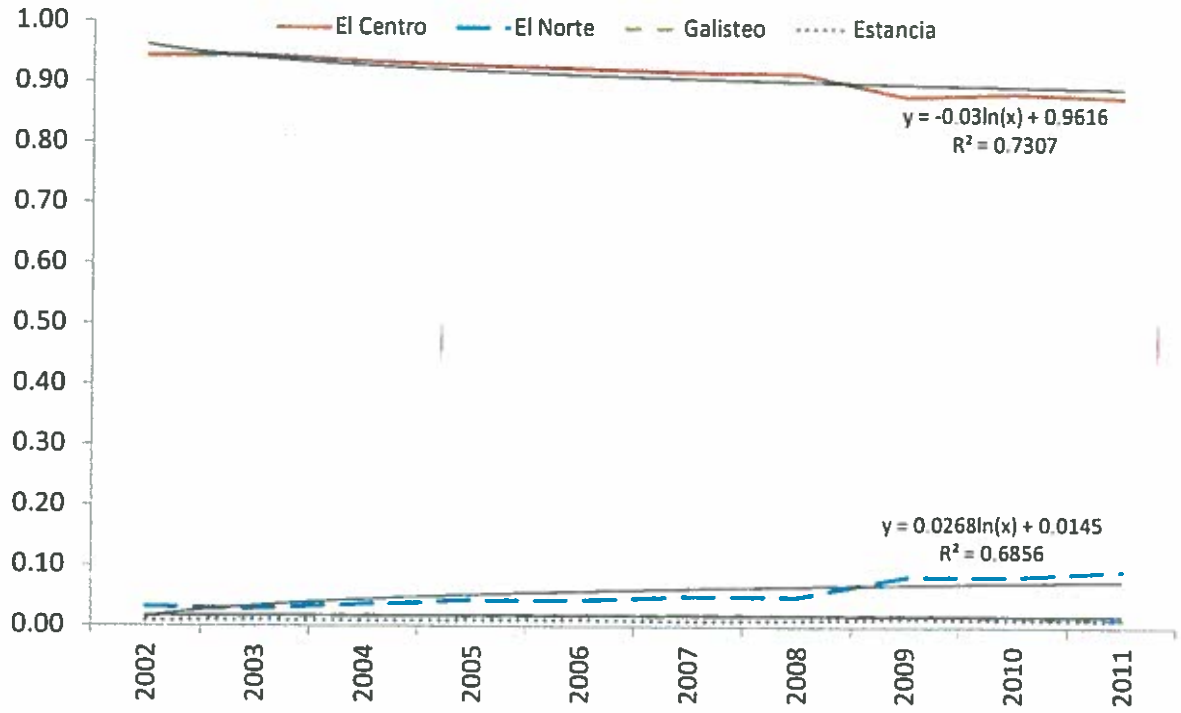
GMA	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
El Norte	0.03	0.03	0.04	0.04	0.04	0.05	0.05	0.08	0.08	0.09
El Centro	0.94	0.95	0.94	0.93	0.92	0.92	0.92	0.88	0.88	0.88
Galisteo	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01
Estancia	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics OnTheMap; calculations performed by UNM BBER

Employment Share Trend Estimation

The employment share trend from 2002 through 2011 was estimated for El Norte, El Centro, and Galisteo with a logarithm regression. These trends were extended to 2012 through 2030 to forecast the employment share of each area, while Estancia share was controlled to be the remainder. Figure 2 displays employment shares by area and the estimated employment share by area using a logarithm regression. Historic employment shares display stability and change slowly over time, so a logarithm regression was chosen to model this behavior.

Figure A1: Employment share by GMA and estimated employment share by GMA



Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics OnTheMap; regressions performed by UNM BBER

Once the employment share trend was estimated, it was extended from 2012 through 2030 and applied to the forecasted total employment to forecast employment by GMA. Table 5 displays the historical and forecasted employment shares and employment by GMA.

Table A5: Forecasted employment share and employment for Growth Management Areas

		GMA Share				GMA Employment			
Year	Santa Fe County	El Centro	El Norte	Estancia	Galisteo	El Centro	El Norte	Estancia	Galisteo
2012	60,250	0.88	0.09	0.01	0.02	52,911	5,653	561	1,125
2013	60,630	0.88	0.09	0.01	0.02	53,245	5,688	558	1,139
2014	61,251	0.88	0.09	0.01	0.02	53,791	5,747	558	1,156
2015	62,048	0.88	0.09	0.01	0.02	54,491	5,821	559	1,177
2016	62,980	0.88	0.09	0.01	0.02	55,309	5,909	563	1,200
2017	63,870	0.88	0.09	0.01	0.02	56,091	5,992	566	1,222
2018	64,402	0.88	0.09	0.01	0.02	56,455	6,042	668	1,237
2019	65,021	0.87	0.09	0.01	0.02	56,886	6,100	782	1,253
2020	65,984	0.87	0.09	0.01	0.02	57,622	6,191	896	1,276
2021	66,445	0.87	0.09	0.01	0.02	57,922	6,298	936	1,289
2022	67,102	0.87	0.10	0.01	0.02	58,397	6,448	952	1,305
2023	67,754	0.87	0.10	0.01	0.02	58,869	6,595	968	1,322
2024	68,445	0.87	0.10	0.01	0.02	59,378	6,744	984	1,339
2025	69,063	0.87	0.10	0.01	0.02	59,826	6,884	998	1,355
2026	69,706	0.87	0.10	0.01	0.02	60,298	7,024	1,013	1,371
2027	70,489	0.86	0.10	0.01	0.02	60,893	7,177	1,030	1,389
2028	71,388	0.86	0.10	0.01	0.02	61,588	7,341	1,049	1,410
2029	72,335	0.86	0.10	0.01	0.02	62,326	7,509	1,068	1,432
2030	73,464	0.86	0.10	0.01	0.02	63,222	7,695	1,090	1,458

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2011); estimates and forecasts performed by UNM BBER.

Table A6: Santa Fe County estimated (2002-2012) and forecasted (2013-2030) employment share

Year	Santa Fe County	City of Santa Fe	Edgewood	Espanola	Tribal Areas
2002	1.00	0.98	0.01	0.01	0.00
2003	1.00	0.98	0.01	0.01	0.00
2004	1.00	0.98	0.01	0.01	0.00
2005	1.00	0.97	0.01	0.01	0.01
2006	1.00	0.97	0.01	0.01	0.01
2007	1.00	0.96	0.01	0.02	0.02
2008	1.00	0.95	0.01	0.02	0.02
2009	1.00	0.93	0.01	0.02	0.03
2010	1.00	0.92	0.01	0.02	0.04
2011	1.00	0.92	0.01	0.02	0.05
2012	1.00	0.92	0.01	0.02	0.05
2013	1.00	0.92	0.01	0.02	0.05
2014	1.00	0.92	0.01	0.02	0.05
2015	1.00	0.92	0.01	0.02	0.05
2016	1.00	0.92	0.01	0.02	0.05
2017	1.00	0.92	0.01	0.02	0.05
2018	1.00	0.92	0.01	0.02	0.05
2019	1.00	0.92	0.01	0.02	0.05
2020	1.00	0.92	0.01	0.02	0.04
2021	1.00	0.92	0.01	0.02	0.04
2022	1.00	0.92	0.01	0.02	0.04
2023	1.00	0.92	0.01	0.02	0.04
2024	1.00	0.92	0.01	0.02	0.04
2025	1.00	0.92	0.01	0.02	0.04
2026	1.00	0.92	0.01	0.02	0.04
2027	1.00	0.92	0.01	0.02	0.04
2028	1.00	0.92	0.01	0.02	0.04
2029	1.00	0.92	0.01	0.02	0.04
2030	1.00	0.92	0.01	0.02	0.04

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2011); estimates and forecasts performed by UNM BBER.

Table A7: Estimated (2002-2012) and forecasted (2013-2030) employment share for Growth Management by Land Use Jurisdiction Area

		LUJA by GMA Share			
Year	Land Use Jurisdiction Area	El Centro	El Norte	Estancia	Galisteo
2002	1.00	0.52	0.27	0.02	0.19
2003	1.00	0.47	0.27	0.02	0.24
2004	1.00	0.52	0.28	0.02	0.19
2005	1.00	0.56	0.25	0.02	0.17
2006	1.00	0.53	0.24	0.03	0.20
2007	1.00	0.59	0.21	0.02	0.18
2008	1.00	0.64	0.17	0.02	0.17
2009	1.00	0.59	0.25	0.02	0.15
2010	1.00	0.62	0.23	0.02	0.13
2011	1.00	0.55	0.31	0.02	0.12
2012	1.00	0.60	0.23	0.02	0.14
2013	1.00	0.60	0.23	0.02	0.14
2014	1.00	0.61	0.23	0.02	0.14
2015	1.00	0.61	0.23	0.02	0.14
2016	1.00	0.62	0.23	0.02	0.13
2017	1.00	0.62	0.23	0.02	0.13
2018	1.00	0.62	0.23	0.02	0.13
2019	1.00	0.62	0.23	0.02	0.13
2020	1.00	0.63	0.23	0.02	0.13
2021	1.00	0.63	0.23	0.02	0.12
2022	1.00	0.63	0.23	0.02	0.12
2023	1.00	0.63	0.22	0.02	0.12
2024	1.00	0.64	0.22	0.02	0.12
2025	1.00	0.64	0.22	0.02	0.12
2026	1.00	0.64	0.22	0.02	0.12
2027	1.00	0.64	0.22	0.02	0.12
2028	1.00	0.64	0.22	0.02	0.11
2029	1.00	0.65	0.22	0.02	0.11
2030	1.00	0.65	0.22	0.02	0.11

Source: U.S. Department of Commerce, Census Bureau, Longitudinal Employer-Household Dynamics (2002-2011); estimates and forecasts performed by UNM BBER.

EXHIBIT

tabbies

C

POPULATION FORECASTS FOR SANTA FE COUNTY:

GROWTH MANAGEMENT AREAS, SUSTAINABLE DEVELOPMENT AREAS, AND THE WATER/WASTEWATER SERVICE AREA

1990-2030

PRESENTATION: SANTA FE COUNTY BOARD OF COUNTY COMMISSIONERS

OCTOBER 28TH, 2014

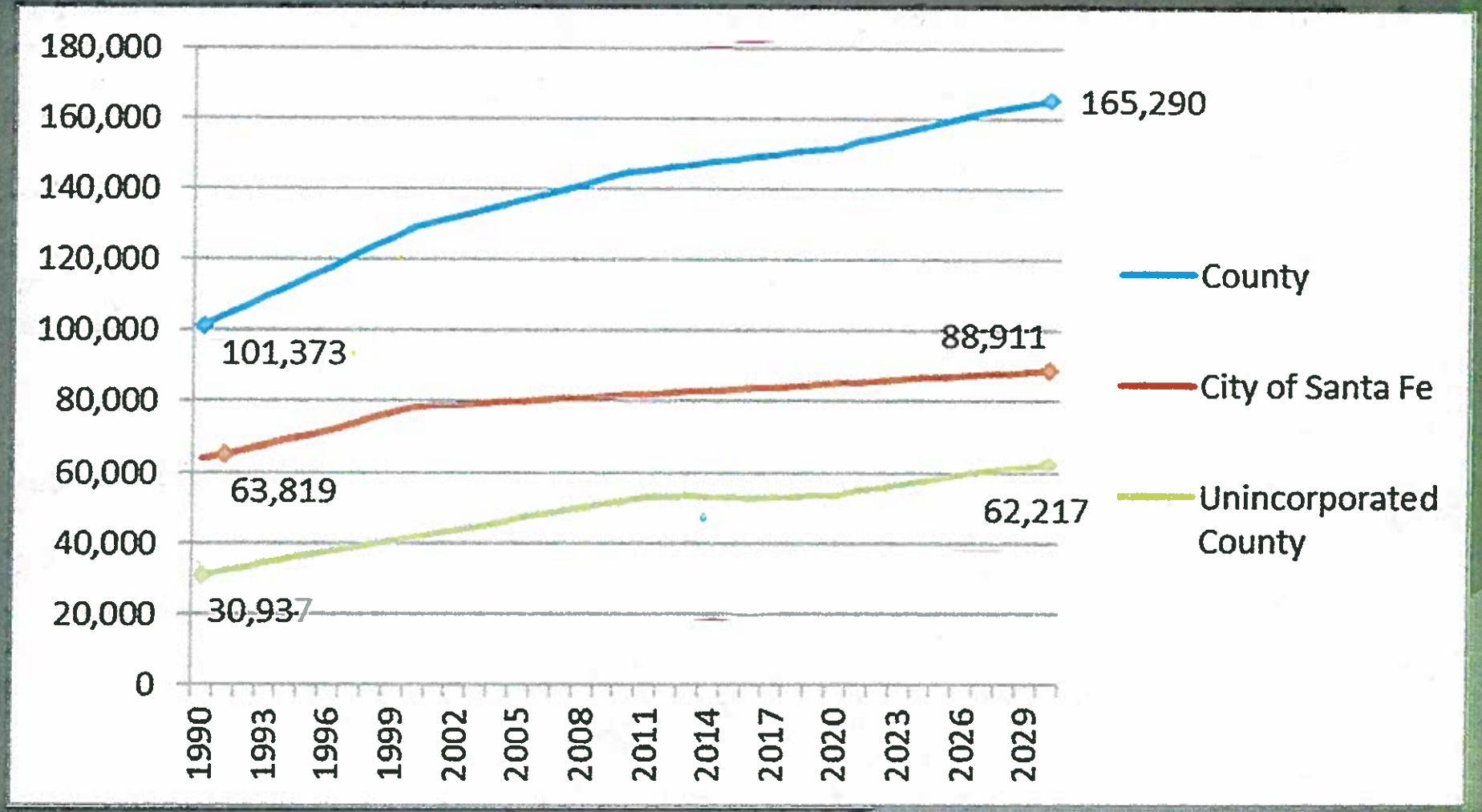
Jack Baker, Senior Research Scientist
Geospatial and Population Studies
University of New Mexico

Outline

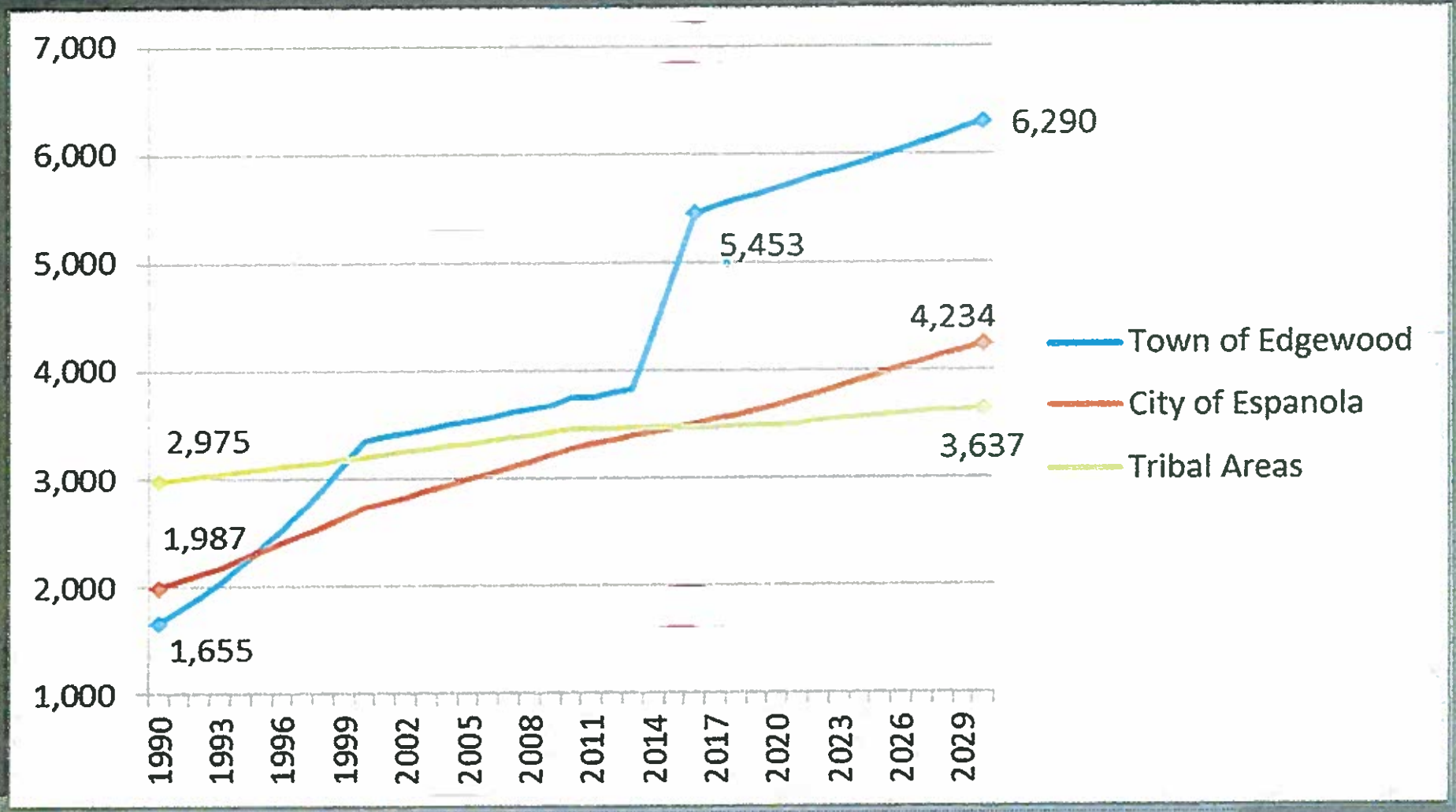
- Historical and Forecasted Trends County-Wide
- Historical and Forecasted Trends in Growth Management Areas
- Historical and Forecasted Trends in Sustainable Development Areas
- Some Key Findings and Assumptions

County-Wide Historical and Forecasted Population Trends

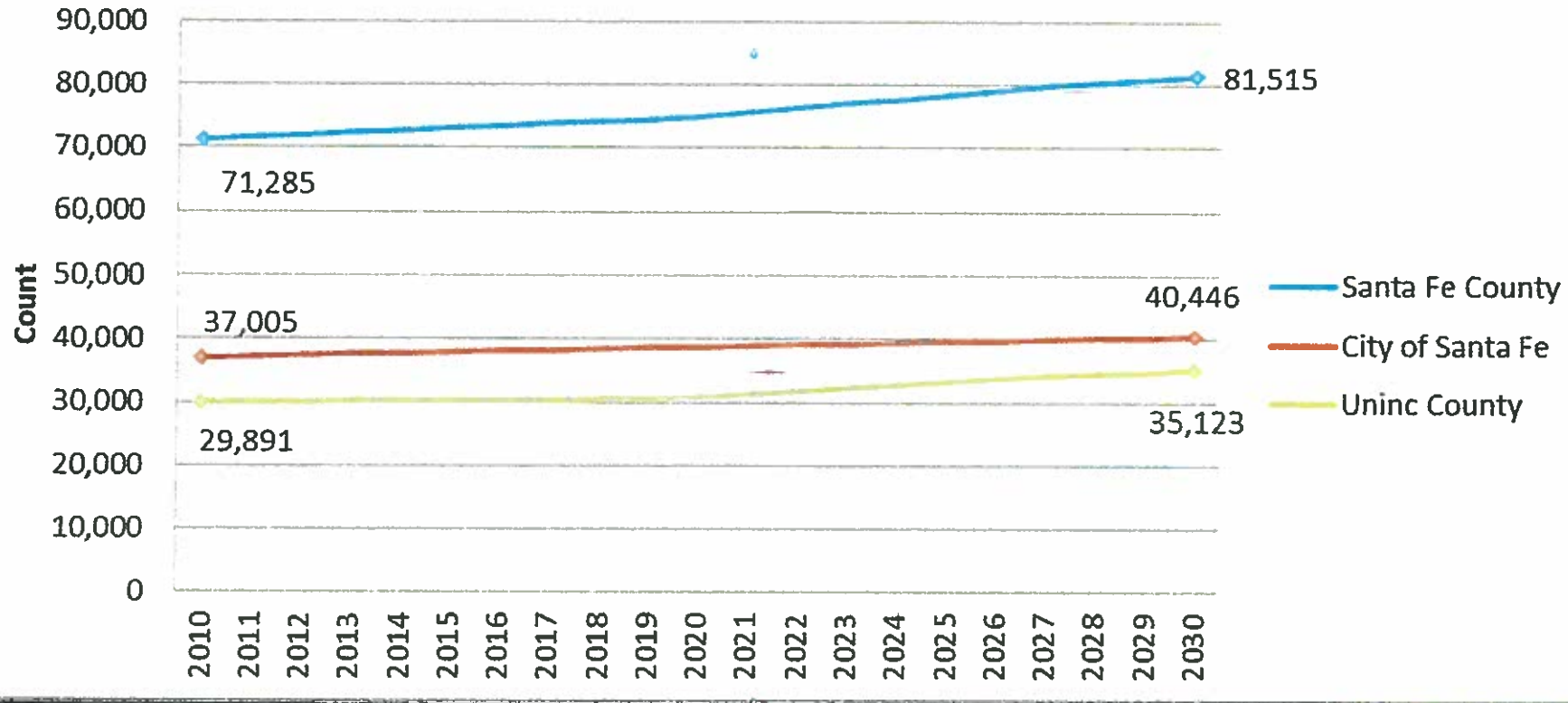
County Wide Population Trends



Trends in Smaller Municipalities and Tribal Areas



Housing Unit Stock, Santa Fe County 2010-2030

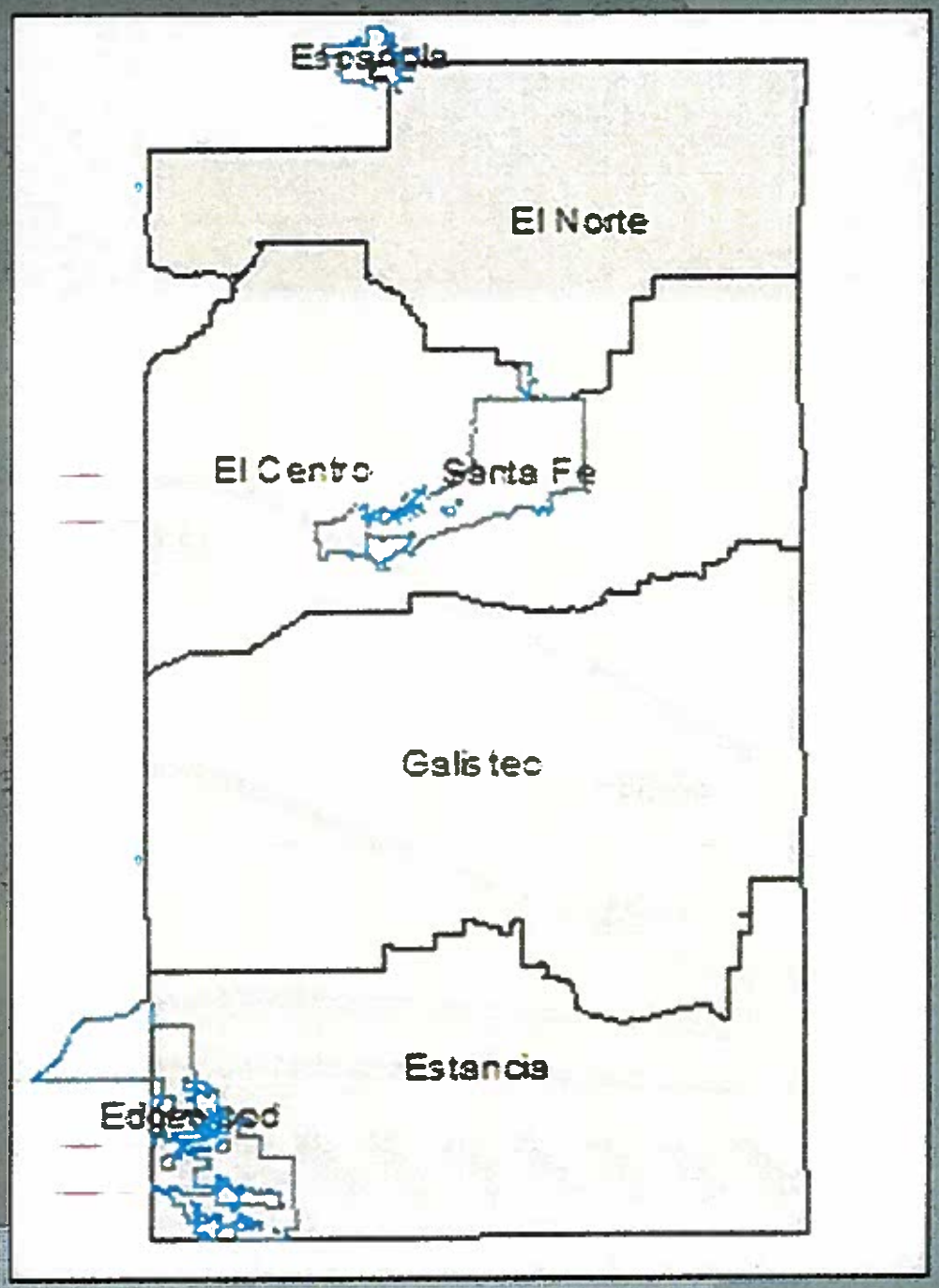


County-Wide Take-Home Message

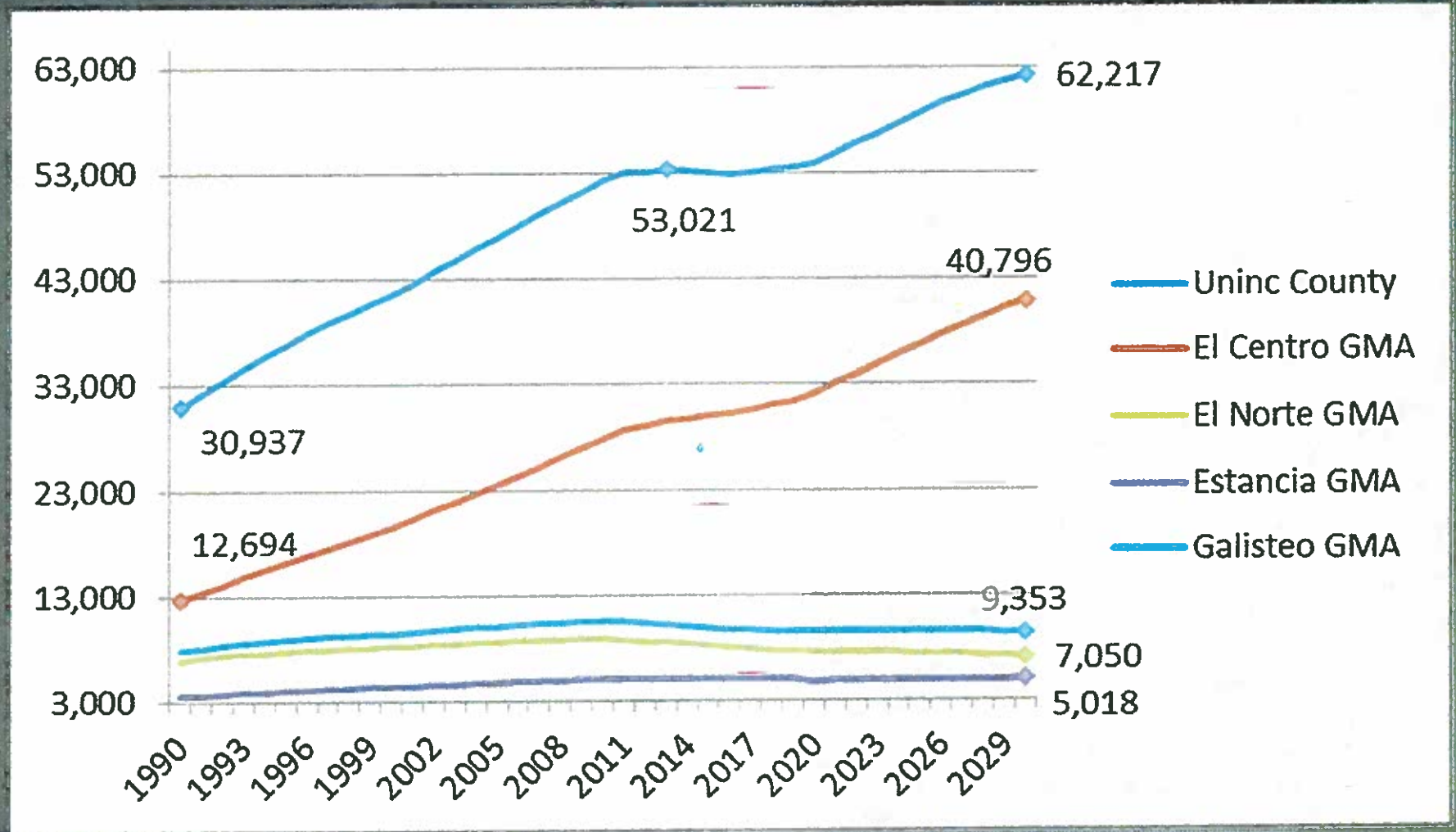
- County growth is anticipated to slow over the 2015-2030 period.
- Town of Edgewood will have a "bump" in association with Google/Titan Aerospace deal.
- City of Santa Fe annexations will concentrate population in the city between 2014 and 2030.
- With population growing faster than housing—we may observe some increases in average household size.

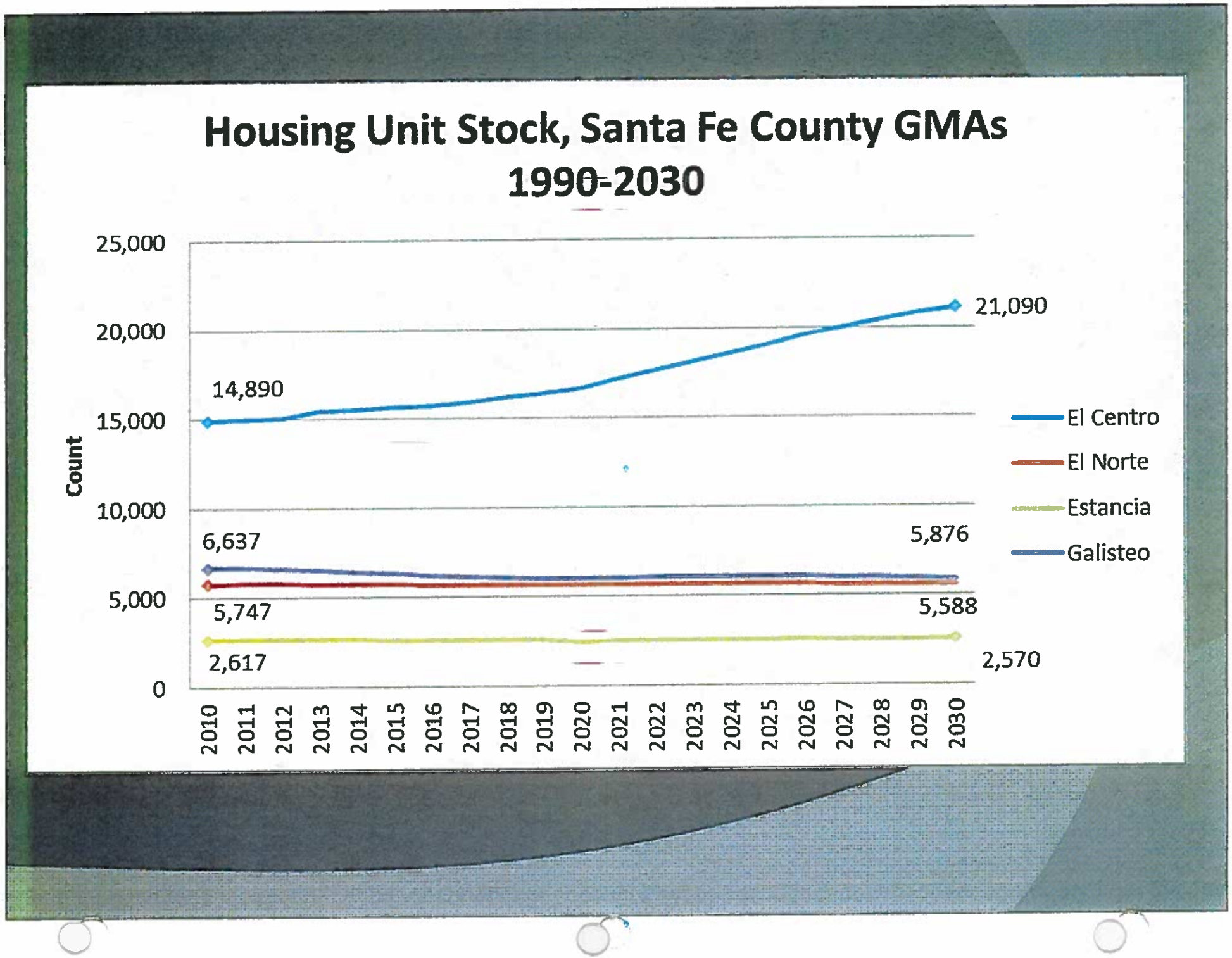
Historical and Forecasted Population Trends in Growth Management Areas

Growth Management Areas, County of Santa Fe



Growth by Management Areas, 1990-2030



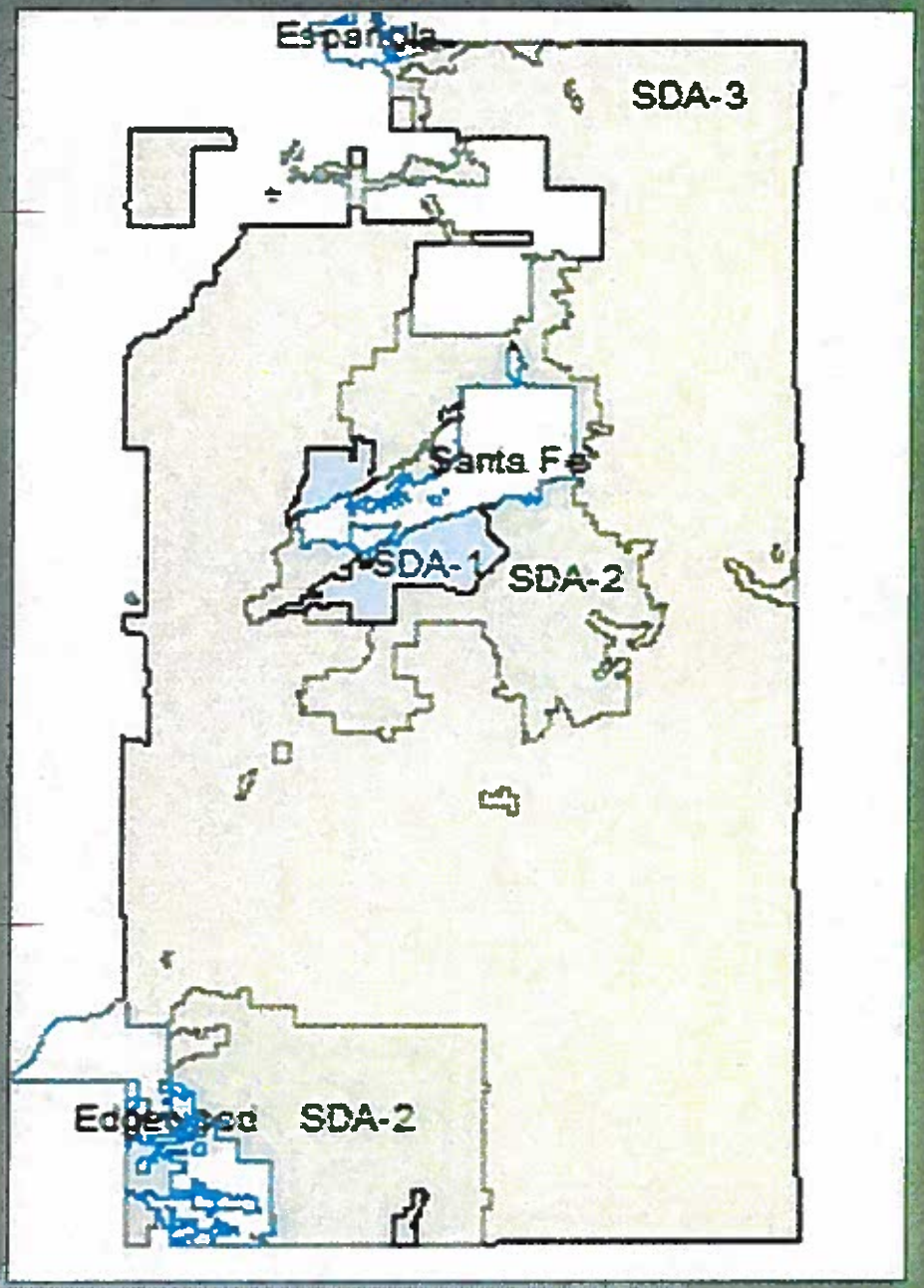

Housing Unit Stock, Santa Fe County GMAs
1990-2030
Count
25,000
20,000
15,000
10,000
5,000
0
14,890
21,090
6,637
5,876
5,747
5,588
2,617
2,570
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
2027
2028
2029
2030
El Centro
El Norte
Estancia
Galisteo

GMA Take-Home Message

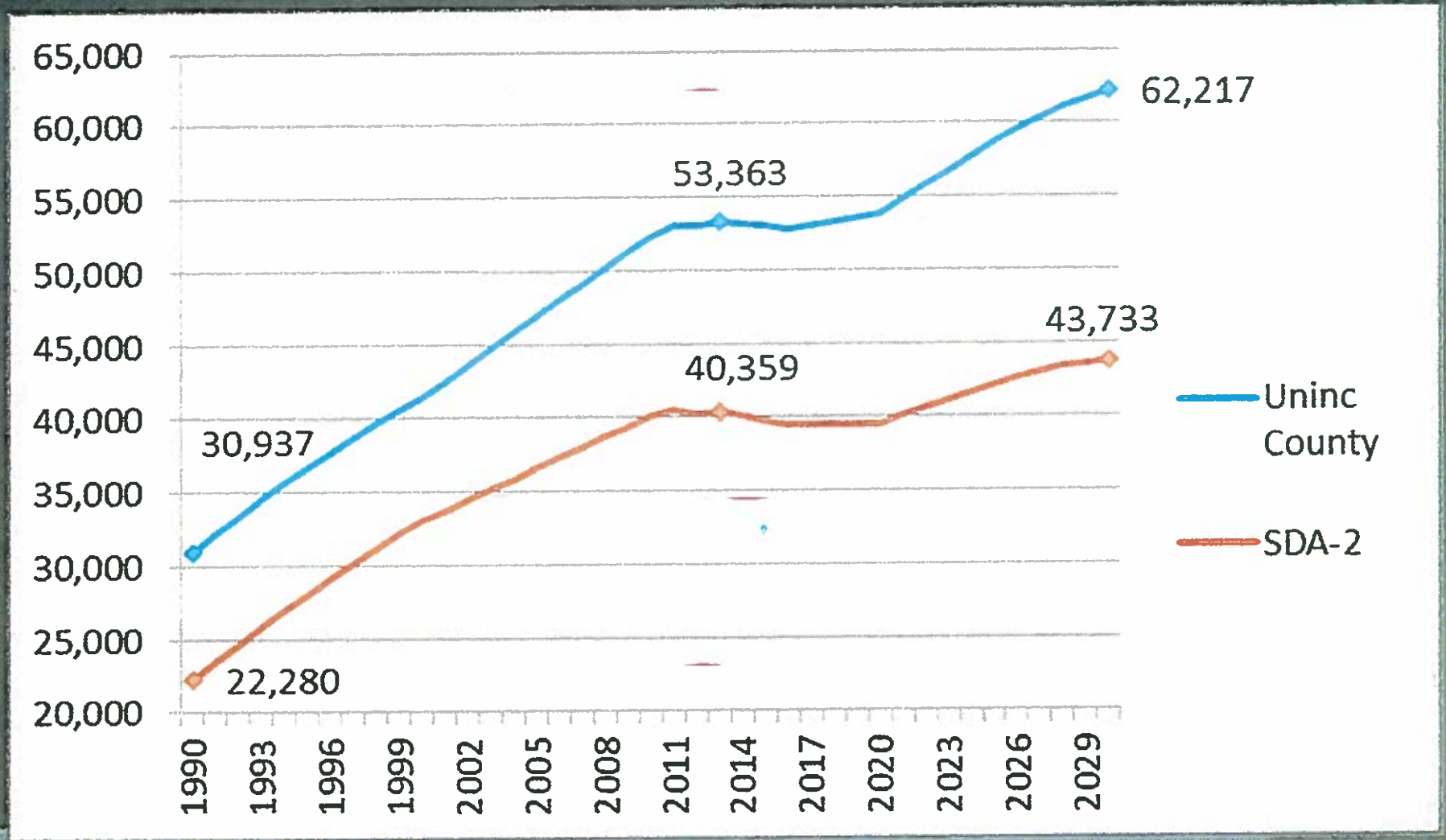
- Growth will continue to centralize population in the *El Centro* GMA—around the city of Santa Fe.
- This trend will continue through 2030.
- With population growing at a faster rate than housing—we may see increases in average household size.

Historical and Forecasted Population Trends in Sustainable Development Areas

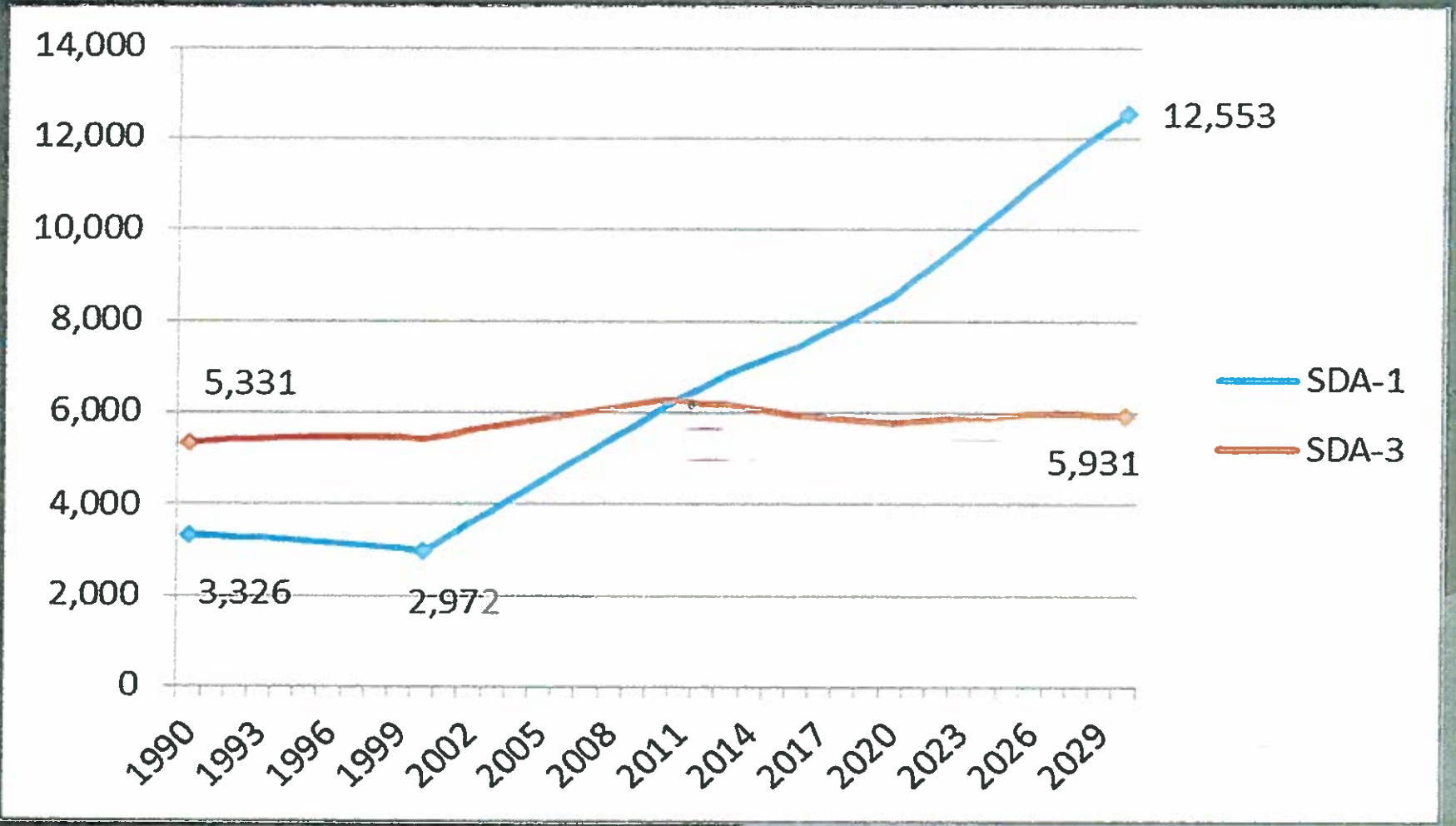
Sustainable Development Areas, County of Santa Fe



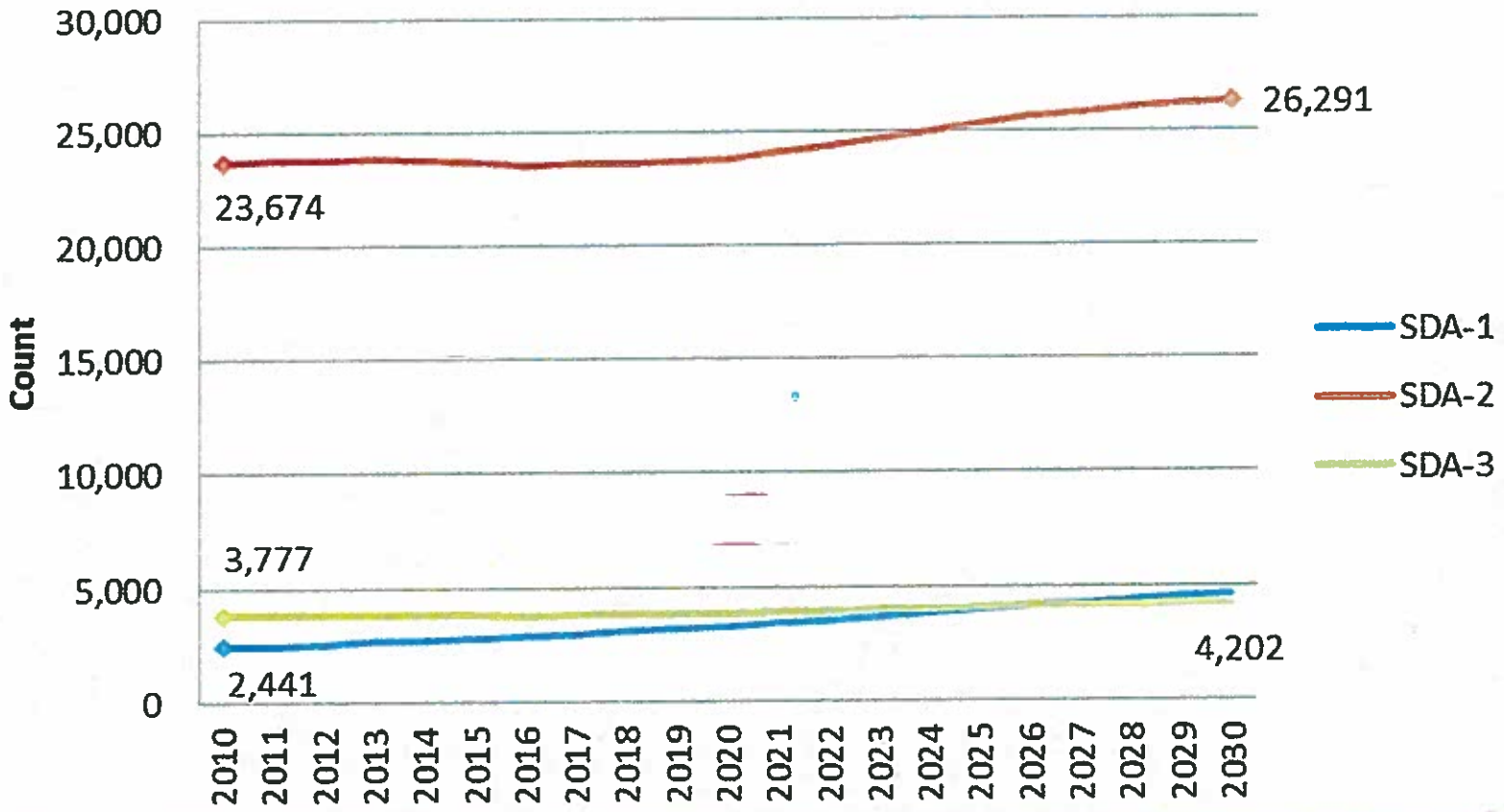
Growth in SDA-2, 1990-2030



Growth in SDA-1 and SDA-3, 1990-2030



Housing Unit Stock, Santa Fe County SDAs 1990-2030



Take Home Messages: SDAs

- Growth will be most rapid in SDA-1, driven by both history and direction of growth into the Santa Fe Community College PDD.
- In spite of this rapid growth, most of the population in unincorporated Santa Fe County will remain in SDA-2.
- This corresponds with the expected centralization in the El Centro GMA.

Some Key Findings Related to Land-Use/Zoning and Assumptions

Key Findings

- County-wide proposed zoning will have little impact upon population dynamics within the study geographies 2014-2030.
- The directed funneling of growth into the Santa Fe Community College PDD has the greatest impact on population dynamics in the study areas.
- SDA-1, SDA-2, and the El Centro GMA are the areas of most activity.
- Centralization of Santa Fe County population around the City of Santa Fe is to be anticipated.

Key Assumptions

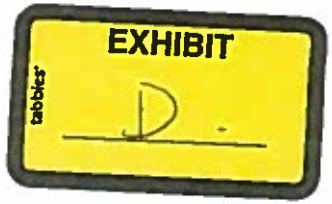
- County-level controls—this means that growth directed into any sub-county geography through Land Use Policy will mean shifts in population within the County, rather than newly-introduced growth.
- Slowed growth between 2014 and 2020, followed by growth returning to more historical levels 2020-2030.
- We built in expert opinion-based expectation about the rate at which the SFCC PDD would fill with housing. Deviations from that expectation could mean different forecasts for SDAs and GMAs, but would not affect the county total or the City of Santa Fe.

Key Assumptions and Their Implications

- The county cap to growth exists.
- Growth in sub-county areas results from re-distribution of county growth.
- Directed growth into the SF Community College PPD occurs at a specific timeline determined by "expert opinion". **Zoning regulations are realized.**
- Sub-County areas grow as shares of the county.
- Rapid growth in one area can lead to negative growth in another—in spite of obvious historical trends
- The majority of growth is systematically funneled into SDA-1 at a rate similar to observed historical development in the county.

Contact

Jack Baker, PhD
Senior Research Scientist
Geospatial and Population Studies
University of New Mexico
kali@unm.edu
(505) 277-2216



UNM Bureau *of* Business & Economic Research

Santa Fe County Employment Forecast: 2013-2030

Sustainable Development Area

Water/Utility Service Area

Growth Management Area

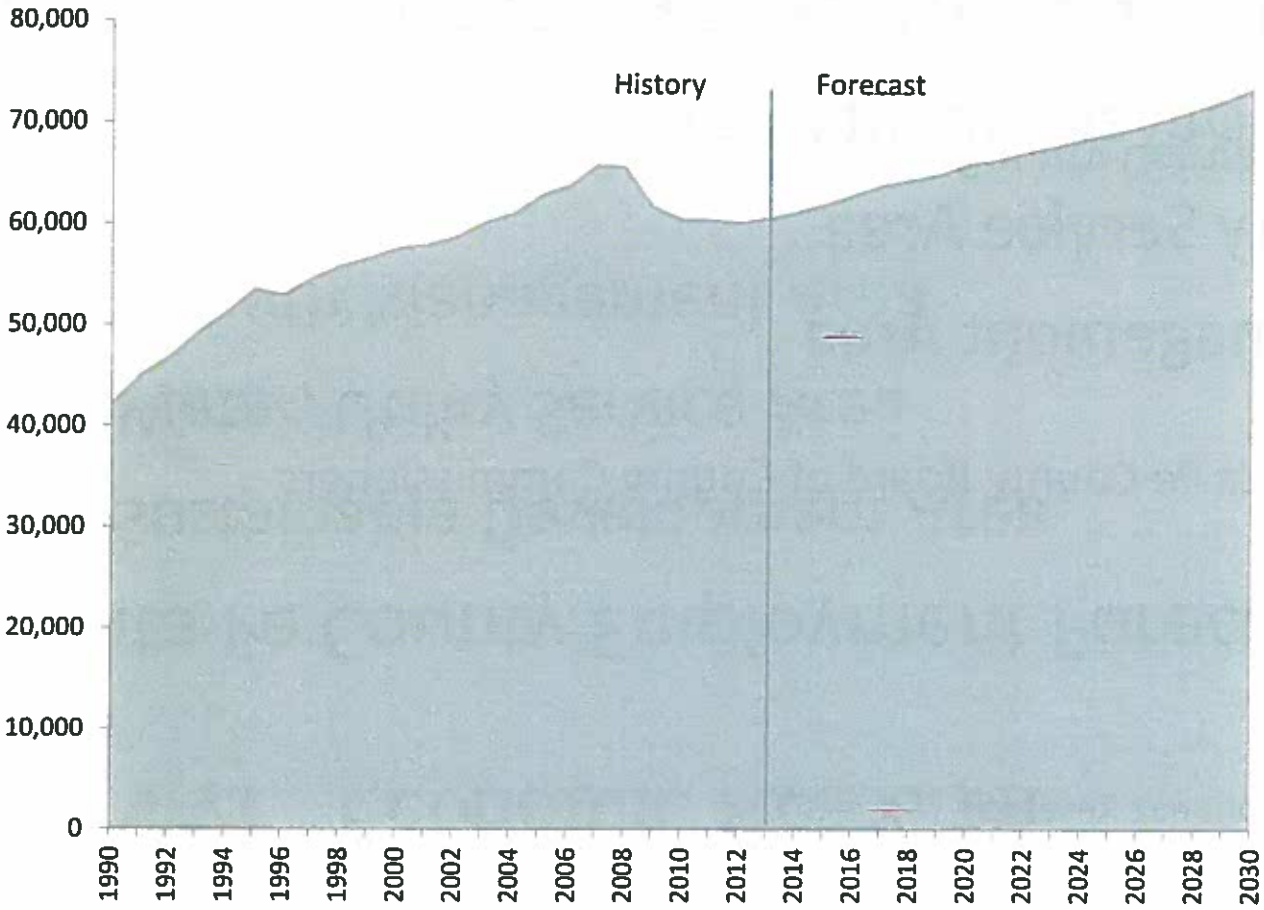
Presented to the Santa Fe County Board of County Commissioners

October 28, 2014

Daren Ruiz, MA

Bureau of Business and Economic Research
MSC06 3510
1 University of New Mexico
Albuquerque, NM 87131-0001

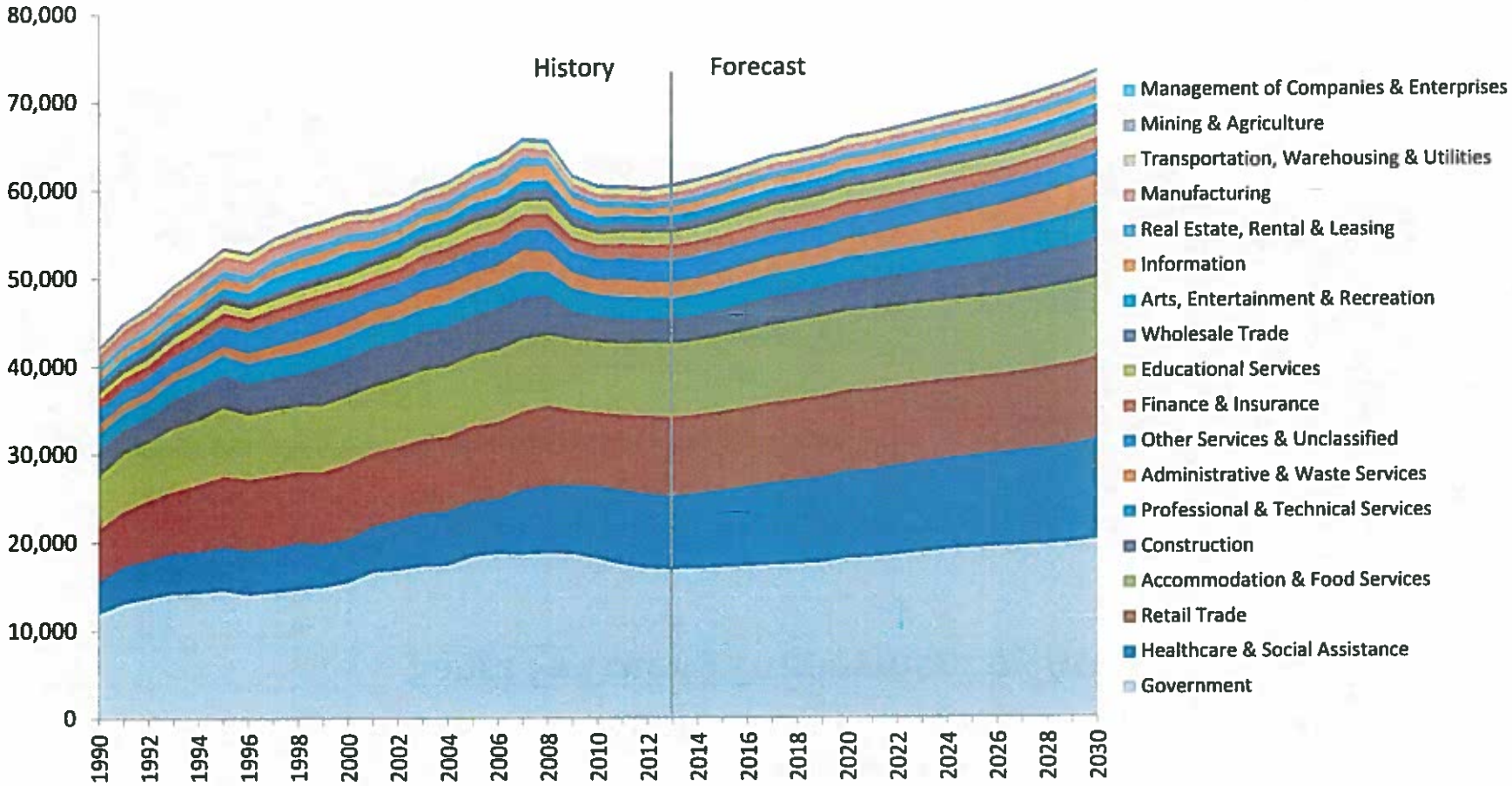
Santa Fe County Employment



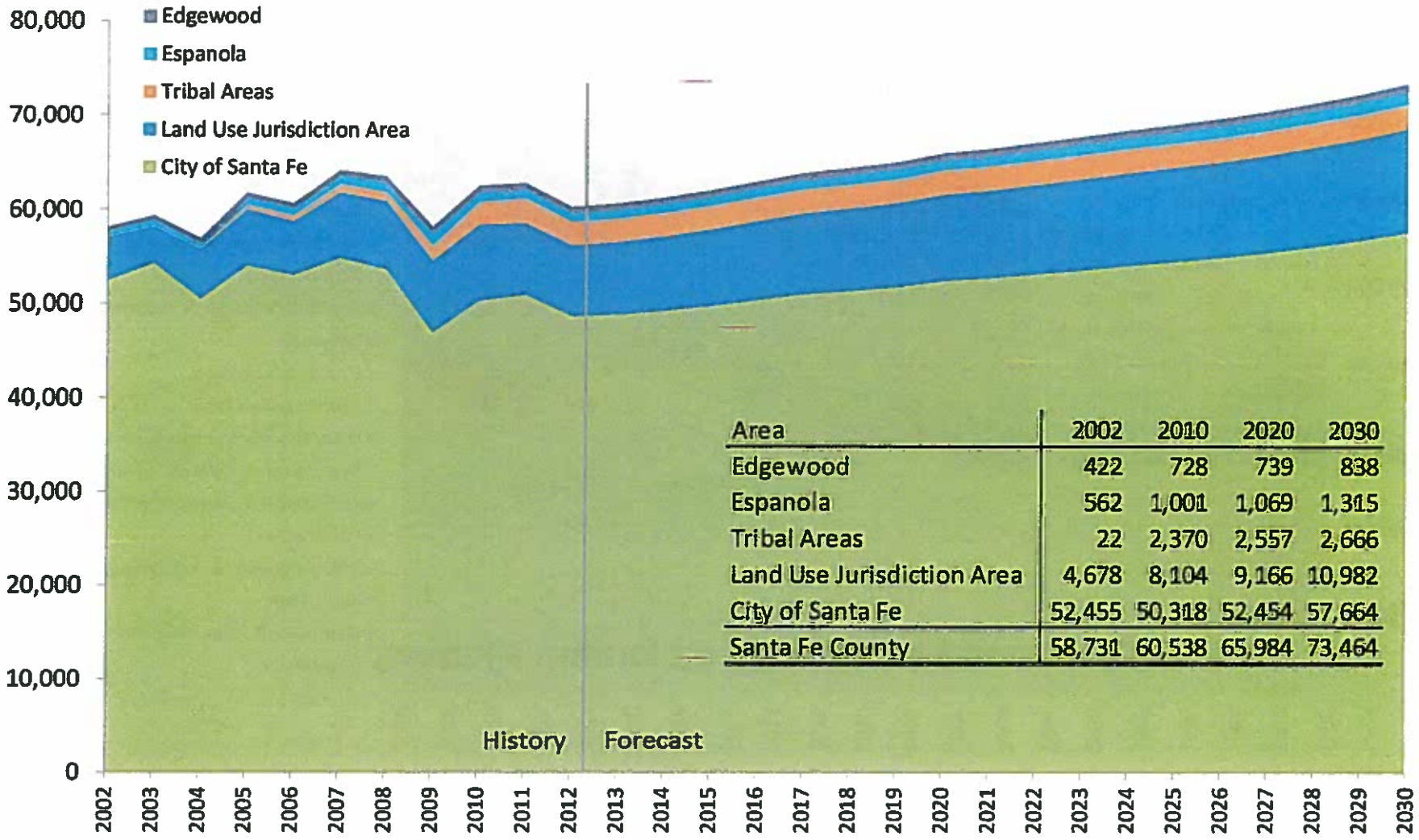
Period	Empoyment Growth
1990-2007	23,610
1995-2012	6,635
2013-2030	12,834

Period	Average Annual Growth Rate
1990-2007	2.6%
1995-2012	0.7%
2013-2030	1.1%

Santa Fe County Employment by Sector

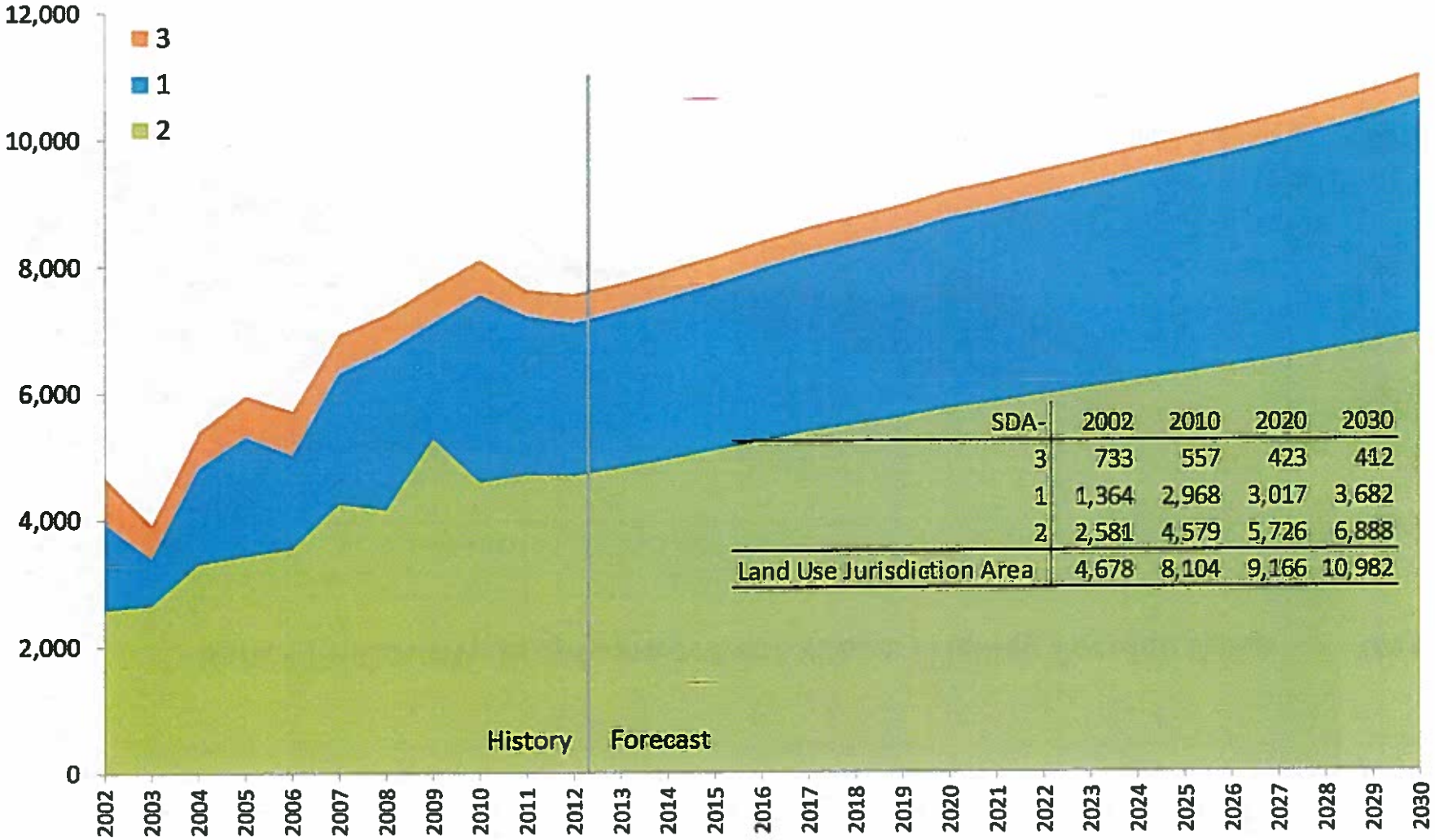


Santa Fe County Employment by Area



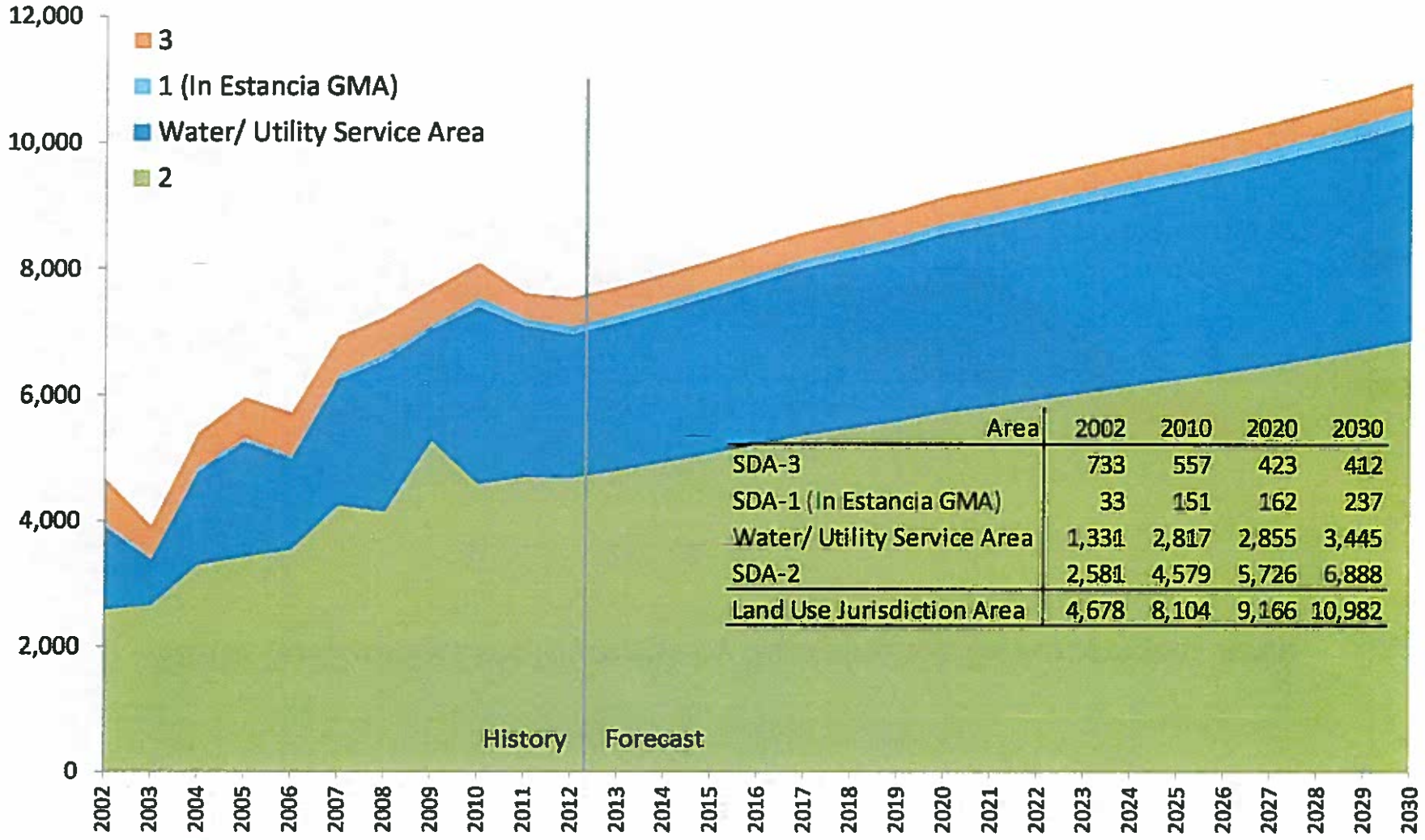
Area	2002	2010	2020	2030
Edgewood	422	728	739	838
Espanola	562	1,001	1,069	1,315
Tribal Areas	22	2,370	2,557	2,666
Land Use Jurisdiction Area	4,678	8,104	9,166	10,982
City of Santa Fe	52,455	50,318	52,454	57,664
Santa Fe County	58,731	60,538	65,984	73,464

Santa Fe County Employment by Sustainable Development Area



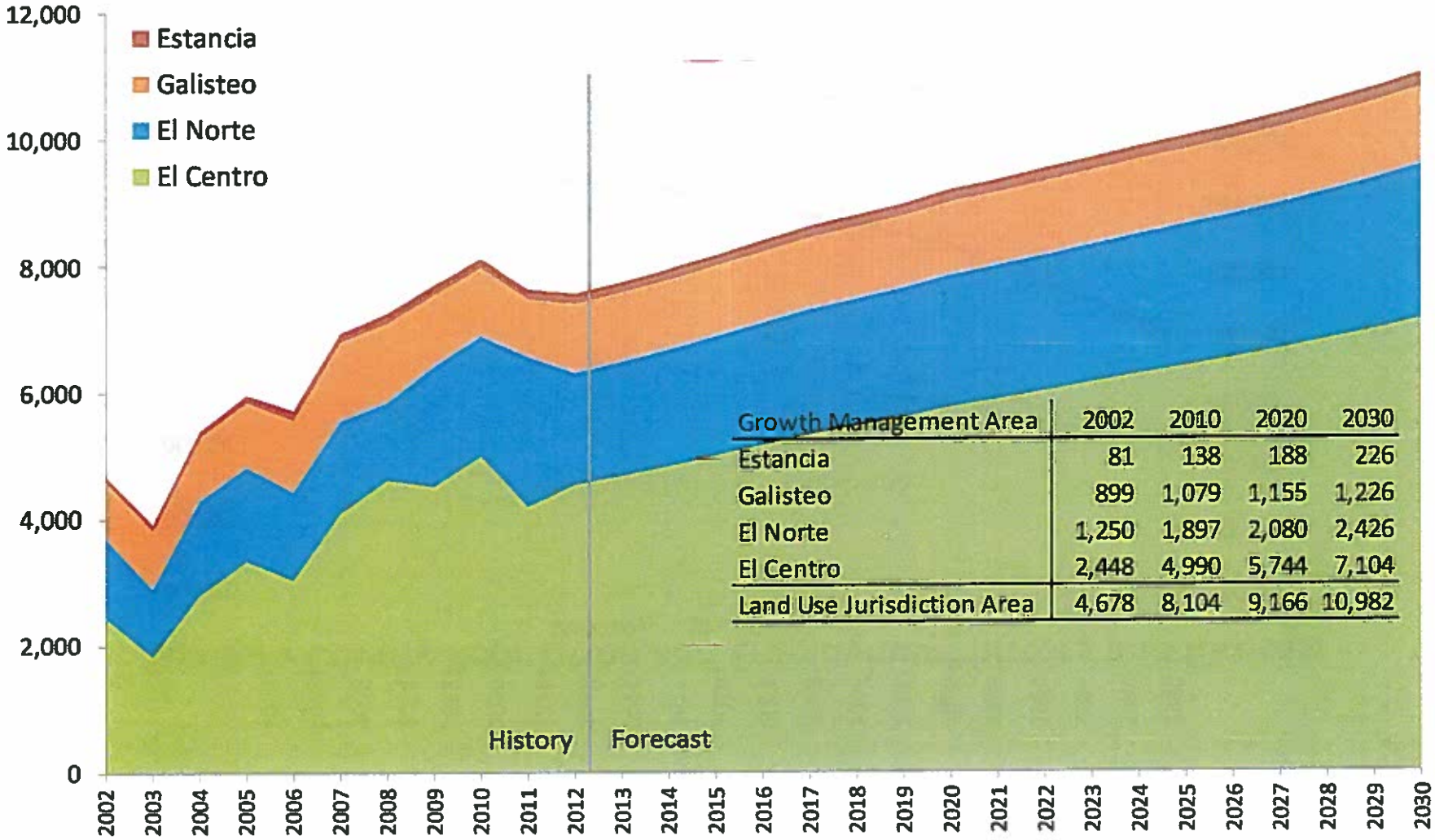
SDA-	2002	2010	2020	2030
3	733	557	423	412
1	1,364	2,968	3,017	3,682
2	2,581	4,579	5,726	6,888
Land Use Jurisdiction Area	4,678	8,104	9,166	10,982

Santa Fe County Employment for Water/Utility Service Area



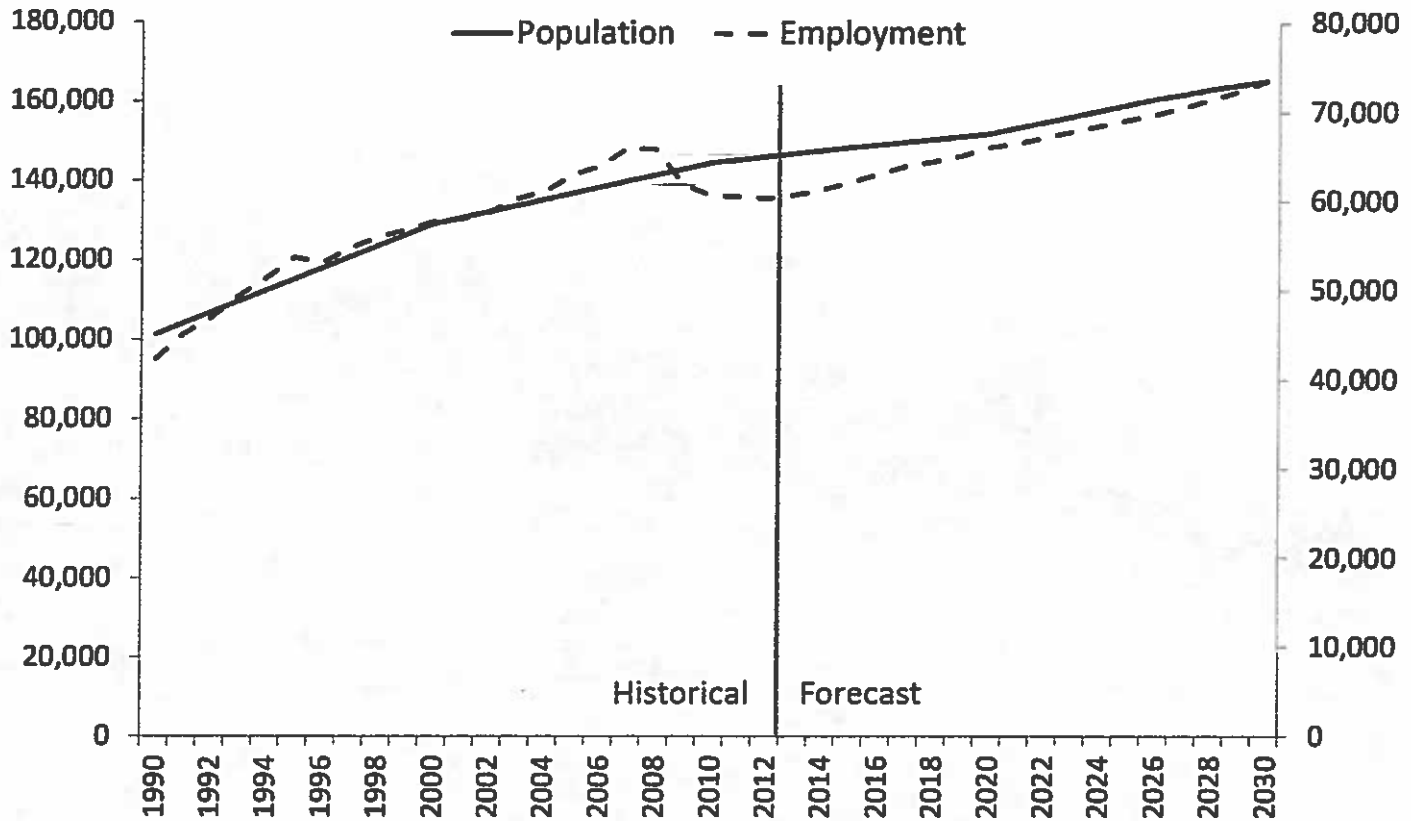
Area	2002	2010	2020	2030
SDA-3	733	557	423	412
SDA-1 (In Estancia GMA)	33	151	162	237
Water/ Utility Service Area	1,331	2,817	2,855	3,445
SDA-2	2,581	4,579	5,726	6,888
Land Use Jurisdiction Area	4,678	8,104	9,166	10,982

Santa Fe County Employment in Growth Management Area within Land Use Jurisdiction Area



Growth Management Area	2002	2010	2020	2030
Estancia	81	138	188	226
Galisteo	899	1,079	1,155	1,226
El Norte	1,250	1,897	2,080	2,426
El Centro	2,448	4,990	5,744	7,104
Land Use Jurisdiction Area	4,678	8,104	9,166	10,982

Santa Fe County Population and Employment history and forecast



Santa Fe County Population and Employment History and Forecast

	Population		Employment	
Year	Count	% Change	Count	% Change
1990	101,373		42,298	
2000	129,160	27.4	57,671	36.3
2010	144,546	11.9	60,538	5.0
2020	151,910	5.1	65,984	9.0
2030	165,290	8.8	73,464	11.3

Thank you.

Questions?

Comments?