

**University of New Mexico
Geospatial and Population Studies**



NM Population Estimates and Projections

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Outline



Population Estimates

Background
2018 Estimates
Statewide Trends



Population Projections

Background
2019 Projections

Population Estimates



Observations about current or past populations



Inexpensive updates to costly census counts



Methods are well-established with known biases



Produced by the US Census Bureau, state and local agencies and private sector

	US Census Bureau	UNM GPS
Data Sources	Limited to nationally consistent data	State specific
Methods	1	3+
Smallest Geography	City/Town N=138	Census Tract N=499
Race Categories	6	4

Estimate Source Comparison



Cohort-Component

$$Pop_{2017} = Pop_{2010} + Births - Deaths + In Migration - Out Migration$$



Housing Unit



Ratio Correlation



Cohort Change Ratios

GPS Estimates Methodologies



**NM DOH VITAL
RECORDS**



**NM MVD DRIVER'S
LICENSES**



**NM PED SCHOOL
ENROLLMENT**



**NM SOS VOTER
REGISTRATIONS**



**CMS MEDICARE
ENROLLMENT**



**IRS MIGRATION
FILES**



**RESIDENTIAL
BUILDING PERMITS**

Population Estimates Key Input Data

GPS Estimates Methodology

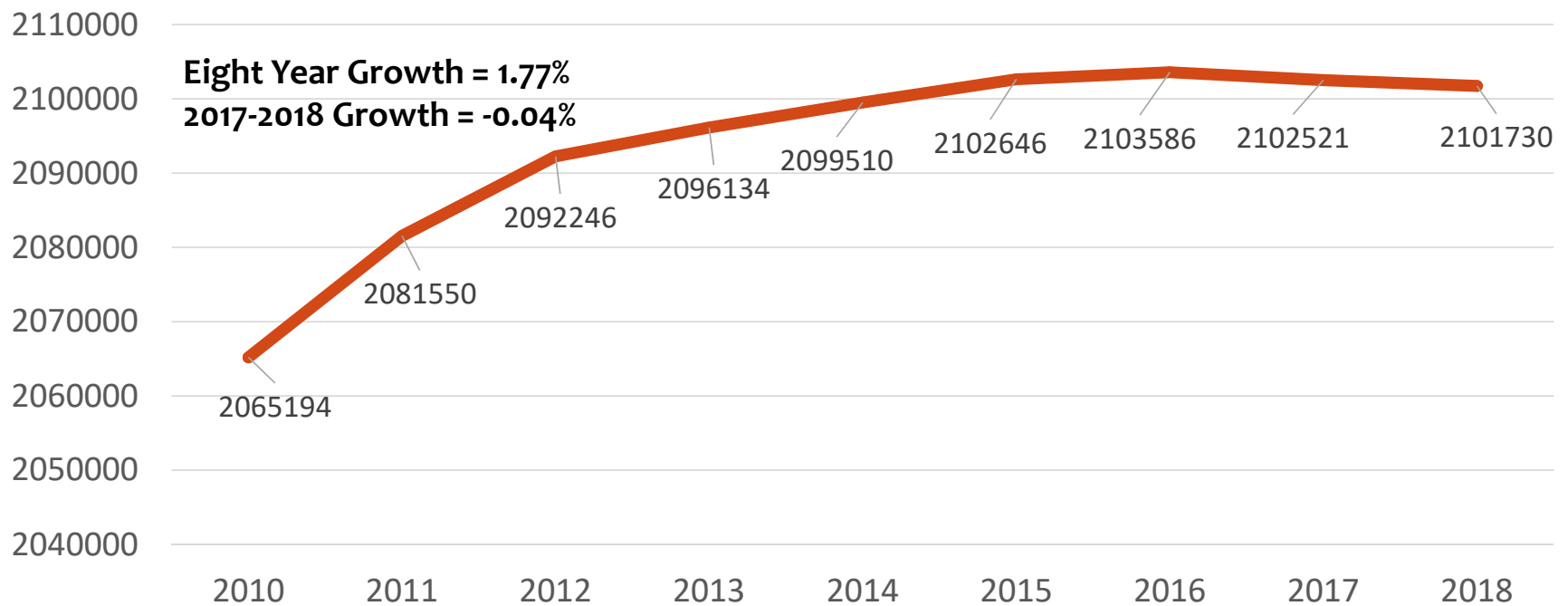
Key Steps

1. State Total
2. County Totals
3. Census Tract Totals
4. Characteristics
Age/Sex/Race/Ethnicity
5. Data Fitting

Factors Influencing Uncertainty and Error in Estimates

- Smaller populations
- Further from the Last Census
- Underrepresented Populations
- On Tribal Lands
- As Populations Change

New Mexico Population Estimates 2010-2018



Source: UNM Geospatial and Population Studies (gps.unm.edu)



Births are Down



Deaths are Up



Migration is Out

Why Flat Growth?

Fertility Rate: United States, 1909-2016

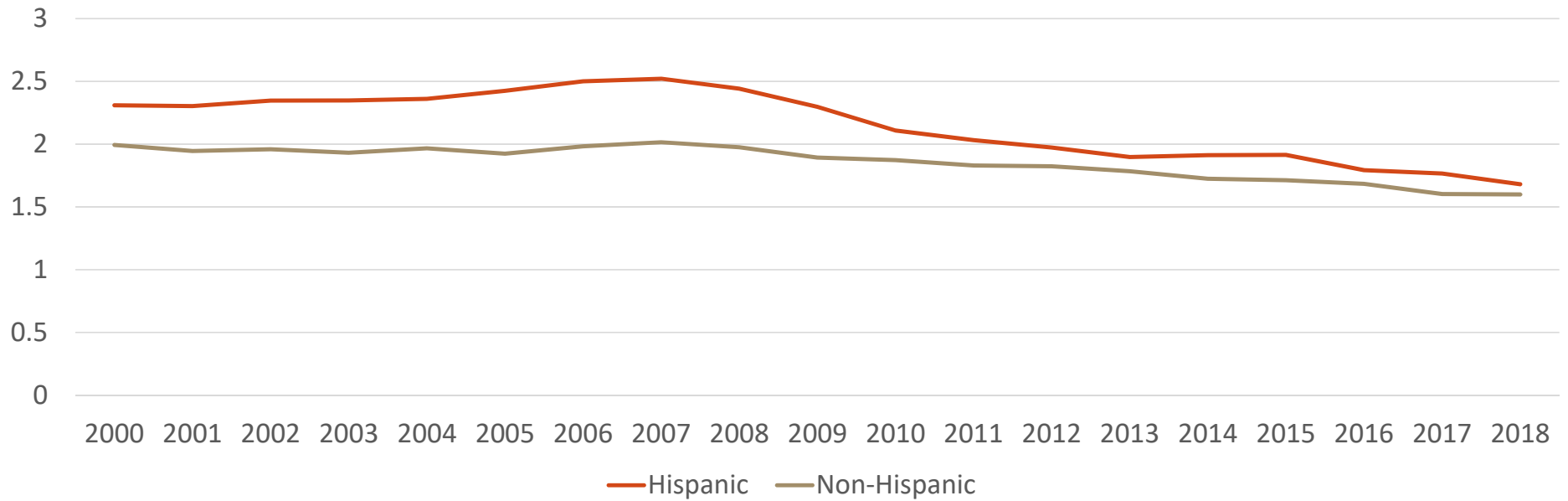


Note: Fertility rate is number of births per 1,000 women 15-44 years of age. Data prior to 1960 have been adjusted by the U.S. Census Bureau for under-registration. Data for census years (starting with 1940) are based on population enumeration as of April 1 whereas enumeration for all other years is as of July 1. Data for 1951-1954 and 1956-1971 are based off a 50% sample of births. Data 1972-1984, some states reporting are based off a 50% sample of births.

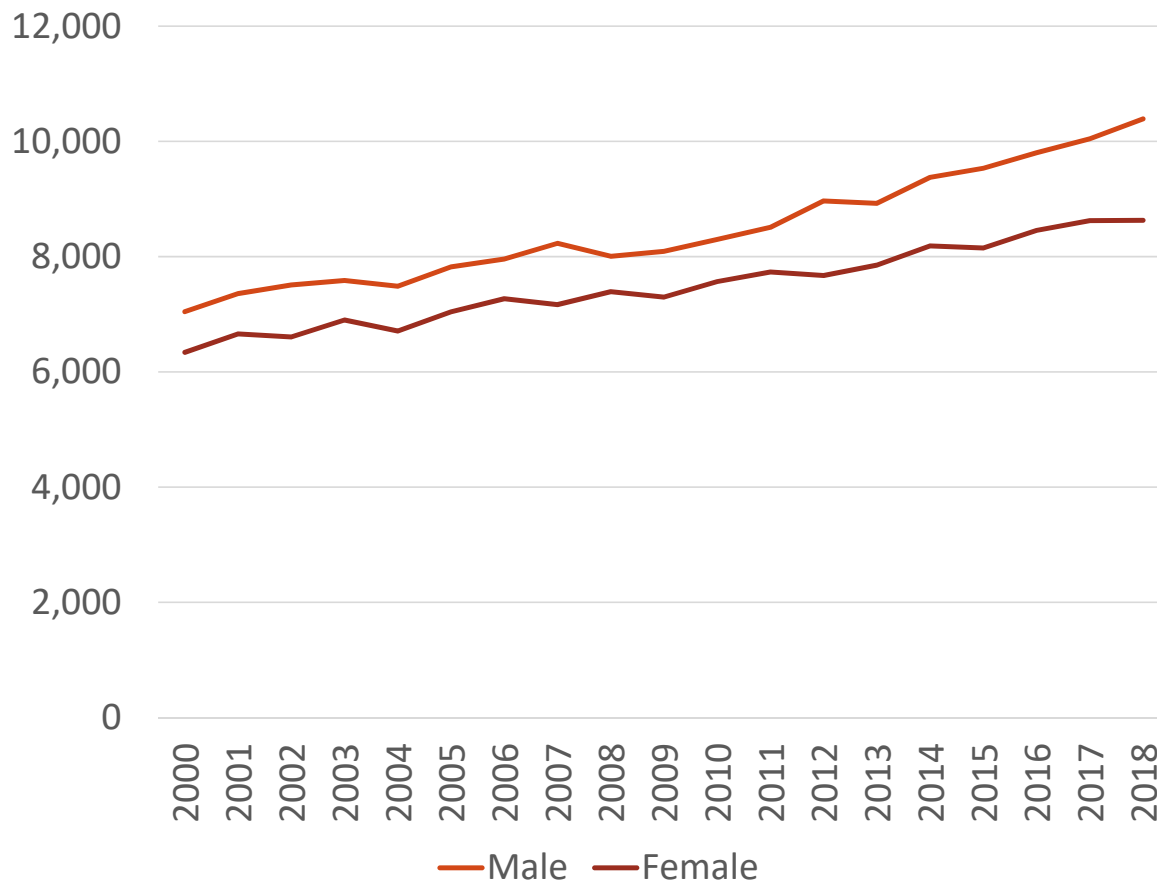
Source: NCHS, national vital statistics report, vol 66, no 1 (for data 1960-2015). NCHS, Vital Statistics of the United States, 2003, Volume 1, Natality (for data 1909-1960).



Total Fertility Rate Among Hispanic and Non-Hispanic Women in New Mexico, 2000-2018

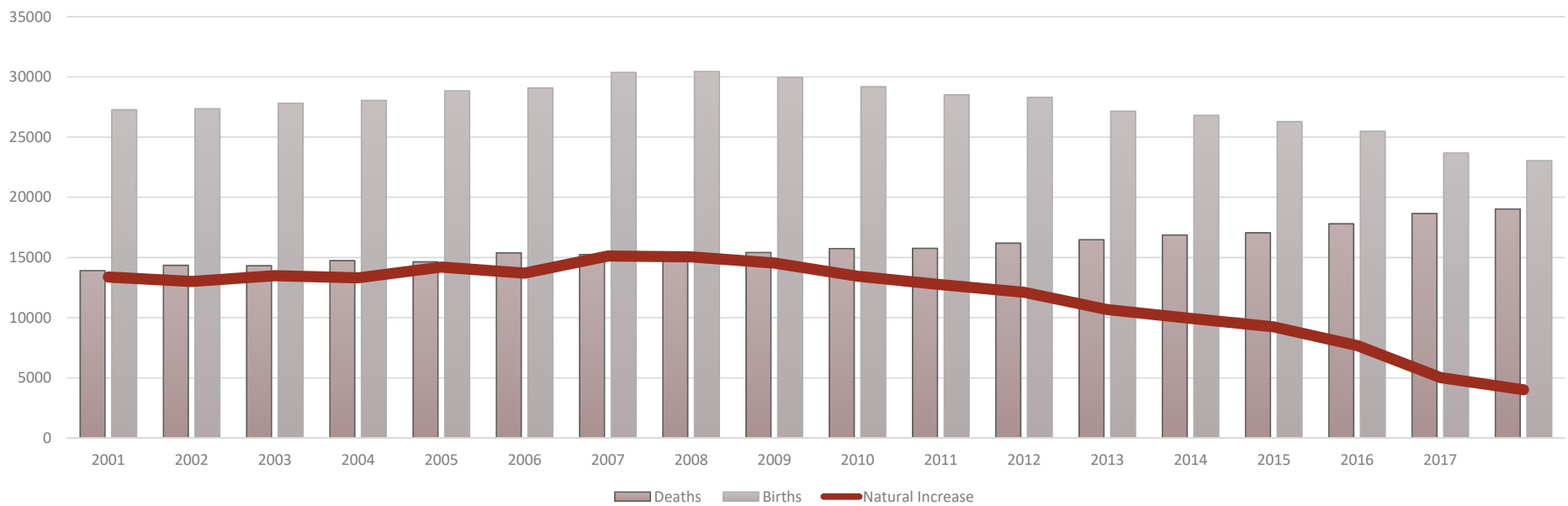


Declining Fertility



Mortality

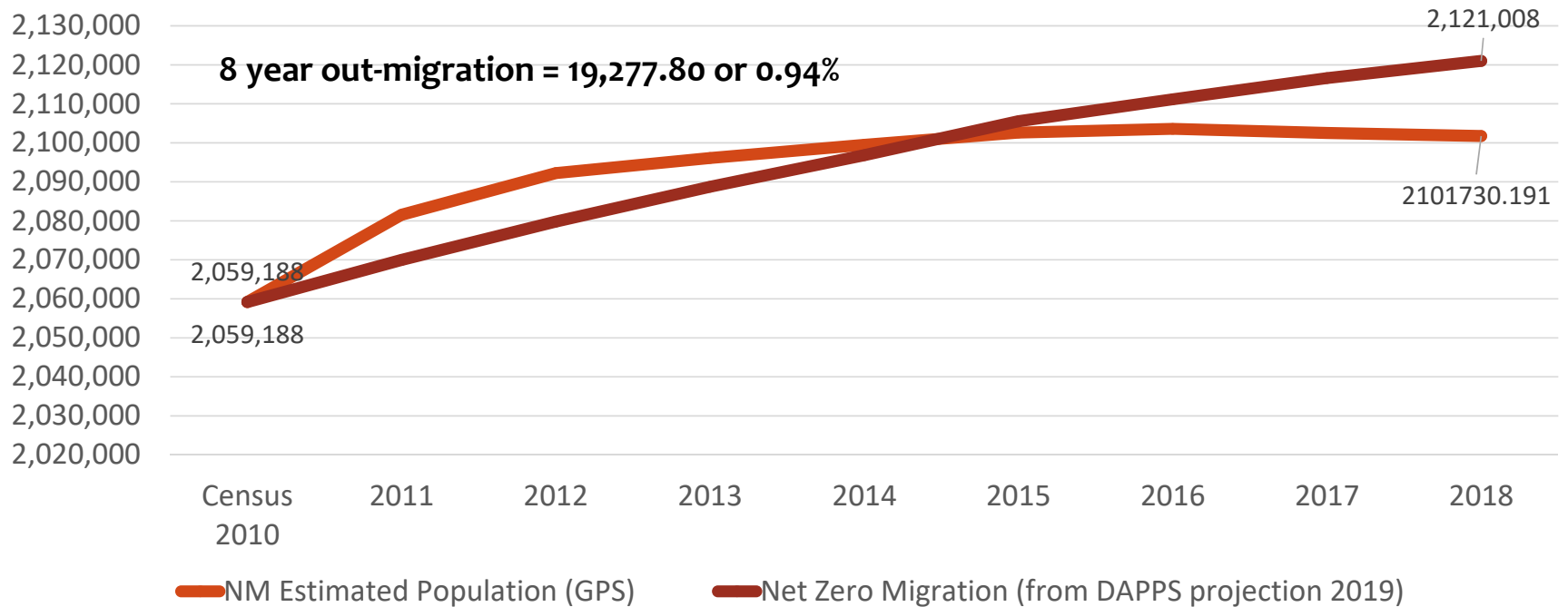
- Total deaths increasing due to aging population
- Mortality rates also increasing slightly
- People are less likely to live long lives if they are poor, get little exercise or lack access to health care (Dwyer-Lindgren, Bertozzi-Villa, Stubbs, et al., 2017).

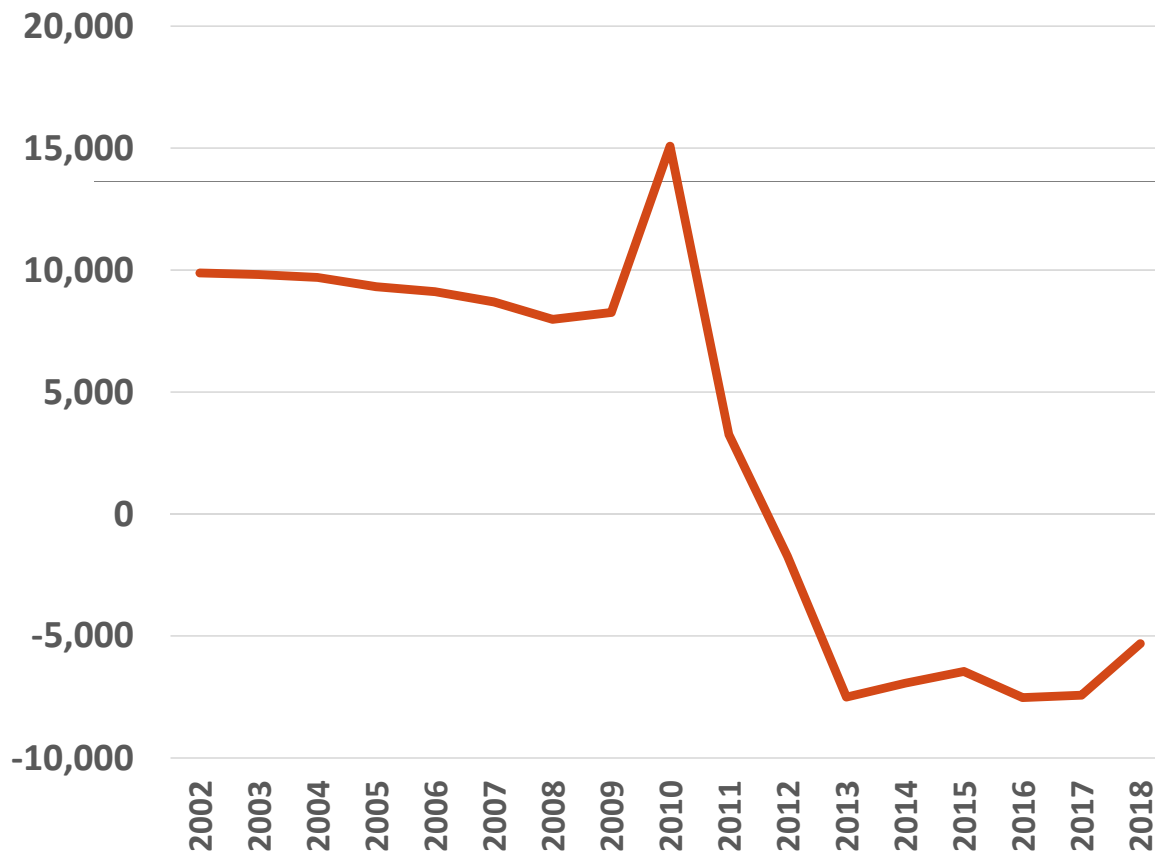


Births, Deaths, and Natural Increase in New Mexico 2001-2018

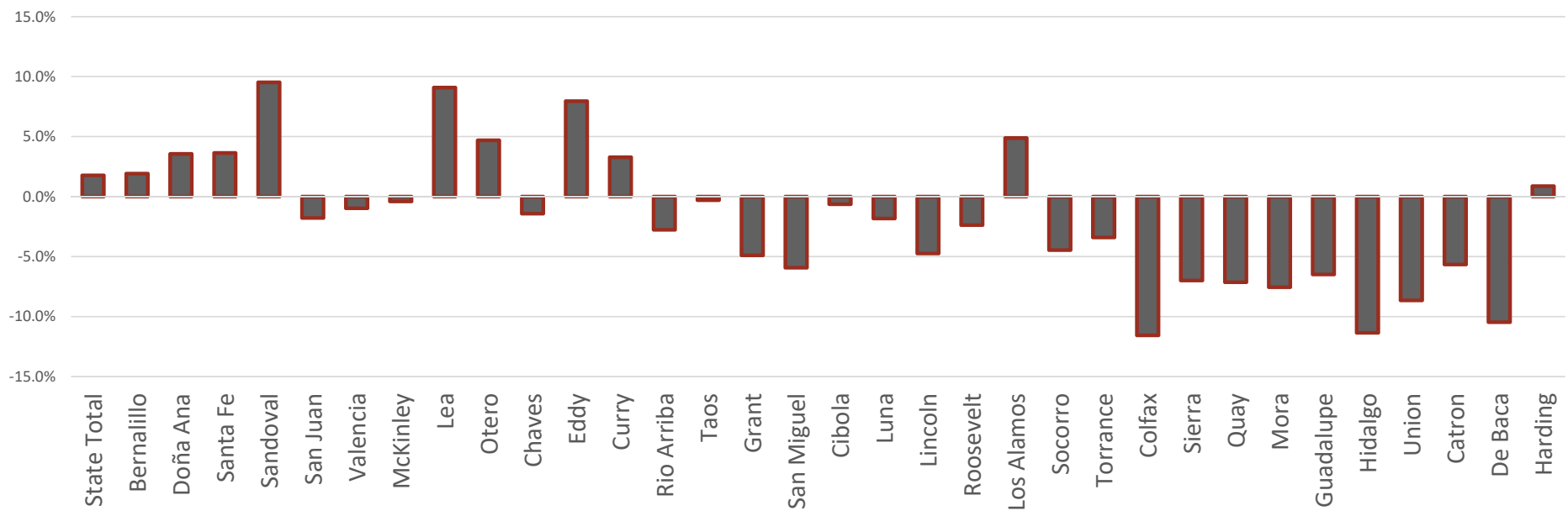
Source: New Mexico Department of Health - ibis.health.state.nm.us

NM State Total Vs. Natural Increase 2010-2018





Approximate Net Migration 2002-2018



Population Change by County 2010-2018

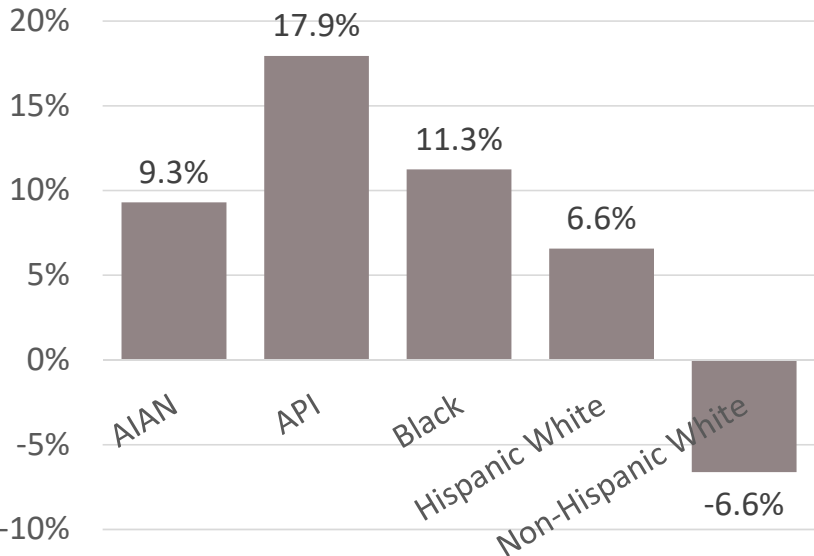


Note: Counties are listed from largest to smallest.

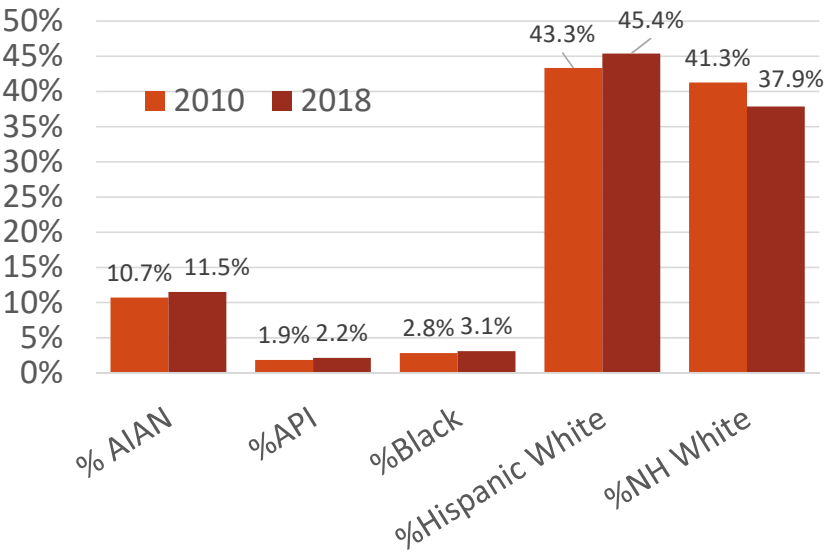
Source: UNM Geospatial and Population Studies (gps.unm.edu)

NM Racial Composition 2010 to 2018

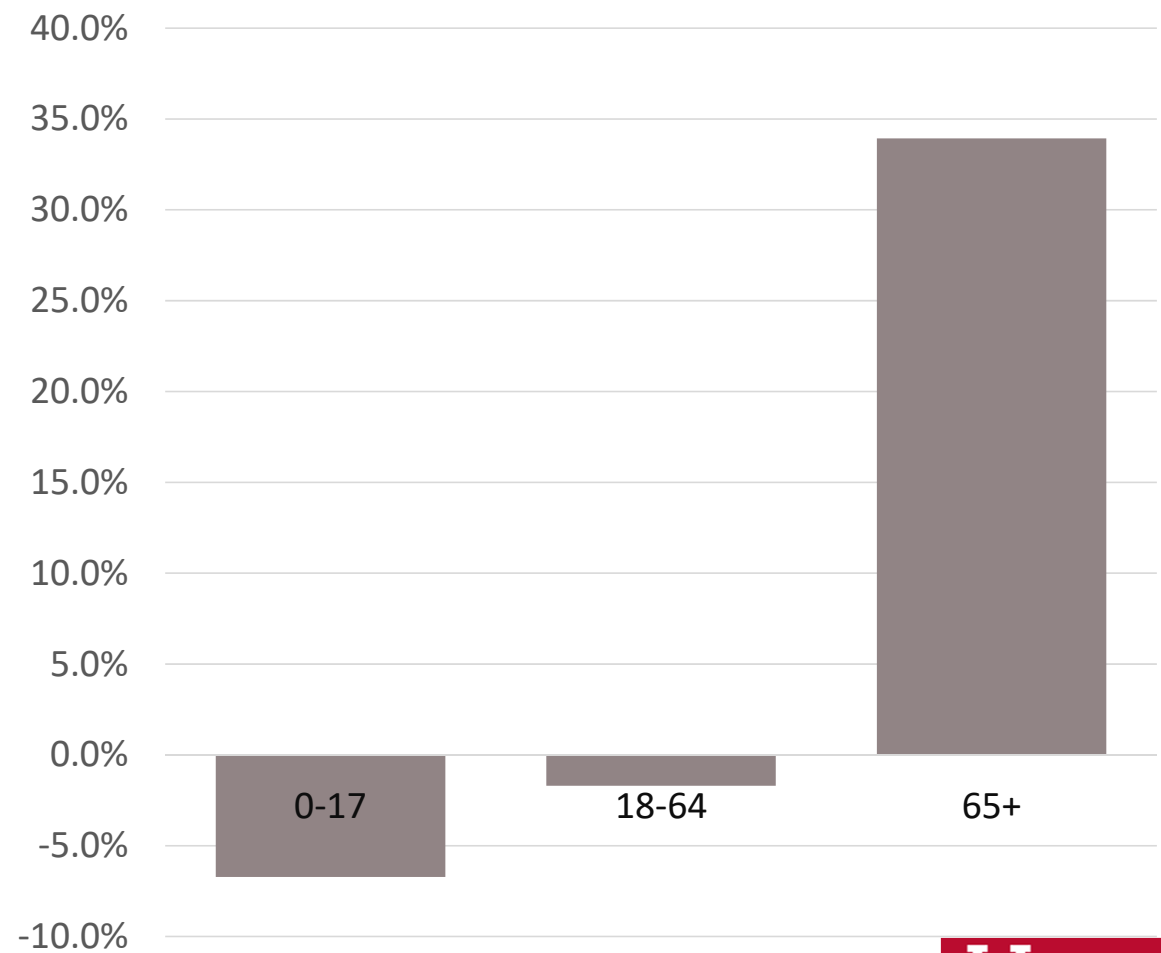
EIGHT YEAR GROWTH BY RACE



STATE RACIAL COMPOSITION

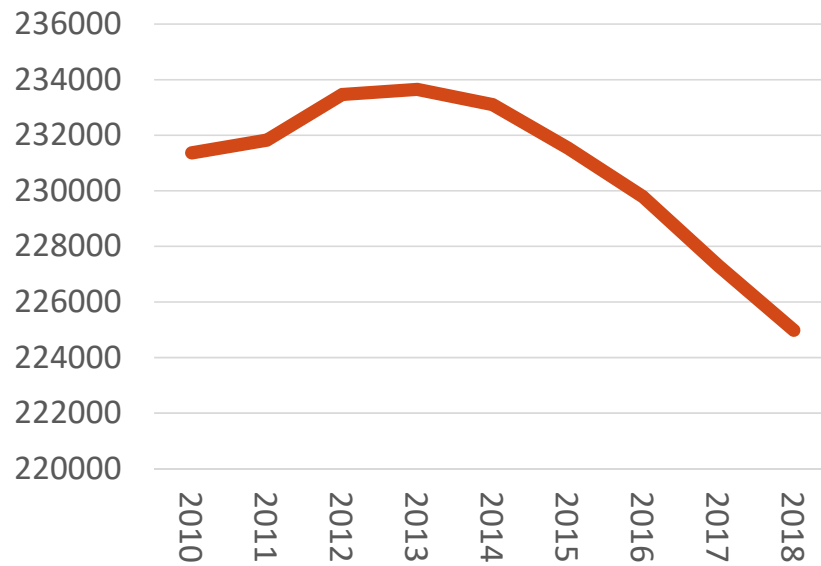


Eight Year Growth By Age

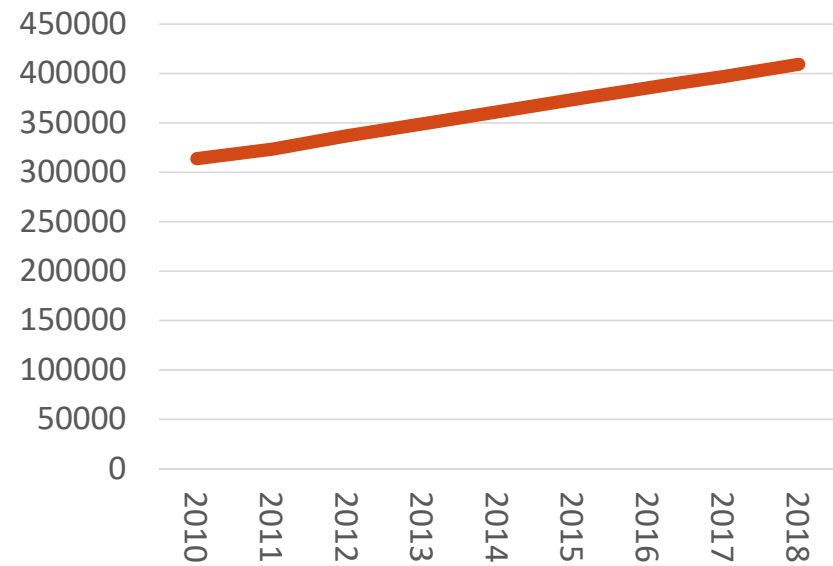


Aging Population

K- 8 SCHOOL ENROLLMENT



MEDICARE ENROLLMENT



Population Projections: Cohort Component Method

$$Pop_{n+x} = Pop_n + Births - Deaths + Net Migration$$

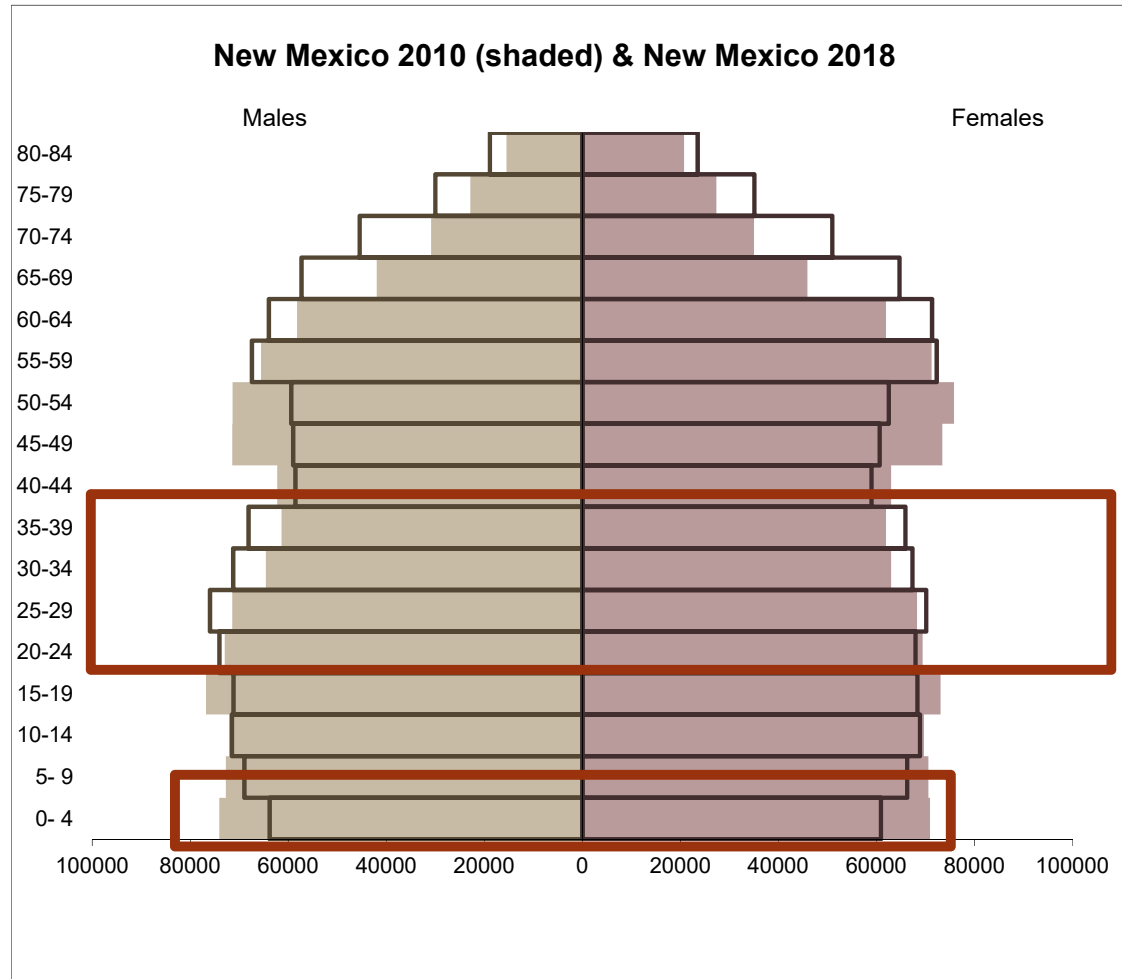
Population Size and Age Structure

Fertility Trends

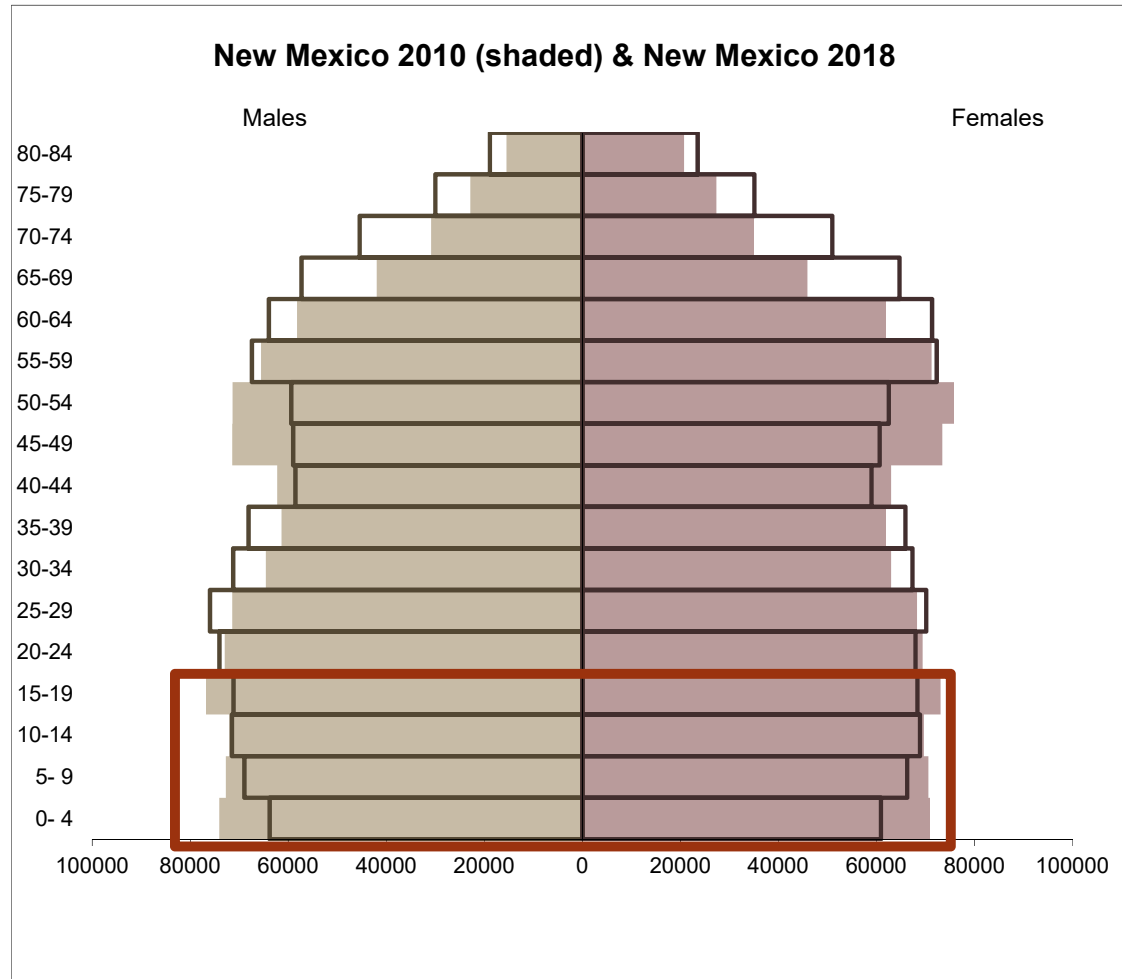
Mortality Trends

Migration Trends

Changing Age Structure



Changing Age Structure





Fertility

Will fertility continue to decline as it has been? Will it begin to rise, or will it remain stable?

- **Assumption:** Fertility will remain at current rates



Mortality

Life expectancy has increased for much of the past century but has been fairly stable in recent years.

- *Will we continue to live longer, or will poorer health behaviors lead to shorter lives?*
- **Assumption:** Mortality will remain at current rates



Migration

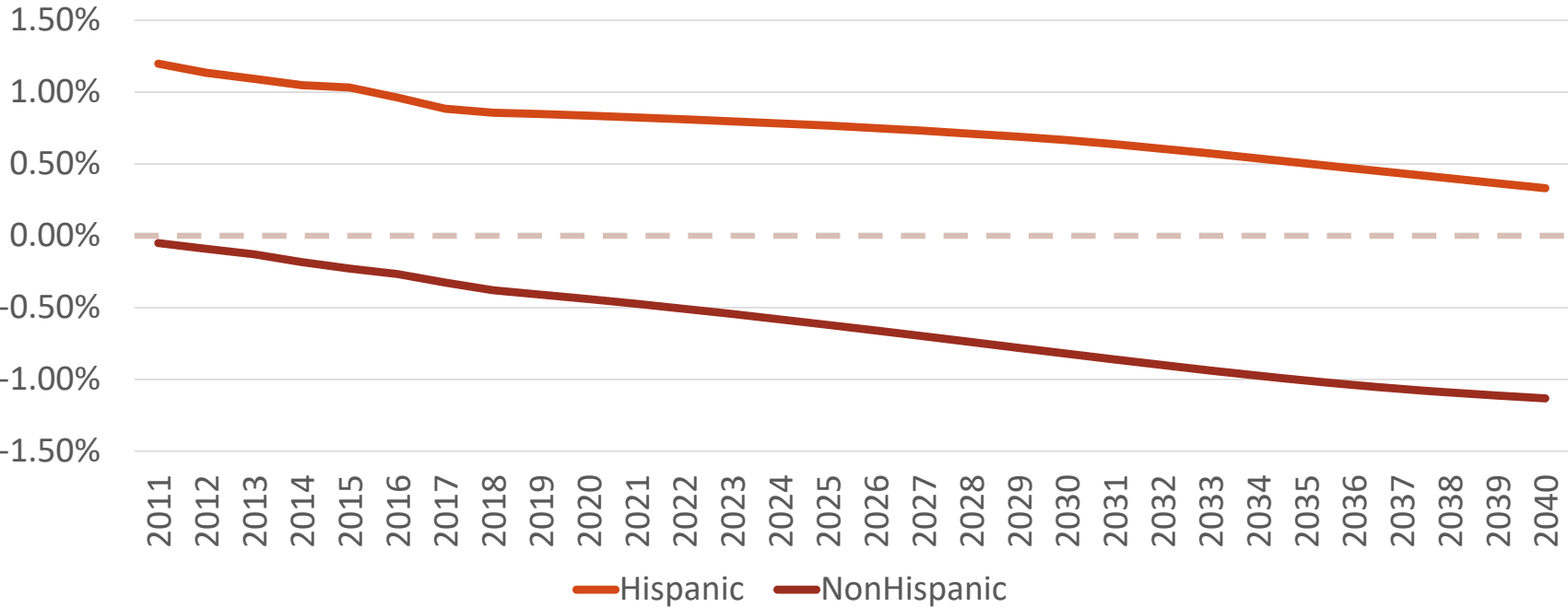
Assumption: Migration will continue at its net 2010-2015 rate, thus capturing some in and some out migration.

Assumptions

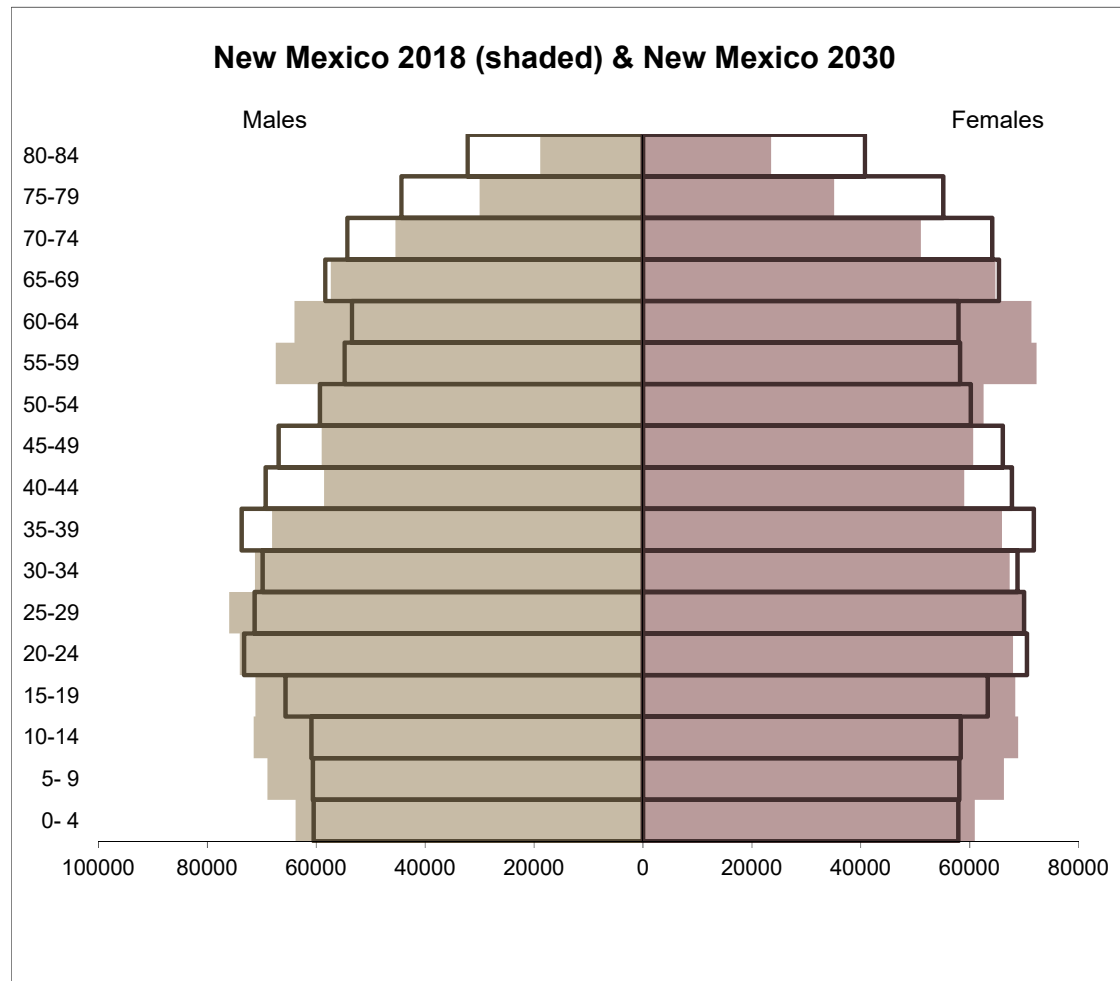
Additional Note on Methodology

- Hispanic and non-Hispanic populations projected separately
 - Different rates
 - Different age structure

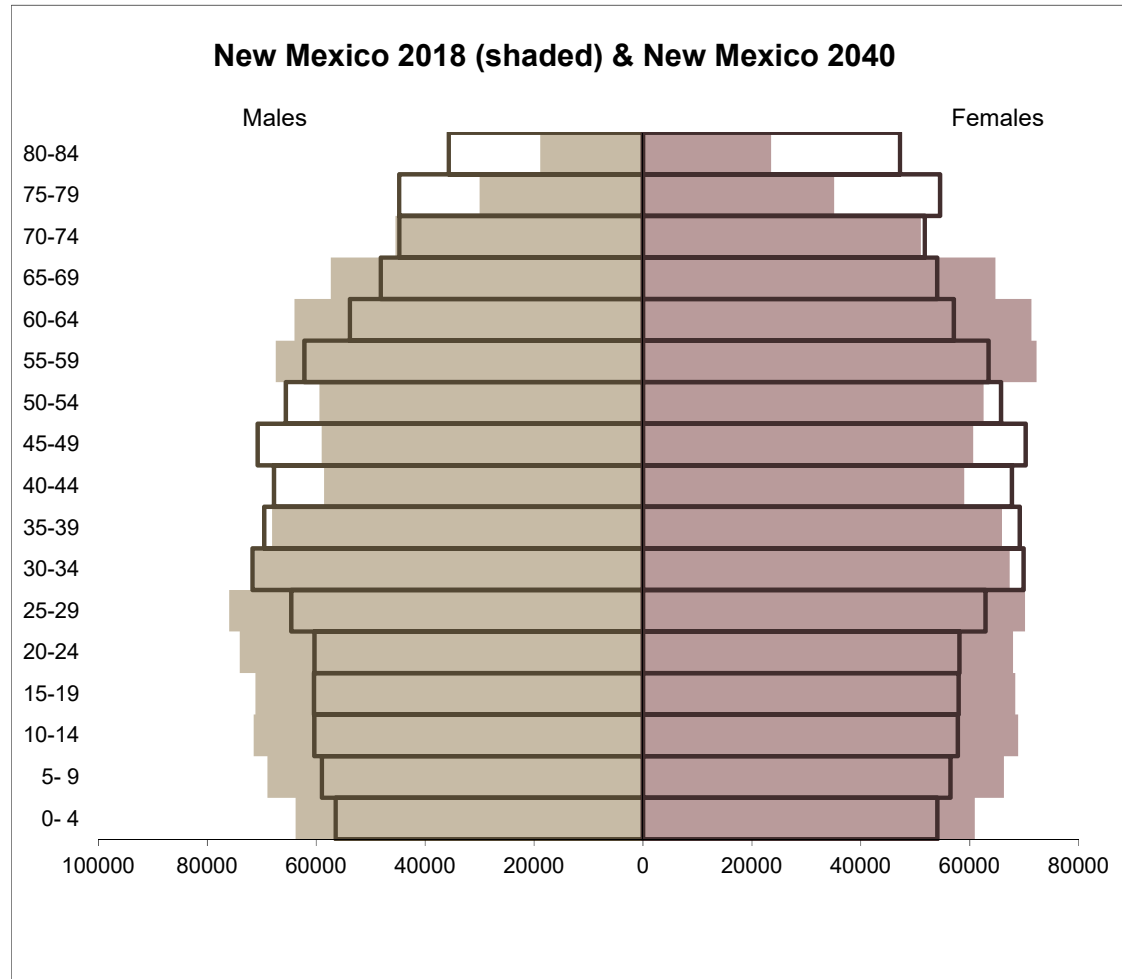
Projected Growth Rate for New Mexico



Changing Age Structure



Changing Age Structure



Increase in fertility
among residents
(not particularly
realistic)

Reduce out
migration of young
people

Attract young
people to the state

Increased births due
to more people of
childbearing age

Factors that could alter our trajectory

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**Questions or
Comments???**

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