## Texas Future in Numbers: Population Projections Explained

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### **TDC Projection Overview**



#### >Overview

- Total population and population by age, race, and sex for Texas and all its counties;
- Single year of age;
- 5 race/ethnic groups: Hispanic, NH White, NH Black, NH Asian, and NH Other;
- From the most recent Census (2020) out to 40 years in the future (2060);
- Various migration scenarios are provided.

#### **➤ Vintage 2024 Population Projections**

- State projections by age, race/ethnicity, and sex.
- County projections will be available soon

## **Access the TDC Projections**



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#### **Texas Population Projections Program**

Projections

The Texas Demographic Center generates biennial population projections for the state and its counties by age, sex, and race/ethnicity. The projections should be used only with full awareness of the inherent limitations of population projections and with detailed knowledge of the procedures and assumptions delineated in the methodology document.



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elease Year:	2024	~

Estimates

#### Vintage 2024 Projections

The Texas Demographic Center Vintage 2024 projections consist of the state's residential population by age, sex, and race/ethnicity for each year from 2020 through 2060. The projections are available under multiple migration scenarios.

#### Important user notes

Major changes have been made to the Vintage 2024 methodology. Users may notice differences in the following areas:

- The data includes April 1st, 2020 Decennial Census Counts and the projection for the July 1st, 2020 population. The two 2020 records are distinguished by the "year\_month" column.
- 2. The projected population from 2020 to 2024 is aligned with the Census Bureau's Vintage 2024 July 1st Estimates.
- The projections are available with three migration scenarios, mid, low, and high, corresponding to the three national projection series produced by the Census Bureau in 2023.



#### **Projected Population Growth in Texas under Various Migration Scenarios**



- V2024: High Migration Scenario
- V2024: Mid Migration Scenario
- V2024: Low Migration Scenario
- V2022: 2010-2020 1.0 Migration Scenario

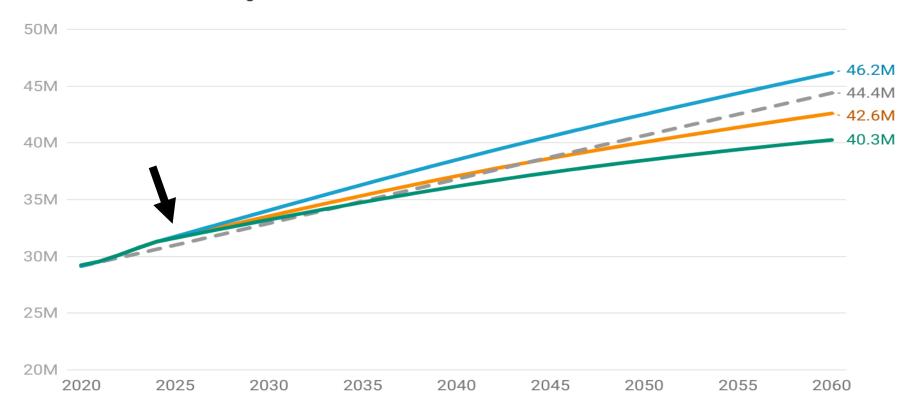
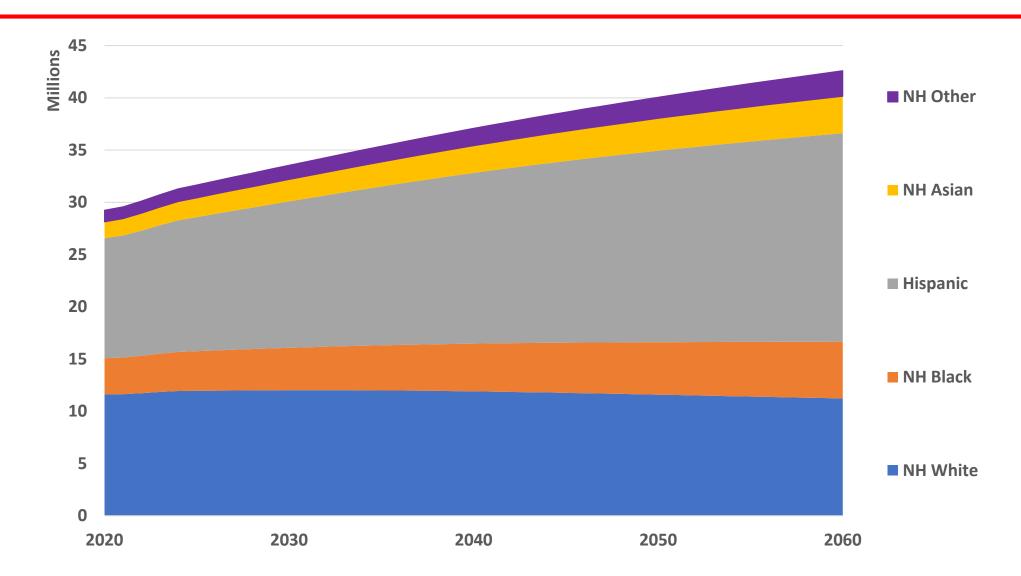


Chart: Texas Demographic Center • Source: Texas Demographic Center, Vintage 2022 and 2024 Population Projections • Created with Datawrapper

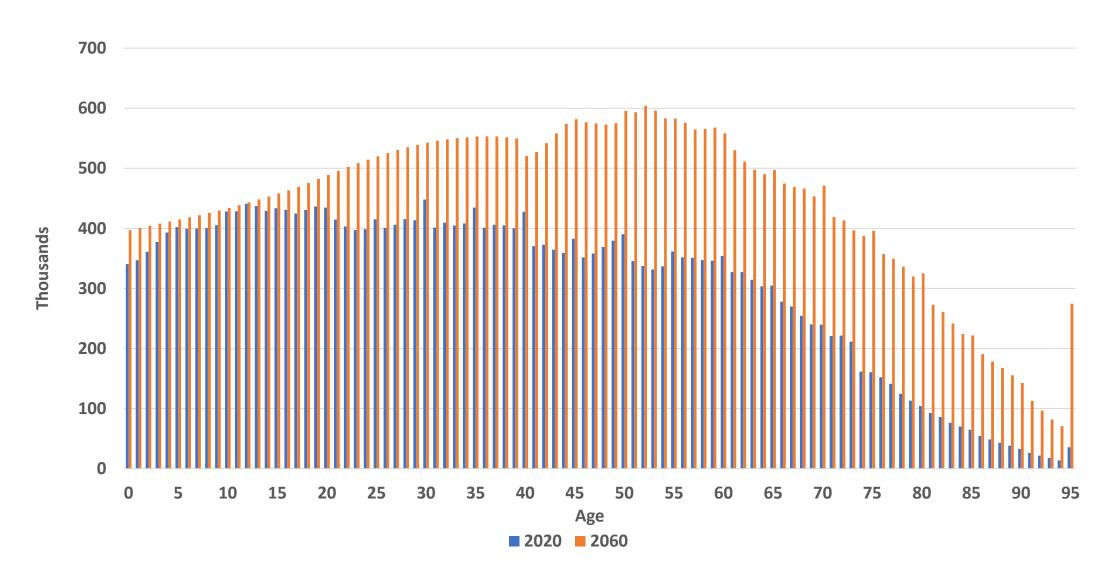
#### **Projected Population by Race/Ethnicity**





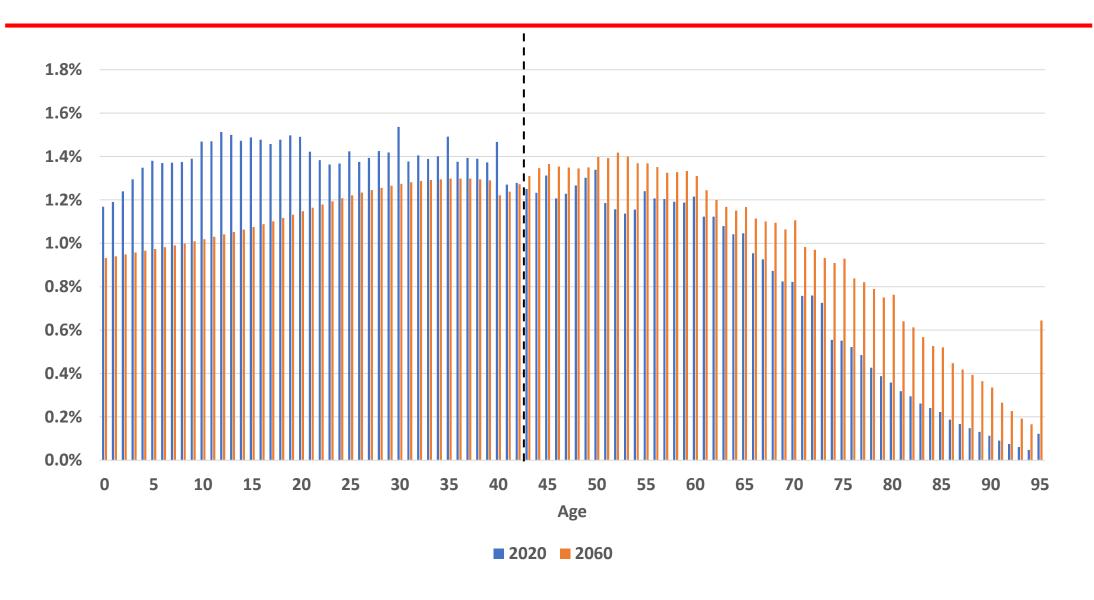
#### Projected Population by Age, 2020 and 2060





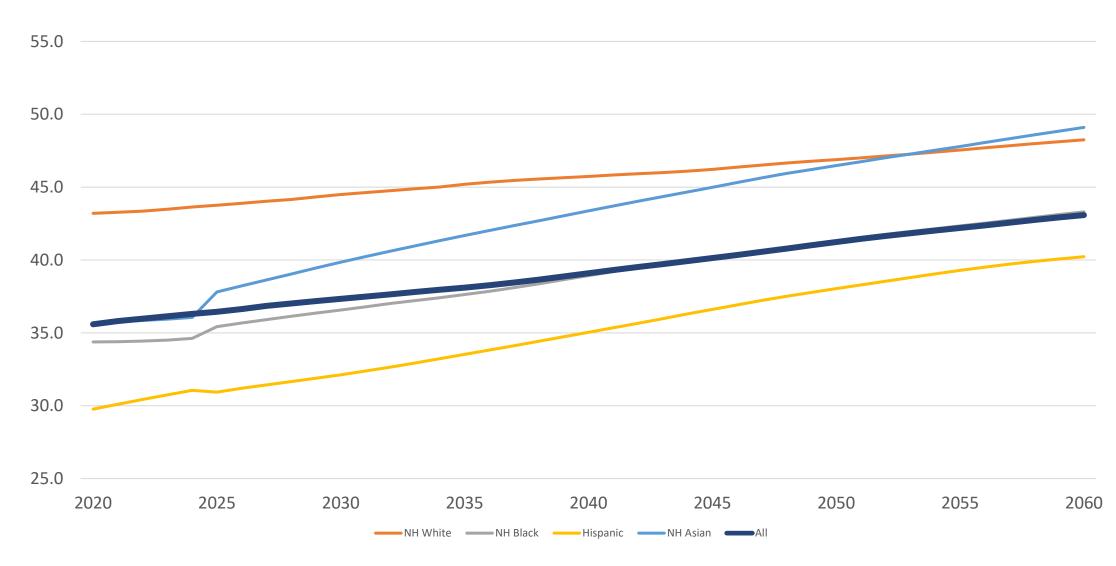
#### Projected Population by Percent Age Composition, 2020 and 2060





#### Projected Median Age by Race/Ethnicity, 2020 to 2060

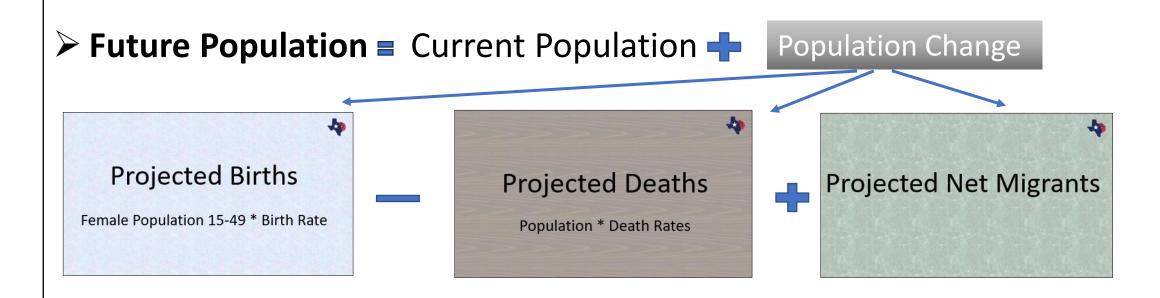




## **Methodology for TDC Population Projections**



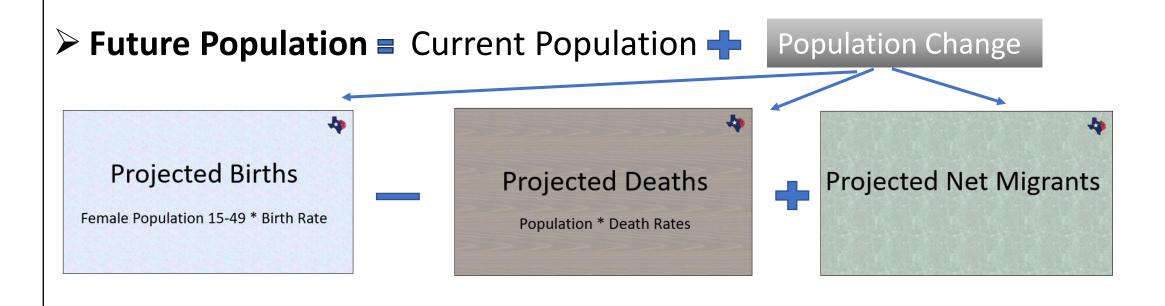
- > The Cohort Component Model
  - Components of Change: births, deaths, migration
  - Cohort: Each cohort has its own pattern.
  - In TDC projections, each race/ethnic group has its unique model



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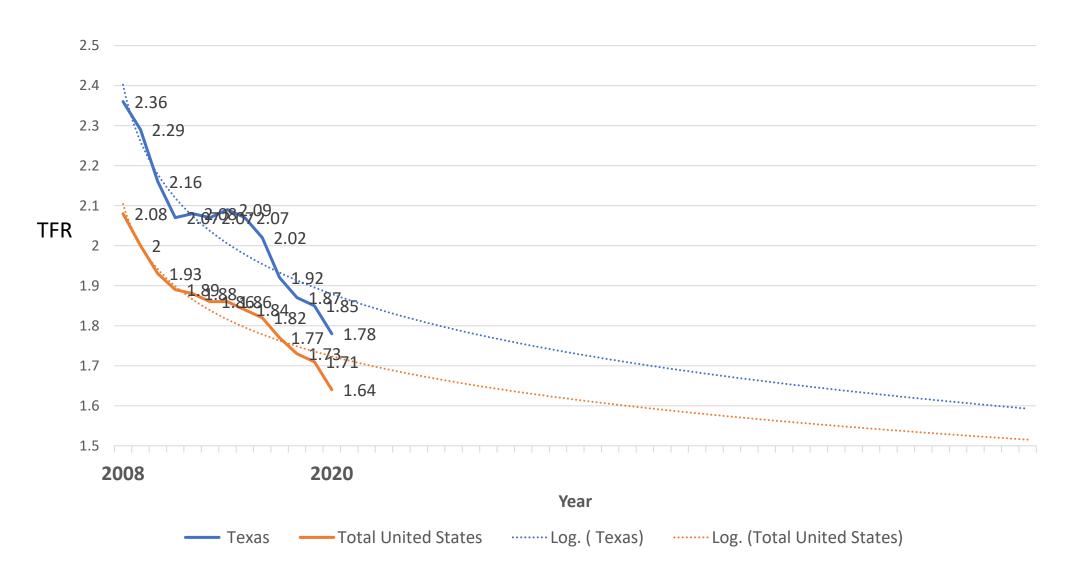


# Projected Births

Female Population 15-49 \* Birth Rate

## **Total Fertility Rate Trend**

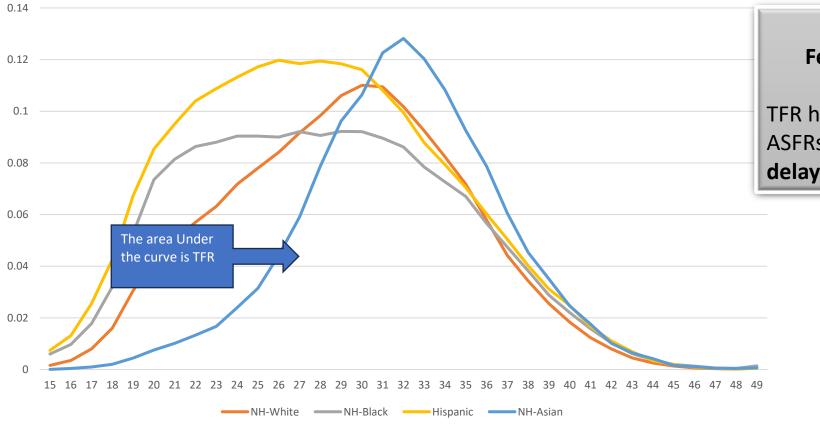




## Fertility Rates Differ by Age, and Race/Ethnicity





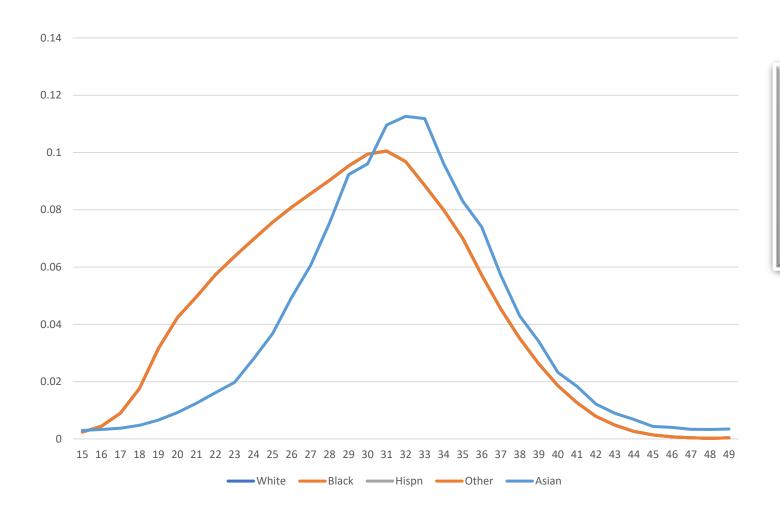


## Age Specific Fertility Rates (ASFRs)

TFR has been on the decline, ASFRs have been moving to a **delayed** pattern

## Projected ASFR in 2060 by Race/Ethnicity





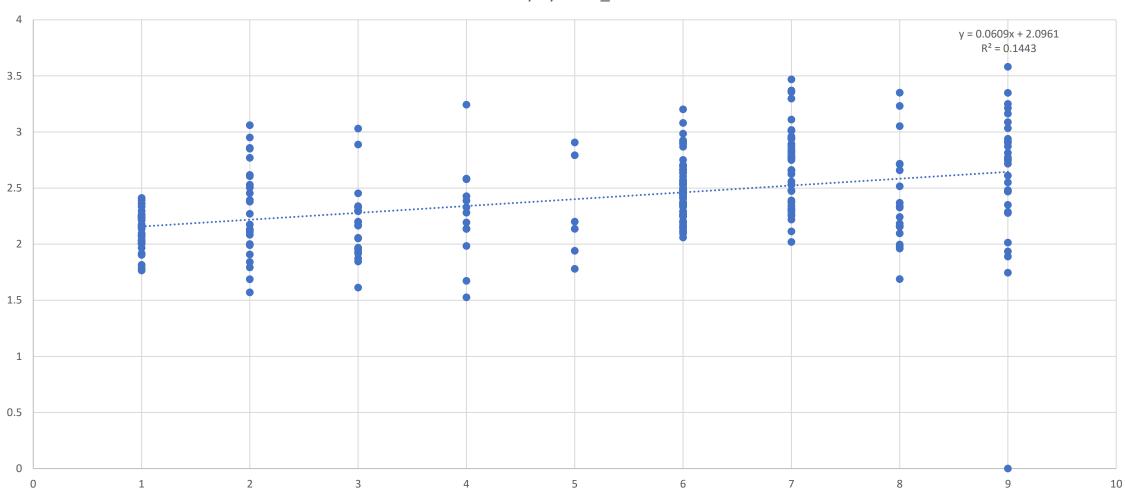
#### **TFR 2060**

- Texas Asian will "converge" to the current US NH Asian ASFRs
- The rest of the groups will converge to the current US NH White ASFRs

## **County Fertility Projection**



#### Total Fertility by Rural\_Urban Code





# Projected Deaths

Population \* Death Rates

## Historical and Projected Life Expectancy for the U.S.



#### **Life Expectancy at Birth 2020**

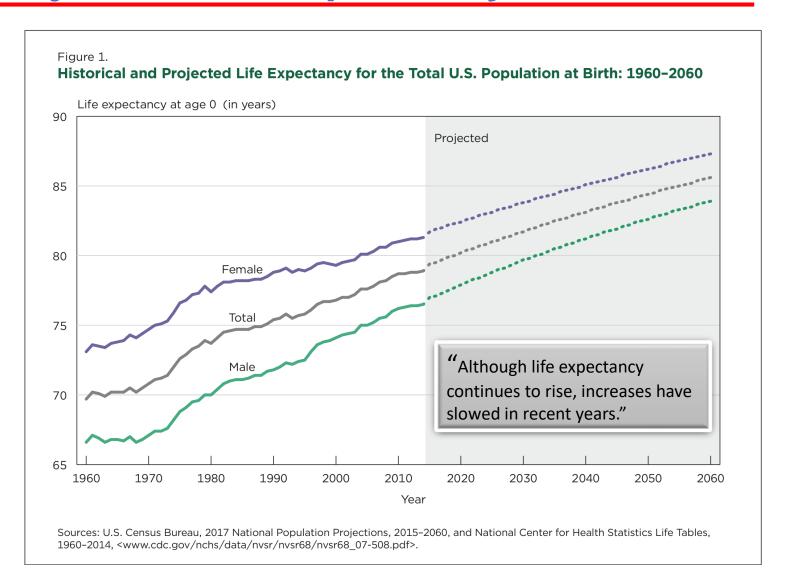
US: 77

Male: 74.2 Female: 79.9

Texas: 76.5

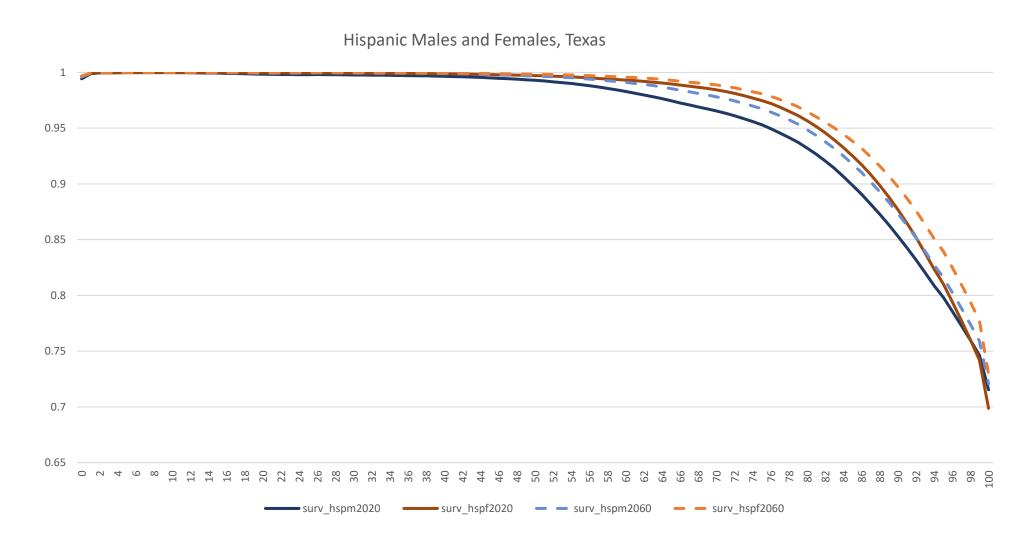
Male: 73.7

Female: 79.3



#### Survival Rates by Age and Sex for the Hispanic Population, 2023 and 2060





## **County Survival Projection**



#### State:

- Use US projected survival rates.
- ❖Apply TX/US ratio (2021)

### County:

❖The same as the state.



# Projected Net Migrants

## **Net International Migration**



➤ World population (region/country-specific) \* Net immigration rate to the US.

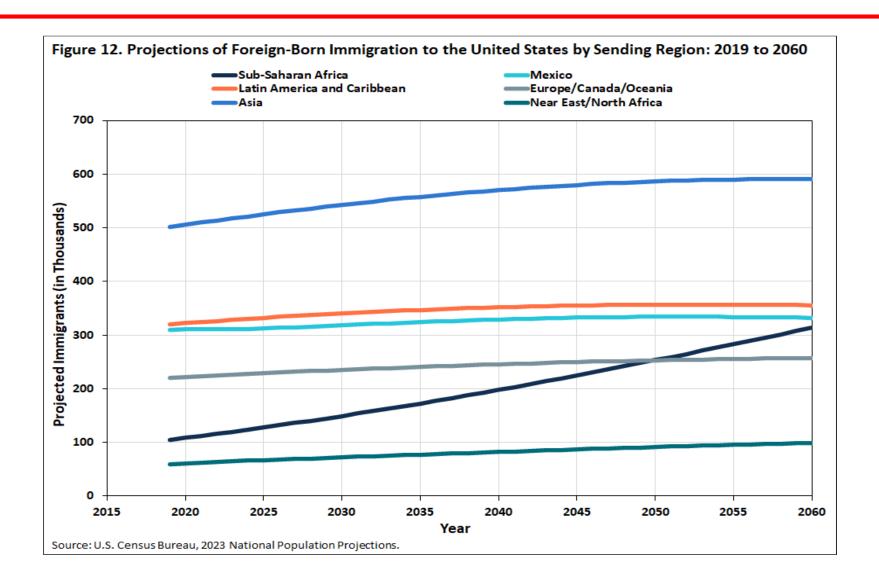
## Project Net International Migrants for Texas = (1)Projected National NIM \* (2)Texas share

- (1) U.S. NIM from CB 2023 U.S. Population Projection
- (2) ACS 2009-2019 PUMs file

Note: The calculations are done for each race/age/sex group

#### **Projected National Immigration.**





## **Net Domestic Migration**



➤ US population \* Net migration rate to Texas.

**Projected Net Domestic Migrants for Texas** 

= (1)Projected U.S Population Projections \* (2)Texas rates

- (1) CB 2023 U.S. Population Projection
- (2) ACS 2009-2019 PUMs file

Note: The calculations are done for each race/age/sex group.

## **County Migration**



#### Allocating the state migrants using CB Vintage 2020 Population Estimates

- ❖ Yearly average of the components of change from 2011 to 2020.
- Calculate the county share of domestic and international migrants.
- ❖ Assuming the share is the same across race and age groups.

#### POPULATION 2020 (Ages 0 to 95+)



- DEATHS

[= Base Population \* Projected Death Rates]

+ NET MIGRANTS

[= International migrants

+ Domestic Migrants]

AGE + 1

**Population 2021** 

(Ages 1 to 95+)

TDC
Population
Projection
Illustration

+ BIRTHS

[= Women 15 -49 \* Projected (ASFR)]



**Population 2021** 

(Ages 1 to 95+)

PROJECTED POPULATION 2021 (Ages 0 to 95+)

## **Coming up**



- ➤ County population projections
- >TDC population projection webinar
- ➤ "Special" projections
  - **❖**Labor force
  - Household
  - **❖**Income
  - Other? Population projections with different development scenarios?



We would like to hear from you!!





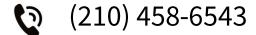


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