

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



NM Population Estimates and Projections

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Outline



Population Estimates

Background
2022 Estimates
Statewide Trends
Components of Change



Population Projections

Background
2020 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



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**



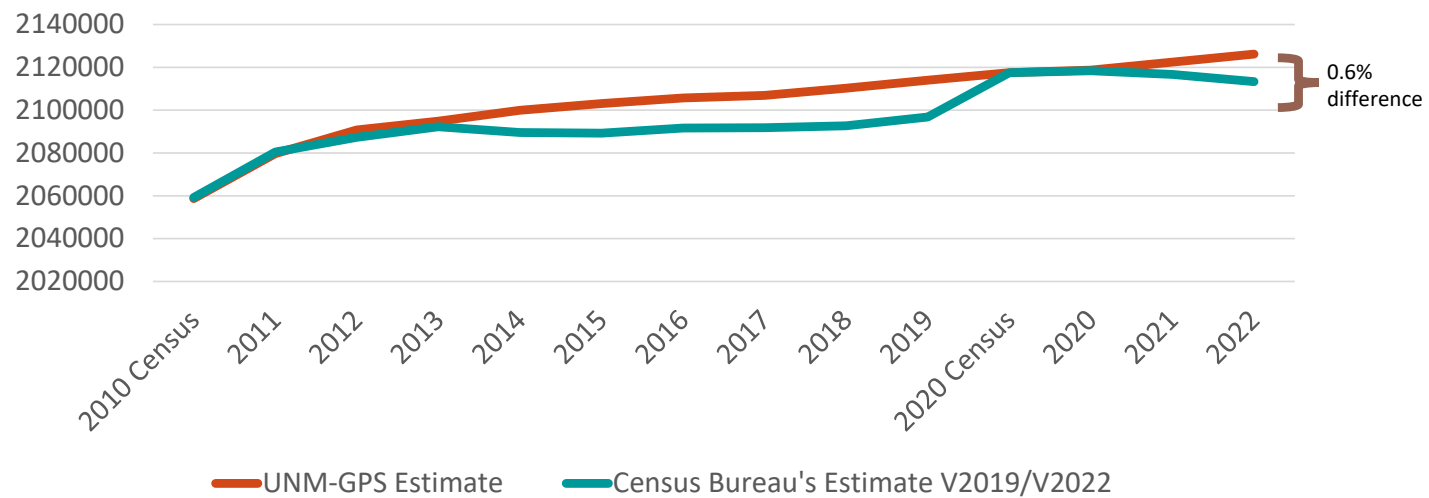
**CMS MEDICARE
ENROLLMENT**



**RESIDENTIAL
BUILDING PERMITS**

Population Estimates Key Input Data

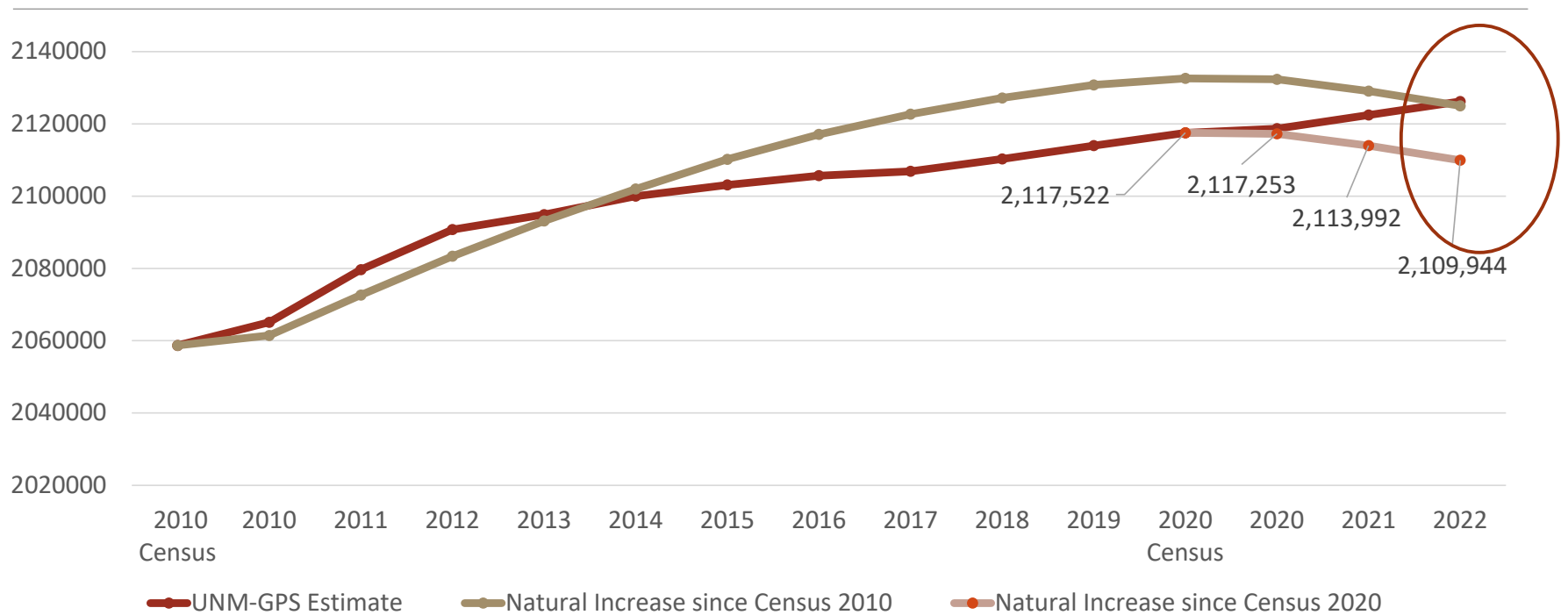
New Mexico Population Estimates 2010-2022

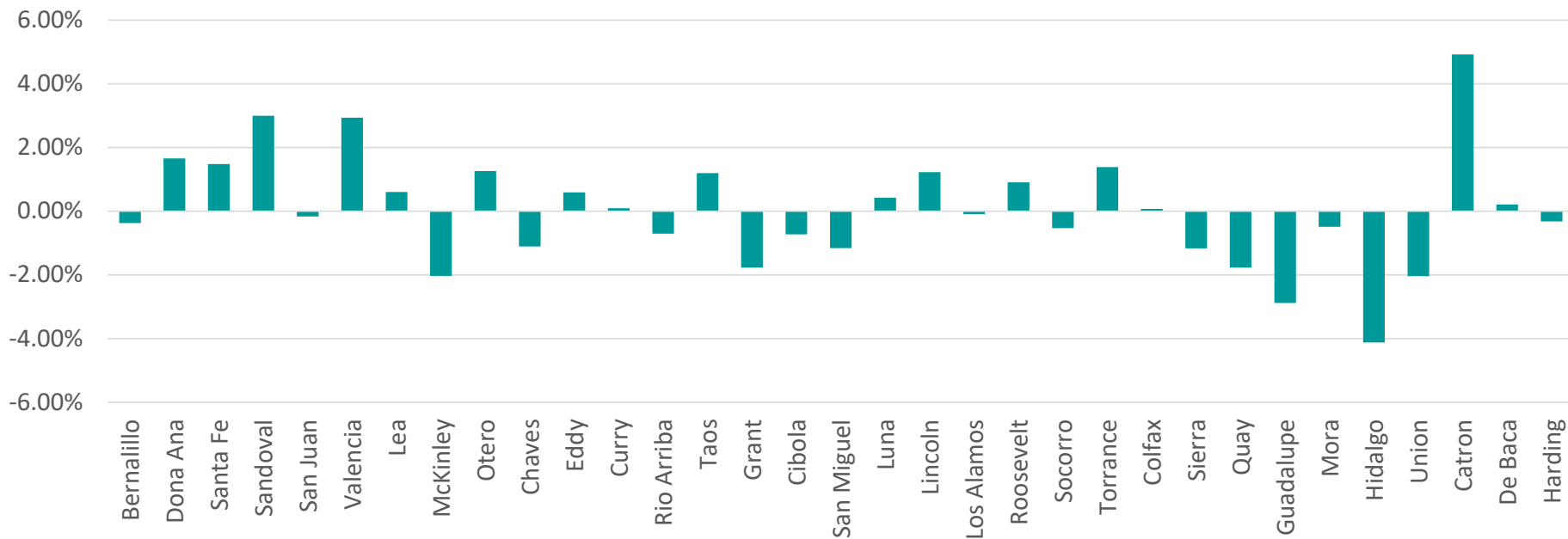


Note: The U.S. Census Bureau has not yet released their intercensal estimates.

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

Estimate of New Mexico's Net Migration 2010-2022





Population Change by County 2020-2022

Population Projections: Cohort Component Method

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

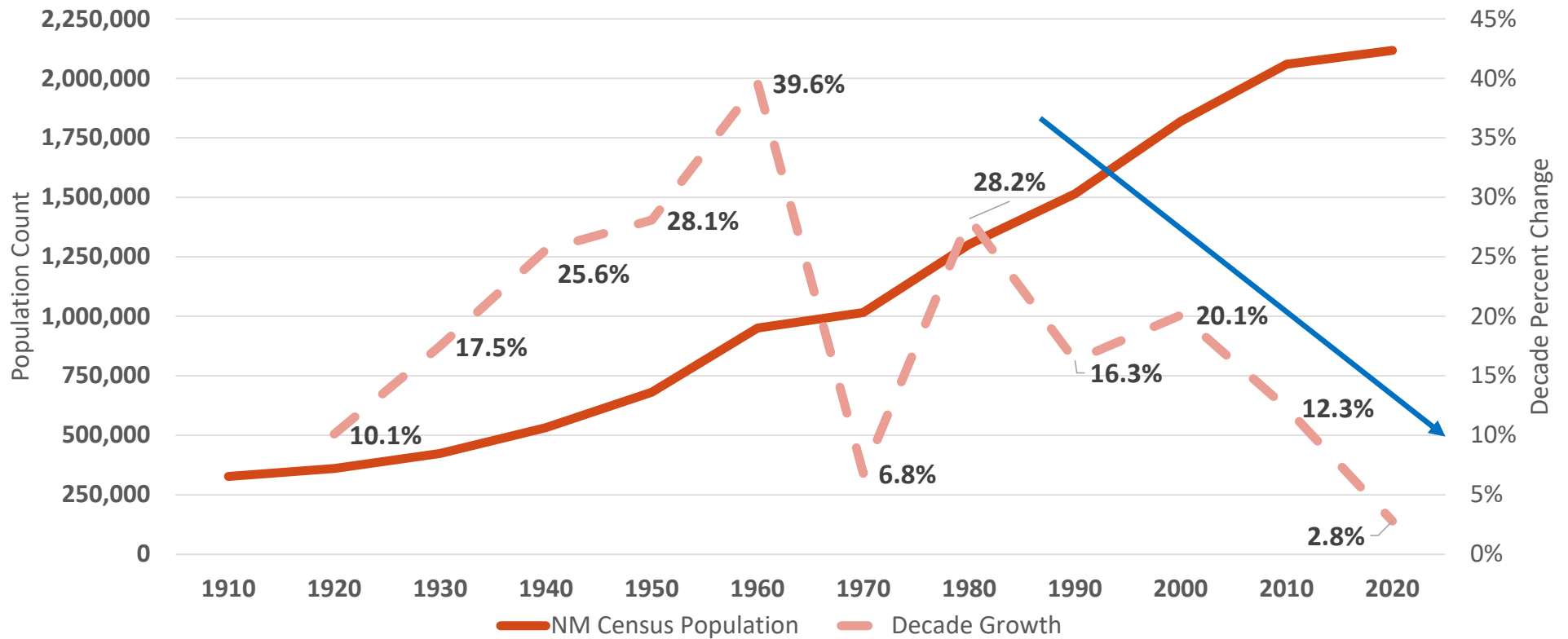
Population Size and Age Structure

Fertility Trends

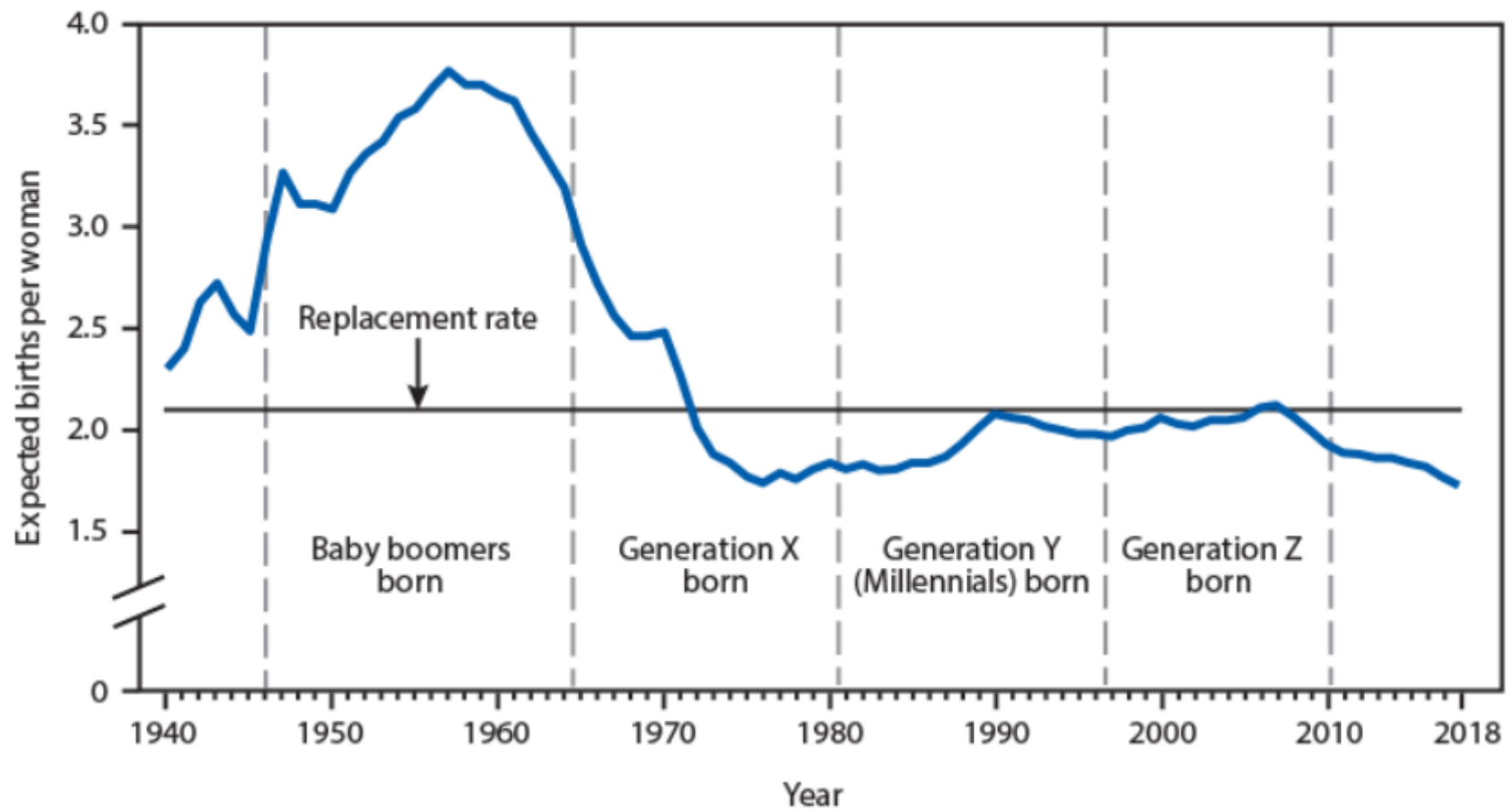
Mortality Trends

Migration Trends

New Mexico Population Growth 1910 - 2020

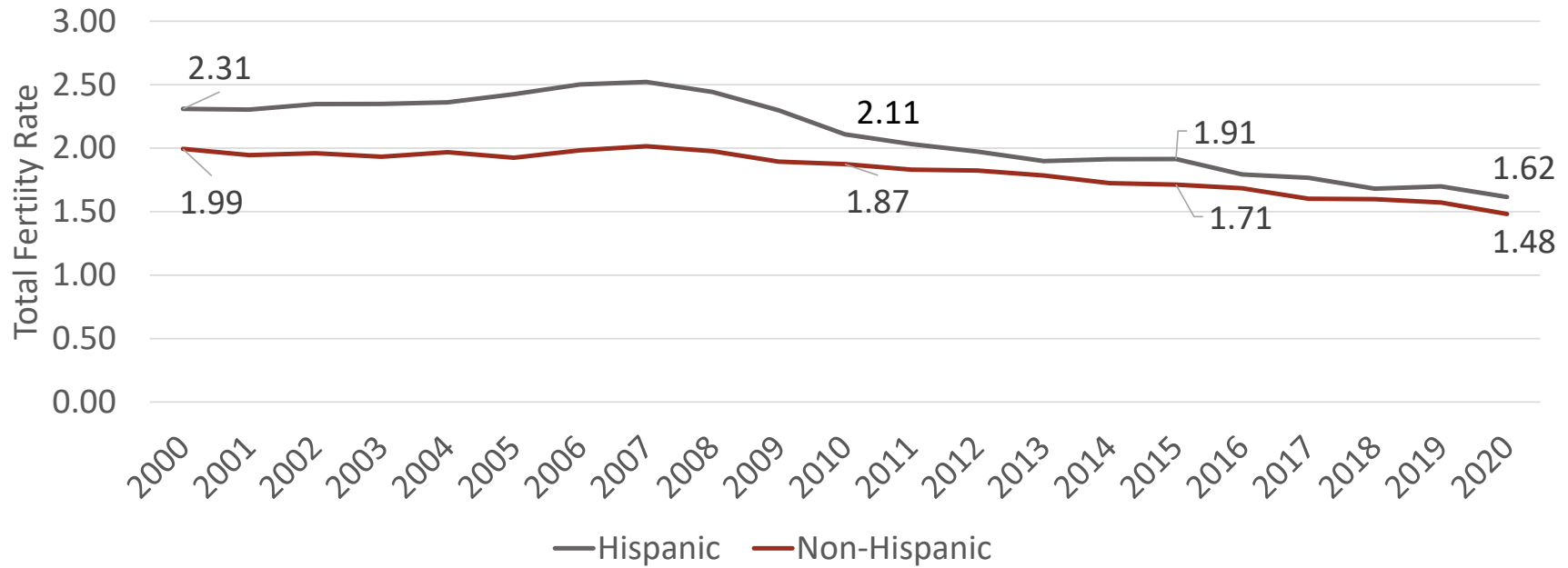


Source: UNM Geospatial and Population Studies (gps.unm.edu)



Source: Population Research Institute <https://www.pop.org/u-s-fertility-rate-hits-new-record-low/>; National Center for Health Statistics

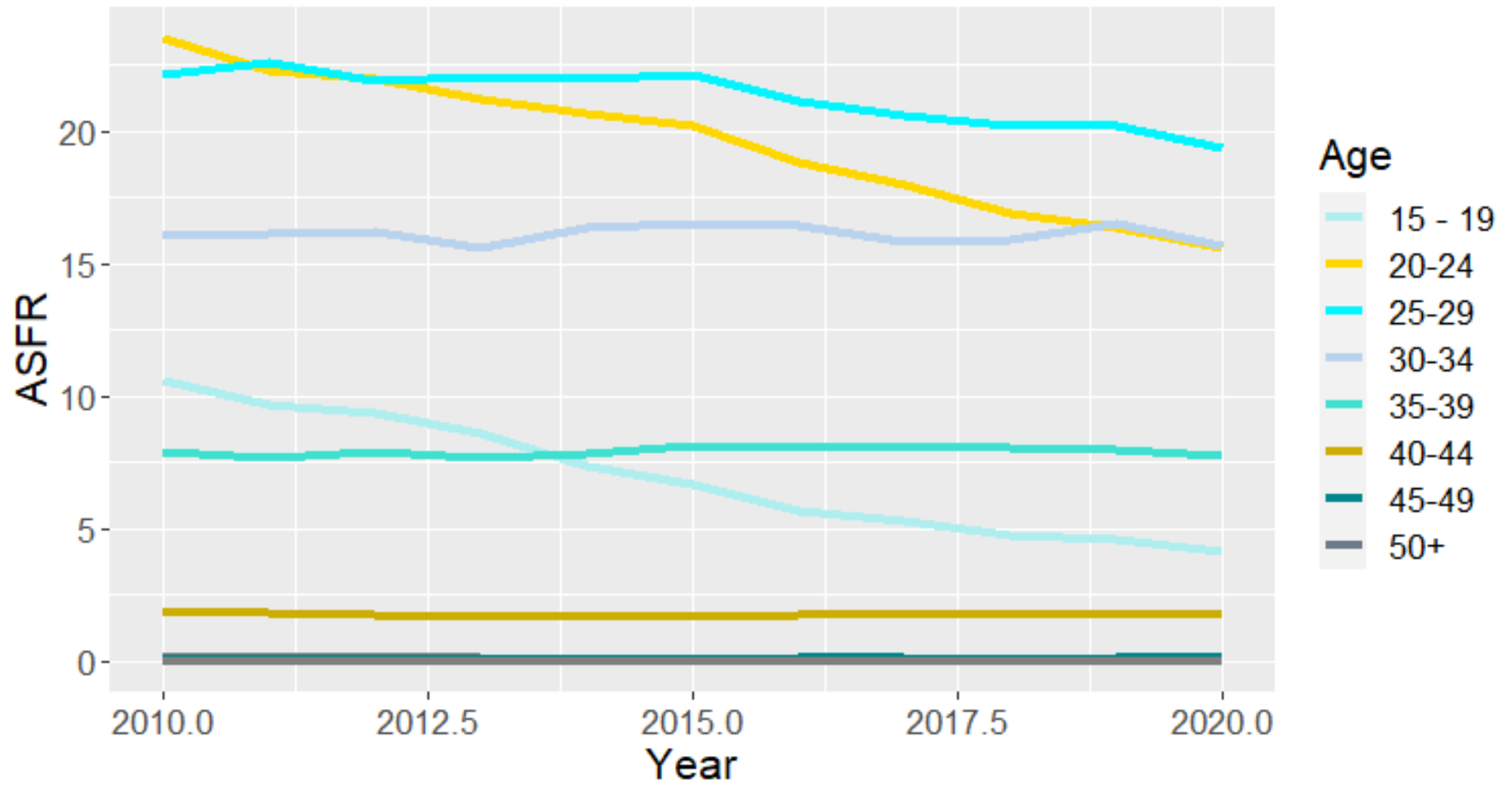
New Mexico TFR, by Hispanic Origin



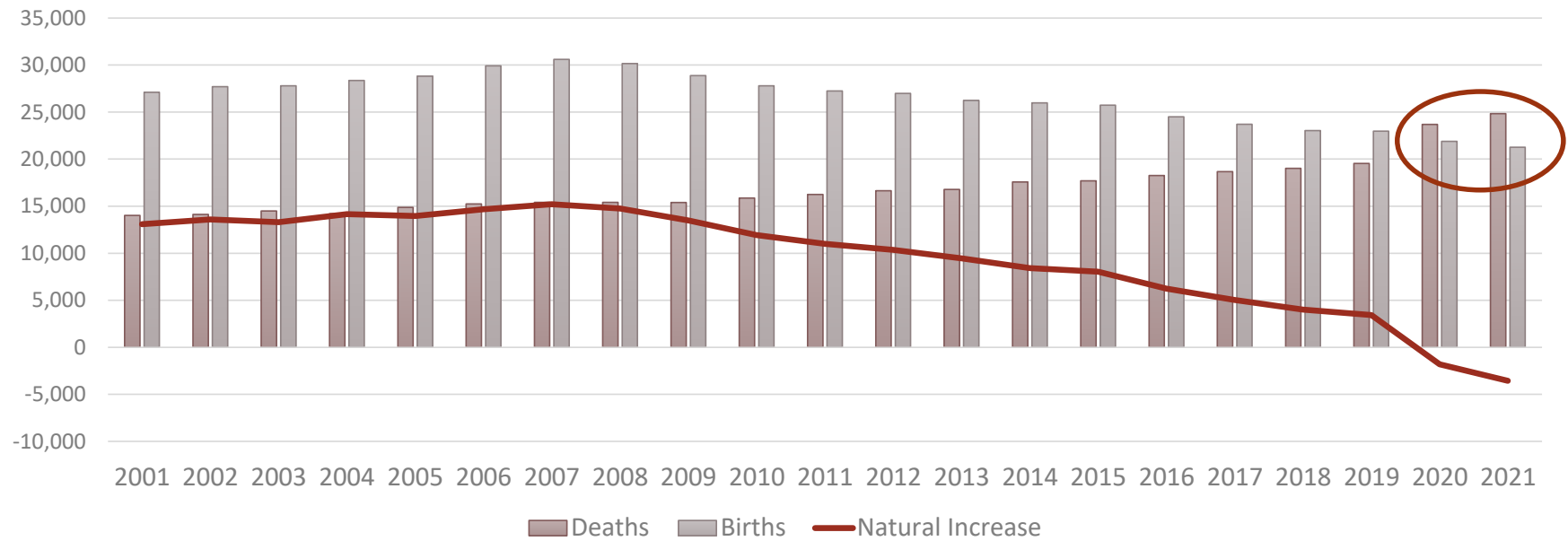
Declining Fertility

Sources: NM Department of Health, IBIS

Age-specific fertility by age group, 2010 to 2020



Decline in natural increase since last Decennial Census



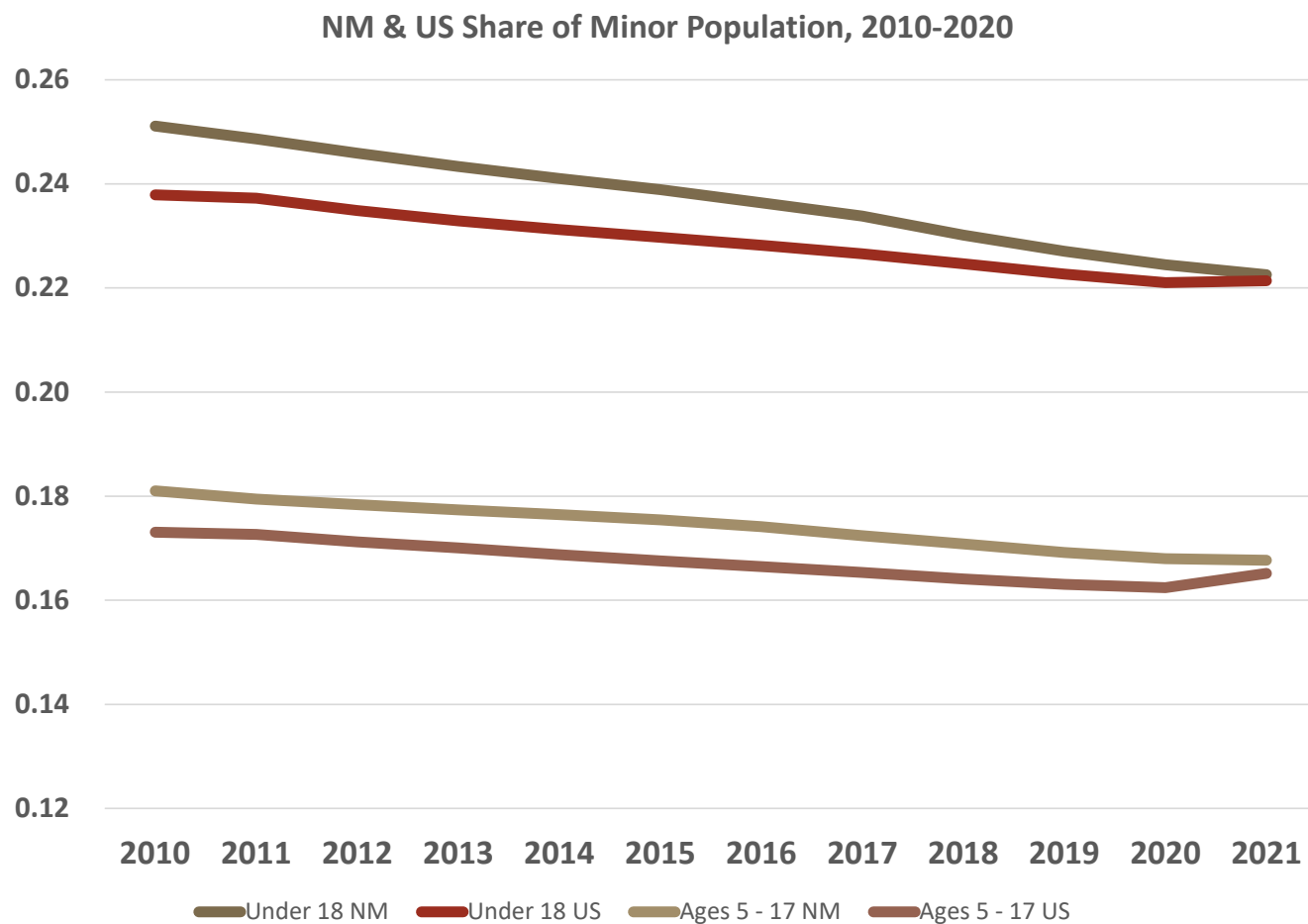
Births, Deaths, and Natural Increase in New Mexico 2001-2020

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

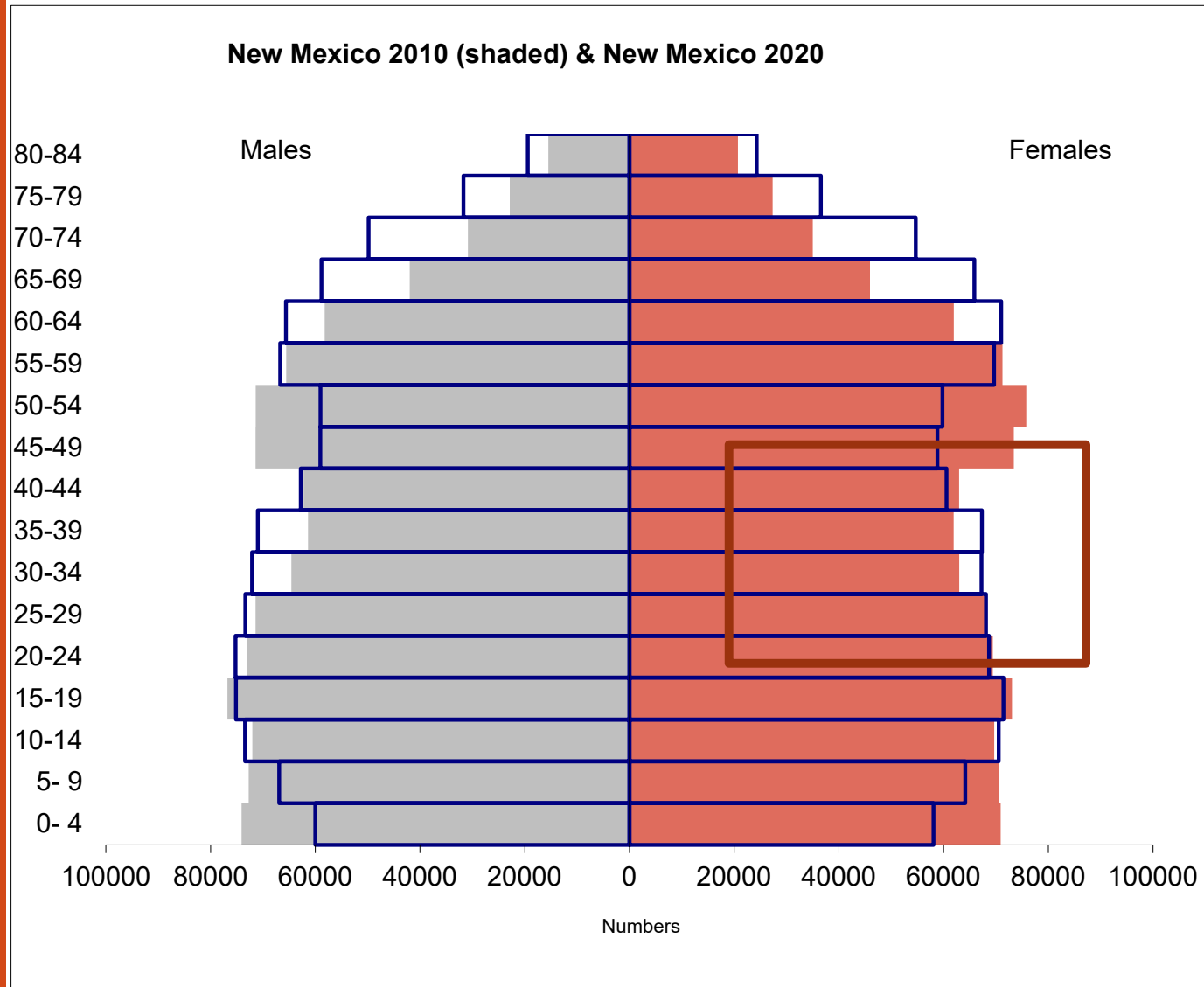
Share of NM Population Under 18 2010-2021

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

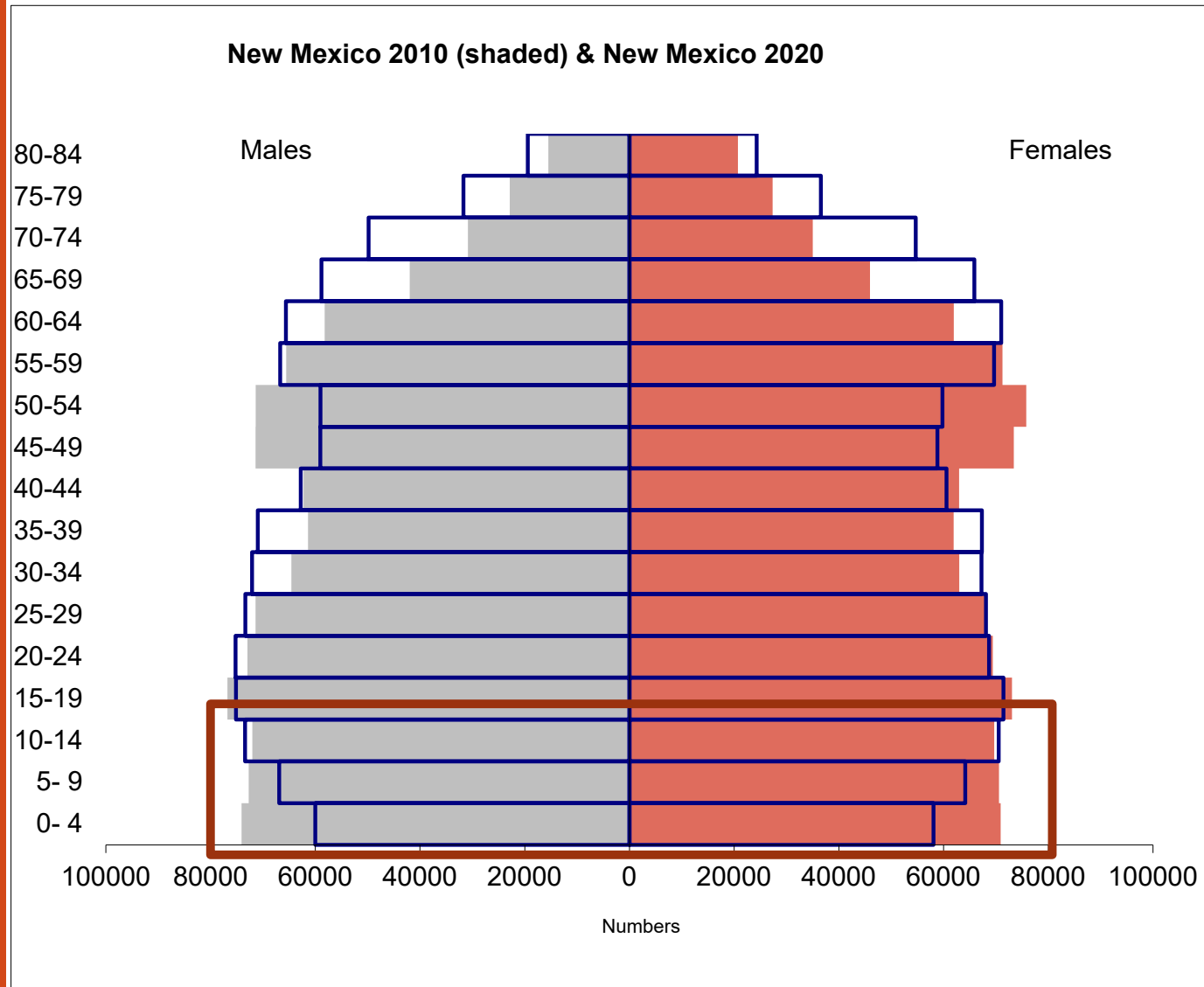
U.S. Census Bureau Annual Estimates of
the Resident Population by Single Year
of Age and Sex for the United States:
April 1, 2010 to July 1, 2021



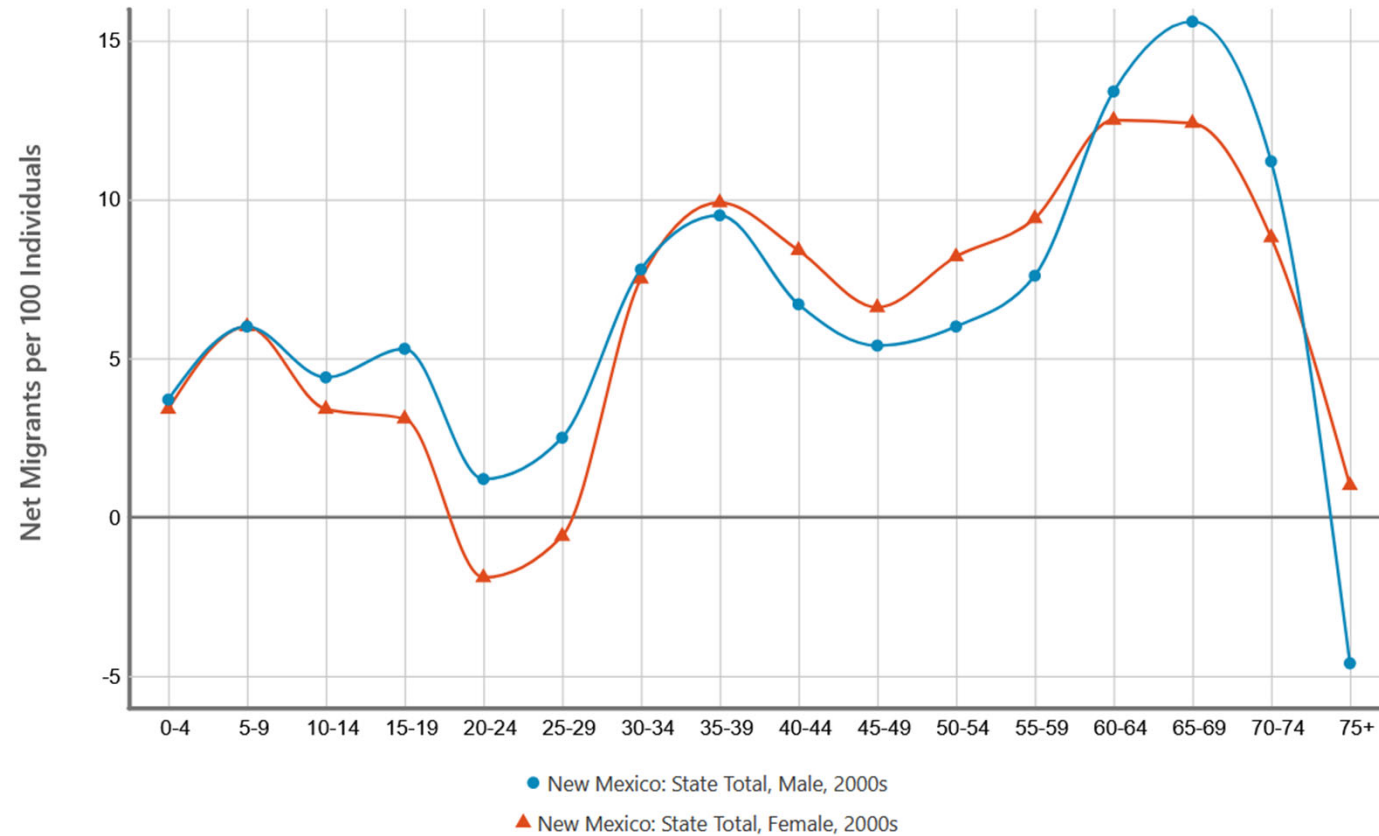
Changing Age Structure



Changing Age Structure

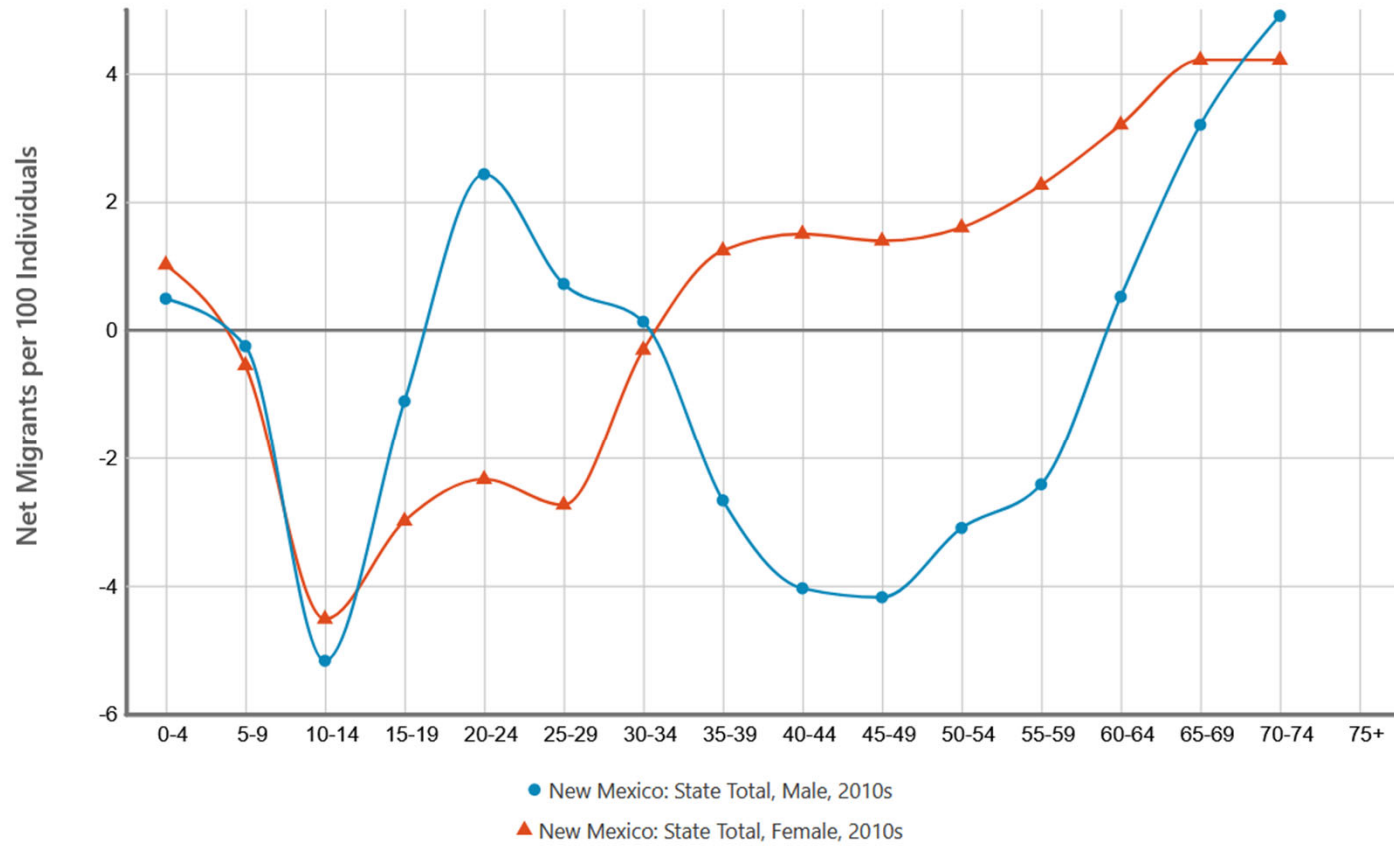


Net Migration by Age



Egan-Robertson, David, Katherine J. Curtis, Richelle L. Winkler, Kenneth M. Johnson, and Caitlin Bourbeau, *Age-Specific Net Migration Estimates for US Counties, 1950-2020*. Applied Population Laboratory, University of Wisconsin - Madison, 2023 (Beta Release). Web.

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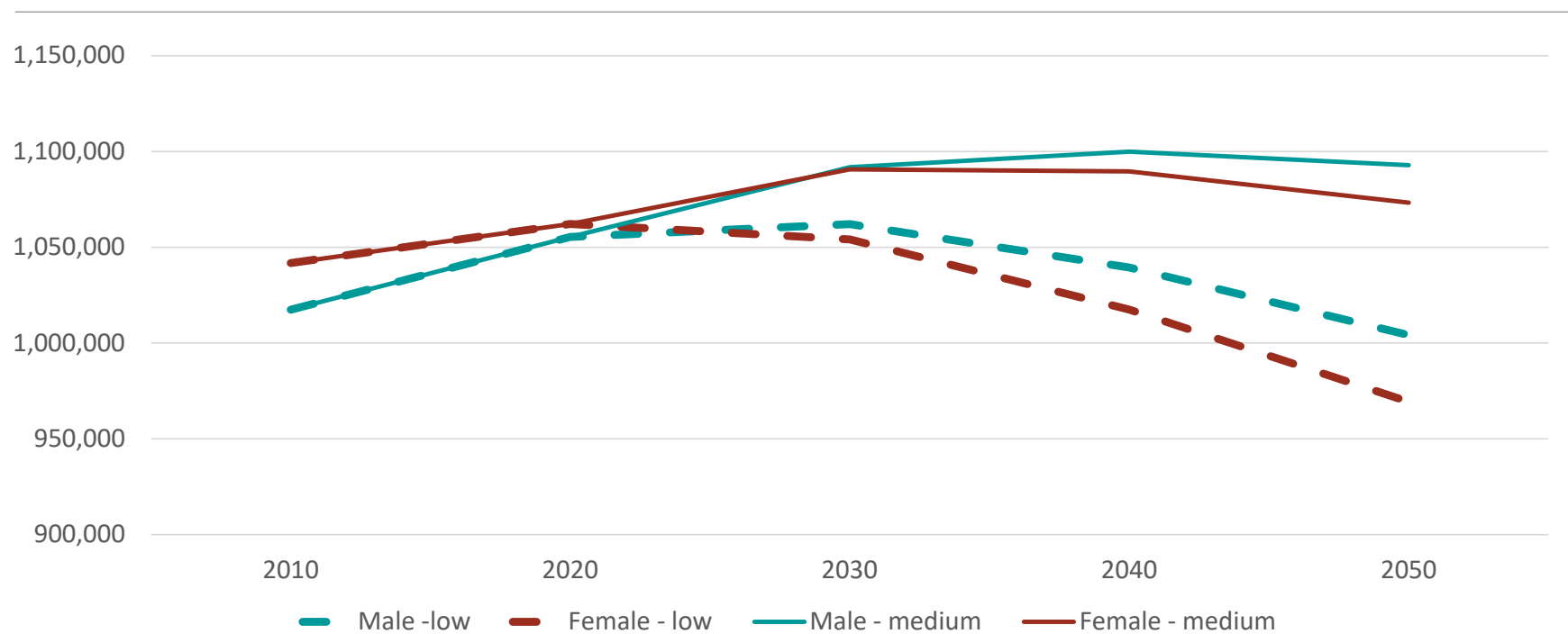
Hamilton Perry Population Projections

- Mortality and Migration captured through Cohort Change Ratios
 - ratio of how each age-sex cohort changes from one decade to the next
- Fertility
 - Child – Women Ratio: ratio of children in the 0-4 and 5-9 age group to women 15 to 49 years old
 - Assumption is that the child-women ratio is constant over the decade
 - Births can still change, but that change reflects changing number of women ages 15 to 49, not changes to fertility rates
- Projections are produced for 10-year intervals
 - More detailed projections and county-level projections will be available at a later date

Migration

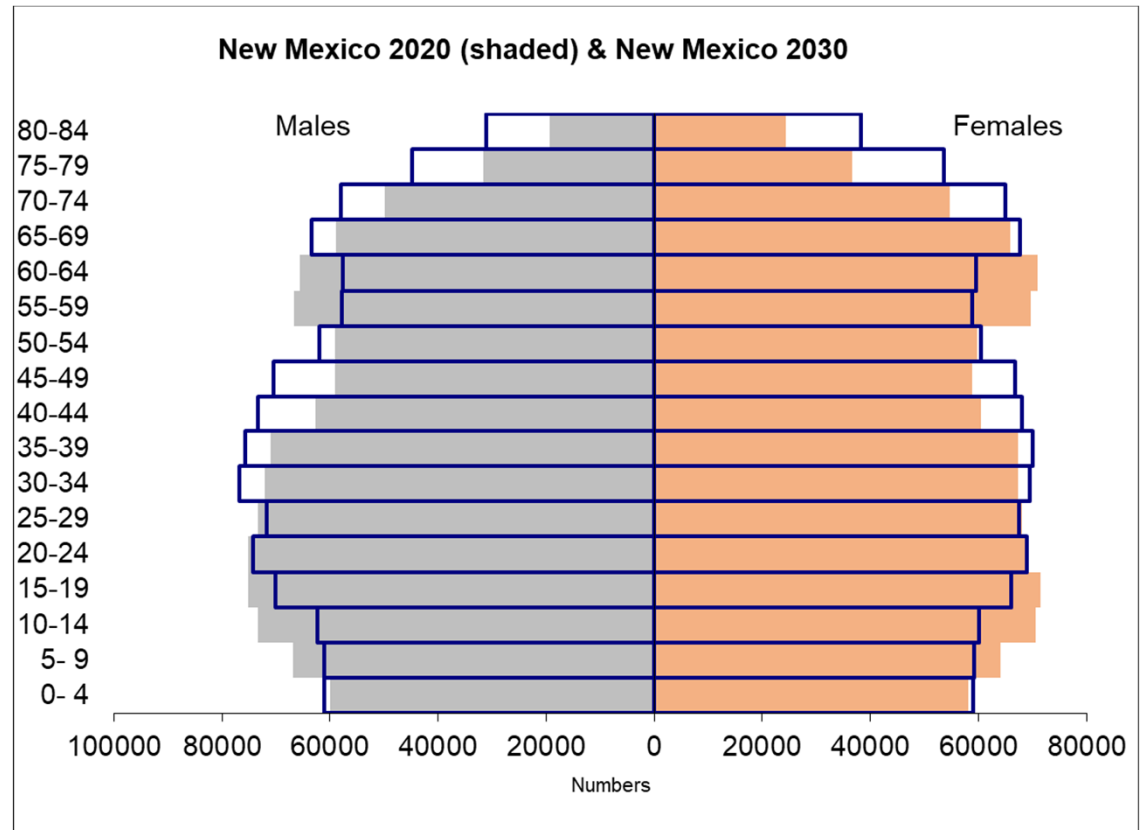
- Migration patterns were quite different for 2010 – 2020 compared to 2000-2010.
 - Which is most likely in the future?
- Produced two models:
 - “Low Migration” – Uses only CCRs from 2010 to 2020.
 - “Medium Migration” -- Uses average of CCRs from 2000 to 2010 and 2010 to 2020.

Projected New Mexico Population, by sex and migration assumptions

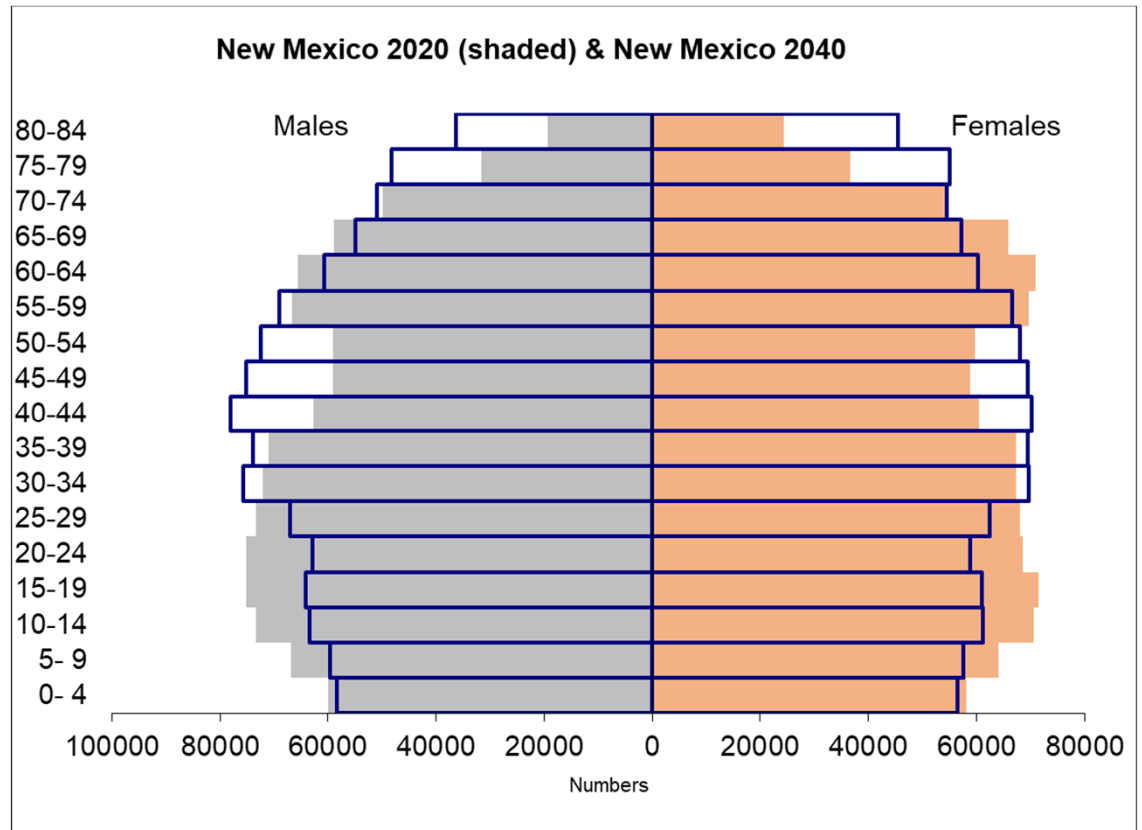


Source: UNM Geospatial and Population Studies (gps.unm.edu)

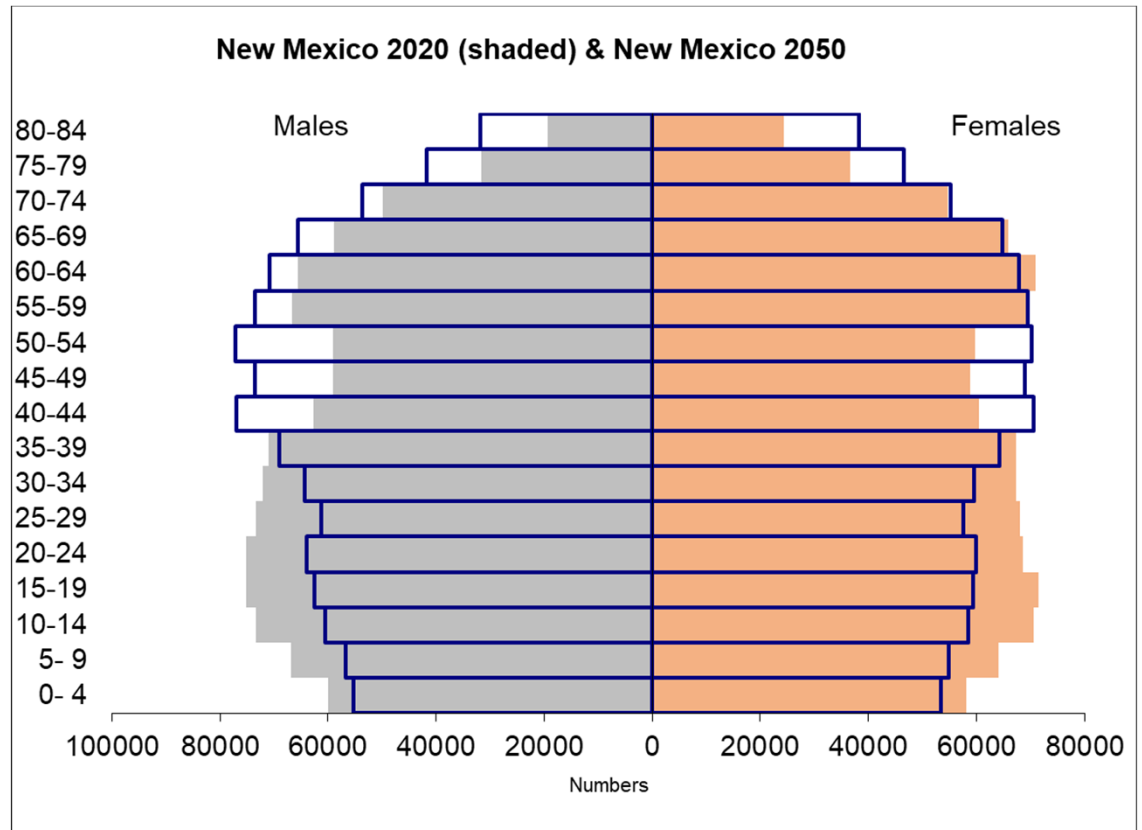
Changing Age Structure



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

When to expect revised projections?

- Currently work on single-year projections so that we can have projected population for the years within the decade.
 - These do factor in excess deaths due to COVID
- Will produce county projections by age group and sex.
- Expect state-level projections within the next month and county-level projections in early-2024

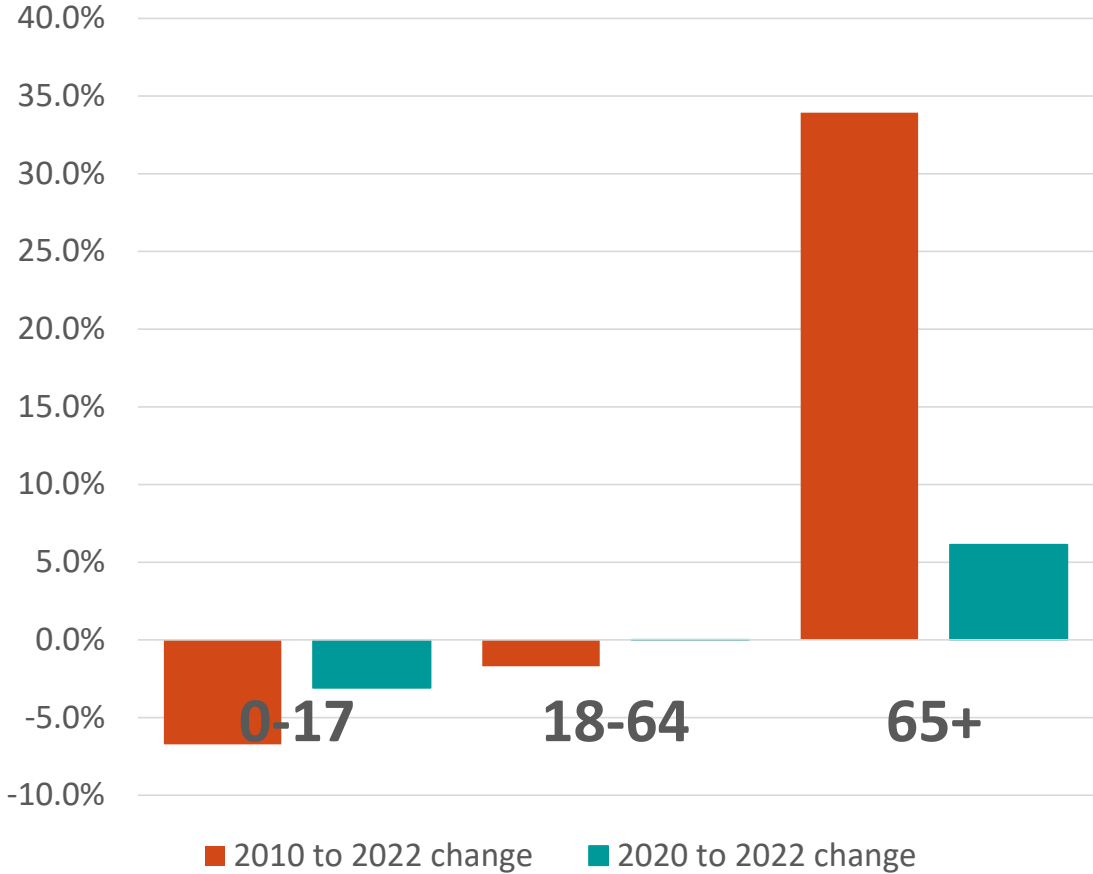
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**Questions or
Comments???**

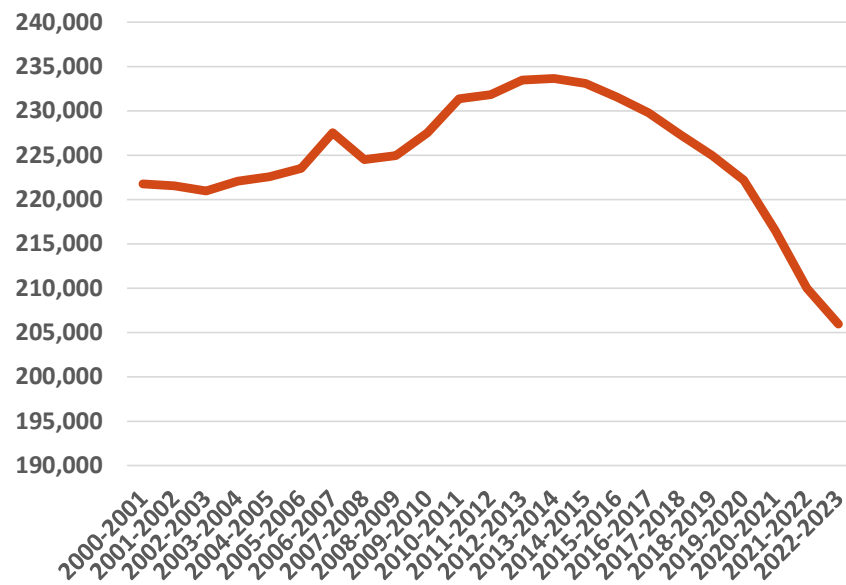
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Growth By Age, 2010 to 2022

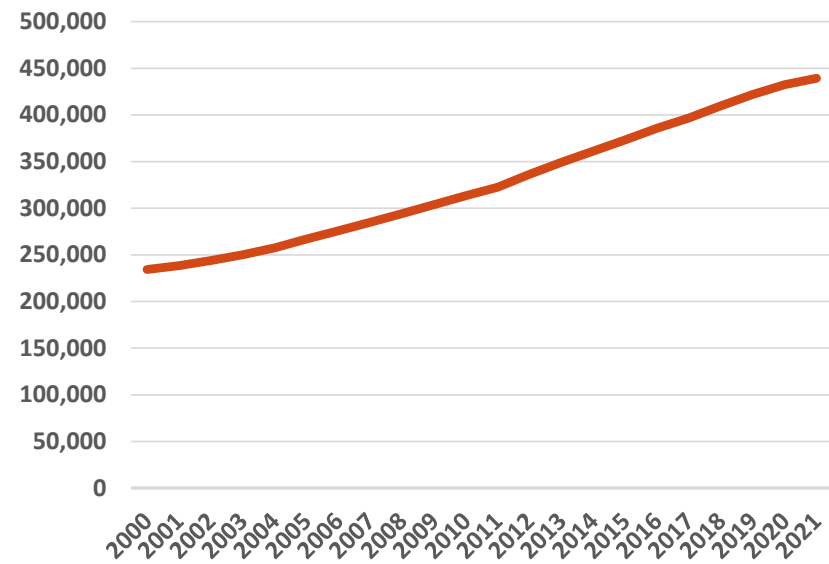


New Mexico's Aging Population

K- 8 SCHOOL ENROLLMENT



MEDICARE ENROLLMENT



Sources: NM Public Education Department, School Enrollment Data
Medicare Enrollment, data.CMS.gov

Medicare Enrollment vs 65+ population with NO Migration

